Innovation in Vocational Education and Training in England, Germany, and Austria:

Implications of practitioners’ perspectives for policy development and college leadership

D.Phil. Thesis

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Trinity Term 2013

Word count: 93,300
not including appendices and references
Abstract

“Innovation in Vocational Education and Training in England, Germany, and Austria: Implications of practitioners’ perspectives for policy development and college leadership”

This research project conducted an in-depth, qualitative assessment of vocational education and training (VET) teachers’ perceptions of pedagogic innovation, with an emphasis on obstacles and supporting factors. The main research question was: “How do teachers’ roles and perspectives shape innovation processes in VET and what does this imply for the development of teaching and learning practices?” Three clusters of subsidiary questions were derived around thematic foci: ‘perceptions and concepts’, ‘documentation of practice’, and ‘dynamics, limitations, and lessons for innovation’. Based on analytical strategies derived from grounded theory, two phases of interviews – the first with ten experts and the second with 62 VET practitioners at 20 colleges – were conducted in England, Germany, and Austria, with a focus on full-time VET (Further Education Colleges, Berufskollegs, and Berufsbildende Mittlere und Höhere Schulen) in the 16-19 age range. Classroom observation preceded semi-structured, 30 to 60 minute interviews with teachers. The study builds on previous research and existing frameworks such as Lipsky’s concept of ‘street-level bureaucracy’ and Flyvbjerg’s ‘critical cases’. However, it fills a gap in the literature by focusing on practitioner perceptions, motivations, professionalism, autonomy, work contexts, and own learning in relation to pedagogic innovation, whilst tracing relevant connections to educational policy, college management, and societal influences.

Teachers are shown in multiple roles as inventors, designers, and implementers of innovation, facing nine categories of obstacles. Those include limited time and budgets, bureaucracy and lack of autonomy, problems with project planning and execution, and issues related to lack of support. In addition, this study provides a comparative investigation of practitioners’ interpretations of key terms (‘pedagogy’, ‘didactics’, ‘innovation’), revealing differences between England on the one hand, and Germany and Austria on the other, based on different degrees of autonomy and innovative focus. Based on such findings, the study details recommendations for college leaders and policy makers for facilitating pedagogic innovation, placing each in their respective national contexts.
Dedicated to my friends, partners, and lovers,

especially Julia,

who brought balance to my life at Oxford.
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1. Introduction and Background

1.1. The Research Project

Throughout the last decade educational policy has attracted increasing attention from governments and the media as a strategic national issue (see, for example, European Commission Directorate for Education and Culture ‘Strategic framework for education and training’ (EACEA, 2010)). Nonetheless, a recent Centre for British Teachers Education Trust report finds that in the UK “[t]he widest gap between evidence and action seems to occur in the post-16 sector, where policies on skills, funding and structures run counter to what evidence and research tells [sic] us, and curriculum choices change from year to year” (Perry et al., 2010:39). This calls into question the connection between successive governments’ good intentions, and the effect their policies have on educational practice. There is a need to explore whether attempts at reform – ranging from gradual, step-by-step initiatives, to across-the-board system changes – produce tangible results for individual learners. In particular, it is important to understand in detail the role of teachers as implementers as well as originators of innovation at the pedagogic level, as they are tasked with providing to students the ‘21st century skills’ (DfES, 2003) needed for entering job markets. Since vocational education and training (VET) serves as the main pathway to employment, research must ask how practitioners keep up with the changing requirements of the sector. At the other end of the skills spectrum, VET is increasingly seen as a route into Higher Education (HE), which raises questions about how its pedagogies live up to that aim, and how they cope with potentially conflicting expectations.

This research project aims to investigate innovative change processes from the point of view of VET practitioners. It is based on assumptions that identify teachers as central actors in the operationalisation of change. In particular, their professional autonomy, self-perceptions as innovators, and roles in shaping policy implementation, are deemed to be crucial for innovation processes. Thus, emergent concepts and examples of innovative practice enable an analysis of factors that foster and hinder classroom innovation. These findings are expected to aid the formulation of VET policy and management changes that
facilitate innovation. Based on prior comparative work involving Germany and England, the current effort widens the scope by adding Austria, aiming at a substantially larger data base from interviews, and incorporating some of the most recent developments in all three countries.

1.2. Background, Literature, and Frameworks

The literature on innovative change as a strategic issue, both within and outside of the education sector, is substantial. Innovation is described – to pick just a few recent English examples – in terms of changes to systems (e.g. Hodgson et al., 2008), qualifications (e.g. Crisp and Green, 2012), quality management (e.g. Jackson, 2008), change management (e.g. Hammersley-Fletcher, 2007), introduction of new technologies (e.g. Selwyn, 2011), new pathways (e.g. Hogarth et al., 2012), ways of funding (e.g. Hardy, 2010), policies to support gifted students (e.g. Haight, 2010), and students at risk (e.g. Nelson and O’Donnel, 2012). However, crucial questions remain about the receiving end of such initiatives, particularly in the VET sector. At the classroom level, for example, teachers’ understandings of what constitutes ‘innovative teaching’ (or learning) are overlooked in favour of systemic approaches to change processes. This section outlines how the choice of particular frameworks helps the current research project address this gap.

According to Ertl and Kremer (2009:2), “there are at least two interlinked levels of analysis in research on the development and impact of innovation in college-based VET.” They distinguish between a focus on the institutional frameworks within which innovation takes place, and individual roles in innovation processes. The first includes questions about factors that facilitate or hinder innovation, and about structures of knowledge flows required for effective innovation. This emphasis aims at reshaping institutional mechanisms and rules by innovation processes (see Ertl and Kremer, 2009). The other focus “looks at the ways in which individuals interact with these processes, which part they play in these processes, and which skills and competences they need to interact in certain ways.” (Ertl and Kremer, 2009:2) This aspect includes what the authors refer to as ‘innovation competence’ in reference to previous relevant literature (citing for instance Schönknecht, 1997, but also see Mulder and Sloane, 2004). Both foci recognise the context
dependency of innovation, and Ertl and Kremer (2009) derive conclusions about their interdependent nature in shaping individual teachers’ competences. The authors’ comparative approach allows them to investigate differences between German and English understandings of innovation competence: the former defined it as a ‘meta-competence’ that builds on factors such as “communicative competence, learning to learn competence and social competence” (Ertl and Kremer, 2009:9), whilst maintaining that subject knowledge underpins innovative competence. Teachers at English colleges, by contrast, talked of individual skills centred around IT applications, presentation, and communication, with a focus on teamwork and collaboration. For them, qualification changes were the main driver for innovation, and continuing professional development its most important enabler. The roles and interpretations of teachers in their function as originators and implementers of pedagogic innovation remain poorly understood in the wider context defined by system structures and college management. Therefore this research projects seeks to deepen previous findings and to illuminate in detail the dynamics of change processes as innovation progresses from policy to the classroom.

This study builds on smaller projects that shed light on some initial answers, including the ones contained in Ertl and Kremer, 2009. They were conducted by researchers at the universities of Oxford and Paderborn on the implementation of innovation in VET, mainly with respect to German and English contexts (Ertl and Kremer 2009, 2006, 2005a, 2005b, 2003 and Ertl and Sloane 2004). These in turn incorporate findings from three principal vectors of investigation:

- curricular innovation in German VET, as in Ertl and Sloane (2006, 2003), Kremer (2003), Kremer and Sloane (2000), Ertl (2002a, 2000);

- European VET comparisons, as in Ertl (2009, 2006, 2004, 2003a, 2002b) and Ertl and Sloane (2004);


This research suggests a number of assumptions that guide the current project, particularly with respect to the nature of innovation and its implementation dynamics in educational-institutional contexts. The following sections outline how each of them
connects to the literature, and how all three highlight a need for a practitioner-focused research approach. The assumptions derived from previous studies are about:

- connections between different organisational levels that influence the manifestation of change in pedagogic practice;
- the nature of ‘innovation’ as a multi-dimensional phenomenon;
- the subjectivity of linking pedagogic theory to practice, and hence the determining role of practitioners as ‘street-level bureaucrats’.

This does not include any a priori conceptions of necessary or beneficial links between innovation in policy contexts, and innovative classroom practice. Instead, the assumptions merely postulate certain dynamics of change processes, highlighting the complexity of concepts of innovation, and pointing out the central role played by practitioners’ understandings.

1.2.1. Connections Between Organisational Levels

The first assumption derived from the literature relates to a three level model of education systems, namely pedagogic (teachers), organisational (school administrators), and political (policy makers). Ertl and Kremer (2009) propose this distinction in order to conceptualise in a general way the interdependent nature of agents of change. They identify teachers on the one hand, and policy makers on the other, as obviously distinct stakeholders, and propose to introduce to the framework a middle-layer at the level of school management, capturing the fact that policies are generally translated, interpreted, and disseminated to and for teachers by administrators. Due to the roles of teachers as ‘street-level bureaucrats’ (Lipsky, 1980; see section 1.2.3 below), and the power of institutions, decisions at all three levels may influence pedagogical designs at the level of practice. This impact may be indirect or diffused, and intended changes may themselves become modified in the implementation process.

The current project follows this three-level model in order to link meaningfully to prior research, and because its focus on the experiences at a particular level – teaching practice – intuitively justifies distinctions between teachers’ immediate organisational
surroundings, shaped by college management structures, and the world of policy-making. The literature offers more complex models, like Raffe’s (2008), who suggests the term ‘transition system’ for the entire machinery that produces education-to-work progressions for young people,\(^1\) noting that “the institutional and structural factors which shape transitions are broader than education and training” (Raffe, 2008:277). He proposes the inclusion of labour markets, social welfare systems, societal traditions and other factors. The three-level model employed in this study is intended to mirror some of these aspects, and several were addressed incidentally in the interviews that were conducted for this study, but the current aims do not necessitate a complete representation of the transition system as experienced by learners. Instead, the focus is on innovation in teaching practice in order to understand it in the immediate work context of VET practitioners.

1.2.2. The Nature of Innovation

The second assumption relates to Barber and Fullan’s (2005) postulate that educational reforms affect the level of teaching and learning practices in a multi-directional process. This process has diverse stakeholders such as school management, teachers, and even students. Therefore ‘innovation’ is not simply a product of intentions at the policy level, but it emerges as a product of several imperfectly coordinated vectors of influence. Lubienski (2009) and Eyal (2009) support this interpretation of pedagogic innovation as process innovation (see also Meissner, 1989). Barnett and Carroll (1995) propose to conceptualise organizational change “in terms of both its process and its content” (Barnett and Carroll, 1995:217), that is, not to see those factors in isolation from each other. In the context of the three-level framework employed in this study, teachers are the actors at the intersection of the process and content of innovations. While the authors focus on organisational change in a larger context, their understanding of the consequences of change for those within the organisation – “it disrupts routines, undermines relationships, requires learning” (Barnett and Carroll, 1995:225) – maps onto both prior research and findings from this study.

\(^1\) Not to be confused with the German term ‘Übergangssystem’, for which I suggest the preferred translation ‘transition sector’. See also footnote 7.
Barber and Fullan (2005) speak of ‘tri-level development’, distinguishing schools, districts, and the state. Whereas the delineations between levels in their model are not identical to the scheme outlined in the previous section, the current work builds on their assertion that effective change in pedagogies requires simultaneous understandings of the dynamics at the levels of policy, school management, and classroom practice. They espouse a ‘systems perspective’ that stresses the “need to work simultaneously on individual development and system change.” (Barber and Fullan, 2005: 3). The current study implicitly takes this interconnectedness as given, as teachers are understood not merely as passive agents putting in place innovative change, but active stakeholders with differentiated interpretations of what constitutes innovation, and significant degrees of freedom.

Eyal’s (2009) work enables a combination of this view of educational reform with a systems research perspective that lends itself well to the three-level analytical framework. He notes “the resistance of educational systems to both bottom-up and top-down innovations” (Eyal, 2009:487), both in ‘institutionalised educational systems’ (e.g. VET in Austria; for a background on the Austrian system, see section 3.4) and ‘free-market educational systems’ (e.g. approximated by VET in England; see section 3.2). He explains the ‘resilience’ of systems as a property emerging from their ‘degeneracy’, referring to “the ability of elements that are structurally different to perform the same function or yield the same output” (Eyal, 2009:488). In extremis, educational regulations and institutional rules may mean that innovative teaching and learning – frequently one of the main aims of regulatory change – cannot develop. This phenomenon is connected to both of this study’s other assumptions, on the complex nature of innovation, and the defining role of practitioners (cf. Holmes, in Schriewer and Holmes, 1992:127 “[t]he power of teachers to resist curriculum changes proposed by politicians or other members of the educational establishment”). An awareness of Eyal’s contribution influenced this study in two distinct areas: At the design stage, it informed the direction of interview questions that sought to identify obstacles to change processes. Secondly, it contributed to the analytic effort by framing data analysis within a perspective that sees teachers, administrators, and policy makers as interrelated agents with different aims and incentive structures.

To provide another perspective to this interpretation of pedagogic innovation, the literature on complex teaching and learning arrangements (e.g. Mulder and Sloane, 2004)
can provide further insights. The concept was defined by the COST (European Co-operation in the field of Scientific and Technical Research) network in the 1990s, and has since been extended along several dimensions. Since the implementation of such changes relies on multiple stakeholders, their respective perceptions must be acknowledged as determining input factors in the creation of new arrangements. Thus subjective views and assumptions concerning practitioners’ own actions are a relevant subject of investigation. Messmann and Mulder (2011) take this as their starting point, recognising that “the question why employees are activated to initiate innovation development is not fully addressed” (Messmann and Mulder, 2011: 64) in research on vocational education and training. They base their inquiry on a particular definition of innovation, but acknowledge that “the decision to label products and processes as innovations is related to their use in a particular context in which it leads to a significant change of practice. Therefore, innovations are not limited to inventions or radical novelties but can originate from existing ideas as long as they are applicable and new for the particular unit of adoption and contain a redefinition of basic assumptions and goals.” (Messman and Mulder, 2011: 66) The current project shares this interpretation of innovation, and attempts to go further by eschewing any particular definition of this key term. Instead, an investigation of teachers’ individualised interpretations of innovation forms a central part of this research effort.

1.2.3. Street Level Bureaucracy

Acknowledging that stakeholders at distinct levels interact for the creation, implementation, and concomitant re-interpretation of innovation, in addition to the recognition that innovation itself is a context-dependent concept, highlights the significant role played by teachers as actors in change processes. Lipsky’s (1980) concept of ‘street level bureaucracy’ recognises that such actors adapt regulatory changes, for instance new curricular concepts, within the contexts of their particular teaching venues.

Holmes states: “Any institution we set up is run by people. Their patterns of behaviour determine how it operates. Theoretical institutional models are modified in practice by the way people behave [...]” (Schriewer and Holmes 1992: 127). This means that implementation processes determine perceptions of political reforms because the latter’s
interpretation and acceptance in vocational schools and colleges varies to a substantial degree. In Lipsky’s terms, teachers are ‘street-level bureaucrats’ whose “decisions [...] , the routines they establish, and the devices they invent to cope with uncertainties and work pressures, effectively become the public policies they carry out” (Lipsky, 1980:xii). Practitioners’ own views are therefore a rich source of information on organisational factors that encourage or prevent pedagogic innovation. In addition, one may ask to what extent VET practitioners are equipped to recognise, implement, or initiate innovative classroom practice. Consequently, an understanding of ‘innovation competence’ and teacher professionalism is a by-product of this study’s focus on teachers’ experiences.

Street-level bureaucracy connects with research on teacher professionalism in English VET by Gleeson and James (2007), who underline the need to focus on practitioners’ own role perceptions, since “there exists little official data or research evidence of who its practitioners are, their dispositions or how they define professionalism in the contested contexts of their work” (Gleeson and James, 2007:451). The authors note that under New Public Management approaches, “[r]ather than occupying the position of trusted public servant, practitioners have come to be regarded as licensed deliverers of nationally produced materials, targets and provision.” (Gleeson and James, 2007:452, referencing Coffield et al., 2005). The current research project’s assumption that teacher’s own interpretations of innovative processes and obstacles are relevant to the entire VET system’s expression of innovative behaviour is validated by Gleeson and James’ argument in favour of a focus “on the way FE professionals position themselves in and around various ‘creative tensions’ in the diverse contexts of their work. This involves how they understand, interpret and intervene in contradictory conditions that simultaneously enhance or restrict their professional practice.” (Gleeson and James, 2007:453)

Recent research on teacher autonomy overlaps with the theme of professionalism and a view of practitioners as street-level bureaucrats. Orr (2012), investigates the question from the point of view of trainee teachers at FE colleges, noting that they are merely “coping rather than learning to teach” (Orr, 2012:51), and recommending increased

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2 Whereas Lipsky applies the term to teachers in state schools, the concept extends to teachers in any setting that makes them act as the public face (e.g. towards students) of an organisational structure (institutions, but also policies, curricula, etc.).
autonomy and a body of professional knowledge as ways to remedy the situation. Orr traces the experience of teachers in the context of isolation, coping and control, and professional confidence. In the process the author highlights the importance of communities of practice (see also Bathmaker and Avis, 2005) and autonomy for the effective development of pedagogic competence, and the detrimental effects of bureaucracy, lack of communication, and alienation. This project addresses those issues within the more general scope of obstacles to innovation faced by all VET teachers, not just trainees, and highlights their connections with professional autonomy.

To sum up the core assumptions, innovative processes initiated at political and organisational levels are altered in a feed-back process as their implementation reaches the levels of teaching and learning. There is no guarantee that even the most well-intentioned or best-planned reforms and organisational changes will improve the learning process, since the outcomes cannot be sufficiently determined. Instead, their impact depends on the implementation processes applied, which in turn are shaped by perceptions of the ‘real innovators’ – teachers in VET classrooms. Their translation of external influences to particular contexts results in complex teaching and learning arrangements, whose character as ‘innovations’ is highly dependent on specific environments, intentions, and local interpretations. As far as this represents this study’s underlying assumption about the dynamics of innovative change, it highlights the relevance of meaning-making amongst teaching practitioners. The research aims outlined in the next section derive from the need to recognize this role.

2. Research Methodology and Analytical Design

2.1. Aims and Original Contribution

As the culmination of previous smaller scale research efforts under the aegis of SKOPE\(^3\), this study employs similar methodologies and geographic and thematic foci. It connects several strands from theoretical perspectives on innovation, systems research,
and change management, but explicitly does so from a bottom-up perspective. It endeavours to approach its field of enquiry at the ‘street level’ as defined by Lipsky (1980). Consequently, it asks straightforward – but ‘big’ – questions, both as research questions and in interviews with research subjects. It aims to provide concrete examples leading to an analytic account of how innovation takes place in VET. This inductive theory-building is based on a structured, empirical understanding of the subjective reality of VET practitioners.

One may surmise that this research reveals the usual tropes: teachers are limited by a lack of time and budgets, and students are suspected of getting progressively worse. Indeed, those are recurring themes throughout this study; however, its qualitative approach enables it to go beyond them, and discover new interpretations gleaned from possibly unusual research participants: far from being statistically representative, the teachers involved in this study must be assumed to be biased. They are often the most engaged individuals at their respective institutions, which were themselves approached for this study because they had acquired a reputation for being particularly innovative. They frequently represent best-case scenarios, which lends a particular significance to their reports of factors that motivate them, and obstacles that hinder them in their teaching efforts.

When this study was designed, it was hoped that the nature of the research participants as atypical representatives would result in particularly convincing recommendations for improving the translation of curricular and organisational change to innovative classroom practice. However, discovering no such pathway – so that good or bad teaching happened independently of top-down expectations – would imply that innovation on the level of policy-making remained without discernible effect on teaching practice. This would constitute an important finding in its own right. That is, if there are only weak links between reform efforts and pedagogic innovation, and students and teachers essentially do what they have always done despite changes in policies and curricula, then this study would serve to direct further research rather than proffer immediate verdicts. As it turned out during the course of this research, the links between pedagogic reform, classroom practice, and different actors’ roles are varied and complex, so that there was ample scope for deriving recommendations for improvements to both
college management and VET policy in order to foster the growth of innovative pedagogies.

This project faced formidable challenges posed by the extreme diversity, lack of delineation, and sheer size of its research area. To address this, its commitment to qualitative research was an attempt to mitigate the resultant practical limitations. It aspired to do what quantitative methods could not accomplish within a similar time frame, and with the same resources, by employing interview partners as human extensions of the research instrument (Lincoln and Guba, 1985; Tesch, 1990:44). Owing to its comparative approach, this project faced the challenge of drawing valid conclusions and making reasonable recommendations for substantial segments of not one, but three different national education systems. In each case, the set of potential data sources comprised thousands of colleges, tens of thousands of teachers, and hundreds of subjects, ranging from hair dressing to aviation engineering. Undoubtedly the complexities of each VET system could not be fully represented within the available scope. Instead, this study’s samples were chosen for specific reasons, with the intention of being representative for classes of similar institutions, but also because they represented good practice rather than being typical. Yet it aimed at more generalisability than the comparative work on VET innovation and on connections to policy changes (Ertl and Kremer 2009 and 2006) which it built on. The factors that enabled this were a widened comparative approach, a broader range of types of actors (teachers, administrators, policy makers, experts), a larger number of samples (more institutions, more interviewees), and interviews informed both by classroom observations and by emergent findings from an analysis process that overlapped with the interview phase.

2.2. Research Question and Guiding Principles

Leading up to the discussion of specific research foci and concomitant questions in section 2.4, the next sections outline how the project’s general aims presented in 2.1 are addressed by its comparative, qualitative, practitioner-focused approach. Considering prior research and the context given by the frameworks outlined in the previous section, it was determined that the research design should be able to meet several criteria:
focus on practitioners (teachers and lecturers);
make use of practitioners’ interpretations and explanations;
relate to daily practice;
be sufficiently broad to allow findings to apply to VET in general, not just a particular sub-sector;
allow for the emergence of meaning rather than employing pre-made categories;
represent an understanding and continuation of the frameworks and parameters employed in previous research, while allowing for their critical evaluation in the light of new data;
fill gaps in existing research, but integrate well with its thematic coverage;
take into account practical considerations of resources, time, and scope, especially with a view to tackling a potentially nearly unlimited research area.

In order to facilitate design decisions that would fulfil these aims, the central research question was formulated as: “How do teachers’ roles and perspectives shape innovation processes in VET and what does this imply for the development of teaching and learning practices?” Subsequently, guiding principles were established from practical considerations, a close reading of prior research, and an effort to more specifically delineate the scope of relevant data sources and analytical strategies. They fall into three areas, outlined below, namely the choice of conducting a three-country comparative study, the decision to use a qualitative-interview based approach, and the study’s focus on teaching practitioners.

Firstly, the research question is framed within the national contexts of England and Germany – both in order to fit existing research, and because those countries exemplify different approaches to VET – with the addition of Austria to aid triangulation, and because parts of its VET system are notably different from both. Since the central research
question is not specific to any country, a comparative approach is deemed appropriate, to allow abstractions from individual observations leading to more general ideas about classroom innovation. This reflects a focus on commonalities in research data, rather than systemic differences. Each country’s VET systems and their respective contributions to the comparison are presented in detail in chapter 3.

Secondly, in order to respond directly to the purpose of informing educational practice, an investigation of relevant actors’ perceptions of change processes must be at the core of this project. It is outlined above how theories and curricular reforms constitute a framework for creating pedagogic innovations, but are distinct from the innovations themselves. Therefore, innovation processes have to be understood through the perceptions of innovators in the field of learning and teaching. This ties into questions of ownership of – and responsibility for – educational reform efforts. Thus the concept of ‘pedagogic innovation’ has to be defined more clearly in terms of improvements in learning and teaching designs, not from a theoretical perspective, but from the subjective point of view of stakeholders. This calls for a clarification of ‘educational reform’ and ‘pedagogic innovation’ with a particular view towards eliciting the connections between them.

Thirdly, a qualitative approach was chosen because the general nature of the research question does not allow quantitative coverage in any meaningful depth for an area as broadly defined and as diverse as VET. Since it was a deliberate decision not to narrow the scope and potential applicability of findings, an interview-based, qualitative approach provided opportunities for making use of practitioners’ own interpretations and experiences.

The strategies employed to combine those three considerations into a coherent research design are discussed in detail in subsequent sections. Section 2.3 lays out the reasons for the particular, interview-based, qualitative route taken, whilst combining those methodological choices with an explicit focus on VET practitioners. The thematic considerations arising in this context from the aims discussed previously are presented in section 2.4, and the resulting comparative perspectives are laid out in section 2.5. The remaining sections 2.6 and 2.7 explicate an analytical methodology that fits those choices,
and its limitations. Chapter 3 then contextualises those theoretical considerations within the particular research undertaken for this project.

### 2.3. Rationale for Qualitative Interviews with Practitioners

Given the broad nature of the research question, time and other constraints rule out a quantitative approach that is both comprehensive in topical coverage and statistically representative for VET as a whole. The obstacles inherent in random sampling of dozens of colleges, and hundreds of teachers, in order to adequately reflect the breadth of qualifications offered, combined with the difficulty of quantitatively capturing constructs such as practitioners’ views on innovation, led to an early decision to pursue a purely qualitative route instead. This allowed for richer data sets, enabling insights into system dynamics and actors’ self-perceptions, rather than numerical descriptions. Employing interview partners as extensions of the research instrument resulted in joint efforts of meaning-making based on rich, rather than precise, data.

On the downside, this strategy did not allow statistical generalizability, and it was less straightforward to establish the validity and reliability of findings. To address this, Stake (1995:8) paraphrases Erickson (1986), defining “qualitative work as field study where the key interpretations to be pursued were not the researcher’s interpretations but those of the people being studied”. This chimes with Kvale (1988) speaking of ‘co-authoring’ data rather than ‘collecting’. Choosing semi-structured interviews as the principal data collection method matched this intention. In addition, most teacher interviews were preceded by classroom observation sessions in order to provide contextual information.

This choice imposed a numerical limit on the scope of this inquiry. To adequately address the research questions, between 40 and 60 minutes were required per research participant, and classroom observation sessions had a similar duration. Concrete details on the conduct of interviews are provided in chapter 3. For the purpose of informing educational practice, an investigation of relevant actors’ perceptions of change processes had to be central to this project. This links to questions of ownership of – and responsibility for – educational reform efforts, and their connections to pedagogic innovation. The latter can be defined more clearly in terms of improvements in learning
and teaching designs, not only from an objective theoretical perspective, but also from the subjective point of view of stakeholders.

Ertl and Kremer (2005a) recommend that further research should focus on teachers’ views within their specific work environments. They suggest that particular types of work or sets of aims require personal qualities that might be fostered in order to support the implementation of innovations. This aim requires the identification and documentation of successful and failed instances of pedagogic innovation. For this, the emphasis must be on practitioners and their meaning-making, whilst recognising that contexts, institutional arrangements and overarching reform initiatives are highly relevant. As Holmes states, “it is necessary to recognise the difference between publicly stated normative positions and the expression, often in behaviour rather than words, of deeply held beliefs” (Schriewer and Holmes, 1992:138). Thus interviews and classroom observation provide accounts of practice from which to distil a broader picture.

The data was gathered for a number of cases representing individual teachers, in certain settings, at particular institutions. However, as Campbell (1975) and Flyvbjerg (2006) contend, under certain conditions it is possible to make valid generalised claims on this basis. The current project aims at such generalisations, rather than presenting a case study without ambitions to form abstracted understandings. In particular, this study should not fall prey to Flyvbjerg’s “Misunderstanding 2: One cannot generalize on the basis of an individual case; therefore, the case study cannot contribute to scientific development” (Flyvbjerg, 2006:221). Instead, he notes: “For researchers, the closeness of the case study to real-life situations and its multiple wealth of details are important [...] for the development of a nuanced view of reality, including the view that human behavior cannot be meaningfully understood as simply the rule governed acts found at the lowest levels of the learning process and in much theory.” (Flyvbjerg, 2006:223)

Flyvbjerg points out that generalisations can be made from large numbers of case studies “so that judgements of their typicality can justifiably be made” (Giddens, 1984:328, quoted by Flyvbjerg, 2006:224f.), but – most crucially – that this is not the only way. Campbell (1975:1991) explains: “After all, man is, in his ordinary way, a very competent knower, and qualitative common-sense knowing is not replaced by quantitative knowing.”
Flyvbjerg (2006) builds on this reasoning and introduces the ‘critical case’ as one that is chosen to be valid for a large range of phenomena, based on an understanding of the context. He concludes “One can often generalize on the basis of a single case, and the case study may be central to scientific development via generalization as supplement or alternative to other methods” (Flyvbjerg 2006:228). The important factors are the questions asked, and the cases chosen. To enable such choices, an initial round of expert interviews in all three countries provided background information on VET system specifics, as well as general starting points for questions of pedagogic innovation. In the context of the main research phase, looking at influences that foster and hinder classroom observation from the point of view of practitioners, the logic of critical cases applies as follows: talking to those teachers that are particularly engaged, at colleges that are recommended for their innovative impetus, can reasonably be expected to produce answers about innovative practice that will be relevant for a larger number of practitioners at different institutions.

As part of the interview preparation, teachers were requested to allow classroom observation sessions immediately preceding the interview in order to provide a practical context to the interview. The foci of these sessions were teacher behaviour, teacher-learner interactions, and pedagogic methods. They served as points of reference in subsequent interviews, and provided insights into the context of the interview partners’ work environments. Therefore the notes from observation sessions did not directly enter the data analysis process. Instead, they enabled informed decisions for semi-structured interviews, during which the impressions from first-hand experiences of classroom situations were frequently referred to. Since observations were based on schools and teachers volunteering or inviting the researcher, they were neither statistically representative, nor unbiased. However, they fulfilled their function of providing a point of reference as well as context for a rich data gathering process, without having to be sampled in a statistically robust way.

The qualitative interview-based approach proved a good fit for the research foci outlined in the next section, under the headings of ‘Perceptions and Concepts’, ‘Documentation of Practice’, and ‘Dynamics, Limitations, and Lessons for Innovation’. The first was addressed in an open-ended fashion, for example discussing different points of view regarding definitions of ‘pedagogy’ versus ‘didactics’, and practitioners were asked
for immediate clarification. It was this focus that relied most crucially on a shared meaning-making process between the researcher and interview partners, and it provided the basis for addressing possible misunderstandings both in terms of language and context. The second focus, ‘Documentation of Practice’ also benefited from the interview format, since it allowed for clarifications, multiple examples, and requests to provide more details, or different perspectives. In particular, interviews enabled an iterative approach by giving the researcher an opportunity to recount examples from previous conversations with teachers, in order to investigate different experiences in similar situations. This generated many accounts of successful or attempted innovation, and teachers’ experiences with the process. Rather than aiming for a representative coverage of teachers across the whole spectrum of VET, such best practice (or perhaps ‘worst practice’) narratives allowed insights into problems or incentives particularly affecting those on the innovative edge of practice. The third focus ‘Dynamics, Limitations, and Lessons for Innovation’ is only indirectly related to interview questions. It takes findings from all other themes and consolidates them into a new understanding of innovation processes, for which the rich data provided in interviews – especially in conjunction with teachers’ own analyses and interpretations – provided fertile ground.

The following sections will elaborate on the consequences and opportunities afforded by choosing a qualitative research methodology based on semi-structured interviews, whereas the potential limitations are addressed at the end of the chapter, in section 2.7.

### 2.4. Research Focus

Three thematic foci guided the operationalisation of the overarching theme developed in section 2.2 in terms of concrete research questions. They relate to concepts and practitioners’ perceptions, the documentation of practice, and the analysis of factors that influence implementation of pedagogic innovations. This section presents this choice, connecting considerations from the preceding section to recommendations from previous research. Starting with an understanding of what teaching practice means to teachers, the sequence of questions represents an attempt to build a narrative of innovation from the
ground up.

Ertl and Kremer (2005a) recommend that further research should focus on teachers’ views under consideration of their specific work environments. They caution that this must not depict ideal environments, but should instead look at how particular types of work or sets of aims require individual personal qualities, and how these competences can be fostered in order to support the implementation of innovations. In the most immediate sense this aim requires the identification and documentation of successful and failed instances of pedagogic innovation. In each case the context, and in particular possible connections to institutional arrangements and overarching reform initiatives, must be investigated. However, this documentary effort must continue to be focused on practitioners and their meaning-making, rather than impose outside judgements. This lends itself well to in-depth interviews guided by classroom observation, since “it is necessary to recognise the difference between publicly stated normative positions and the expression, often in behaviour rather than words, of deeply held beliefs” (Holmes, in Schriewer and Holmes, 1992:138). Analytical perspectives – addressed here in chapter 7 – can then distil a broader picture from accounts of practice.

In concrete terms, this project’s aims call for an analysis of factors which influence the development of pedagogic innovations. Based on a rich data set from the three-country comparative approach, the analysis must investigate ways in which changes need to be formulated, environments organised, and how stakeholders – including teachers – must be involved, in order to provide incentives and conditions to innovate within the classroom sphere. This is to be rooted in a practice-centred point of view, but must also pay attention to policy and organisational aspects. This analytical aim takes into account two findings from prior research, namely a need to address the lack of reflection on how top-down changes are implemented, and the prevalence of overly narrow definitions of innovation in the classroom. Ertl and Kremer (2006) point out that debates on new concepts such as learning areas, or changes in qualifications such as discontinuing GNVQs (General National Vocational Qualifications) in England, remain largely on the conceptual level, to the detriment of practical implementation issues. In addition, innovation in the VET classroom is rarely conceptualised beyond relatively straightforward accounts of the introduction of new media and information and communication technologies (ICT), or
changes resulting from new subject matter reflected in different curricular contents.

The following catalogue represents one possible way in which the general requirements outlined here can be translated into concrete questions. Clustered around three focal points, it is the result of initial theoretical considerations, informed by results from the first-stage interview process with educational experts (analysed in detail in chapter 4), and developed further during the data analysis stage employing approaches from grounded theory, as explained in section 2.6. The individual foci and the questions they contain are discussed subsequently. They progress from individual perceptions, including relevant definitions, via experiences of innovation, to interpretations and abstractions. Starting with an understanding of what teaching practice means to teachers, the sequence of questions represents an attempt to build a narrative of innovation from the ground up. In order to provide concrete examples, some results from later chapters are alluded to; it should be noted that they are provided at this point as an aid to understanding, not to prejudice particular outcomes.

• Perceptions and Concepts

1. What are practitioners’ conceptions of teaching practice, and how do they relate to pedagogy?

2. What are practitioners’ conceptions of innovation?

3. Who are the relevant actors in the operationalisation of innovative change?

4. What role do practitioners’ self-perceptions and notions of professionalism play in the implementation of innovative change?

5. How do practitioners perceive changes in students and societal expectations in relation to innovation processes?

• Documentation of Practice

1. What are examples of innovative pedagogy from the point of view of practitioners, and in what context did they arise?

2. What are examples of successful structural and organisational innovation from the point of view of VET practitioners?
3. What are examples of failed or problematic innovation attempts from the perspective of practitioners?

4. How is pedagogic innovation generated and disseminated in practice?

5. How does the work context of practitioners, including their initial and continued professional training, affect their role as generators and/or implementers of pedagogic innovation?

6. What is the influence of external factors such as regulatory change, policy reforms, qualification frameworks, and assessment regimes on innovative practice?

- Dynamics, Limitations, and Lessons for Innovation

1. What are the dynamics of innovation processes in VET contexts, and what are the roles of different actors in this process?

2. Which factors hinder the development of innovative practice in VET?

3. How can innovative practice in VET be encouraged and facilitated?

2.4.1. Perceptions and Concepts

This cluster of questions queries the current status of teachers’ and to some extent school administrators’ perceptions with regard to key terms, actors, and opinions. Before seeking concrete examples of innovation and launching a more detailed analytical effort trying to determine the relationships of observed phenomena, an exploration of this ‘street-level’ view of the VET system forms the basis for subsequent perspectives.

Some questions under this heading would seem naïve, if they did not simultaneously present several of the hardest problems facing this cross-cultural study. ‘Innovation’ is a contested term even within a single language or culture (Camagni, 1991, on innovative milieus), but additional problems arise in comparative contexts. Prima facie, German (and Austrian) definitions of ‘innovation’ (German: Innovation) translate to sound similar to their Anglo-American equivalents, but cultural practices, associations, and behaviours around the terminology of innovation may differ in relevant ways. The Oxford English Dictionary defines the act of innovation as ‘the action of process of innovating’
“innovation”, Oxford Dictionaries Online, n.d.), and in turn defines that term ‘to make changes in something established, especially by introducing new methods, ideas, or products’ as well as to ‘introduce something new’ (“innovate”, Oxford Dictionaries Online, n.d.). Similarly, the German Duden refers to Innovation in the context of social science to ‘planned and controlled change or introduction of something new in a social system through the use of new ideas and techniques’ as well as the ‘introduction of something new’ (“Innovation”, Duden n.d.; translation by the author). However, there exists good evidence that the expectations, assumptions, and values surrounding ‘innovative’ behaviour are highly dependent on institutional, national, and language-delineated cultures (Hofstede, 2001). There may be similar problems with ‘didactics’ (Didaktik), ‘pedagogy’ (Pädagogik), and ‘teaching and learning practices’ (Lehr- und Lernpraxis).

After initial attempts to arrive at authoritative definitions of such key terms, in order to phrase the interview questions unambiguously, it emerged that practitioners would be better suited to provide their own understandings of such concepts, and that it would necessarily be part of this project’s documentary and analytic effort to make sense of each use in its individual context. Moreover – as it emerged from the detailed analysis presented in chapter 5 – definitions did not vary arbitrarily, but showed enlightening differences in their focus and their emphasis on particular aspects of key terms.

Questions relating to the roles of relevant actors in the implementation of change processes go in a similar direction. Rather than taking a systems-analysis perspective driven by theory, or a top-down organisational view describing how policy makers envision innovation to be introduced to the system, this work tried to ask teachers, lecturers, and school administrators – who in many cases double as teachers – for their perceptions of who invents, drives, implements, evaluates, and disseminates innovative change. What matters at this point is not a ‘correct’ description of all aspects of pedagogic reform, but an accumulation of individual understandings on who is relevant from the point of view of the people who put new pedagogies into practice. At the outset, this was expected to be a question leading to a variety of potentially contradictory answers; instead, chapter 5 shows that there is a wide consensus among teachers in all three countries about their own role not only as implementers, but frequently also as originators of innovative pedagogies. This conclusion validates the bottom-up approach as a means to arrive at
insights that might contradict prevailing notions of command-and-control structures in policy-making.

This role of teachers and the latitude they enjoy as street-level bureaucrats (Lipsky, 1980) in lending a public face to the school system plays into questions of self-perceptions and notions of professionalism among teachers. As the analysis in chapter 5 demonstrates, this is a fruitful research topic in itself that cannot fully been done justice in the context of the current study. However, these questions have very different answers depending on what school systems and academic traditions are being looked at, and they are essential to contextualising the role practitioners play in interpreting change processes, and feeding back into the innovation cycle. Previous questions about definitions of key terms also connect to the self-image of those actors whose daily practice it is to lend meaning to ‘teaching and learning practices’, ‘pedagogy’, and ‘innovation’ (see Swann et al., 2010, for a recent longitudinal study on teacher professionalism in England).

It is an old adage among educationalists that everyone is an expert when it comes to education.4 Factors such as social changes affecting generations of students, different societal expectations, and political fashions are reflected in the views of people in the field, and influence the actions and decisions taken by teachers and school administrators. Again, this relates to a set of topics that could constitute a whole field of research in itself. The current research merely touches upon it in the context of practitioner’s perceptions and contexts, since interview data consistently relates definitions, self-perceptions, and expectations to themes of wider societal relevance.

This leads to a set of observations by teachers and lecturers about an area in which many of them claim expertise: educational policy, structural parameters, and curricular settings. Since the impact of those factors on classroom innovation is one of the central topics explored under the subsequent headings of ‘Documentation of Practice’ and ‘Dynamics, Limitations, and Lessons for Innovation’ (see sections 2.4.2 and 2.4.3 in this chapter for brief introductions, and chapters 6 and 7 for the full analysis), gaining an understanding of teachers’ and lecturers’ overall views on the systems they operate in constitutes an essential first step.

4 Unfortunately extensive research has not been able to unearth the provenance of this statement.
2.4.2. Documentation of Practice

The research focus of ‘Documentation of Practice’ seeks to describe the status quo with respect to innovative teaching and learning practices as perceived by teachers, teacher-administrators, and full-time administrators. It builds on an understanding of key terms investigated in the preceding set of research questions, and interrogates the practice – rather than the definition – of how innovation happens, whilst being aware of the contested nature of the concept itself. Instead of asking for abstractions, the research questions in this section relate to interview questions that encourage interviewees to give evidence drawn from their own practice.

The first two questions – attempting to collect examples of innovations and their genesis – provide a backdrop for analytical perspectives in subsequent chapters (see 2.4.3) and anchor this research work in the realm of real cases with illuminating parallels. Indeed, as the analysis in chapter 6 shows, many interview partners recount similar experiences, with similar problems, and comparable lessons learned. Simultaneously, the differences that emerge between countries connect in both directions to perceptions analysed previously, and more abstracted understandings of general properties of innovation processes under given circumstances. The list of examples collected in interviews is not a complete survey of innovative pedagogies, but allows the construction of eight categories of most prevalent innovations. Those in turn help to put into context subsequent discussions of innovation dynamics and stakeholders.

The third research question specifically asks for examples of failed innovation, since reasons for failure highlight potential problem areas, especially in a multi-national comparative perspective. Issues such as an over-reliance on technology, limits to professional autonomy, and lack of management support emerge as universal, but with significantly different degrees of severity in different VET systems.

To triangulate the data and shed light on the issue from a different perspective, this focus also incorporates questions on how innovations are shaped by outside influences. Initially it was expected that a focus on curricular change would be sufficient, but as interviews showed, top-down change processes that affect pedagogies are multi-faceted, ranging from structural aspects, through modes of instruction, to assessment and...
qualifications. This question takes into account the fact that innovation is shaped significantly by practitioners at the classroom-level, rather than simply passed down unmodified from designs at the top or intermediary levels. Therefore it focuses on how teachers' innovative efforts are influenced by higher-level changes, rather than what the intentions behind those changes were in the minds of their originators.

Having investigated self-perceptions of teachers in the previous research focus, this section also moves to link up work situations and ongoing professional development with the role of innovators. This relates to Ertl’s (2005) and Ertl and Kremer’s (2005a, b, 2003) previous investigations of ‘innovative competence’ in comparative studies relating to VET colleges in England and Germany. Prior research provides a measure of triangulation to the outcomes of the current analysis. Whereas continual professional development and teacher training were originally not explicitly investigated, they quickly emerged in interviews as important factors for innovative behaviour, not only in terms of providing ideas and methods, but also by equipping teachers with the requisite mindset to try new pedagogies.

Unfortunately, the analysis in chapter 6 suggests that this is an area of notable deficits in quality and resources. In particular, the issue of professional autonomy features prominently as a factor that differentiates teachers in England from their colleagues in Germany and Austria, which results in significant differences in the innovation dynamics in each case.

‘Documentation of Practice’ also includes an investigation into examples of integrating innovative behaviours into daily practice. This topic permeates a very large part of all research interviews, as teachers question their opportunities for successfully developing, trialling, and evaluating new pedagogies. The literature points towards a plethora of obstacles that stand between theory and practice, most notably organisational problems and financial constraints (see for example Hillier and Figgis, 2011, or Patiniotis et al., 2009). However, experts as well as teachers in interviews noted that there are other, less absolute factors hindering pedagogic reform, which may therefore be amenable to new approaches for overcoming or removing them. Elaborating and condensing the research findings on this more abstracted level is the theme of the final research focus, presented in the next section.
2.4.3. Dynamics, Limitations, and Lessons for Innovation

The third research focus builds on the questions outlined in the previous two sections. It consolidates their answers in an attempt to meet the aims set out in 2.1, and to approach the initial research question stated in 2.2, namely how an understanding of teachers’ roles and perspectives can help the development, introduction, and management of innovative pedagogies. Similar to the preceding analytical steps, this chapter makes use of interview data, but it relies more strongly on constructs emerging from an analytic approach based on grounded theory, as presented in 2.6. This allows a critical view of the frameworks chosen to provide a theoretical background, asking whether they make sense, given the data analysis so far, and what modifications or extensions may be necessary. Moreover, the focus on further analytical perspectives provides an opportunity for drawing a ‘big picture’ that relates frameworks, different VET systems, and current research findings from teacher interviews.

The first research question at this level of analysis discusses a condensed view of innovation dynamics in VET, including an account of relevant actors and their roles, in the context of the assumptions introduced in section 1.2. Aiming to go beyond the individual cases of this study to a more abstracted understanding, the data is viewed through the lens of constructs such as ‘street level bureaucracy’ (Lipsky, 1980), and a three-level model distinguishing state, institutions, and classroom settings (Ertl and Kremer, 2006, 2009). Simultaneously the analysis interrogates the extent to which such frameworks fit the existing data. The inquiry cannot bring forth a definite answer covering all of VET, and all possible innovation dynamics, yet its findings match the existing literature. Therefore it serves as an evidence-based account of how VET change processes encourage or prevent innovative pedagogic practice. The analysis distinguishes four origins of innovation carried out by teachers, along two dimensions, which influences the subsequent categorisation of impediments to innovation in the context of different system-dependent constraints.

Closely connected to this, but formulated as a separate research question, are the factors that hinder innovation. This topic is at the core of this project, and therefore appears in several preceding research questions, as well as throughout the analysis. It is brought up explicitly at this point in order to enumerate and systematize answers from
different strands of the investigation. Owing to the heterogeneity of both the systems and
the phenomena under consideration, the answers do not constitute a final, definitive
product. However, being neither exhaustive nor perfectly structured, they nonetheless
provide a starting point for systematizing the innovation question when approached from
a practitioners’ perspective. The analysis identifies and discusses nine distinct categories of
impediments to innovation, and notes differences in their relevance for the four origins of
innovation identified previously.

The third question under this focus is the one most removed from the research data.
It invites conjectures and suggestions based on all findings about how change management
and policies could be formulated and executed in order to lead to effective pedagogic
innovation. To this end, it incorporates an understanding of change processes that emerges
throughout the analysis, as well as summarised views of opinions expressed in interviews.
The section is structured into four parts, comprising general results for facilitating effective
innovation, specific policy lessons, and conclusions for England on the one hand, and
Germany and Austria on the other. Its recommendations cannot be as prescriptive as one
may hope for. As a standard topic in organisational theory, questions of formulating and
managing change processes always deal with complex settings for which potential answers
are highly context specific (see Cedefop, 2011, for the role of leadership in VET change;
Barnett and Carroll, 1995, for an abstract overview of the impact of contextual factors on
organisational change). However, the analysis in this section is a strong pointer towards
the validity of employing a practitioner-centred interpretation to tackle this perennial
theme. Due to their role as implementers, teachers’ experiences matter, and the need to
motivate their cooperation is essential. A top-down approach of investigating what works
– and what does not – misses this point. Teachers are not merely providers of raw data;
instead, they are reflective actors who have their own answers to many of the questions
posited here. The aim of this final research question is to distil those answers into more
general lessons about the role of practitioners for innovation at VET colleges.

2.5. Data Dimensions and Comparative Perspectives

Approaching the research questions developed in section 2.4 in a comparative,
qualitative, practitioner-focused manner, as outlined in sections 2.2 and 2.3, yields a rich and multi-dimensional data set. The following discussion identifies research questions, interviewee roles, institutions, and VET systems as four distinct lenses through which to look at the data. Not all of these dimensions are orthogonal, that is, not every combination of parameters along those dimensions will point to a unique and meaningful data item. Therefore there logically exist several possible ways of slicing the resultant information for purposes of analysis and presentation. This choice influences decisions about further narrowing variables for data gathering, about analytic steps to break down the data, and about synthesizing procedures to present the findings. There are four dimensions, characterised by different perspectives taken to view the data:

- **Role perspective**: distinguishes different roles of research participants, for example by administrative tasks (pure administrators, teacher-administrators, and teachers), or subjects taught;

- **Institutional perspective**: distinguishes different school or college types, for instance based on subjects, management structures, size, and age groups catered for;

- **Systems perspective**: distinguishes by taking a comparative approach to country specific differences and particular parameters of different VET systems;

- **Research question perspective**: distinguishes data items by their relevance to given research questions developed in section 2.4.

The following illustrates the non-orthogonality of the data set: the institutional dimension is not independent of the systems dimension, since particular types of colleges are only found in particular VET systems. However, the two must be distinguished, since system parameters do not universally determine the exact institutional characteristics of colleges found within a given country.

For a full analysis and subsequent representation of the research data, all four dimensions are relevant. However, creating a structured and consistent view requires a
hierarchy of analytical dimensions. That is, one of the available lenses on the data should provide the frame of reference for both coding and structuring the presentation of the analytical process. For example, one might choose to distinguish by country, and attempt to answer individual research questions within each country VET system, with a view to comparing and contrasting those findings in the next step.

The following sections describe each perspective under consideration of its usefulness for driving comparative data analysis. Several subsequent decisions are influenced by this choice: the creation of interview schedules, the choice of particular countries, and the selection of participating institutions and interview partners, all outlined in chapter 3. This presentation concludes that a perspective driven by research questions is most suitable for the analysis presently required. In order to outline its merits over the other possible choices – role, institutional, and systems perspectives – those are discussed beforehand.

2.5.1. Role Perspective

According to the frameworks discussed in section 1.2, innovation processes take place at different levels, and usually involve several types of actors in specific roles. The different levels of investigation and the main actors involved in the three national contexts are expected to be (based on Ertl and Kremer, 2006):

- ‘classroom level’:
  - teachers, trainers
  - practitioners in different subjects
  - teacher representatives, team leaders, teacher union representatives, head teachers

- ‘organisational level’: college/school leadership or administrators
  - school heads and administration
  - regional school representatives

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5 Ertl and Kremer (2006) call this the ‘didactic level’. However, this study uses the term ‘classroom level’ as a more descriptive identifier of the learning venue in order to avoid a discussion about the term ‘didactics’ versus ‘pedagogy’. According to Andrews (2007) ‘pedagogy’ would be the more general term, subsuming subject-specific strategies under ‘didactics’.
• ‘political level’: policy makers
  ◦ from local education authorities
  ◦ from federal / ministry level
  ◦ from advisory bodies and other influential groups (quangos, Sozialpartner, ...)
• outside experts

Results from preliminary expert interviews (see chapter 4) confirmed the usefulness of this schematic. Whereas this study is focused on the experience of actors at the classroom level, “it is also important to work a bit at the peripheries – to talk with people who are not central to the phenomenon” (Miles and Huberman, 1994:34). Therefore several stakeholders who represent the context of teachers’ work environments were asked to participate in this study: heads of schools, experts in teacher education, and policy makers. This research does not include direct interactions with students, since they could offer only limited experience and little comparative scope for assessing changes in pedagogic practice. However, classroom observation sessions were conducted to connect perspectives gained from teachers with their actual application in student interactions. Chapter 3 details the concrete process of interview subject selection.

The usefulness of the role perspective is limited in this project, the focus of which is on data from a narrow set of actors, namely teachers. Many interviewees also act in different roles (teacher-administrators), and there are some exceptions, namely interviews with policy makers, experts, and school administrators, but the bulk of the data is gained from practitioners, in keeping with the principles laid out in section 2.2 and the foci explained in section 2.4. Therefore distinguishing by interviewee roles does not present itself as a promising comparative entry point.

2.5.2. Institutional Perspective

Likewise, the institutional perspective has limitations, hinted at in the example given above, in relation to its connections with VET system specifics. Institution types are tied up
with different system parameters and structures, so that finding meaningful comparators may be challenging. Moreover, it is not clear that one-to-one comparisons of different colleges would usefully contribute to an understanding of innovation processes, since the colleges in this study are not typical for their respective systems. Instead, they stand out as particularly innovative. Therefore a focus on individual teachers as innovators, and their perceptions of what encourages and hinders innovation, makes more immediate sense than institutional comparisons. In practice, this research encountered institutions in all three countries that would lend themselves well to direct comparisons. There is data, for example, from specialised colleges training students specifically for the catering and hospitality industries, with similar course types and of comparable size. However, this opportunity was not expected _ex ante_. Moreover, a focus on an institutional comparative perspective would limit the enquiry to a specific sub-set of the VET sector.

Considerations regarding the institutional perspective were valuable in narrowing the focus to specific topics that were of particular relevance to participating colleges. Moreover, to enable both comparative and contrasting approaches, an effort was made to match one parameter in particular, namely a focus on teachers of full time students in VET, rather than for example VET at training firms, or part time adult education. Concentrating on the classroom-based elements of initial VET in all three countries focused the inquiry on comparable age groups, while still representing institutional diversity and a broad range of pedagogic and didactic phenomena. In particular, schools and colleges operating in this age range experienced noteworthy changes in all three countries in recent years, which added to the opportunities for investigating the mechanisms of pedagogic innovation. This consideration interplays with the thinking outlined in the next section on the systems perspective.

### 2.5.3. Country and Systems Perspective

While the research questions are not particular to any country, the decision to undertake a cross-country study reflects the belief that the substantial differences in VET systems offer a fruitful opportunity for comparative research. Diversity is both a curse and a blessing: on the one hand, this study must seek to extrapolate explanations for very
heterogeneous phenomena from a data set that is very small in comparison to the systems it attempts to capture. On the other hand, appropriate comparative choices can represent a broad spectrum of cases, making similarities and common trends stand out more significantly (Flyvbjerg, 2006). The latter expectation guided the choice of countries for comparison in the hope of exploiting the opportunities afforded by a comparative approach. Whereas it is interesting to discover the differences between pedagogic innovation in all three countries, it is the commonalities that receive most attention in this investigation. This enables an abstraction from individual observations to a more general idea of how innovation comes about.

The initial series of expert interviews drew attention to the interdependence of other parts of education systems and VET, most notably in relation to higher education. The HE sectors of all European countries are subject to changes and pressures in conjunction with Europeanisation (e.g. the Bologna process), widening participation agendas, and changes in state involvement connected to an overall rise of neo-liberal or New Public Management ideas (Sporn, 2003). This has side effects on VET, since the VET sectors are increasingly expected to enable smooth transitions into some form of HE, and since liberalised institutional arrangements enable new modes of interlinking VET and HE institutions (for a brief overview of activities in several European countries, see PLA-NQF, 2009). This directed the research design and analysis phases to particular topics. Those are:

- new diplomas at FE colleges in England;
- *Zentralmatura* at BHS in Austria (a new, centrally administered final exam and university entry qualifications framework);
- academic drift and a growth of full-time VET provision (*Fachoberschulen* and *Berufsoberschulen*) in Germany.

There are further interesting phenomena in the respective countries’ VET systems. The transition from pedagogic academies to higher education *Pädagogische Hochschulen* for teacher training in Austria, for example, is a highly relevant recent development, with the added quality of not only in itself being vocational training, but dealing with teacher training specifically. However, expert interviews suggested that the transition has been politically contested and organisationally heavily criticised, which would be detrimental to
research at this time. Similarly, the change-over from the LSC (Learning and Skills Council) to YPLA (Young People’s Learning Agency) for 16-19 provision in England, and the subsequent abolition of that body at the hands of the new coalition government, altered the arena of operations for FE colleges, and may change innovative practice. Yet the reform is so recent that its effects fall outside the time frame for this study. In Germany, pressures on the dual system are highly relevant, but dual system education and training is fundamentally different from exclusively school-based contexts in Austria and England. Therefore the choice for comparison in this study falls on the elements of German VET that take a full-time schooling approach.

In conclusion, a country-centred perspective presents a plethora of opportunities for comparison, but the consideration of a research-question driven perspective outlined in the next section demonstrates that a systems-based comparative approach would not generate the practitioner-centred, bottom-up view of innovation that this study seeks to provide.

### 2.5.4. Research Question Perspective

Of the four perspectives suggested to facilitate the conceptualisation of research data, the last one focuses directly on the research questions laid out in section 2.4. This section explains its suitability for analysis, despite its drawback of being not as obviously comparative in nature as some of the other options. At closer inspection this strategy reveals opportunities for the type of comparison that matters most to the overall research aims, namely a view of how different contexts and systemic parameters lead individual practitioners to realize their roles as innovators.

Tackling issues of data analysis and presentation from this perspective means initially discarding differences between interview partners’ roles, institutional backgrounds, and systems. Instead, the three thematic groupings of ‘Perceptions and Concepts’, ‘Documentation of Practice’, and ‘Dynamics, Limitations, and Lessons for Innovation’ and their subsidiary questions provide the structure for both analysis and presentation of research data. Conveniently, this approach collapses the other dimensions in some instances: since most questions do not have relevant data items in every interview, the perspective that takes individual questions first acts as a proxy for the distinctions.
drawn by other perspectives. For example, administrators talked about other topics than teachers, so analysing questions that only pertain to the latter naturally separates out the role differences. Similarly, different topics came up amongst countries, which means the systems perspective becomes relevant only for questions that relate to similar themes. Moreover, teachers in similar settings, for example delivering equivalent subjects, talked about comparable experiences, thus naturally adding a comparative perspective along the institutional dimension.

In keeping with the aims set out for this project in sections 2.1 and 2.2 – to concentrate on teachers and their experiences with introducing innovation – the comparison between individual statements in context must be the central unit of analysis. Subsequently this branches out into the three other perspectives described above, namely institutional, role, and system views. Both the analysis and presentation follow this order to draw parallels between data items. Thus they are not characterized by an effort to ‘compare and contrast’ first and foremost, but are instead driven by questions about understanding VET. The systems and institutions under consideration are very diverse, and keeping that in mind when relating individual interview contributions makes it possible to abstract similarities between answers from specific contexts. This leads to the identification of fundamental facts, rather than system specifics, and further justifies a question-led analytical approach.

Taking a question-led perspective to the data is a good match for this project’s constructive, meaning-making approach, with its emphasis on similarities. Differences between data items are only to be expected, given diverse parameters such as traditions, perceptions, roles, management, funding, and systems. However, to address the central questions, it is the similarities and commonalities despite those differences that are most enlightening, because they carry the power to indicate invariant features of innovation processes in VET. The analytic focus must therefore be on meaning – including the possible subtleties introduced by research data in two languages, discussed in section 2.6.2 – and the differences and similarities in the use of concepts. Starting with systems first, and specifically looking at data with systemic variables in mind, would be the more traditional approach, but that would miss the focus of this research effort. Instead, the arguments laid out in this section illustrate that this aim is better served by a questions-
driven perspective.

### 2.6. Analytical Methodology

This section starts with an outline of the way in which Holmes’ (1965, 1988) concept of ‘reflective thinking’ has informed the analytical design, and proceeds to a discussion of the analytical process and its relation to grounded theory. Subsequently, issues arising from the interpretation of data, with a particular emphasis on dealing with multiple languages, are explained in 2.6.2. Finally, section 2.6.3 concerns the presentation of the analytical results.

#### 2.6.1. Reflective Thinking and Structuring the Analytical Process

This project employed a two-stage process of data acquisition, interspersed with analysis, in order to gradually generate and answer questions representing the thematic foci introduced in 2.4. The initial stage of expert interviews helped develop the question catalogue, which then evolved as part of the analysis. Central to both stages of analysis was an idea from grounded theory, namely that themes can be discovered inductively from the data. This section outlines how it was applied to both expert and teacher interviews.

The previous section lays out the rationale for approaching the data with research questions in mind, rather than a particular comparative perspective. However, within the framing focus on research questions, comparative perspectives proved useful for several rounds of analysis based on reflective thinking, as described by Holmes (1965, 1988) for comparative educational research. Holmes advises to take into account a wide array of factors, “not only […] a detailed analysis of the educational structure itself, but also specific features of its infrastructure – economic, political, class structure” (Holmes 1965:41). The way this research project approaches its goals along several comparative dimensions in each attempt to address particular questions is designed to heed that advice. However, it deviates from Holmes to some extent: according to Holmes, “the problem approach implies that understanding of social and educational processes comes from successful prediction rather than, as in some epistemologies, through the discovery of antecedent causes” (Holmes 1965:34). Instead, the final stage of reflective thinking, “the anticipation or
prediction of the outcomes of policies” (ibid.), takes a somewhat reduced form of recommendations for the formulation of policies that may improve chances for implementation. The following paragraphs explain the structure of the research process and how it relates to the analytical procedure.

At the outset, a preliminary set of interview questions guided a round of semi-structured expert interviews (see chapter 3 for details on the context, and chapter 4 for the subsequent analysis). Pilot work on analysing the data commenced in parallel to on-going interviews and transcription work. At this stage, only the overall research question (see 2.2) and the specific interview schedule for expert interviews were available as guides for structuring the analysis. The interview questions had been developed from an initial set based on prior reading on recent developments in VET in all three countries, and were refined in response to themes from interviews. Thus they provided an initial structure, but not a complete coding framework. Instead, the analysis process itself incorporated strategies from grounded theory in order to generate additional codes and categories. Those emerged both as a result – in terms of highlighting important themes – and as a tool to feed back into the process of analysis itself.

This iterative application of descriptive, interpretive, and pattern codes is suggested as a cyclical process by Miles and Huberman (1994). Initially, it was applied to expert interviews to create what Miles and Huberman call ‘start codes’. Tesch sums up the approach as “sort[ing] incidents […] in qualitative data into categories and then, through constantly comparing the content of them, defin[ing] the properties of the categories until they have taken on an abstract form […] conceptual categories, in turn, are then related to each other” (Tesch, 1990:64). In this way, the interview schedule was refined in the course of the first round, aided by preliminary data analysis, in order to identify key categories, pilot the relevant methodology, and gain an overview of the subject matter and relevant topics. Further analysis based on this concept of iterative processing and re-processing of data into emergent categories helped to evaluate whether the interview schedule and planned analysis were well structured and covered the relevant topics.

The results were refined into thematic clusters that were the basis for improving the formulation of the thematic foci and initial research questions for the main interview stage.
Topics emerged by repeatedly revisiting coded material in order to determine strands that might be separate or reasonably separable themes. They are outlined in the detailed account of the analysis of expert interviews in chapter 4, and they in turn influenced the thematic foci for the main research phase, as discussed in 2.4. Subsequently, they provided the basis from which schedules for the main series of interviews were derived, as well as start codes for analysing the interview data.

This second stage, comprising the bulk of the project’s field work, consisted of school visits with classroom observations and interviews with teachers and several school administrators. Subsequently, the analysis for this stage proceeded in an iterative fashion similar to the preceding round. Teacher and administrator interview schedules evolved with additional questions as the work progressed, and the results were coded according to a growing set of categories that had taken the initial formulation of thematic foci as its basis. This allowed for some deviation of topical coverage in order to accommodate views or information from teachers that had not been previously anticipated. Since it started from a more elaborate set of codes than the analysis of expert interviews, the set of foci only changed superficially in its formulation, but not fundamentally.

The analysis employed a breadth-first approach, initially attempting to code all transcripts at a relatively general level of interpretation, and then go into more detail in successive rounds. The code hierarchies in Appendix C reflect this, by featuring top-level categories that correspond to research questions, which are then successively broken down into more detailed labels. At the early stages those hierarchies were in flux, requiring the re-coding of some passages. As analysis progressed, the code structure solidified and grew into more detailed levels of hierarchical complexity. Based on this methodology, the researcher’s understanding of relevant categories was developed in the process of coding. At the end of each coding stage, the categories were reviewed by processing the hierarchical code tree in order to cross-check the attribution of text passages to codes. Based on this, it became possible to form hypotheses about groups of statements from interviews, and to begin comparing and contrasting. This was done by repeatedly considering particular interview contexts such as job characteristics, role, institution, or country, to meaningfully interpret contributions in relation to other statements.
2.6.2. Interpreting Research Data and Language Issues

It must be noted that not all aspects of a grounded theory framework apply to this methodology: there are core categories – for example factors that foster or hinder innovation – but there was no point of saturation in the sense of gaining a complete understanding of those factors, up to the point where new data could not add any further information. This restriction is due to the still comparatively small window this research opens on large and complex VET sectors, so that it can at best aim for hypotheses or interpretations on the basis of data that is collected in as wide and qualitatively representative way as possible. The iterative nature of data collection and analysis through several rounds chimes well with Miles and Huberman’s (1994:11) recommendations on early analysis and interspersed systematic reviews (“holding conclusions lightly”). Thus coding constitutes an ultimately subjective choice about data significance in a given context, as Miles and Huberman (1994) note. To counteract this potential loss of information, data and first-level coding results were approached from different angles at several stages of analysis, as reflected by the presentation in chapters 5 to 7. Overall, this approach follows the analysis stages applied by Ertl and Kremer in some of the studies that this research project builds on, in identifying main themes before attempts to seek “clarifications and conceptualisations [...] by comparing concentrated versions of different interviews” (Ertl and Kremer, 2006:359).

Ertl and Kremer (2005a), in a smaller-scale but similar project, describe challenges from the interview process due to the anecdotal nature of interview responses. While these were found to be very useful illustrations, they are hard to turn into abstract information. Moreover, many teachers’ accounts are highly personal tales of success and failure, and must be expected to be subject to personal biases. They constitute subjective narratives whose analysis necessitates a significant degree of interpretation; Ertl and Kremer try to address the problem in part by having two researchers interpret the data separately. The authors note that the immediate professional environment of teachers – the classroom – remained outside the scope of observation, so that the subjective experiences of teachers recounted in interviews were the only basis to go by. The current project sought to address the problem by following up on this idea, and used classroom visits before most interviews
to contextualise them.

Starting in parallel to the interview process, transcripts of recorded interviews were prepared to facilitate the later analysis stage by qualitative data analysis (QDA) software. All transcriptions were done by the researcher alone, and represent a first level of interpretation and analysis. For example, colloquial, or tongue-in-cheek remarks were transcribed into their literal meanings, and frequently wordy or verbose statements were summarized. A typical example would be a teacher claiming that some policy was ‘a good idea’ in a sarcastic tone, in which case ‘a bad idea’ was substituted, if that interpretation was consistent with the context. Since this project focuses not on the individual psychology of interviewees, but on a joint process of meaning-making between the interviewer and research subjects, transcribing the above statement into ‘a bad idea’ loses none of the intended meaning and makes subsequent analysis easier. Conceivably, some interpretative scope is lost in this way, for example a possible elaboration on the researcher’s subjective view that Austrian teachers expressed themselves in ways that are more disdainful of authority, and more aggressive towards attempts to regulate their professional behaviour, than teachers in England. However, this psychological angle of inquiry must remain largely outside the scope of this study.

The data from expert interviews was analysed ‘by hand’, that is, by manually highlighting themes and hypothetical links between statements on paper, writing up lists of codes and corresponding categories, and repeatedly going through transcripts to add additional highlights or correct previous coding decisions. This underlined the requirement for more sophisticated tools to handle the subsequent bulk of the research analysis. To that end, MaxQDA 10 and NVivo 9 were evaluated by coding two interviews in each, based on a preliminary coding construct. Both products offer feature sets that could easily accommodate the present requirements, so availability led to the choice of QSR’s NVivo 9. There was no obvious pathway to change software tools at a later stage of the analysis process without losing existing coding highlights. However, NVivo is very widely used for qualitative data analysis in complex research projects, so it was felt that this cursory evaluation was sufficient to justify the software choice.

Dealing with “bilingual or multilingual interview data involves methodological and
theoretical issues that have not received sufficient attention” (Halai, 2007:345). Referring to Torop (2002), Halai also points out that “[i]t is also a cultural issue, because translation involves converting ideas expressed in one language for one social group to another language for another social group, which entails a process of cultural decoding” (Halai, 2007:345). In the context of the current study, this requires an awareness not only of the obvious translation issues between German and English, but also of potential cultural and language differences between Germany and Austria. Whereas Halai (2007) concerns interviews that were truly bilingual, mixing Urdu and English, her overall caution is applicable, namely that “[d]ealing with taped interview materials that were in two languages was not a simple matter of converting spoken language to text, (if it ever is a simple straightforward transaction). It involve[s] making decisions at every step of this conversion process.” (Halai, 2007:347) Consequently, several options to handle the language barrier were available:

- Transcribe – Translate – Analyse
- Transcribe – Analyse – Translate (for inclusion of evidence in this document)
  - base the analysis on separate German and English coding frameworks, or ...
  - use a unified (English language) coding framework

The original assumption was that translating the German language interviews into English would be a necessary prerequisite for subsequent analysis. However, the emphasis on content, rather than particular linguistic expression, opened up the consideration of a single, English-language coding framework for all interviews. Since this corresponded to the idea of concentrating on research questions first while deferring comparative aspects to subsequent analytical steps, several interviews were experimentally coded in both English and German. When it became clear that meaning at the level of coding categories could be sufficiently abstracted from the particularities of the languages involved, it was decided to continue with an English coding framework only. This consideration was revisited after
the first in-depth analysis of five interviews from Austrian schools, and again it was determined that English coding categories had proved useful and easy to handle even when applied to a text in a different language. Moreover, sample translations and coding revealed that a higher degree of veracity and a more nuanced understanding was achieved by staying in the original language for analysis.

The literature cautions that there may be differences in common definitions or in the understanding of terms such as ‘innovation’ in German and English (see section 2.4.1 for potential differences in meanings), leading to concerns that coding in one language only would result in glossing over potential distinctions. However, the differences in meanings are part of the content of coded statements, and the entire coding process is based on the fact that practically every statement or utterance must be interpreted in its context. Attaching a label such as ‘innovation’ to whatever a particular interviewee calls innovation does not include any assumption on the analyst’s part that the word means the same in every case the label is attached to. Therefore, only those passages that are used as evidence in presenting the final analysis were translated, and Appendix B gives the original quotes. The translations were done by the researcher, who is a German native speaker, and verified by another native speaker in an effort to test reliability.

2.6.3. Representation of Results

After forming categories and linking them to interview data, the next major analytical step was the topical representation of data sorted into a framework, following the structure set out by the research questions. At this point the distinction between research questions and interview questions must be recalled. Interview questions (see appendix A) were initially developed based on research questions (see section 2.4), and modified by findings from expert interviews, as well as the main interview process itself. However, the analysis did not seek to trace this initial connection. Instead, interviews were dissected so that individual passages of text were considered outside of any direct connection to interview questions. Thus the coding hierarchy that emerged from those passages formed the structure that served to address the research questions. This approach was based on the recognition that the data from individual interviews was rich in possible
interpretations, and the research questions represented complex constructs rather than straightforward informational items, so that a single statement from an interview could seldom be a precise and sufficient answer to one of the research questions. Agglomerating the informational and interpreted content from all interviews into thematic categories provided an opportunity to attribute all relevant data for each question. The individual categories thus contained evidence that helped address particular research questions.

This means that individual teachers, colleges, or even countries were not considered on a case-by-case basis. Instead – in line with the research questions perspective presented in 2.5 – the commonalities and differences at each of these levels (classroom/teacher – college/administration, country/policy) were worked out through data items pertaining to each question. Some of these were specifically geared towards interpretations of differences, so they represented meta-themes in the sense that they only became approachable once other questions had been answered, by highlighting similarities and differences between items in several categories of comparison.

The account of this project’s analytical findings in chapters 5 to 7 reflects this approach, by linking themes that emerged from the data back to research questions whose precise formulation resulted from the analysis itself. Conclusions about each of the themes were summarized, and backed up by direct quotes from interviews. It is only at this point that statements from Austrian and German interviewees were translated to English. In this way, any individual inaccuracy of translation only impacted on the presentation layer, but not the underlying analysis. This assumes, of course, that both the linguistic and cross-cultural translation of meaning when coding German language texts with English language categories was managed with sufficient accuracy. However, since codes represent interpretative constructs rather than simply words lifted from particular quotes, a process of meaning-making is necessary in any case, whether in English or in German.

2.7. Practical and Analytical Limitations

This project faces limitations that result from the complexity of VET systems and the constraints inherent in a doctoral study. Moreover, some of the consequences of its qualitative design may count as drawbacks. These relate both to the validity of the data,
and to the scope for generalisations.

The variation found in VET means that findings may not easily apply to situations that are not perfectly similar to the ones described. That is, VET situations may be so idiosyncratic to particular institutions or teachers that there are no significant similarities, and generalisation with any degree of confidence becomes difficult. Despite the attempt to select ‘critical cases’ (Flyvbjerg, 2006), there is no formal procedure to verify the success of this strategy. This potential problem has several reasons, ranging from the difficulty of sufficiently observing complex systems, to the fact that national contexts might be so different that no usable commonalities could be found across country boundaries or even between institutions within the same country. Since this possibility could not be ruled out before conducting the research, it was decided that it would in any case be important to contribute a detailed study of the reasons for the failure of meaningful comparisons. In retrospect, this fear seems unfounded: similarities across different schools and systems were found that can reasonably be expected to apply in a wider context, and do not seem to be merely artefacts of the specific cases observed.

There are further potential problems arising from the degree of self-selection of institutions and teachers, by agreeing to be observed or interviewed. This bias may result in atypical observations that fail to be recognised as such due to a lack of comparators. A similar effect is conceivable if national contexts or specific situations in schools are so similar that it is hard to gain a broader view of what could be different; that is, if a situation arises that undermines the contrasting aspect of a comparative approach. However, previous research on similar questions (Ertl and Kremer, 2009, 2006; Ertl and Sloane, 2004) decidedly points towards the diversity and difference of VET systems and experiences, so that this particular danger appears highly unlikely.

As always, bias on behalf of interviewees in their attempts to further particular causes must be taken into account. This fact is mentioned here specifically because VET is frequently highly politicised, with a large number of diverse stakeholders whose stated opinions may reflect ongoing debates that are not always readily obvious to an external researcher. This calls for particular awareness and careful critical investigation. As the data analysis shows, every interview partner was treated in their respective context, and nearly
all data derived from interview contributions was routinely seen as representing particular points of view only. That is, the researcher did not assume impartiality or perfect information on behalf of interviewees.

Finally, there is the challenge posed by language and different cultural contexts. This is addressed in 2.6.2, and should ultimately not remain a limitation, but be seen as a strong point. Since the analysis is not focused on individual expressions *per se*, but rather their meaning in context, the “ongoing interpretive role of the researcher” (Stake, 1995:43) features strongly in any case, independent of the language used. Stake also warns that “the researcher is the agent of new interpretation, new knowledge, but also new illusion” (Stake 1995:99). Bearing this caution in mind in an attempt to understand different conceptions of innovation may lead to diverse views on what kind of change improves teaching, and may thus relate to interesting discoveries of the nature of good teaching in general.

In so far as this research attempts the practical and realistic discovery of factors that foster or hinder innovation, it may come to suffer from limitations in its reception. If it does not succeed in making the most of its comparative approach, it may be seen as simply a case study that is not relevant outside the specific contexts described. Since its inferences and conclusions are necessarily qualitative in nature, this chapter tries to outline the entire design and methodological process in detail, in the hopes of justifying this study’s ambition of generalisability. The next chapter will demonstrate how those theoretical considerations were turned into concrete research work.

3. From Methodology to Data

This chapter bridges the gap between the theoretical and methodological considerations outlined above, and the analysis of expert interviews presented in the next chapter. It explains the choice of England, Germany, and Austria as countries for conducting research, and provides background information on their respective VET systems. In addition, it contains an outline of how and why particular institutions and individuals were selected for interviews, including a discussion of access and research ethics issues. Finally, it introduces the data, comprising a description of data gathering strategies and the background of participating colleges and interviewees.
3.1. Country Choice

On the basis of this project’s research focus outlined in section 2.4, the choice of countries and respective VET systems for comparison is theoretically wide open. This section outlines the relevant decision variables, and describes why the choice of England, Germany, and Austria is not merely expedient in terms of prior research, resources, and accessibility, but provides important opportunities for fruitful comparative enquiry.

Taking place at the University of Oxford, this research project originates from current debates in the English education system. In particular, frequent complaints of ‘reform avalanches’ (an interviewee quoted in Ertl and Kremer 2006:360) voiced by teachers, administrators, and occasionally policy makers, as well as researchers and the media (see for example Wolf, 2011; Lucas, Nasta and Rogers, 2012) raise questions about the effects of system changes and curricular modifications on teaching and learning practices in VET classrooms. This research project approaches the theme by asking what motivates or hinders teachers’ innovation attempts, paying particular attention to top-down influences through the education system. Germany and England were chosen for this purpose not only because they had been the basis for previous research, but also for their suitability as comparators. This enables meaningful additions to existing findings. The following sections explain those considerations and present the case for the inclusion of Austria.

3.1.1. System Characteristics

England is notable for the fast pace, broad scope, and frequency of reform efforts, including the establishment of new qualifications (e.g. diplomas), the creation and abolition of organisations (e.g. YPLA), and its vibrant and diverse educational culture at FE colleges. Thus the country recommends itself as an obvious starting point for this research work. Germany has faced challenges in relation to its particular dual-system approach to VET (e.g. a shortage of industry places), resulting in the widening of non-dual VET (e.g. Berufsfachschulen) and other changes. It is characterised by a long-standing tradition of incremental adaptations within a public/private partnership framework (Sozialpartner), which stands in marked difference to England. Austria was added for triangulation. It has
similarities with Germany – for example its dual system – but adds to the comparative scope a firmly established and socially highly recognised college-based VET sector. Austria’s BMHS (Berufsbildende Mittlere und Höhere Schulen) are part of a state-run system and currently face the consequences of greater school autonomy, new modes of assessment (e.g. Zentralmatura), and changing relationships to higher education.

The English VET sector is populated by FE colleges that are economically motivated entities. They compete for students and funding by offering large numbers of qualifications, whose providers depend on colleges to take them on. Most crucially, colleges also compete on success rates, measured in grades achieved in those externally provided qualifications, and retention rates. This dynamic is entirely different from Germany, where aspects of a strong dual-system tradition of legally defined vocations influence all aspects of VET, including full-time VET provision at Berufskollegs which typically offer both full-time and dual-system forms of instruction. However, such colleges are becoming more diverse by carving out individual niches, and starting to compete to an extent, despite the existence of state-mandated framework curricula (Rahmenlehrplan) and learning areas (Lernfelder) (see ReferNet DE, 2011). Performance measures as a basis for budgeting considerations are alien to the German context; on the other hand, a long standing tradition of pilot project research (Modellversuchsforschung) in conjunction with universities and educational research institutes has for a long time provided direct pathways for the transition of innovative practice from academic contexts into VET classrooms.

While also building on a dual-system tradition, the parts of its system that arerelevant for this study are markedly dissimilar to Germany since its BMHS are full-time institutions catering to 40% of the country’s 14-19 age bracket (ReferNet AT, 2011:10). Austria’s school system has a pervasive tradition of Schulversuche (school trials) that has allowed schools and colleges to pursue individual profiles, where the sum total of trials can lend a completely unique face to a particular learning institution. Thus German and Austrian colleges’ have opportunities to modify the courses and qualifications offered, while English FE colleges are more flexible in their choice of pre-defined courses. While the former enjoy considerable freedom to teach and assess what they deem necessary or desirable, qualifications at FE colleges are externally provided by awarding bodies that are
In concrete terms, the choice of England, Germany, and Austria for comparison provides significant differences in a wide variety of factors, including different notions of roles and professionalism, different types of institutions, different assessment modalities, different societal roles and status for VET education, different notions of innovation, and different political structures. Those factors are laid out in detail in sections 3.2 to 3.4.

### 3.1.2. Theoretical Aspects

There are practical considerations in favour of including Germany and Austria, such as the researcher’s ability to conduct interviews and data analysis in German, as well as accessibility issues through academic contacts at German and Austrian universities. However, there are also theoretical reasons: English educational researchers and policy makers have a history of looking to Germany in debates about the perceived shortcomings of their own systems. The Wolf review, for example, acknowledges that “English policymakers have been preoccupied with German education and apprenticeship for well over 100 years” (Wolf, 2011:40). German VET, and its dual system in particular, is perceived to constitute a stable, high-quality engine contributing to Germany’s economic and industrial prowess. However, German and Austrian researchers and policy makers voice concerns about their systems being too stagnant, and anti-competitive, especially in the face of an increasingly English-speaking global economy and dynamic European markets for labour and education. The choice of Austria as a third point of triangulation was made on the merits of its unique tradition of high-quality vocational schools that provide both full university-entry qualifications, and vocational credentials up to ISCED level 5b, which makes them comparable to English foundation degrees (ReferNet AT, 2011). For these reasons, the choice of observing these markedly different VET systems is expected to contribute to this project’s comparative potential.

In view of the systematic differences across the three countries, it is notable that they face similar challenges. Social change in the shape of immigration and widening socio-economic inequalities, demographic change with declining populations in non-urban
areas, and financial constraints affect colleges in many European countries. Moreover, the vocabulary of new public management and its increased emphasis on measurable and more consistent quality in education has found its way into VET systems of all three countries in this study. Quality management initiatives are listed prominently in the ReferNet country reports for all three countries in this study, published regularly by Cedefop, the European Centre for the Development of Vocational Training (ReferNet UK, 2011; ReferNet DE, 2011; ReferNet AT, 2011). In addition, the environment for colleges is changing: there is an ongoing move towards service professions, while countries’ industrial bases are getting refined, require ever greater individual expertise, and compete internationally. On the academic side, government efforts to drive up participation rates in higher education create pressures known as ‘academic drift’ (Pfeffer, Unger et al. 2000; Raffe et al. 2001). Overall the confluence of differences in systemic factors, and similarities in recent challenges and developments, create a solid basis for comparative perspectives along multiple dimensions (see section 2.5).

3.2. VET in England

This section provides an overview of vocational education and training in England, with a particular focus on initial vocational education and training (IVET) at Further Education (FE) colleges, which form the backbone of the system. This selective emphasis on aspects that are relevant to the current study results from the complexity and changing nature of English VET. This study does not take into account other parts of the UK, where education systems differ substantially in some respects. Most of this summary is based on a recent ReferNet country report produced by the Qualifications and Curriculum Development Agency for Cedefop (ReferNet UK, 2011).

3.2.1. System Characteristics

The ReferNet report cautions that “There are no ‘official’ or nationally agreed Vocational Educational [sic] and Training (VET) related definitions used across the UK [... and] preference is for the term ‘vocational qualification’.” (ReferNet UK, 2011: 13) This absence of clear terms goes hand in hand with structures that blur distinctions between
VET and academic schooling, and make the ‘VET sector’ hard to delineate. As a rough guide, one may consider that in 2009, 82.7% of 16-19 year olds in the UK were participating in education and training, which was the highest level so far (ReferNet UK, 2011: 10), and in the fiscal year 2010-11, the government agency tasked with funding educational provision for that age group spent £4bn out of a total budget of £7.5bn on FE colleges (ReferNet UK, 2011: 9). The remainder went largely to school sixth forms (£2.4bn) and apprenticeships (£0.8bn). Attainment levels for this age group have been steadily rising and are expected to continue to do so, as the age for compulsory schooling is set to rise from 16 to 17 in 2013, and to 18 in 2015. FE colleges play a significant role in this development: “The steady increase in attainment by age 19 tracks closely an increase in the number of vocationally related qualifications completed post-16.” (ReferNet UK, 2011: 12) This places vocational training at FE colleges firmly at the heart of the VET sector.

However, FE colleges are diverse institutions, offering vocational qualifications alongside traditional academic ones such as GCSE A-levels, which precludes the possibility of defining VET in terms of what the ‘VET sector’ offers. Instead, the authors of the ReferNet report, like other researchers in this area, provide qualified definitions: “[VET] may be defined as a course of training usually in a school or a learning institution that is oriented towards a specific job or element of work. VET can involve training in specific technical skills for certain types of job/occupation to training in general skills and aptitudes relating to an industry, as well as developing specific and general soft and core skills. There are certain occupations where a specific qualification at a certain level is required to practice. A qualification may be described as vocational but not immediately qualify the learner for work in a particular occupation. Traditional academic subjects (GCSEs, A-Levels and most university qualifications) are not referred to as vocational.” (ReferNet UK, 2011: 13)

It is noteworthy that “Further Education (FE) is the type of learning or training that takes place after the age of 16, but before degree level. It can be full or part time, academic or vocational.” (ReferNet UK, 2011: 14) According to ReferNet, “the FE sector consists of 424 colleges including general FE colleges, tertiary colleges, specialist colleges […], colleges that cater for people who have learning difficulties or disabilities, and Sixth Form Colleges.” (ReferNet UK, 2011: 38) That is, further education is not only provided by FE colleges, and
at the same time increasing numbers of FE colleges offer courses outside the definition of further education. Of their further education activities, a substantial part is academic rather than vocational. Despite this complexity, the locus of initial vocational education and training (IVET) of the 16-19 age group is predominantly at FE colleges, whether they are supporting apprenticeship training or delivering full-time or part-time courses.

The British approach to educational policy has been characterised in recent years by repeated changes in responsibilities and funding structures. Most importantly, due to a change in government during the research phase of this study, the Young People’s Learning Agency (YPLA), the relevant funding body, was abolished. The YPLA had originally replaced the Learning and Skills Council (LSC) on April 1st, 2010, as established by the Apprenticeships, Skills, Children and Learning Act 2009. Its remit was, amongst other priorities, to fund all education and training for the 16-19 age group, and to work with the simultaneously created Skills Funding Agency (SFA) in simplifying funding arrangements for the FE sector. However, the new coalition government decided to abolish the YPLA after March 31st, 2012, as part of the reforms carried out through the Education Act 2011, and transfer most of its responsibilities to the newly established Education Funding Agency (EFA). Under current structures, all learners up to the age of 19 fall within the remit of the Department for Education (DfE; previously named the Department for Children Schools and Families), and post-19 education and training is the responsibility of the Department for Business Innovation and Skills (BIS). Within that, higher education is seen as a separate area, being funded by the Higher Education Funding Council for England (HEFCE), a non-departmental public body associated with BIS. Since FE colleges span a wide range of age groups and encompass both initial and continuing vocational education and training, as well as academic courses, and are increasingly branching out into higher education, they face multiple complex funding streams from sources with different policy agendas and shifting priorities.

3.2.2. Subjects and Qualifications

Historically, the English FE sector emerged from full-time and part-time technical schools for which local government councils assumed responsibility under the Technical...
Instruction Act of 1889. The role of technically oriented education was recognised in the Education Act 1944, establishing a tripartite system of secondary modern, secondary technical, and grammar schools, but only in recent years have considerations of ‘parity of esteem’ between different qualifications begun to enter educational policy (ReferNet UK, 2011). Today, FE colleges offer a broad range of vocational qualifications, including vocational A-levels (introduced in 2000). In England, the Office of Qualifications and Examinations Regulation (Ofqual) recognised 161 awarding organisations in September 2010, including bodies such as City and Guilds (C&G) and Edexcel (offering BTEC courses), providing over 15,000 regulated qualifications (ReferNet UK, 2011: 46). In addition, FE colleges themselves and employer organisations are increasingly granted powers to award their own vocational qualifications. Different qualifications are frequently combined. According to ReferNet, “the existence of a qualifications market, driven by a combination of Government policy and private investment, is a distinguishing feature of the UK education system.” (ReferNet UK, 2011: 46)

To increase transparency and allow for credit transfers, qualifications in England are structured within the National Qualifications Framework (NQF), which is currently being phased out, and its successor, the Qualifications and Credit Framework (QCF). Both classify qualifications at one of nine levels, from ‘entry level’ to ‘level 8’, after an NQF overhaul in 2004. They are designed to capture all formal qualifications after the age of 14, in both academic and vocational pathways, ranging from ‘functional skills’ to courses equivalent to doctorates. Under the QCF, qualifications are made up of units with individual credit values that usually correspond to ten hours of learning. They are distinguished as ‘awards’, ‘certificates’, and ‘diplomas’, depending on their total credits. For 16-19 IVET, FE colleges typically offer a selection of courses of all three types, at the levels from ‘entry’ to level three.

A recent development frequently addressed in research interviews for this study was the introduction of ‘14-19 diplomas’ as an attempt to achieve parity of esteem, following

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6 In this respect, the British discourse appears to be obsessively dominated by unfavourable comparisons with Germany, to the extent that the single fact characterising the history of VET in Britain between 1944 and 2004 in the ReferNet report is that “by 1975, only 0.5% of British senior students were in technical schools, whereas in Germany two-thirds of the cohorts were in technical education.” (ReferNet UK, 2011: 32)
the government’s interpretation of recommendations contained in the Tomlinson Report (Working Group on 14-19 Reform, 2004). The reform was developed jointly by the Department for Education, the UK Commission for Employment and Skills (UKCES), the Qualification and Curriculum Agency (QCA) and Diploma Development Partnerships (DPPs) consisting of employer representatives, awarding bodies, and colleges. Since diploma courses start at the age of 14, schools and colleges are required to collaborate on designing courses. Diploma courses often involve parts or all of other qualifications, such as BTEC and A-level courses or apprenticeships (ReferNet UK, 2011: 44).

In addition to academic and vocational full-time courses, FE colleges are active as training providers for apprenticeships, and are expanding into higher education provision at QCF levels 4 and 5 via Higher National Certificates (HNC), Higher National Diplomas (HND), Foundation degrees, and Bachelor’s degrees, as well as through the provision of professional qualifications and continuing professional development courses. Apprenticeships had a complicated trajectory in England, rising to 240,000 in the 1960, before falling to 53,000 in 1990, after which governments started to place increased emphasis on the expansion of apprenticeship opportunities (ReferNet UK, 2011: 33). According to ReferNet, apprenticeships are characterised as “work-based training in a broad range of sectors to people learning new skills and gaining recognised qualifications while they are working. They normally last between one and three years. [...] Apprentices in England are employed people who are receiving official, structured training, normally delivered one day per week at a vocational provider (FE College or commercial company). The programme is flexible and the employer decides how it is delivered and the content of the course.” (ReferNet UK, 2011: 48)

3.2.3. Structures and Oversight

According to the 157 Group, an organisation representing FE colleges in England, “the great majority of further education colleges share the same legal structure, being statutory further education corporations. A small number of institutions are established as companies (generally limited by guarantee) and an even smaller number as unincorporated charitable trusts (usually part of a larger charity with activities ranging beyond education).”
Colleges make use of diverse funding streams, particularly through their involvement in adult education, but derive the bulk of their income from government funds allocated to 16-19 provision on a per-student basis. This is calculated on the basis of individual funding formulae taking account of student numbers, volumes of courses taken by students, special programmes, and other factors.

To support the FE sector in questions of quality management, teaching and learning strategies, and governance improvement, the Learning and Skills Improvement Service (LSIS) was created in 2008 as a sector-led non-departmental public body (‘quango’). According to its chief executive, “as the improvement body for the further education and skills sector, LSIS has a responsibility to provide the sector with the support needed to continuously improve practice and performance, with the ultimate goal of ensuring that learners receive an inspiring and high quality experience.” (LSIS, 2012:3) Since the Foster report criticised the sector’s “galaxy of oversight, inspection and accreditation bodies” (Foster, 2005: 27), LSIS has been working on improved self-regulation for FE colleges (LSIS, 2009). For teaching practice, the inspection process carried out by the Office for Standards in Education, Children’s Services and Skills (Ofsted) is of particular relevance, as frequent mentions in the research interviews conducted for this study attest to. Monitoring the work of nearly all education and training providers in England, Ofsted has recently proposed to overhaul its inspections framework to lighten the bureaucratic load for FE colleges starting in September 2012, “which will result in more focused inspections with fewer judgements and grades, leading to reports on the most important aspects of learning and skills provision” (Ofsted, 2011: 4). However, at the time of this study, regular Ofsted inspections were still the norm.

In summary, the main part of initial vocational education and training in England takes place at Further Education colleges in the shape of a wide variety of courses leading to qualifications provided by a large number of competing awarding organisations overseen by Ofqual. FE colleges are independent economic entities that derive their main funding streams on a per-student basis from government sources, and are overseen by government agencies such as LSIS and inspected by Ofsted. Courses range from a few
weeks to several years, and are frequently combined in order to allow for progressions between different levels of qualifications.

3.3. **VET in Germany**

This summary of German vocational education and training is based on the ReferNet DE 2011 country report, prepared by staff of the German Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung – BIBB) and Nationales Forum Beratung in Bildung, Beruf und Beschäftigung (nfb) for Cedefop (ReferNet DE, 2011). Due to the complexity of the federalist structure of German VET, this section focuses on the specifics of the two particular states (Länder) involved in this research, North-Rhine Westphalia, and Bremen. Since the dual system of apprenticeship training constitutes the core of IVET, it is treated in some detail, but the relevant emphasis for this study is placed on full-time, college-based courses.

3.3.1. **System Characteristics**

In line with the German national constitution’s federalist provisions, the responsibility for school and college based education rests individually with the 16 states (Länder). However, the federal government regulates industry, which includes definitions of training occupations and the workplace-based part of dual-system apprenticeships. Compulsory full-time schooling lasts nine or ten years (Primarstufe and Sekundarstufe I), depending on the state and school types, after which part-time or continued full-time education must be attended for another three years (Sekundarstufe II or upper secondary level). In the states investigated for this study, this places the latter element into the 16-19 age range. There are variations in the structures providing 16-19 education depending on states, but in North-Rhine Westphalia (NRW) and Bremen, the vocationally-oriented options are largely covered by Berufskollegs (NRW) and Schulzentren des Sekundarbereichs II (Bremen). Since the respective institutions in Bremen go by several different terms, including Berufskolleg (vocational college), this study will use that term to refer to all vocational institutions offering several distinct strands of general and vocational education for the 16-19 age range. It should be noted that in the literature the terms ‘school’ and
‘college’ frequently appear interchangeably. In this context, references to several ‘schools’ in quotes in this section in fact denote different courses within single institutions, frequently taught by the same teachers, according to the analysis of interview data for this study.

German VET is a significant source of students for vocationally-oriented parts of the higher education system, comprising *Fachhochschulen* (universities of applied sciences), *duale Hochschulen* (vocational universities), and *Berufsakademien* (vocational academies; English terms according to ReferNet DE, 2011). However, VET remains a strong route into skilled employment even without tertiary education: “A high proportion of people in Germany have upper secondary level qualifications (59.1% in 2009 compared to an EU average of 46.8%, [...]). One reason for this is the long-standing tradition of the dual system of vocational training. For higher education, Germany approximates the EU average.” (ReferNet DE, 2011: 11). The *Duales System* (dual system) denotes apprenticeship training with split responsibilities between employers and vocational colleges with mandatory attendance. It is traditionally considered the centrepiece of German VET, but has been subject to intense discussion in recent years due to a shortage of applicants and simultaneously increasing numbers of young people not finding apprenticeship placements. The former effect can be attributed to demographic change, and continues to require VET colleges to consolidate and re-structure courses. The latter has been argued to result from the interaction of training provisions with the labour market (Walden and Troltsch, 2011), and has led to the emergence of a ‘transition system’ (*Übergangssystem*) of full-time VET that is intended to equip learners with the skills required by training companies.⁷

German VET is based on a tradition that emphasises its social role rather than the utility of particular skills in the job market. Historically, “the schools developed as places in which proletarian and lower middle-class youth could be integrated into the bourgeois national state by undertaking vocational education and learning a recognised occupation. This key educational concept, ‘civic education’ through VET provision, is still the core of

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⁷ This is not to be confused with Raffe’s ‘transition system’ which describes VET systems as enabling a transition from school to the labour market. The German *Übergangssystem*, by contrast, denotes a system that allows for a transition for students who do not find training places, into situations where they can achieve better acceptance in the dual system.
3.3.2. Subjects and Qualifications

Vocational colleges typically offer distinct full-time courses lasting one to three years, ranging from Berufsgrundschule or equivalents that are designed to improve student’s chances to acquire apprenticeship places, to Fachoberschule, which qualifies learners to enter VET courses in higher education. Some colleges also run vocationally-oriented versions of general schools. These Berufliche Gymnasien or Fachgymnasien last four years and offer the full scope of academic teaching, with the addition of subjects that are specific to a vocational field such as economics, technology, nutrition, agriculture, and ICT. (ReferNet DE, 2011)

In addition, colleges provide Berufsschule, constituting the college-based part of the dual system. ReferNet states that “of the vocational schools, the full-time vocational schools have the highest numbers of students. […] Under certain conditions, attendance at a full-time vocational school is credited as the first year of training in the dual system.” (ReferNet DE, 2011: 47) This includes full-time courses that are counted as lower secondary education, whereas “the dual system is the largest provider of education at upper secondary level.” (ReferNet DE, 2011: 47) Full-time courses of longer duration may result in qualifications defined within the education system, such as Fachhochschulreife (permission to proceed to universities of applied sciences) or Abitur (general HE entry qualifications), which are traditionally assessed internally at colleges. Alternatively, “around one in six students at a full-time vocational school is learning a recognised dual-system training occupation. In such cases, the schools’ final examinations may be given parity with examinations in the dual system by means of Federal statutory instruments.” (ReferNet DE, 2011: 47) This notion of recognised training occupations (Ausbildungsberuf) is a key characteristic of the German understanding of VET. They are defined by a list published by BIBB, comprising around 350 occupations (BIBB, 2012) for which the training modalities in companies and VET colleges are clearly laid out, so that all training providers can be seen as equivalent.

The German VET system is characterised by multiple pathways into and between
courses of different types, so that it is common in some professions (e.g. banking) to enter dual-system apprenticeship training only at the age of 18 after successful completion of Abitur. This blurs the border between initial vocational education and training (IVET) and continuing vocational education and training (CVET), as evidenced by the fact that several classes observed for this study included students in their twenties. In other cases, apprenticeships are typical at 16, and are optionally followed up by Fachoberschulen or Berufsoberschulen and subsequent transitions into higher education. German interviewees for this study, for example, included several teachers who had started their vocational careers as apprentices, before acquiring bachelors and masters degrees in their fields, and subsequently moving on to teaching. Such senior technical schools typically last two years, and accept students with backgrounds in apprenticeships or intermediary vocational qualifications, and therefore encompass students beyond the 16-19 age range for this study.

At the lowest end of the qualifications range, VET colleges run the berufsvorbereitendes Jahr, a year-long, compulsory course of “pre-vocational training” in basic skills and an introduction to one to three occupational areas. Participants typically include students “with social disadvantages or learning difficulties and migrants with an inadequate command of German who need special assistance to begin and complete a course of training” (ReferNet DE, 2011: 50). Multi-year full time VET courses specialise on particular occupations: “The range of training provision in schools of this type is extremely diverse. There are full-time vocational schools for, for example, commercial occupations, occupations involving foreign languages, craft occupations, household and caring occupations, healthcare occupations and artistic occupations. Depending on the training goal being pursued, access requirements are either a lower secondary school or intermediate secondary school leaving certificate. These correspond to ISCED Level 2. No occupational experience of any kind is required.” (ReferNet DE, 2011: 51) The range of subjects taught within this multi-faceted system cannot be easily captured, but it is noteworthy that vocational education in Germany is explicitly geared towards more than delivering specialist skills: therefore German, foreign languages – principally English – and subjects from the social sciences, including politics, economics, and history, as well as sports and creative activities are all components of VET teaching.

The ReferNet report cautions that “the various qualifications and the competences in
which these will result have not yet been aligned to the levels of a National Qualifications Framework. The German Qualifications Framework is still under development [...]. A further issue that remains to be clarified is how the outcomes of informal learning can be included.” (ReferNet DE, 2011: 48)

3.3.3. Structures and Oversight

Due to the federalist structure of Germany’s education system, as well as the traditional role of teachers as state employees, the maintenance of colleges, appointment of teachers, and definition of curricula require complex arrangements involving multiple stakeholders and consultation processes. Schools and colleges are frequently maintained at the local communal level, but teachers are employed by the state: “the school-based element of dual vocational training is financed by Land and local authority public funds. The Länder bear the costs of internal school affairs (e.g. supervision of schools, implementing curricula, teacher training, teachers’ pay), and local authorities are responsible for financing external school affairs (e.g. construction, maintenance and renovation of school buildings, ongoing management, procurement of teaching and learning resources)” (ReferNet DE, 2011: 99). ReferNet reports that “during the 2009/2010 school year 22.4% of all vocational schools were private schools, which would not necessarily preclude the possibility that they also receive government assistance [...]. The right to establish private schools is expressly guaranteed by the Grundgesetz and, to some extent, by provisions in the constitutions of the individual Länder. Generally, private schools are subject to state supervision” (ReferNet DE, 2011: 43). Thus the particular aspects of colleges’ operations highlighted in this study fall largely under state regulations. However, the company-based element of apprenticeships is regulated at a federal level, and due to the significant role of apprenticeships, the resulting need to coordinate training efforts between colleges and employers cannot be factored away. Moreover, those full-time courses that offer qualifications in recognised training occupations also have to adhere to the relevant federal statutes.

The position of teachers in VET colleges as state employees is highly significant for this research project, since it allows them a substantial degree of professional autonomy:
“Teachers are subject to the non-profit educational world with a lifelong job guarantee and with salaries not based on achievement considerations.” (ReferNet DE, 2011: 79) Their counterparts in companies, however, “are subject to the industrial world and are vulnerable to economic developments and dismissal. At least one person in the training firm or in the training institution must possess the quality of trainer aptitude [...]” (ReferNet DE, 2011: 79). The autonomy of teachers is underlined by the system of framework curricula (Rahmenlehrpläne) provided by the state. They are the result of consultation processes involving industry bodies, and trade unions. This system traces its origins to reforms in the late 19th century that were intended to strengthen the traditional crafts sectors in the face of rapid industrialisation in order to combat proletarianisation (ReferNet DE, 2011: 37).

Since 1973 the Berufsbildungsgesetz (BBiG; Vocational Education and Training Act; latest reform in 2005) has regulated the responsibility of the Bundesministerium für Bildung und Forschung (BMBF; Federal Ministry of Education and Research) for in-company training, in contrast to the college-based parts of the dual system and full-time VET, which fall under the purview of individual state ministries of education. The BMBF cooperates with the Bundesministerium für Wirtschaft und Technologie (BMWi; Federal Ministry of Economics and Technology) for creating officially recognised training occupations and the respective training regulations. The latter are prepared by the BBiB based on the institute’s research into VET and its involvement in advising education providers and training companies. For the college-based aspects, the Ständige Konferenz der Kultusminister der Länder (KMK; Standing Conference of Ministers for Education and Cultural Affairs) issues the corresponding framework curricula for vocational subjects, while individual state ministries of education formulate the framework curricula for general subjects. According to ReferNet, “The core institution at the national level for consensus building between all parties involved in VET is the Federal Institute for Vocational Education and Training (BIBB). [...] The four-party Main Board (Hauptausschuss) advises the Federal Government on fundamental issues of in-company vocational training” (ReferNet DE, 2011: 42). Individual states maintain committees for VET on which employers, employees, and policy makers are equally represented. In addition, particular ’competent bodies’ such as state chambers of industry and commerce, chambers of crafts, and other professional bodies are integrated into the policy process to monitor and support training, and run the final
examination process for students in recognised training occupations. This also applies to full-time VET students choosing courses that offer such qualifications. To this end, competent bodies maintain VET committees representing employers, employees, and teachers.

3.4. VET in Austria

This section provides an outline of the Austrian VET system based on a recent ReferNet Country Report (ReferNet AT, 2011) authored by the Institut für Bildungsforschung der Wirtschaft (ibw; Institute for Research on Qualifications and Training of the Austrian Economy). In line with the focus of this study, it describes full-time VET provision at colleges for the 16-19 age range, and provides only cursory treatment of post-secondary level VET, tertiary VET, CVET, and apprenticeship training. Whereas the latter is largely similar to Germany, 16-19 VET colleges differ markedly from their counterparts in England and Germany, which is one of the main factors leading to the inclusion of Austria in this study.

3.4.1. System Characteristics

Austria is a constitutional federal republic similar in political structure to Germany. However, with a population of 8.5 million it is about half the size of the state of North-Rhine Westphalia that was the focus of this study in Germany. Nonetheless it is itself divided in nine states (Länder) with partial jurisdiction on educational matters. However, its system is not as fragmented as Germany’s, so that for the purposes of this study, VET in Austria may be seen as homogeneous, since state policies only differ in local emphasis.

Like in Germany, the high educational attainment of the Austrian population is closely linked to VET provision: “Especially in the group of 15-to-24-year-olds in Austria, the employment rate is far above the EU average. This is due to the apprenticeship system.” (ReferNet AT, 2011: 6). This has traditionally resulted in low unemployment levels; at ISCED levels three and four (upper secondary level), Austrian unemployment in 2011 amongst the 15-24 age group was 6.3%, compared to 17.1% for the EU-27, and 3.7% versus 8.4% for 25-49 year olds (ReferNet AT, 2011: 6).
Austrian VET provision starts at the upper secondary level, and extends to ‘post-secondary, non-tertiary VET’ as well as the tertiary education sector. According to ReferNet, about 80% of all students in the upper secondary age range are enrolled in VET programmes, half of which are apprenticeships, and the other half are full-time college based. The overwhelming majority of VET colleges are funded and run by the state, either at federal or local levels. Compulsory schooling in Austria ends at the lower secondary level, but only 8.7% of students never achieve higher qualifications, either due to failing apprenticeships, dropping out of upper secondary level colleges, or not attempting to enrol in such courses in the first place. In the latter case, the final year of compulsory schooling is completed at a Polytechnische Schule (PTS; pre-vocational school) designed to give access to low qualified occupations, or improve prospects for gaining apprenticeship places.

Apprenticeships are organised with a 80/20 split between in-company training, and general as well as vocational schooling at Berufsschulen (vocational schools). The system resembles Germany’s, with responsibilities for the constituent elements split between different ministries. However, unlike in Germany, Berufsschulen are separate from full-time vocational schools. The latter fall into two categories, Berufsbildende Mittlere Schulen (BMS; VET schools) and Berufsbildende Höhere Schulen (BHS, VET colleges). In addition, a small number of subject-specific colleges exist under separate regulations, most notably in the health care sector. BMS and BHS are always institutionally coupled, that is they function as separate branches of institutions (BMHS) that this study calls VET colleges. As a result, resources, budgets, administrative overheads, and most teaching personnel are shared, and curricula for three-year BMS and five-year BHS overlap substantially. All Austrian colleges involved in this study are BMHS. Most notably, as the next section discusses in some detail, BHS offer general university and Fachhochschule (universities of applied science, but sometimes termed polytechnics; see ReferNet AT, 2011: 26) entry qualifications as well as VET diplomas. Since just over 50% of students satisfying university entrance requirements graduate from BHS, and about 55% of BHS graduates take up studies in tertiary education (Statistik Austria, 2012), roughly a third of all domestic Austrian university students come directly from VET colleges.

A smaller element of the Austrian VET sector that is not discussed in this study is termed ‘post-secondary, non-tertiary VET’, consisting of Kollegs and Akademien, add-on
courses, and various school types at the intersection of apprenticeship training and CVET. In the tertiary – higher education – sector, universities of applied science are classified as parts of the VET system in Austria.

The central role of college-based VET in Austria has made it the focus of policy initiatives to safeguard the quality of VET provision, enable new pathways, update curricula and qualifications, and develop a National Qualifications Framework in line with European initiatives. Most significantly, the Qualitätsinitiative Berufsbildung (QIBB; VET Quality Initiative) is an ongoing programme of quality assurance support for VET colleges.

3.4.2. Subjects and Qualifications

This section discusses only BMHS VET colleges, since they are the only school type relevant for this study. Unlike German Berufskollegs, they are separate from schools that provide the classroom part of apprenticeship training, and unlike English FE colleges, they do not traditionally offer continuing VET, adult education, higher education, or non-VET academic courses. However, a significant part of the vocational programmes at BMHS is constituted by general subjects such as foreign languages, mathematics, art, and sport.

All Austrian BMHS comprise two branches, BMS and BHS. The former usually lasts three years, culminating in final exams that allow entry into the labour market for particular occupations, and can serve as a starting point for Aufbaukurse (add-on courses) that allow a progression to Berufsreifeprüfung, which constitutes HE qualifications for particular vocational subjects. The BHS branch typically takes five years, has a stronger theoretical emphasis than BMS, and leads to final exams that allow full, generalised university entry. In addition, many BHS courses confer vocational qualifications equivalent to the successful completion of apprenticeship programmes in their respective occupational fields.

BMHS fall into three broad categories, with some additional exceptions. The main types are Höhere Technische Lehranstalten (HTL; Engineering Colleges), Handelsakademien (HAK, Colleges of Business Administration), and Höhere Lehranstalten für Technische Berufe (HLW; Colleges of Management and Service Industries). All three acronyms are used in several variants within the system (e.g. HTBL for a HTL funded by the Bund, that is,
the federal government), and similar terms are used for institutions within those categories, so that the lack of clear naming conventions makes the system appear more complex than it is.

Within their overall occupational direction, BMHS have been encouraged in the last decade to develop specialisations as part of a policy drive to allow greater school autonomy. This allows them to offer subjects beyond the framework curriculum, which represents a concept similar to its German counterpart. Typically, students at each college can choose from a variety of areas that share a common core in the first two years of study. Overall, there is a 40/60 balance between general education and vocational subjects, with a 90/10 split between school and work placement practical experience. BMS put more emphasis on practical aspects, whereas BHS are more academically oriented. According to ReferNet, “Action-oriented teaching is a basic principle at BMHS; the work at workshops, laboratories, in kitchens, training firms, etc. and mandatory work placements in business constitutes an integrated part of training.” (ReferNet AT, 2011: 35).

Framework curricula for all subjects are regulated by the Bundesministerium für Unterricht, Kunst und Kultur (‘bm:ukk’; Federal Ministry for Education, Arts and Culture), but are sometimes created at the initiative of individual colleges. The ministry runs curriculum committees in which teachers, educational experts, policy makers, and the Sozialpartner (social partners) are represented. The concept of Sozialpartner is similar to Germany and denotes a system of industry and worker representatives that governs large parts of Austrian public life and policy making. With respect to the work of curriculum committees, ReferNet points out that “Current curricula are largely formulated with input-orientation. In the process of developments regarding a National Qualifications Framework, work is ongoing to achieve a more pronounced outcome orientation.” (ReferNet AT, 2011: 35).

All BMHS curricula are designed around similar core principles with respect to ‘entrepreneurial competence’, including foreign languages, IT skills, and business projects (ReferNet AT, 2011). Since at least one foreign language is compulsory throughout the duration of the course, English is the main focus for 94% of students, and over 30% learn another language in addition. About 4% of students take courses in three foreign
languages. Most BMHS offer project work and student exchanges, and in some cases teaching in particular vocational subjects is in languages other than German. On top of the core subjects, BMHS teach vocational subjects according to framework curricula, with significant leeway for individual foci set by colleges and teachers. Moreover, the system of school trials allows colleges to obtain specific permissions to deviate from official curricula, subject matter, examination modalities, and other regulations.

Efforts to create a national qualifications framework (Nationaler Qualifikationsrahmen; NQR) in line with the European credit transfer system ECVET have been under way since 2006, when the Federal Ministry for Education, Arts and Culture and the Federal Ministry of Science and Research set up an inter-ministerial project group, supplemented by a national steering group in 2007. The NQF aims to increase transparency, so it “is therefore envisaged to be of an orienting nature. It is not foreseen to have a regulating effect.” (ReferNet AT, 2011: 15) The main obstacle is that “curricula and training plans, in particular for IVET, meet only partially the requirements for implementing ECVET at present. On the one hand, curricula are not fully defined in terms of learning outcomes. On the other hand, most of them are not divided up into learning outcome units or modules. In addition, there is no credit system either in Austria which would enable the crediting of learning outcomes in the event of a (temporary) transfer from one learning context to another.” (ReferNet AT, 2011: 16)

### 3.4.3. Structures and Oversight

The Austrian VET system builds on a tradition of centralised structures surrounding technical colleges created in the 19th century, and owes the outlines of its modern shape to the 1962 ‘school compromise’ resulting in the Schulorganisationsgesetz (SchOG; School Organisation Act). This law established part-time vocational schools for the dual system, and VET colleges and schools as combined entities, and created the basis for framework curricula that integrate general and vocational elements. Amongst other topics, it enshrined in law the general accessibility and exemption from tuition fees for state schools, as well as prerequisites for admission to particular courses. (ReferNet AT, 2011)

Specific regulations for other parts of the VET system are contained in the
Berufsausbildungsgesetz (Vocational Training Act) under the responsibility of BMWFJ (Bundesministerium für Wirtschaft, Familie und Jugend; Federal Ministry of Economy, Family, and Youth). In similarity with Germany, the dual system is governed by training regulations that define specific accredited training occupations. Since there is no institutional overlap with colleges providing full-time VET, apprenticeship training in Austria is not discussed further. Parts of the regulations are relevant for full-time colleges since they concern students that take occupational qualifications at the end of their studies in addition to Reifeprüfung. Like in Germany, such training regulations are the results of negotiations between multiple stakeholders including chambers of commerce and trade unions.

According to ReferNet, “apart from these two important framework laws, curricula represent major parts of the legal framework. They are regulations issued by bm:ukk on the basis of the SchOG.” (ReferNet AT, 2011: 25) That is, framework curricula have legal status, but allow for interpretation and exceptions in the shape of school trials. Several of the colleges participating in this study run comprehensive trial courses, often comprising a majority of their teaching activities. In most cases, such exceptions are overseen by Land education authorities. According to ReferNet, this results in a somewhat complex structure: “The Austrian school governance system is considered inefficient in an international comparison. The main reason for this view is the complex structure of competence distribution [...] Reform models aim at an increase of school autonomy, at systemic outcome control, and the streamlining of administrative structures” (ReferNet AT, 2011: 14). The current distribution of responsibilities includes the bm:ukk for regulating the general education at VET colleges, but relies on regional education boards (Landesschulräte) for oversight. In addition, specialist colleges in the areas of forestry, agriculture, and healthcare are overseen and partly funded by different ministries, where the salaries for teaching staff are split between local and federal agencies. Moreover, local bodies at Land level frequently, but not always, act as delegates of the federal government in the funding and establishment of new colleges (ReferNet AT, 2011).

Since Austrian teachers are state employees like their German colleagues, decisions for their employment are nominally independent from school management. In practice, employment decisions are taken by the Landesschulrat after consultation with college
leadership. Even in the small number of private colleges, “most of which are run by legally recognised churches and religious communities” (ReferNet AT, 2011: 75) teacher salaries are usually paid by the state. This arrangement results in considerable professional autonomy vis-à-vis college leadership.

3.5. Research Subject Access and Data Gathering

The rationale for choosing to approach this research project through semi-structured interviews with teachers, administrators, and educational experts, is explained in chapter 2. This section outlines how those choices were operationalised in practice. This study comprised two main research phases, namely expert interviews in all three countries as a preparatory step, followed by in-depth interviews with teachers and several college administrators. In addition to gathering background information and improving the design of the main research phase, the expert interviews were a first step to gain access to institutions, administrators, and teachers.

3.5.1. Expert Interviews

Initial contacts with experts on VET existed through previous research undertaken by SKOPE researchers, which included connections to the universities of Paderborn and Bremen in Germany, Vienna and Innsbruck in Austria, and a number of researchers and policy experts in Oxford, Cambridge, Cardiff, and London. Through consultations with those contacts by email a list of candidates for face to face interviews emerged at an early stage. The choice was based on prospective interviewees’ ability to provide broad understandings, general interpretations, and the establishment of further contacts. Following those leads, sampling was purely opportunistic, leading to ten expert interviews (four in the UK, four in Germany, two in Austria). The resultant data enabled the identification of main themes. Together with preliminary considerations regarding the differences between systems and colleges in the three countries, this analysis provided guidance for the creation of draft interview schedules with teachers, school administrators, and further experts and policy makers. Those were subsequently refined during the ongoing interview process at colleges. This process took place repeatedly and in different
forms:

- adding or clarifying questions while preparing for interviewing subjects at a specific location;
- adding themes or modifying questions during interviews in response to specific interview situations;
- re-formulating questions or topics after interviews, based on notes taken during the interview, or based on preliminary impressions from the entirety of previous interviews.

The final versions of the interview schedules are attached in appendix A, and the analysis of expert interviews and the ways they influenced further research are discussed in chapter 4. In addition, the information obtained from expert interviews helped to determine the respective requirements for ethical clearance and local permissions for the main research phase (see 3.5.4).

3.5.2. Main Research Phase

For the main research phase, the interviewees can be pictured within institutional and role dimensions. As discussed in chapter 4, experts suggested particular foci within the institutional dimension, most importantly a restriction to full-time VET education in the 16-19 sector, even if it cannot always be clearly delineated. The spread of research participants attempts to cover a broad range along both the institutional and role dimensions. However, the number and variety of VET institutions even within each sub-sector is substantial. Therefore, no statistically representative sampling – with its associated challenges such as unbiased selection of participants – could be attempted. Heeding the advice that "qualitative samples tend to be purposive, rather than random" (Miles and Huberman, 1994:27), existing contacts with educational experts in the three countries served as starting points for suggestions of colleges that may serve as ‘critical cases’ (Flyvbjerg 2006). Opportunities for further contacts arose from recommendations as research interviews progressed, and subjects were invited to participate in an effort to learn the most from as wide a variety of actors as possible.
The process was moderated by several considerations:

- country (aim to collect appropriate amounts of data with comparable depth in each country);
- role focus (emphasis on practitioners, but also allowing for information-gathering from actors in different roles, e.g. at the policy and organisational levels);
- institutional spread (number of different institutions, possibly of different type, whilst requiring a fit to the criteria set out by the institutional dimension target).

This resulted in 25 interviews at eight Further Education (FE) Colleges in England, 17 interviews at six Austrian Berufsbildende Mittlere und Höhere Schulen (BMHS), and 20 interviews at six German Berufsschulen, Berufskollegs, or Berufsfachschulen, four of which were located in North-Rhine Westphalia, and two in the city state of Bremen. The colleges varied significantly in size, with student numbers ranging roughly from 500 to 15,000. However, it must be noted that especially in the latter case, only a fraction of that number was enrolled in full-time 14-19 vocational training provision. Some colleges were specialized in particular fields, such as glass manufacture, whereas others offered a wide range of vocations, ranging from hair dressing, through business studies, to motorcycle engineering.

Most colleges in the sample offered full-time and part-time courses – including apprenticeships and similar time-release arrangements – that led up to a range of qualifications over different durations. Typically, FE Colleges provided single-year introductory courses (e.g. Level 1 BTEC) on one end of the scale, and university entrance qualifications such as vocational A-levels, New Diplomas, or Level 3 NVQs on the other. Austrian BMHS always included a three year branch (Berufsbildende Mittlere Schule, BMS) that resulted in intermediary vocational qualifications, as well as courses that led to university entry qualifications in the form of BHS-Matura or Berufsreifeprüfung. Similarly, German Berufskollegs offered courses of differing terminology, but generally ranging from single-year Berufsfachschulen that qualified for further training, to Fachabitur, qualifying for universities of applied sciences (Fachhochschulen). The degree to which the
organisation and teaching of different qualifications and levels was separated varies between Colleges depending on their respective subject specialisations and student and staff numbers.

The interviews generated detailed accounts of innovation attempts and teachers’ experiences with the process. Given that interviewees presented ‘critical cases’, the data provided best practice (or occasionally ‘worst practice’) narratives, rather than representative coverage across the whole spectrum of VET. This follows Miles and Huberman’s (1994:28) suggestion that “searching deliberately for confirming and disconfirming cases, extreme or deviant cases, and typical cases serves to increase confidence in conclusions.”

Classroom observation sessions that preceded and informed interviews were based on schools or teachers volunteering or inviting such observations. Since this aimed specifically at a more thorough understanding of the term innovation in school contexts, there was no need for the sampling of schools or classes to be statistically representative or unbiased. Instead, schools or classes with particularly interesting potential to demonstrate innovation in practice volunteered to contribute to the research effort.

3.5.3. Conduct of Interviews

Since this research aimed specifically to identify teachers’ takes on innovation in pedagogic practice, the interpretation of the key terms ‘pedagogy’, ‘teaching and learning practices’, and ‘innovation’ was left to interviewees, and addressed explicitly at the beginning of each interview. This approach significantly highlighted the differences in teaching traditions and socio-cultural influences on the teaching profession in the three countries. With the ultimate goal of identifying how educational reform might be delivered in a way that benefits teaching and learning practices, the interview outlines cast the net wide. Examples of the variety of topics that were addressed are questions of initial and continuing teacher training, institutional surroundings such as incentive structures, quality management regimes, and teaching standards, societal expectations, self-image of teachers, types of students and changes of their respective characteristics, attitudes towards technology, and connections to the professions whose vocational qualifications are being taught.
As teachers in Austria and Germany reported a markedly lower frequency and lesser extent of external changes influencing their classroom practice than their English colleagues, it was not possible to strictly focus on educational reform or curricular changes. Instead, the emphasis was on a bottom-up view from a systems perspective, that is, to discover first what teachers perceive to be innovation in pedagogic practice, and then to explore the environment in which instances of innovation took place, or failed, and investigate the reasons.

Many interviewees taught several different subjects or even different vocational areas, as well as being involved in administrative, managerial or extra-curricular tasks. However, the researcher had little control over the vocational subject spread as reflected by interview partner choice, since in most cases interviews could only be conducted with teachers who had volunteered, had the time, or were deemed by their college administrators to be particularly suited. It is logically and intuitively obvious that these teachers do not necessarily represent typical VET teachers, much as the colleges that were interested in research participation must also be assumed to have a comparatively high level of confidence in their quality and innovative characteristics. Section 2.3 explains why this constitutes a strength rather than a weakness of this study. The view that the questions addressed by this study are suited to this particular sub-set of teachers was supported by many interviewees’ own statements to the effect that disinterested or disengaged colleagues would always blame monetary constraints for the lack of innovation, while those with an innovative mindset may offer more differentiated and complex interpretations of relevant factors.

The interviews were conducted in a loosely structured fashion, following the interview schedule to make sure that all questions were explicitly covered, but not always in a particular order. Overall it seemed that under assurances of anonymity, teachers were willing to reflect critically about both their college management and their own practices. At times, interviews turned into intense exchanges, as teachers asked for examples, or were interested in the researcher’s interpretations. The researcher usually responded to such requests if time permitted, since this study regards interviewees not simply as providers of raw data, but instead extensions of an interpretative research instrument. Therefore the interpretations and views that were elicited by more complex interactions
were welcome additions to the data set.

In several cases the different roles of interviewees could not be clearly delineated. Many teachers were also leading their respective college’s quality assurance initiative, or acted as staff-management liaison. In such cases questions from different interview schedules were adapted to suit the situation. Occasionally interviewees were asked to specify which experience or role led to particular views or statements. Such interpretations are ultimately subjective, but helped the analysis in highlighting possible distinctions between those teachers that see themselves entirely in a teaching role, and those that are stakeholders in different contexts. At several colleges, for example, the administrative level was represented in interviews by the college principal, who would in some cases – particularly at smaller colleges – also be active as a teacher.

Immediately before most interviews the researcher observed the respective teacher in a classroom session. In almost all cases it seemed that, in keeping with a prior request, no particular effort or preparation had been undertaken to modify the session in response to this presence. Therefore classes varied in informational content and usefulness for this research. Exam preparation, for example, frequently consisted of group work and discussions of problem sheets, with little subject-specific didactics taking place. However, the observations still served the dual purpose of giving a natural context to subsequent interviews, and getting an overall impression of the types of students involved, and of the atmosphere of classroom interactions with different teachers at different institutions.

3.5.4. Ethical Clearance

Ethical clearance under the University of Oxford’s Central University Research Ethics Committee (CUREC) was obtained to cover all stages of this research project. The process was guided by check-lists provided by the Interdisciplinary Research Ethics Committee (IDREC) for the university’s Social Sciences Division, and achieved completion for each phase before research interviews commenced. For this, the researcher received support from experts at Oxford University with considerable experience in research ethics issues. The documentation for ethics clearance went through several iterations with minor revisions and included the provision of initial interview schedules, participant information
letters, and participant consent forms. Consequently, interview participants were informed in advance of the project aims and data gathering modalities, and of the fact that data would be anonymised unless explicitly agreed otherwise, accessed and processed only by the researcher, and stored in encrypted formats. Moreover, it was pointed out in writing that participants could withdraw from the research at any point. Throughout the course of this research project, none of the participants raised any additional questions after the interview, or withdrew consent at any stage. Ethical clearance for classroom observation was obtained in the same process since it did not involve direct interaction with students, and was not recorded by audio or video devices. In addition, local permissions were obtained as required at different levels from school authorities and college management. In most cases, this consent was implicit, since school management, who were the first point of contact, recommended particular teachers as research participants. At no stage did any individuals refuse participation for any reason other than scheduling or organisational problems.

3.5.5. Interviewee Overview

The following is a brief overview of interviewees and colleges, including the expert interviews conducted in the initial round.
Overview of Interviewees

England

Experts
- EE1: Senior Policy Manager at LSC/YPLA
- EE2: Former high ranking official and QCDA/QCA, now CEO of a major educational body in England
- EE3: Researcher and manager specialising on assessment at an organisation running major exam boards
- EE4: High ranking official of LSIS and former FE college leader

Colleges

<table>
<thead>
<tr>
<th>Code</th>
<th>Type (selection of qualif’s.)</th>
<th>Students</th>
<th>Interviewees</th>
</tr>
</thead>
</table>
| E1   | FE college, offering levels E, 1-6 qualifications; BTEC, A/AS levels, Cache, 14-19 Diploma, NVQ, AAT, ABC, C&G, VTCT, Foundation Degrees, PGCE, CertEd | 5,500 FT 3,000 PT (est.) | • Focus Group of ten teachers at a CPD event  
  • Group of two: Literacy & Numeracy teacher and Subject Learning Coach; Child Care teacher  
  • Head of Computing, former IT teacher, now manages IT curriculum |
| E2   | FE college, offering level 2 and 3 diplomas; BTEC, NVQ, C&G, ILEX, CACHE, EAL, A/AS levels, National Certificate, etc. | 3,800 FT 3,700 PT | • Sports teacher, programme leader for BTEC  
  • Division leader “Learning, Assistance and Resources”, former Geography & Geology teacher  
  • Head of School of Business, teaches Business  
  • E-Learning Manager, former teacher in Management and Marketing  
  • Hairdressing & Beauty teacher |
| E3   | FE college, offering levels E, 1-6 qualifications; CACHE, 14-19 Diploma, Apprenticeships, A/AS/A2-level, Access to HE, Foundation Degrees, HNC, HND | 2,000 FT 3,600 PT | • Access to HE teacher  
  • Study support & Dyslexia specialist  
  • Biological Science teacher |
| E4   | FE college, offering levels E, 1-6 qualifications; BTEC, A/AS levels | 4,500 FT 6,500 PT | • Hair & Beauty teacher  
  • Healthcare teacher, Internal Verifier for Quality Management |
| E5   | FE college, offering levels 1, 2 and 3 qualifications; BTEC, NVQ, ESOL, GCSE, A/AS levels | 1,200 FT 1,200 PT | • College Principal  
  • Head of Faculty for Science, Social Science, Health, and Social care; also teaches in this area  
  • Society Health and Development teacher |
| E6   | FE college, offering levels E, 1-6 qualifications; C&G, BTEC, 14-19 Diplomas, NVQ, PEO, CSkills, ILEX, OCR, VRQ, A/AS/A2-levels, AAT, Access to HE, Foundation Degrees, HNC, CertEd, Pre-Masters and Masters | 5,300 FT 25,200 PT | • Restaurant manager trainer and tutor; hospitality teacher  
  • Programme Coordinator; Complimentary Therapy teacher  
  • Technical Trainer on motorcycle course |
| E7   | FE college, offering levels E, 1-6 qualifications; BTEC, CAA, C&G, 14-19 Diplomas, ABC, Apprenticeship Diploma, CACHE, NVQ, A/AS-levels, Access to HE, Foundation Degrees, HNC, HND | 8,900 FT 22,000 PT | • Deputy Head of Faculty of Food, Hospitality, Leisure, Tourism, and Aviation; teaches hospitality  
  • Head of Faculty of Food, Hospitality, Leisure, Tourism, and Aviation; formerly taught catering and hospitality  
  • Group of three in Catering and Hospitality |
| E8   | FE college, offering levels E, 1-6 qualifications; BTEC, A/AS/A2 levels, 14-19 Diplomas, NVQ, DipHE, Foundation Degrees, HND, HNC | 4,400 FT 9,200 PT ca. 9,000 online | • Curriculum leader and teacher in hairdressing  
  • Teacher in Health and Social Care, and Early Years / Nursing  
  • Quality Improvement and Workforce Development Manager; Hotel Management teacher |

Table 1 - English research participants
Germany

Experts

• GE1: Senior Research Fellow at ITB (Institut Technik und Bildung / Institute for Technology and Education) of Bremen University
• GE2: High ranking policy maker and instructor at ZfsL Paderborn (Zentrum für schulpraktische Lehrerausbildung), a state-run teacher training organisation in North-Rhine Westphalia
• GE3: Professor of Pedagogy at Paderborn university, specialising in VET, CPD, and new pedagogic approaches
• GE4-1 and GE4-2: Bremen ‘Senat für Bildung’ (local government/state senate for education): two interviewees:
  ◦ official responsible for all VET in commercial-technological and IT professions, and supervisor of three local colleges
  ◦ teacher at a technical college, seconded to the senate for education in a consulting/supporting role

Colleges

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Students</th>
<th>Interviewees</th>
</tr>
</thead>
</table>
| G1   | Berufskolleg specialising in glass and ceramic technologies, and new media; courses between one and four years, including general university qualifications (Abitur) | 690 FT+PT | • Ceramic technologies teacher
• Graphical design and sports teacher
• German teacher, formerly also taught glass technologies |
| G2   | Berufskolleg specialising in Electrical engineering, Business, Metallurgy, IT, and automotive technologies; courses between one and four years, including Abitur. | 2,000 FT+PT | • German and Spanish teacher
• German and English teacher
• Automotive engineering teacher
• General engineering and automotive engineering teacher |
| G3   | Berufskolleg specialising in Nutrition and Health, Social Care, and Wood and Metal Technologies; dual system, one year FT, qualifications for technical HE; general HE qualifications in one course | 2,200 FT+PT | • Vice Principal, teaches sports and IT
• Wood technologies and politics teacher
• Subject coordinator for bricklayers and builders; teaches construction engineering, politics, and economics
• Electrical engineering and mathematics teacher |
| G4   | Berufskolleg specialising in Health and Nutrition, and Social Care; one to four year courses, including Abitur | 1,000 FT+PT | • German, mathematics, and health management teacher; coordinator for Social Care courses
• English and educational studies teacher
• Mathematics, physics, and IT teacher |
| G5   | Berufskolleg specialising in food technologies; one to four year courses; including Abitur, also non-VET branch | 2,100 FT+PT | • Division leader for full-time VET courses; taught economics, business, politics; now teaches IT and work organisation
• Principal; teaches quality management
• Mathematics, IT and English teacher |
| G6   | Berufskolleg specialising in automotive technologies, electrical engineering, and metal technologies; focus on dual system; including Abitur | 500 FT 2000 PT | • Division leader for dual system and vice principal; teaches electrical engineering and politics
• Chemistry, metallurgy, and materials science teacher; teaches at separate location (blended e-learning) in adult education; responsible for quality evaluations
• Politics and metal technologies teacher |

Table 2 - German research participants
4. Analysis of Expert Interviews and Lessons Learned

This chapter describes how the initial round of expert interviews shaped decisions pertaining to the research focus and design, and how its analysis provided information on the relevant aspects of investigation for the main study.

The initial round of one-hour-long semi-structured expert interviews in England, Germany, and Austria was arranged in order to understand specifics about each country’s VET system, and to enable more accurate decisions for the main research phase. Their analysis helped evaluate findings from prior research, and provided a first opportunity to fine-tune the comparative analytic approach. In addition, the expert interviews determined
the focus for further investigation, and facilitated the creation of draft interview schedules for teachers, school administrators, and further experts and policy makers.

The expert interviews were based on a preliminary interview schedule drawn up for the study's main interview phase. However, their design emphasised interactivity and spontaneity in order to achieve maximum topical coverage, and to increase the chances for the serendipitous discovery of topics or points of view that may not at first have been considered. This refinement took place repeatedly and in different forms:

- adding or clarifying questions during interview preparation;
- adding themes or modifying questions during interviews in response to specific interview situations;
- re-formulating questions or topics after interviews, based on notes taken during the interview, or based on preliminary impressions from the entirety of previous interviews.

The Austrian interviewees for this phase of research were an expert at the Austrian Federal Ministry for Education, Arts and Culture (Bundesministerium für Unterricht, Kunst und Kultur, bm:ukk) working on coordinating innovation initiatives in the VET sector, and an expert from ARQA-VET, the Austrian Reference Point for Quality Assurance in Vocational Education and Training. In England, they were a senior expert from the then newly formed YPLA (Young People's Learning Agency, responsible for funding and coordinating all 16-19 learning), the former head of an FE college now working for LSIS (Learning and Skills Improvement Service), an experienced researcher and government advisor in the field of assessment and development who had previously been at a senior role at the QCA (Qualifications and Curriculum Authority), and a former executive of QCDA who then went to a senior management position at a major body at the interface of secondary and higher education. In Germany, interviewees included VET experts at two university institutes focused on researching VET; one in Bremen, for industrial training contexts, and one in Paderborn that specialises on VET in white-collar vocations.

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8 Later QCDA: Qualifications and Curriculum Development Agency; legislation to abolish the QCDA in autumn 2010 was announced by the coalition government in May 2010.
addition, an instructor and administrator of teacher training for VET colleges (*Berufskolleg*) in North-Rhine Westphalia provided a link to practitioners’ experiences. This stage did not yet include teachers, since it focused on the institutional landscape, history, systemic considerations, and innovation cultures. However, several interviewed experts had detailed personal knowledge and significant experience working in VET.

The three countries in this study show markedly different approaches to the provision of education for the age group over 14. The following table is not an exhaustive description – education systems are in each case more complex – but it illuminates important distinctions that were discussed in expert interviews. In particular, it underlines differences in the role of the state and teachers’ professional autonomy.
<table>
<thead>
<tr>
<th>Austria</th>
<th>England</th>
<th>Germany</th>
</tr>
</thead>
</table>
| 14-19 or 16-19 | • state runs and funds education institutions  
• anticipation of demand/needs implicit  
• state defines curriculum, qualifications, and criteria for assessment (for training part in VET in cooperation with industry and trade organisations)  
• state supports training places in dual system  
• dominance of full-time VET colleges | • state runs some education institutions  
• largely non-state providers commissioned from providers by state (local authorities), based on criteria and according to identified needs  
• national curriculum for schools, but multiplicity of other qualifications exist, often offered simultaneously (e.g. A-levels and BTEC)  
• programmes to support specific types of learners and initiatives  
• state support for in-company training places | • state runs and funds most education institutions, but responsibility is at Länder level with 16 potentially different education systems.  
• curricula are defined by social partners involving frameworks at the federal level, and detailed curricula at Länder level.  
• dual-system training places funded by industry; assessment by industry bodies on voluntary basis  
• dominance of dual system |
| >19 | • VET in HE sector effectively state-funded but provided by autonomous entities (universities, Fachhochschulen)  
• all other VET with little state regulation; providers private or through industry bodies and trade unions  
• state agency largest commissioning body (AMS: unemployment agency)  
• some state support for individual learners and programmes | • VET in HE offered by independent bodies (FE colleges, universities), but effectively largely state funded  
• other VET with little state regulation; providers private  
• state supported continuing VET or adult education programmes | • VET in HE largely state-funded, but with university and Fachhochschulen autonomy  
• all other VET with little state regulation; providers private or through industry bodies and trade unions  
• state support for training and continuing VET initiatives |

Table 4 - Overview of relevant VET system differences

Each country has different age ranges for initial VET: in Austria, compulsory schooling starts at the age of six, lasts nine years, and its final year typically ends at age 15. VET colleges start in the last year of compulsory full time schooling, i.e. at 14, and take up to five years, meaning that Austrian VET encompasses roughly the 14-19 age bracket. The UK ‘entitlements’ agenda seems similar, but does not match the 16-19 age range of the National Commissioning Framework. The latter starts at the end of compulsory schooling (i.e. GCSEs) at the end of year 11, that is, at the age of 16. German initial VET typically starts after the end of compulsory full-time schooling, which differs across Länder, but falls within the 15-16 age range, and lasts for at least three years.9

9 The German system is dependent on different Länder policies, so this depiction is a rough guide.
Considering this background of different systems, traditions, and cultures, the preliminary analysis of interview results suggested several categories for comparison:

- system parameters: e.g. structures, school types, assessment, qualifications;
- innovation strategies, mentality, and culture;
- the use of scientific research into pedagogies in teacher training and pedagogic practice;
- VET participation and societal attitudes towards VET qualifications.

All four thematic areas were relevant for informing the more concrete aims of the subsequent study. They are explained in detail in the following sections.

4.1. VET System Parameters

Since the comparative motivation for this research project was partly based on an awareness of significant systemic differences, expert interviews were required as an opportunity to discover which aspects might have the greatest relevance for pedagogic innovation at the classroom level. However, more generally, they helped structure a preliminary understanding of what constitutes the three VET systems, and how their recent history has shaped both experts’ and practitioners’ perceptions.

Several English experts highlighted the disparity between the central role of FE colleges in the country’s education system, and the limited public and political awareness of that fact. Besides forming the core of the VET sector, FE colleges overlap significantly with the non-VET school system, teaching more A-level students than school sixth forms, as well as around 200,000 higher education students.\(^{10}\) All interview partners pointed out that the sector and its educational establishments are extremely diverse, and the variety encountered at FE colleges is so great that there are few common characteristics. On the funding side, the situation is similarly complex. One interviewee in England drew attention to an FE college that has over 50 different funding streams.

In addition, the complexity of the VET landscape in England is increased by repeated

\(^{10}\) According to an interviewee about one third are HEFCE funded, one third franchised by universities, and the remainder funded by employers or NHS (e.g. nursing).
reforms within short time periods, which all of the experts interviewed saw in a critical light. For instance, one interviewee working for the YPLA at the time of this research, expressed his conviction that the agency presented a well-designed long-term solution to resolve ongoing debates about funding structures, arguing that too many changes had taken place in that area in the recent decade. It is symptomatic of the pace of change in the English system that the YPLA has already been abolished again, to be replaced by the Education Funding Agency (EFA).

Experts frequently noted the efforts of policy makers to allow more freedom to FE colleges, whilst simultaneously pushing standardisation and comparability. For example, most parts of the system are not under direct state control, and there are no binding national curricula, although there have been several initiatives (most recently ‘14-19 diplomas’) for VET to create a set of qualifications that would play a role similar to the ‘gold standard’ of GCE A-Levels. This leaves education providers with a high degree of flexibility in terms of courses, qualifications, and alternate funding streams. On the downside, some experts saw this competitive environment as detrimental to the educational responsibilities of colleges. They feared that the complexities of funding contribute to administrative overheads and a loss of focus.

It is interesting to note that English interviewees were not in agreement on the ‘original’ or true intentions behind several initiatives; 14-19 diplomas, for example, were recommended in the Tomlinson report (Working Group on 14-19 Reform, 2004) as universal qualifications that would obsolete A-levels, amongst others. Subsequently, however, diplomas came to be seen as ‘middle track’ applied qualifications, and experts criticised both their academic drift away from vocational applications, and their lack of academic quality to successfully rival A-levels.

German experts expressed an awareness of a history of educational comparisons between their country and England, and highlighted how different education system traditions related to the perceived strengths of German VET. Although there are generally no subsidies or tax breaks for companies that provide training, the traditional apprenticeship system – which includes the organisation of assessment on a voluntary basis not funded by the state – takes in around 570,000 young people each year (BMBF,
Interviewees gave several reasons for this structure and referred to frequent perceptions of a crisis due to a shortage of training places. However, they generally held the personal view that the system functioned reasonably well. In particular, they highlighted the advantages of access to well-trained professionals, and what they identified as German industrial culture, for example industrial capitalism in contrast to English finance capitalism. Several experts cited findings that trainees in their second year were found to provide as much as 40% of a qualified worker’s labour output.

The German system was described as facing problems at both ends: there are growing numbers of young people who do not find labour market placements, and on the other hand, better qualified candidates increasingly opt for Bachelor’s degrees. These are provided at universities and Fachhochschulen and may in some cases be directly geared towards the labour market, but are not usually considered to be vocational education (berufsbezogene Ausbildung). To address these developments on the lower end, a growing ‘transition sector’ (Übergangssystem) of full-time VET schools (Berufsfachschulen) has been established.

In Austria, interviewees drew particular attention to the transition to a more strongly centralised assessment regime (Zentralmatura) that is widely expected to change the relation between teachers and students into a more cooperative learning environment. They also pointed out quality management initiatives, most notably QIBB which in recent years has been rolled out for all Austrian VET colleges, as a factor potentially influencing teachers’ ability to innovate pedagogically. Both experts noted ongoing efforts by colleges to develop individual specialities and characteristics through a process called Profilbildung (profile development), and suggested that this may lead to increased innovation attempts by college leaders.

This study’s expert interviewees indicated that speaking of three countries’ VET sectors as a homogeneous, clearly delineated entities is problematic, despite many parallels. The Austrian ministry of education sees Berufsbildung as basically initial VET and speaks of 14-19 provision, leaving out vocational training in higher education contexts and adult education. Superficially similar, the UK government pursues a ‘14-19 entitlements’ agenda, and delivers part of it within the 16-19 commissioning framework.
However, any provision above that age (with exceptions) does not fall within the remit of the DfE.\textsuperscript{11} Germany adds to the complexity by having subtly different arrangements in its Länder, and generally distinguishes between a highly regulated segment of initial VET that includes many students who have completed compulsory schooling and start VET effectively as adults, and little to no state provision for continuing VET.

\textbf{4.2. Innovation Strategies, Mentality, and Culture}

Perhaps as a result of their long-standing sector experience, several expert interviewees speculated about the cultural differences and attitudes towards innovation in different countries. They generally remarked that the issue of pedagogic innovation must not be seen in isolation from its wider context and institutional or organisational traditions.

Experts characterised changes in the English education system as a reflection of what they identified as an English approach to innovation (often termed in its ‘non-germanic’ properties): total system changes are attempted at structural and regulatory levels, while essentially the same actors remain out of necessity, which hampers real change, and amounts to re-labelling exercises. Moreover the classroom impact of reforms is hard to assess since there are no state mandated curricula or assessments. However, there exists a direct link between state and providers via funding, so central directives trickle down through a web of formal and informal agencies and quangos as recommendations, guidelines, quality assessment regimes, and funding decisions. Some interviewees pointed out that the overall climate of change and experimentation has led to the successful adoption of programmes such as ‘e2e’ (entry to employment),\textsuperscript{12} and colleges that appear willing to attempt both new qualification programmes (e.g. diplomas) and radically new pedagogies (one interview partner explained the concept of ‘5-minute-lessons’). It was argued that the flexibility inherent in offering several different learning streams at large colleges (e.g. BTEC alongside A-levels) has led to a culture of communication and teamwork at English FE colleges that is increasingly being supported by more formal

\textsuperscript{11} Department for Education, renamed from Department for Children, Schools and Families (DCSF) by the coalition government.
\textsuperscript{12} The success of e2e led to the formulation of a follow-up initiative termed ‘foundation learning’.
procedures of quality control and documentation. However, experts also cautioned that teachers already feel stifled by reporting and other non-teaching requirements. The most significant current system change – the move of funding decisions from the Learning and Skills Council to local authorities in cooperation with the YPLA, and later EFA – was expected to change priorities within the provisioning process for 16-19 VET, which may ultimately stimulate pedagogic innovation with learning providers.

German experts drew attention to Modellversuchsforshung (pilot project research), an approach that for over 30 years generated around 1400 experimental initiatives at schools and colleges, accompanied by scientific evaluation. However, the programme was abolished by policy makers in 2007, according to experts due to perceptions that pilot projects failed to take root. Projects at Länder level continue to take the German approach of empirically assessing changes in the education system. However, experts agreed that there has been no notable institutional change in recent decades, and only one significant, system wide curricular transformation, the Lernfeldkonzept (learning areas) initiated in the 1990s. Changes were described as gradual, and were effected through existing institutions, based on consensus driven policies with significant industry and union involvement. Innovation on a system level was usually understood as the creation of new vocations, or curricular changes to existing ones. Recent years have seen a widening portfolio for the Übergangssystem (transition sector, often remedial) for learners that fail to obtain dual system placements, and experts indicated that they expected significant pedagogic innovation to take place in that area, both in terms of catering for learners that are considered at risk of dropping out of the system, and by attempts to replicate some of the practice-based qualities of the dual system.

Austria was characterised by experts as a cautious innovator at the system level, as interviewees pointed out that there was no history of across-the-board changes in its education system, with the exception of the then-revolutionary step of forming full-time VET schools in the 1970s. Both interviewees explained that Austria’s tendency for incremental rather than revolutionary improvements on the systemic level may reflect complacency in its pedagogic traditions: there has hitherto been little directed innovation, resulting in a marked gap between pedagogic literature and practice. According to them, this appears to be changing in wake of recent regulatory changes that bring project-based
and practice-related assessment in VET to the forefront. However, what one of the interviewees called 'real innovation', for example breaking up subject boundaries or even discussing approaches such as the German learning areas, has not yet taken place. This study’s experts agreed that significant change was often stifled by Austria’s tradition of coalition governments and strong social partner involvement. While they contended that innovation would grow at a local level due to developments like assessment change (e.g. Zentralmatura), a widening of competency-driven learning (Regelstandards in Austria, similar to German Bildungsstandards), and supported bottom-up initiatives such as COOL (cooperative open learning), they feared that the spread of pedagogic innovations would not gain much traction on a systemic level. In their opinion this is largely due to the lack of evaluation and institutional structures to collect and disseminate new pedagogies.

4.3. Use of Scientific Basis in Pedagogic Practice

Interviewees in all three countries noted that there was a gap between pedagogic practice and relevant research. In each case they attributed a significant part of this effect to shortcomings in teacher training. In Austria for example there is no tradition amongst VET teachers of a reflective scientific approach to the field. Austrian interviewees noted an increased focus on pedagogic practice as an element of teacher training at Austrian universities, but VET is staffed to a significant extent by experienced practitioners whose formal pedagogical training is a lesser priority, and who rarely introduced to formalised thinking about teaching practices. In each country, in-company VET trainers are not usually from academic backgrounds, and thus may see their focus in implementing innovation purely in terms of vocational practice or new subject matter. A very similar picture emerged in England, where teaching qualifications are a relatively recent requirement. The German situation was described as somewhat different, with a much more pronounced tradition of pedagogic research in VET, strong pilot project research (Modellversuchsfororschung) until recently, and a marked interest in subject specific didactics. However, the interviewees cautioned that these are generalisations, and the overall relation between theoretical pedagogy and teaching and learning practices in all three countries

13 In Austria spelled "cooperatives offenes Lernen", apparently deliberately using an outdated spelling of the adjective "kooperativ".
was quite diverse.

England’s VET system was reported to feature a growing culture of cooperation not only between teachers, but between institutions of varying types. This continues to change the outlook teachers have on their role, and their willingness to adopt new practices and research findings into their teaching strategies. Some VET qualifications pose new challenges for structuring learning experiences: both diplomas and BTECs were given as examples of qualifications that required teams of teachers to reflect deeply on their practice. English experts in this study were enthusiastic about a number of education institutions that they described as very innovative. This indicates that successful innovation does seem to be communicated and noticed to some extent, although the dissemination of good practice was still seen as a limiting factor. Austrian experts hoped that several centrally-steered attempts to influence pedagogic practice via structural and curricular aspects in recent years would enliven interest in changed pedagogies amongst school administrators and teachers. Increased school autonomy and European cooperation efforts were expected to accelerate the rate of change. In Germany, both initial and continuing VET teacher training has become more strongly interwoven with academic research. Moreover, the German concept of the vocation in the dual system places an emphasis on reflective practitioners engaged in training on-the-job learners in a way that was described by one interviewee as

“deeply linked to the idea of thinking about what one is doing; they may not call it innovation, but it is self-motivated, problem-driven, reflexive, and creative” (GE1).

Several – but not all – experts suspected financial constraints – ultimately translating into time constraints – as factors that hindered practitioners’ attempts to pick up academic pedagogy and learning theories. Others hypothesized that the problem should more properly be addressed by school leadership, in active attempts to confront teachers with new findings, or by challenging them to try different strategies. Interestingly, both the assertions that teachers in VET either come from a purely academic background, or that they have no academic background at all, were cited as reasons for a lack of innovative pedagogies in VET. In the first case they were seen to have little personal relation to
learners and the particularities of VET – expressed by one interviewee as

“VET is for other people’s children” (EE4)

and in the latter case they were well-practiced vocational professionals, lacking the academic framework for conceptual pedagogic thinking. It was part of this study’s main analytical phase to determine to what extent such a framework was a prerequisite for innovative practice, or whether – as the quote in the preceding paragraph suggests – such practice could arise independent from its theoretical research base.

4.4. Participation and Societal Attitudes Towards VET Qualifications

Experts interviewed for this study stressed that understanding learners in VET was crucial for putting pedagogic practice into context. The different demographics of initial VET in the three countries result in a variation of policy aims and different scopes for change. In each case VET encompasses a very large proportion of young learners and spans a wide range of activities, even setting aside vocational training in higher education, such as practical engineering courses or particular medical degrees.

In England, with its diverse 16-19 education system and unclear delineation of VET, FE colleges carry out multiple tasks, and teaching staff may be involved in both VET and academic streams. However, according to interviewees, purely academic sixth form colleges or school sixth forms leading to A-levels or similar qualifications are still afforded the highest social prestige. ‘Parity of esteem’, a repeated aim of English VET qualifications reforms (for example with the introduction of GNVQs),

14 has not been achieved. Interviewees reported that there existed significant regional variations in the social prestige of vocational training, especially apprenticeships. Whereas gaining an apprenticeship has always been an achievement in the north-east of the country, the south-east has no such tradition. This was hypothesized to be the result of underlying economic issues, different employment structures and traditions, and different regional industrial patterns. Similarly, social class differences mean that a large majority of policy makers, decision makers, administrators and teachers have never experienced VET themselves.

14 General National Vocational Qualifications; phased out in 2007
This situation is markedly different from Germany, where dual-system apprenticeships continue to be the norm for initial VET, even including learners who have already achieved Abitur, i.e. university entry qualifications. According to interviewees, the system has not yet acknowledged that the social status of some training vocations is falling relative to others. Theoretically all vocational qualifications from the dual system are equivalent, which differs increasingly from how they are perceived by society. Experts noted that social stratification still persisted in the choice of vocations, and in reality entry requirements for apprenticeships in different occupations were very diverse. In recent decades there have been increasing numbers of learners who do not find apprenticeship places in the open market due to demographic factors, German re-unification and the eastern region’s associated dissolution of industry, and economic cycles. In response, Berufsfachschulen are on the rise, offering full-time vocational courses. However, experts pointed out that their students were frequently socially at-risk, and the emergence of these schools was considered symptomatic of increasing dysfunctions in the dual system. One interviewee stated that

"the system nowadays does not nearly exhibit the same socially integrative function that it did in the 1970s" (GE3).

Austrian experts noted the pervasive nature of Austrian VET and its relatively high social status. VET covers around 80% of 16-19 learners, of which half are in the dual system, and half in full-time school-based VET. Of the latter, a growing proportion opt for a five year option at a higher vocational school (BHS), leading many to university entry. Nevertheless, interviewees explained that subject focus, assessment, and mentality at BHS differed noticeably from those at purely academic (i.e. non-VET) schools (Allgemeinbildende Höhere Schule – AHS). They knew of little formalised research in this area, and expected that practitioner interviews would prove fruitful in exploring the self-perceptions of teachers in Austrian VET. According to them, strong social stratification in Austria still makes for rigid paths through the education system: students from non-academic backgrounds rarely pursue academic schooling and are seldom found in the five-year stream at BHS that opens up options for university entry. Thus the social divide largely runs within VET, not between academic schools and VET. There are some
opportunities for dual-system learners to proceed to university entry exams (e.g. ‘Lehre mit Matura’), but the uptake and support of such programmes is still very low, according to interviewees.

4.5. Research Focus Decisions Based on Expert Interviews

Several decisions for the main part of this study were influenced by the results of the expert interview phase. In particular, the analysis highlighted opportunities for identifying similar sub-sectors of each country’s VET systems in order to meet the requirements of comparative and contrasting approaches. Focusing on the classroom-based elements of initial VET enabled a comparison of similar age groups, while still allowing for institutional diversity. Schools and colleges for this age range experienced noteworthy changes in all three countries in recent years, which added to the opportunity for investigating the internal mechanisms of pedagogic innovation. For example, the expert interviews drew attention to the interdependence of VET and other parts of education systems, most notably higher education. The HE sectors of all European countries are subject to changes in conjunction with Europeanisation (e.g. the Bologna process), widening participation agendas, and changes in state involvement. This has significant effects on VET, since smooth transitions into some form of HE are increasingly expected, and liberalised institutional arrangements enable new modes of interlinking VET and HE institutions.

Such thematic choices do not reflect all that is interesting in the respective countries’ VET systems. The transition from pedagogic academies to higher education Pädagogische Hochschulen for teacher training in Austria, for example, is a highly relevant recent development, both because it concerns teacher training, and because it is in itself vocational training. However, interview partners suggested that the transition was politically contested and organisationally heavily criticised, which could prove fatal to research. Similarly, the change in provisioning in England alters the arena of operations for FE colleges, and may therefore change innovative practice. However, the reforms are so recent that their effects fall outside the time frame for this study. In Germany, pressures on the dual system are highly relevant, but its education and training is fundamentally
different from exclusively school-based contexts in Austria and England, so that the choice for comparison falls on the elements of German VET that represent a full-time schooling approach.

4.6. Results Influencing Data Gathering in the Main Research Phase

The analysis of expert interviews enabled discoveries that facilitated designs for data gathering and analysis in the project’s main research phase. They are summarised in this section, in conjunction with topics that may be of interest for further research. The data indicates clusters of commonalities between different VET systems that provide frames of reference for comparison:

- Invariably, VET is a complex sector, featuring both a variety of college types, and colleges with highly specific profiles. Increasingly, VET institutions branch out into other sectors such as higher education, and academic 16-19 provision.

- There is no clear delineation of the VET sector in any of the three countries. While the German and Austrian demarcation runs along institution types (academic vs. VET) and age (post-19 vocational education and training is often not recognised as VET proper), the English system splits by qualifications (e.g. A-levels vs. diplomas).

- As far as a VET sector can be seen as distinct from the academic school sector, it constitutes a very significant part of 16-19 education by any measure.

- Public perceptions of VET are limited or skewed, both in terms of the quality and pervasiveness of the system. VET policy is often pursued by people with little first-hand experience in the sector, and is therefore frequently dominated by academic preconceptions.

- In each case experts reported a gap between the proclaimed importance of innovation, and its lack of emphasis in teacher training.
Overall, experts identified several topics of interest that may lead to innovation in teaching and learning practices. The list does not reflect an enumeration of all possible influences on new pedagogies, but represents a summary of the factors mentioned in interviews. They include:

- the strengthening of school management and autonomy (recent in Austria and Germany, on-going in England);
- quality assurance initiatives (a double edged sword, often placing an extra burden on teachers, but also stimulating the exploration of new avenues);
- the development of pilot initiatives at schools (bottom-up approaches to innovation; cooperation between schools or different types of institutions such as FE colleges and academies, changes resulting from halting pilot project research at a federal level in Germany);
- top-down curricular or assessment change ('Reife- und Diplomprüfung' as Matura and changes in conjunction with Zentralmatura in Austria; Diplomas in England; creation of new recognised training occupations in Germany, or changes to existing ones);
- the move of vocational training into the higher education sector (Pädagogische Hochschulen in Austria, HE at FE colleges in England, Bachelor degrees crowding out the high end of dual system education in Germany).

Several of those findings revolve around the lack of clear definitions, understandings, and delineations. In response, the interview schedules for the main research phase were designed to include questions that elucidate teachers’ own understandings of relevant definitions. This includes conceptions of terms such as ‘pedagogy’ and ‘innovation’, since there appeared to be different relevant traditions: experts in Austria and England frequently addressed innovative approaches in structures, initiatives, and pathways. Pedagogic practice was not at the forefront of their attention. By contrast, German experts related more strongly to the tradition of pilot project research.
and were particularly interested in subject-specific didactics. However, this may be the result of particular personal preferences, since the sampling of experts was not representative.

A notable feature of the complexity of VET systems that all interviewees pointed out either directly or indirectly was the interrelationship of parameters across several fields of activity. It became clear, for example, that the role of the state exerts a determining influence on a number of issues that shape different environments for pedagogic practice. Running the 14-19 VET system from a central ministry, as in Austria, with a limited number of school types and qualifications, contrasts markedly with the English approach of commissioning the provision of education from largely non-state providers. This differs again from German VET whose most prominent aspect, the dual system, lies within a shared responsibility of the federal government (for in-company training) and Länder (for classroom-based aspects). Experts repeatedly pointed to the relevance of such contexts for any analysis of the behaviour of agents within the system. Some suggested even broader perspectives, taking into account cultural factors and long-term political trends. Unfortunately, such all-encompassing approaches fall outside the practical limits of this study.

Several further aspects of the expert interview analysis exceed the scope of this research project. It is hoped that they may inspire future inquiries. Discovering a better way to delineate the meaning of ‘VET sector’, for example, would have a bearing on much of the research in this field. In terms of understanding VET policy, an investigation into the skewed public perceptions of VET, especially when taking into account differences across countries, may be an interesting line of inquiry. This connects to issues surrounding its changed status in relation to socio-economic developments, and the fact that VET is in so many cases driven and managed by people who do not have a VET background themselves.

Within the current research, uncovering the dynamic relationships of the VET sectors in England, Germany, and Austria with politics and curricular and regulatory change, was an on-going process. Findings from expert interviews showed the dependency of conceptions of innovation on different societal and institutional arrangements, so that
the emergence of commonalities and general patterns in the main research phase could be expected to prove particularly helpful for hypothesizing about ways to stimulate innovative classroom practice in VET. The following three analytical chapters trace this line of inquiry from the discovery of practitioners’ perceptions to specific recommendations for facilitating pedagogic innovation.

5. **Data Analysis and Interpretation I – Perceptions and Concepts**

This is the first of three analytical chapters based on the questions outlined in the research foci in 2.4. The analysis builds on background knowledge gained from expert interviews discussed in chapter 4, and primarily concerns practitioners’ perceptions. It represents an attempt to build an understanding inductively from research data, deliberately eschewing prior assumptions about what pedagogy and innovation mean to teachers. The structure is driven by questions, as explained in 2.5, introducing comparative perspectives and distinctions by country or – as appropriate – institutions, within that frame.

This chapter provides a basis for understanding the narratives of practice discussed in the next chapter, and informs further analysis thereafter. Naturally, a clear-cut separation of topics, or a perfect attribution of topics covered in interviews to individual research questions, is not possible or intended. Therefore this chapter touches upon many issues that come up for more detailed analysis at a later point, such as the relevance of teacher training, or notions of professionalism. This chapter attempts to stay with concrete findings, whereas a more abstract synthesis into factors that support and hinder innovation takes place in chapter 7, the final analysis.

5.1. **What are practitioners’ conceptions of teaching practice, and how do they relate to pedagogy?**

The research question heading this section is directly mapped to the following interview question, asked of all interview partners, including interviewees in purely administrative roles: “What is your understanding or definition of ‘teaching and learning
practices’ and related terms such as ‘pedagogy’?”. No interviewee professed to cite a textbook definition, and some explicitly pointed this out, frequently stating that they were not concerned about precise meanings. This section structures their answers by distinguishing between those attempts at abstract definitions that were found, and attempts to describe the terms symptomatically, that is, by talking of aims, purposes, or examples. Practically all interview partners cautioned that their interpretations would not be fully comprehensive, but would rather point towards the most salient aspects; therefore the same caveat must apply to the findings presented here. After separate discussions of abstract and more practical definitions, there follows an analysis of teachers’ statements about the relation of such definitions to particular vocational areas and student backgrounds.

5.1.1. Abstract Definitions

Only a few interview partners attempted to give abstract definitions of the terms ‘teaching and learning practices’ (‘Lehr- und Lernpraxis’), ‘pedagogy’ (‘Pädagogik’), and ‘didactics’ (‘Didaktik’). In every case they were offered as personal views, rather than textbook definitions. This complicates the distinction between systematically different understandings of key terms, and differences in personal use. It must be borne in mind that straightforward translations of terms such as those given at the beginning of the paragraph should not gloss over potential nuances in meaning. A typical answer for all three countries was:

“I don’t have a textbook definition. Teaching practice is what we do in the classroom; the act of teaching. Learning practices are what students do; how they learn, and what helps them doing so.” (T3, A1)

Generally, the data shows that interview partners with at least some non-teaching roles approach definitions in more abstract ways than those who teach exclusively. In particular, full-time administrators, and teachers with additional roles such as team leadership and quality management, provided explanations of a teacher’s profession such as:

“Teaching and learning practices are all those activities, resources, environments,
methods and procedures which collectively enable an individual who is enrolled on programmes by the College to learn.” (Director of Learning Assistance and IT, E2)

By contrast, teachers’ definitions appeared to be more concerned with the practical aspects, the types of communication going on in the teaching and learning process, and the outcomes, ranging from successful completion, to lessons learned for life. This is addressed in the next section. As far as teachers provided definitions that were not tied to particular practices, they tended to be very general, such as

“sharing everything I can” (T1, E6)

or relatively vague:

“different techniques we utilize to make learning interesting and enjoyable, and valuable; my role is to provide an atmosphere conducive to learning; that’s my primary focus” (T1, E3)

Teachers in Austria and Germany seemed more aware than their English colleagues of potential differences between ‘teaching and learning’, ‘pedagogy’, and ‘didactics’. Despite frequent mentions by the interviewer, few teachers in England used the term ‘pedagogy’, and invariably did so without providing a definition:

“Teaching and learning practices means to me the way in which sessions are set up, the pedagogy of the teacher, the methods that are used, the approach that the teacher is using to learners” (T2, E8)

or, in the case of a college quality manager talking about a programme to enhance teaching quality, saying

“[...] it’s generally just good pedagogy, look[ing] at coming up with ideas, gadgets, assessment for learning” (T3, E8).

Again, administrators tended to use the term more frequently when talking about teaching in an abstract sense:

“Our pedagogy has been informed by making us think: [...] how can we do it differently, so we deliver in a way which is relevant?” (Head of Faculty of Science, E5)

Some replies in England seemed to associate ‘pedagogy’ and ‘didactics’ with traditional or possibly old-fashioned teaching approaches. For example, a teacher mentioning schools in another European country said:

“[...] it’s very pedagogical over there. It’s quite prescriptive, the student does it. In
the UK we are trying to promote more student centred learning.” (T1, E4)

Teachers in the German-speaking countries used ‘Pädagogik’ more frequently, but often as a synonym for ‘teaching’, which may simply indicate that the term is considered more mainstream. However, some interviewees did point out particular distinctions that might lead to an understanding of more comprehensive definitions:

“For me, pedagogy is not just imparting knowledge, but also ‘Erziehung’” (T2, A2),

referring to the German term denoting an educational focus on personal qualities rather than knowledge or skills. Another stated that she likes vocational schools

“[...] because here I can focus on the subject, rather than the pedagogy. I do work pedagogically, too, but that’s a different target group” (T2, G1).

Her distinction was drawn between vocational subject matter and ‘Pädagogik’, where the latter presumably pertained to a student’s personality and work ethics. Several teachers in both Austria and Germany seemed to view Pädagogik as the methods used to interest and motivate students to learn:

“one should make use of methods and media in a way that is relevant for students, so they can make connections to their own experiences [...] if you can capture students pedagogically in this way, that’s innovation”. (T3, G1)

The use of the term ‘didactics’ (‘Didaktik’) showed a more divergent pattern, being used very infrequently in England, and only in the context of denoting boring or teacher-centred methods:

“some of the teaching was too didactic, lacking interactivity and creativity” (T3, E2) or “[it was] very didactic, the teacher standing in front, chalking on the board, and students copying down” (T1, E8).

The term also showed up with markedly different frequency in Austria and Germany, with teachers in the latter country using it more readily. In both German-speaking countries, ‘Didaktik’ related to how subject matter is explained or conveyed, and was mentioned as distinct from ‘Pädagogik’ which in a broader sense addresses itself to how students are made to learn. The following sums up this understanding:

“I would perhaps change this to ‘Didactics’ [...] I hardly have real pedagogic parts in my work here because the students are old enough, and I tend to work
with students that need relatively little advice. Therefore I see myself as conveyor of subject matter, which I try to structure didactically well, by building on existing knowledge, and meeting students at the point they are at.” (T1, G2)

However, some interviewees were less definite, or they tried to make the point that the concepts are so interlinked that there is little distinction in practice:

“[Question:] What is the definition of the term ‘pedagogy’? [Interviewee:] That’s a difficult question […] what is the difference from didactics?” (T3, G3)

Connections between teaching practice and academic research into pedagogies are traced in subsequent sections. As far as definitions are concerned, teachers in Austria and Germany tended to take a more academic approach than their English colleagues, and their language seemed to reflect a greater awareness of the role of educational research. On the other hand, some interviewees in German-speaking countries pointed out the disconnect between academic terminology and daily practice:

“Pedagogy? That’s so vague and all-encompassing in this context; I would see the term in the realm of educational science, and that has little to do with my daily teaching practice. I am good at making use of ideas from this area, but for me pedagogy means the scientific examination of teaching and learning practices.” (T3, A3)

This reflects a wider impression that teachers distinguish between the scientific inquiry into teaching and learning methods, and actual practice. A teacher in Germany expressed it as:

“Pedagogy means for me: the scientific background on how to fulfil such a role.” (T4, G3)

English interview partners did not formulate this explicitly, but occasionally explained that the theory they were taught as part of teacher training has only limited use, while concrete methods and procedures were more readily applicable. However, there were cases of interviewees relating their accounts of pedagogic practice to academic traditions. For example, talking about making subject matter relevant for students, a teacher said:

“When [students] find some relevance for themselves; that’s not new, that’s Klafki or Piaget, that is ancient, but nonetheless: in connection with new findings, also with today’s psychology on learning, I believe that does the trick to capture students.” (T3, G1)

This tendency of teachers to convey the meaning of key terms by giving practical examples or focusing on on the aims of their work, is discussed in the next section.
5.1.2. Practical Definitions

In most cases, teachers in all three countries attempted definitions by stating the desired properties, requirements, or outcomes of teaching and learning practices. This was frequently prefaced by cautioning that precise definitions are difficult, or that the topic is too large to nail down:

“The simple questions are the difficult ones. I’ll start by talking about how I perceive my role.” (T4, G3).

It is interesting to note that definitions were called a difficult problem most frequently in Germany, followed by Austria. In both countries teachers saw a greater need than their English colleagues, to identify key terms as academic constructs that would be redefined by practice. In England, such references to definitions seemed less pronounced. Indeed, some teachers claimed never to have thought of definitions at all, which is particularly interesting in the context of pervasive quality management initiatives in England, and the popular discourse about improvements to teaching and learning practices. A typical response of teachers, but in this case quoted from a quality manager, was

“Gosh, that’s a big question.” (Quality Improvement and Workforce Development Manager, E8)

In parallel to the case of abstract definitions, it was managers and administratively involved teachers who attempted the most comprehensive explanations:

“[…] the methods, ways, media, used predominantly to engage in teaching and learning activities; everything from classroom based, via one-to-one, technology assisted, […] anything to do with the transfer of knowledge from A to B.” (E-Learning Manager, E2)

Most answers by teachers referred to practical situations, such as classroom behaviours, and larger aims. This frequently went beyond definitions, towards normative claims about what teaching and learning should be achieve:

“It’s really important that every student feels valued, and every student will leave the course hopefully inspired and motivated. That’s what our aim is.” (T5, E2)

Most teachers in all three countries answered by giving examples:

“We look at different learning types – kinaesthetic, visual, aural – and we assess
Others talked about particular attitudes that a teacher needs to have as a basis for successful teaching and learning. An extract from a longer statement that reflects the tendency of answers in many of the interviews was:

“one needs a positive attitude: believe in students, support them, but also challenge them […] have joy with your subject; […] show students the relevance of things: why is this important? How do I need it? That is, offer consistency, take them seriously; show justice, so they know where they are at […] [students] should be interested in things beyond school, and involve themselves. The emotional component is a crucial point.” (T1, A4)

Interestingly, the notion of innovation came into some definitions, implying that constant innovation is seen as a core property of teaching and learning practices:

“[…] to match teaching styles to learners’ styles, to make your teaching as interesting, exciting and innovative as possible” (T2, E6)

This perspective is explored in greater detail in subsequent chapters. Before that, the next section explores the way the practical meanings of key terms are perceived to depend in particular situations.

### 5.1.3. Student Diversity and Fields of Practice

Teachers in the three countries frequently mentioned that the meaning of teaching and learning is specific to actual practice in different contexts. Some, particularly in Germany, saw this in contrast to what they perceived as academic takes on pedagogy. This may have been motivated by the recognition that the diversity of learners in VET, even within a single course, creates challenges:

“I don’t have a classic pedagogic career […] I largely detach myself from an academic understanding [of pedagogy], since we have students – particularly in the dual system – that do not bring the usual prerequisites for learning […] I can’t do that with textbook pedagogies. That’s why I have adopted a stance from experiential pedagogy, where I always ask: what sort of person is this, and how can I support them with my knowledge and skills?” (T4, G2)

In other cases, teachers faced classroom situations in different branches of colleges, where each group required distinct approaches:

“When I teach bricklayers, they are down-to-earth guys […] that is, my pedagogy with them is very different from the way it is with architectural draftsmen, who
are calm, delicate people; delicate also meaning fragile. That is, my choice of words, my way of treating them, is a very different one, in order to facilitate optimal learning with this demographic.” (T3, G3)

In England, the focus appeared to be on appreciating individual learners’ needs, rather than on categories of students such as in the examples quoted above. A large majority of teachers at English FE colleges expressed this awareness:

“Teaching and learning is about delivery and perception, and obviously there are many ways in which people learn; we have to identify that and deliver to people’s needs and requirements. That’s differentiation, equality and diversity as well.” (T2, E4)

and

“Learners don’t always learn in the same way; everyone is [an] individual. [...] are you making all students aware, are your lessons meeting all learning styles that students have?” (T2, E3)

However, this distinction was not clear-cut, and teachers in all three countries talked about the requirement for adaptive pedagogies depending on both the sort of learners encountered in particular fields, and the need to address them as individuals, depending on learning styles and personal circumstances. A teacher for hairdressing expressed a view that is typical of many of her colleagues in vocational fields:

“Learning is students finding [something] out, then making their own models of hair structure. It’s very practical work even in the classroom. The students we get are of the type that need that; we do learning type assessments: nearly all are visual or kinaesthetic.” (T1, E8)

This connection of pedagogies to traditions and perceptions that are particular to given fields of practice will be explored in the next section.

Most teachers interviewed for this study have an applied vocational background, either by training or actual work experience. This shapes their perceptions of the requirements for good teaching, as well as what can be expected of students. Typical answers ranged from implicit redefinitions of the question regarding teaching and learning, to more explicit explanations. In motorcycle engineering, for example, a typical statement that expressed both the practical approach taken by the instructor, as well as a recognition for the practical nature of his learners, was:

“How does teaching and learning happen here? For my guys to learn is a variety of ways [...] I may instruct them, we also use demonstration quite a lot, so I talk
about something, and then we go out onto the floor and practically demonstrate the task.” (T3, E6)

A former engineer for ceramics processing in Germany pointed out:

“From a teaching point of view I am basically in the didactics of engineering subjects, that is, structured in sequence, and inductively designed. All that can be found in the theory there.” (T3, G1)

This observation seemed least pronounced in Austria, which may be due to the fact that the Austrian colleges in this study had a predominant focus on theoretical and more academically oriented subjects, such as trade, or service industries such as catering, that require knowledge rather than extensive manual skills. However, there are some examples, for instance a teacher with a background in law and politics placing a distinct focus on developing abilities for self-study and critical thinking:

“Ideally [students] will want to gain a deeper understanding of these matters, and they will perhaps look for further information: self-study, specialised literature, journals like the Economist, or reading quality newspapers; that’s how it should be, for both subjects, law and economics; as a result, students should be able to engage with such topics.” (T2, A4)

While this aspiration may seem desirable in every teaching situation, it was not a focus typically appearing in interviews with teachers in applied technical professions.

Overall, interviewees agreed that in practice, the meanings of key terms relate both to the context of specific classroom situations and types of students, and to teachers’ aspirations about the aims and purposes of teaching. Thus they mentioned a variety of roles, ranging from facilitating students’ own learning, to motivating and to some extent pressuring students to engage with the subject. This understanding of teaching practice as an adaptive set of methods and tools naturally leads to a discussion of change processes, both at the initiative of teachers, as well as in the context of top-down reform efforts that target new pedagogies. The next section addresses such questions.

5.2. What are practitioners’ conceptions of innovation?

Like the previous section, this analytical topic is directly related to an interview question: “What is your understanding of the term ‘innovation’ when applied to teaching and learning practices?” This was asked in the majority of interviews immediately after the
inquiry into definitions of pedagogy, and led to follow-up questions about concrete examples of innovative practice. In addition, the term ‘innovation’ was frequently addressed throughout all interviews, so the analysis can draw on a rich set of data that relates pedagogic innovation to several other key concepts, such as notions of professionalism, outside pressures for change, and organisational parameters. This section sheds light on the term ‘innovation’ in this complex interplay of factors, rather than just attempting to extract precise definitions. Overall, teachers in all three countries exhibited comparable understandings of pedagogic innovation, and addressed similar issues, although the analysis in later sections will show that there is in practice a more pronounced focus on technological innovation in England, than in Austria and Germany.

5.2.1. Abstract Definitions of Innovation

Most interview partners chose to address the question of defining innovation with respect to teaching and learning practices and pedagogy by giving examples, or by raising related issues that did not strictly constitute definitions. Since this research is concerned with practitioners’ understandings in context, pressing them for abstract definitions that have no bearing on their actual work would have disrupted the flow of the interviews, and lost the focus on practical matters. Therefore this analysis attempts to synthesize a more generalised and abstracted understanding by presenting a variety of replies that are typical for the range of opinions encountered.

Coming closest to an abstract definition of ‘innovation’, teachers in all three countries pointed out the key quality of attempting something new by improving on current practice, or by replacing it altogether. Typical statements were:

“[Innovation is] something new that you might not have done before” (T1-1, E1)

and

“There are always possibilities for improvement. There is nothing that cannot be improved.” (T1, G1)

While both types of emphasis could be found in interviews from each country, the specific choice here is deliberate; literature on innovation cultures indicates that German traditions favour gradual change and improvements, while innovation in an English context
commonly denotes the introduction of entirely new systems, structures, or procedures. In most interviews innovation was immediately understood as something that requires not only active participation from teachers, but also proactive attitudes to discover innovative potentials:

“spotting the opportunity that teachers could maximise without huge cost, but probably a huge impact on their delivery” (Head of Computing, E1)

and

“Innovation definitely is the plurality of methods that I have increased over the years, and that I use with greater awareness.” (T3, A1)

No interview partner attempted a complete definition of innovation, and the analysis indicates that the relative nature of innovation was well understood. For example, definitions depended on the actors involved:

“If I think something is innovative, what would others think? What is it that defines it? Am I being innovative, or I am just creating good resources? I am being innovative, because I facilitate things, or is it that the resources themselves are innovative, and the facilitation doesn’t mean anything?” (T1, E2).

Others pointed out that definitions of innovation are influenced by the predominant public discourses:

“[the definition] changes regularly, depending on what newspapers and magazines you read.” (T4, E2)

In England in particular, a connection to inspection regimes and their respective norms was pointed out in several interviews:

“to define innovation, and how it’s perceived, for example taking Ofsted, if they walked into a classroom and saw a flip camera used to good effect, they may consider that innovative – however, we use them so often, we are looking for the next thing.” (T1, E8).

Several teachers – particularly in Austria and Germany – noted the connection of innovation to particular personal traits, thereby implicitly positioning teaching practitioners as originators and developers of innovative change:

“The definition of innovation depends on a teacher’s personality; how he or she approaches teaching and students, and it’s about being open for new things, but without discarding things that have proven successful. Being open to new concepts that are possible in this system is an important point. The most important thing is keeping an open mind.” (T3, A5)
As evidenced by this section, teachers in all three countries were more comfortable with practical definitions, rather than abstract approaches. The next section interrogates the concept of ‘innovation’ from such an example-driven angle.

5.2.2. Definitions of Innovation by Examples

Most attempts to arrive at an understanding of innovation in the research interviews were led by examples, and the highlighting of salient aspects:

“keeping things fresh and up-to-date, making sure there is always change, keeping students engaged” (T1-2, E1),

“in the classroom it could be things like using the internet, smart boards, going out on trips; just doing anything we can to make learning up to date and useful” (T1, E3),

“co-operative learning means innovation for me” (T1, A2).

Similarly, teachers focused on aims of innovative change, the characterisation of prerequisites for innovation, the need for innovation, and cautions about potential pitfalls. Each of these will be addressed briefly in the following paragraphs.

Aims ranged from the strategic, to the ones immediately relevant to the classroom environment:

“Innovation means adapting to current society. I believe schools are often behind the times.” (T2, G4)

illustrates one end of the spectrum, while personal goals constituted the other end:

“[…] an absolutely necessary and continuing process that does not necessarily mean re-inventing the wheel all the time, but […] to probe into my own practice, and to build on and continue the useful approaches I can find there.” (T3, A3),

and

“I don’t think there is one definition for it; when I was at school, the teacher was talking for hours, and there was no interaction; it was chalk on the board. So now I am trying to do it differently, making it as interesting as possible.” (T1, E6)

A similar spread of views was observed relating to the prerequisites for pedagogic innovation, ranging from organisational and strategic considerations, to personal qualities:

“Innovation takes resources. Those would have to be taken away from something else.” (T2, G2)

and
“innovation is training that you are prepared to give to teachers, looking at long term goals, rather than those quick short sessions we tend to be encouraged to go on” (T2, E3).

Each of those statements focused on the strategic level, while others pointed out individual qualities:

“Being alert to opportunities; keeping one’s eyes open, recognising what useful new things are possible. Understanding innovation as something that happens in schools methodically, didactically, and questioning that critically.” (T2, G2)

Questions about incentives for innovation were addressed in all interviews, fitting roughly into a distinction between individual motivations, and the overall need or requirement for innovation. The first is looked at in more detail in subsequent chapters. The second – perceptions of societal and technology-related cultural change as a driver for a need for pedagogic adaptation – was pointed out by several interviewees even when talking about definitions:

“Society has changed and is subject to constant change, [...] school cannot escape that change, it cannot opt out, [...] we used to be trained for a different world of work than [students are] nowadays. Therefore: innovation [is needed] so that one is prepared to internalise those facts even during teacher training, so that one accepts this even if it is sometimes hard to leave the beaten track; but it’s indispensable.” (T2, A2)

“One is always confronted with different students, different generations. There was no such thing as an iPhone generation when I became a teacher, there was no iPhone in the classroom to compete with for attention.” (T2, A4) “[...] I perceive we need to move as an organisation [to get staff to be] able to deliver to a new sort of customer. Because the customers, their expectations and perceptions, are changing all the time.” (T3, E1)

Analysing the definitions of innovation implicit in teachers’ examples of innovative behaviour highlighted a widely shared agreement on a vision of innovation as a process. Conceptually, it starts with aims that cover a wide range, from strategic goals, to teacher-specific aspirations. The next element is a consideration of prerequisites and incentives for innovation, which have both been highlighted by the discussion. The next chapter will address interviewees’ views on the problems relating to the innovative process.

5.2.3. Problems Relating to the Nature of Innovation

A large part of the discussion of the nature of innovation was dedicated to potential
problems or pitfalls. In the interview questions, the issue was only addressed in passing, by asking for examples of failed innovation, but it was brought up independently by a majority of interviewees. Several of them warned against mistaking novelty for innovation:

“First of all, it has to work. If something does not chime well with students, then it may be a nice theoretical construct, but it does not work, so that is neither innovation nor pedagogy. So, the interaction between the added benefit and traditional ways, that’s what’s innovative.” (T3, G1)

This example again illustrates the connection frequently made in Austria and Germany to the notion of building on existing structures. Interviewees also pointed towards the danger of using innovation for marketing purposes alone:

“[…] and so it looks like that school is incredibly innovative, but I keep suspecting that it’s a lot of hot air, that a lot of paper is being produced only to rot somewhere.” (T3, G4)

In relation to this, a certain amount of peer pressure amongst organisations to appear innovative was noted:

“That’s the great problem with innovation; one loses the focus on what’s important, and it becomes an end in itself. It’s done because everyone else does it.” (T2, A2)

Several interviewees pointed towards the fact that innovation in their view did not spring from individual items mandated by management:

“It’s usually a number of factors that improve teaching and learning, not a single thing we choose.” (Quality Improvement and Workforce Development Manager, E8)

Questions relating to this understanding are analysed at multiple points in subsequent sections.

Several interviewees demonstrated an awareness that some pitfalls of innovation are unavoidable, making the freedom to risk failure an essential component of innovative behaviour:

“Innovation always comes with a risk of failure, so it’s hard when there is a strict plan, and a lot of time pressure; and as a result of external exams one is always afraid that one hasn’t prepared [students] well.” (T1, G2)

Most crucially, however, many interviewees expressed worries about the pitfalls relating to the over-reliance on technology, particularly in England:

“I think the overuse of lots of gadgets and innovative approaches, if you use them all the time they become ineffective.” (T1, E8)
The question of how definitions of innovation relate to technology shows a marked discrepancy between Austria and Germany on the one hand, and England on the other. To some interviewees at English FE colleges, innovation appeared virtually synonymous with technology, and the majority of examples for innovation from all English research participants were innovations driven by technology. The issue recurs throughout the analysis. Chapter 6 for example analyses the factors that are perceived to hinder pedagogic innovation, where the lack of some technologies featured prominently in the responses of English participants. Most teachers were aware of this connection, without conflating the terms:

“When people speak of innovation the first thing that comes to mind is technology.” (T2, E3)

Whereas teachers generally characterised innovation in more general terms, such as engaging students in new ways, many interviewees drew little distinction in practice:

“My perception of innovation is, in close work with the ICT team, to look at everything from videos, games, to aid retention and increase achievement.” (T2, E6)

This tendency was present, but less pronounced in the German-speaking countries. In some interviews there, the connection to technology was only made by explicit prompting:

“[Question:] In some cases in England, innovation is seen solely as synonymous with the introduction of new technologies. [interviewee: surprised] Oh really? Oh, well, I didn’t think … I wouldn’t have thought of that at all.” (T1, G2)

Despite this difference in the degree to which technology is identified with innovation, interviewees in the three countries expressed doubts about the role of technology as a panacea to pedagogic problems:

“Technology: there is a bit too much emphasis on that; it’s handy, but we shouldn’t have to use it all the time” (T1, E3)

Particularly in England, a number of interview responses hinted that the strong emphasis on new technology originates from school management, rather than teachers themselves. However, there were several examples of administrators being aware of this problem. As the Director of Learning Assistance and IT of an FE College said,

“first of all, the introduction of technology in its own right may – far from leading to innovation in teaching and learning practice – be quite
counterproductive, and may lead to some sort of regress in modes of delivery”
(Director of Learning Assistance and IT, E2)

5.2.4. Connections to Key Concepts

Throughout the conduct of interviews, definitions of innovation appeared in relation
to other concepts that subsequent interview questions addressed in more detail. Teachers
made connections to being trained as agents of change, as well as to the sustainability of
change, and its evaluation. A teacher at an FE college, for example, directly related the
definition of innovation to her expectation of training:

“innovation is training that you are prepared to give to teachers, looking at long
term goals, rather than those quick short sessions we tend to be encouraged to go
on” (T2, E3).

The distinction between novelty and sustainable innovation was frequently addressed,
especially in the context of technology:

“I think the term implies for me that there is something new that’s being
introduced, and for us to use it with comfort there always has to be a degree of
effectiveness. It’s not just simply change; something more then just novelty. I am
not sure whether innovation necessarily means it’s effective, but here we are
talking about something that has to be effective, for it to be taken seriously. It has
to be a sustainable change, not only effective but also efficient, so it can be
maintained by the organisation.” (Director of Learning Assistance and IT, E2)

The notions of professionalism and self-images that enter teachers’ understandings
of innovation are mentioned with a stronger emphasis on the perceived freedom to
innovate in the German-speaking countries:

“I am not sure I can answer this self-reflexively. I have trouble answering those
questions, to be honest. I have never thought intensively and deeply about those
terms, so I can only answer intuitively. So it has less to do with pedagogic aims;
for me, innovation means laying the groundwork for achieving the aims that are
laid out in terms of desired educational goals.” (T2, G1),

and

“basically teachers are free in their teaching; whether one uses that in order to
innovate is a different question, but theoretically – and that’s what I enjoy about
being a teacher – nobody interferes with what you are doing.” (T1, A1)

In conclusion, the following statement from a teacher in Vienna reflects an
understanding that was evident in responses from all three countries:

“that’s the point about innovation: your attitude towards students; that’s what comes through in my teaching. Of course you can always innovate new methods, but that’s not what’s important, if there is no heart in it.” (T1, A4)

5.3. Who are the relevant actors in the operationalisation of innovative change?

This section’s question seeks to interpret teachers’ accounts of the actors involved in innovative change at colleges. In accordance with the research methodology, it continues to take a bottom-up perspective that is focused on practitioners’ experiences and understandings, rather than theoretical constructs from organisational theory. The framework outlined in section 1.2 suggests stakeholders at all levels, from the political, through the organisational or institutional environments, to the classroom, where teachers as street-level bureaucrats put innovation into practice, and students react to the change. The analysis confirms this view, and provides insights into the roles and relative importance of actors in different positions. Despite the fact that innovation processes are clearly specific to individual colleges, the analysis uncovered important similarities and differences both across institutions, and countries. Most significantly, it highlights the role of informal communications between teams of teachers in generating and implementing innovative change, but also in resisting unwelcome interventions. In doing so, differences between countries with respect to teacher autonomy become apparent.

The data underlying this analysis derives from a cross section of interview questions. Teachers were asked to describe the management structures of their colleges, and provide detailed accounts of how particular changes had happened in the past, who made which decisions, and how information about innovative change was communicated. In addition, the interview schedule included questions about the origins of innovations, the roles of external institutions, and the support and direction provided by college leadership. The presentation in this section relies on representative quotes from interviews that often illustrate several points simultaneously. Discussing the role of teachers, teams, administrators, and outside influences in turn, followed by a brief investigation of related issues such as quality management and the role of students, this section’s interview quotes
demonstrate how closely related those topics are in the present discussion.

5.3.1. Teachers

Teachers in all three countries confirmed their characterisation as ‘street-level bureaucrats’ with respect to viewing themselves as active participants in the creation and operationalisation of change processes. All interviewees pointed out their personal responsibility for interpreting their professional role, and noted that they enjoyed a significant degree of freedom in doing so. Thus the main agent of innovative change in the eyes of practitioners in all three countries was themselves:

“You just go for it. You try it out. If I come up with something, or my colleague, we just go with it, and then we’ll try to get feedback from students by asking: how did you find that?” (T3, E6)

At the level of individual teachers, colleagues were frequently seen as a significant influence on one’s own teaching strategies. In particular, cross-generational communication between teachers was a significant factor:

“No individual actually keeps abreast of changes. The young people that come in from teacher training often share ideas, but it’s very anecdotal, and informal.” (T2 – Head of Faculty of Science, E5).

Whereas most teachers felt independent in their individual pedagogic strategies, answers differed across countries with respect to accountability. In England, a typical response was:

“We are very free in the way we plan, very free to use any innovative technique. On an individual basis that means looking at content, and working out individually how to do it. […] During each year we are all observed, and there is an expectation by the college what should be seen. The quality team evolves the quality of what should be going on, and monitors it quite closely.” (T2, E8)

This contrasts with a typical Austrian statement that places greater emphasis on the lack of observation, and indeed enforced formal structures:

“Theoretically the work groups and subject teams should meet regularly; in practice that works better in some cases than in others […] The German teachers meet in the smokers’ room.” (T1, A1)

A teacher in Germany expressed his autonomy in the classroom as:

“I close the door, and I am king. That’s how it is. Definitely.” (T2, G4)
This reported degree of freedom correlates with the insistence of teachers in Austria and Germany that meaningful innovation most frequently originates from the classroom level:

“\textit{I believe that the most successful innovations rather come from colleagues, from the bottom. They often get disseminated by chance.}” (T4, G3)

Similar statements from English FE college teachers are less frequent and less strongly worded. Another teacher related this to the school leadership’s expected role:

“\textit{I know that it’s possible to communicate requests from the staff to the administration [...] those are the most effective ones, because we can see what’s needed.}” (T2, G1)

The role of school administrations as facilitators for innovation is addressed in more detail below.

Overall, there appeared to exist a wide agreement amongst practitioners that the role of teachers as innovators is central to any innovation process, whether they are bottom-up, or top-down driven efforts. However, the analysis hints strongly at the defining role of self-perceptions and professional autonomy in giving concrete shape to this role. Those topics are addressed in 5.4.

5.3.2. Teams

Beyond the role of individual teachers as implementers of innovations, the crucial unit of generating and driving pedagogic change in the eyes of most interviewees was the team. At German and Austrian colleges, this usually referred to teams of teachers for the same subjects, or for the same age cohorts and classes. At English FE Colleges – being in most cases larger organisations with more comprehensive management structures – there are several layers, ranging from subject teams, to course groups, departmental or school teams, to college-wide structures. In every case, both school managers and individual teachers recognised the role of such teams:

“\textit{[...] by way of mutual cross-fertilisation, exchange of ideas, talking about things, communication within the core team, or subject team, that’s the most important element. Talking about subject matter, contributing new ideas, that comes from talking to each other.}” (T2, G3)
Several teachers in all three countries indirectly positioned teams as providing an organisational counter-balance to school management or administration. The implicit suggestion was that teams of teachers know what is needed in practice, and get things done pragmatically, even if the organisational superstructure is sometimes misguided or overly bureaucratic. A teacher in Germany, specifically referring to the strictures of having to teach separate subjects that split course contents in undesirable ways, said:

“We have this saying: despite the administration, we teach well, despite being in this strict corset […] it’s an immense [effort for] all this coordination, but we do it nonetheless.” (T3, G3)

In England in particular, the role of team leaders or facilitators such as subject learning coaches was frequently underlined:

“I am in a managerial role, but I can get teachers on board. If I couldn’t do that, none of it would work.” (eLearning Manager, E2)

In addition, specific project teams, especially for quality management, play a key role at FE colleges that is not as strongly reflected in the other two countries. Teachers report constant interactions with such groups that exist outside their immediate subject or class teams. A subject learning coach stated:

“I am always looking for new and innovative practice in lesson observations, and report back to the quality team. So it also goes the other way round” (T2, E8)

Elements of such formal approaches were observed at some Austrian and German colleges, but the majority feature more shallow hierarchies and ad-hoc team building. A teacher at an Austrian college run by a principal with extensive prior experience in corporate management explained:

“We have a middle management of sorts at this school – that’s unusual [in Austria] […] A team of five to six teachers together with the principal, who steer a bit.” (T3, A1)

On the downside, complaints about lack of team work due to missing organisational support and infrastructure featured more prominently in Austria and Germany:

“I think teachers don’t sufficiently see themselves as a team […] in my school I can hardly find a place to sit down [and work]; how can I feel comfortable there, and get work done?” (T1, A4)
Teachers at several German colleges pointed out that there is a greater degree of formal and structured co-ordination in the dual-system due to the need to teach Lernfelder and coordinate with firms training apprentices. Since most teachers interviewed at German Berufskollegs also teach in the dual-system, this provides an additional opportunity for communication and coordination with colleagues, that spills over into their teaching of full-time vocational courses.

Despite this significant role of teams in the innovation process, interviewees in all three countries reported little formal exchange with colleagues from other departments, schools, or colleges. A teacher talking about departmental meetings contrasted this with the lack of inter-departmental equivalents:

“Not much sharing of good practice is going on from one vocational area to another.” (T2, E4)

However, there are significant informal channels of communication which are explored in subsequent sections on professional autonomy. As far as formal channels are concerned, the next section will address the level situated above teams of teachers, namely the administrative layer at colleges.

5.3.3. School Leadership and Management

Most teachers saw the role of school leadership and the upper administrative structures in driving and instigating innovation as one of coordination, and facilitation. From this study’s perspective, it remains an open question to what extent teachers have insights at the strategic level. However, as far as the administration’s impact on pedagogic innovation and changes at the classroom level is perceived, it plays different roles in the three countries.

Teachers in Austria and Germany spoke of their college leadership as allowing or facilitating change by providing organisational support, resources including budgets, and time allocated to tasks outside the usual teaching commitments. They also acknowledged a role played in suggesting new initiatives, urging colleagues to participate in particular training sessions, and acting as a conduit between external bodies – usually local governments – and teachers. As one teacher in Germany said:
“We are very lucky in that our school leadership always creates opportunities, and I always volunteer for that sort of thing.” (T3, G3)

In a minority of cases, teachers in those countries reported school administrators to formulate strategic visions, and exert pressure to push particular agendas. An Austrian teacher said:

“Our principal is very keen on innovations, and active, frequently to the chagrin of teachers.” (T1, A1)

Most teachers agreed that the legal framework in both Austria and Germany makes it very hard for school leadership to enforce compliance from their staff, so their power was largely acknowledged to be based on persuasion, peer pressure, and social norms. Since teachers are employed by the state, the ultimate decision and potential threat of firing problematic members of staff does not lie with college management. Asked about the relative decision-making powers for implementing a proposed project, a teacher explained:

“[...] it depends on the colleagues and school management; but really mainly on the colleagues. If the management wants something, but the staff say we don’t want that, it’s very hard for management.” (T1, A2)

In contrast, English FE Colleges are independent entities, with a more corporate managerial structure, and corresponding power relations. Teachers there expected their college leadership to provide a strategic vision that is implemented via projects run by middle-management. In practice the need for a broad consensus, and the opportunities for generating innovation from the bottom up were acknowledged, but teachers were more aware of formalised structures than their German-speaking counterparts. Referring to the college-wide standardisation of a particular teaching strategy, and pointing out that it had proved effective at one department for increasing student retention rates, a teacher explained:

“Because we have a number of joint meetings, so any decision to go across the organization is the deputy principal’s decision. So at head-of-school level it’s shared, and the deputy principal, she would make that decision.” (T3-3, E7)

To elaborate the contrast in this particular example, notions of managing retention rates appeared only in extremely peripheral forms in some German and Austrian interviews, and the idea of standardising particular methods by managerial edict rather than teacher-to-teacher coordination appeared similarly alien. However, even if more of the decision-
making and formal coordinative powers is vested in school leadership in England, they are not always seen as the originators of changes that may lead to pedagogic innovation:

“Yes, we have a new principal, he is particularly keen to make some significant changes, so there will be some innovation coming from that point, but it’s certainly not something I am used to historically.” (eLearning Manager, E2)

In summary, the different formal structures of FE Colleges on the one hand, and Berufskollegs and BHS/BMS on the other, were reflected in practitioners’ perceptions of the role of school leadership in innovation processes. Whereas English teachers looked to their management for instigating, driving, and supporting innovation, their German-speaking colleagues acknowledged and sometimes appreciated the role of administrators as facilitators, but remained very aware of their own powers to resist change.

5.3.4. Peripheral Actors: Quality Management, Inspections, and Students

In addition to the roles of teachers, teams, and managers in operationalising innovative change, interviewees pointed to a number of additional actors. They include specific functions, such as quality management, the influence of inspection regimes, and the role played by students providing feedback.

Quality management plays markedly different roles in Austria and Germany on the one hand, and England on the other. This discussion appears in subsequent sections in greater detail. In terms of the different perceptions of its role in implementing innovations, the following quotes represent the overall difference found in interviews. In each case, interviewees referred to innovation that is instigated by teachers:

“As a College, you appreciate when teachers bring something new and innovative into the classroom, but then that will be quality-checked through observation, which will then be cross-checked by internal verification, and checked again by external verification, and so forth. So it is checked and checked again; not at the interim stages, but once you have started using a certain mode of teaching and learning in the classroom, that gets checked.” (T2 – Programme Coordinator, E6)

An Austrian colleague offered up a dissenting view:

“I don’t feel influenced from the outside – quality management and similar things – at all, because the things I want to do simply cannot be captured in numbers or data. If at all, it would be by its success, if there were standards, and
if they asked particular questions in final exams, then that would perhaps influence me, because I would of course do more teaching to the test. So it would influence me negatively.” (T2, A4)

A similar contrast appears in relation to external inspection or quality management initiatives. In practice, both Austria and Germany are seeing increased efforts to evaluate teaching quality, but legal frameworks do not allow any significant consequences to failed inspections. Asked about possible sanctions by the state against a college in response to weak quality assessment results, a German vice principal gave an answer that equally applies to Austrian schools:

“Little, I would say.” (Vice Principal, G3).

A high-ranking official in Germany related this to the general notion of professional autonomy for teachers and continued:

“As a measurement device we have so-called external evaluations [...] and for that, for example, schools pushed through a decision in its first phase that we would not receive the reports from that evaluation. So those only went to schools, and schools are then mandated to write their own report to us, about their results.” (A – State VET Council)

In contrast, inspections such as Ofsted are being taken extremely seriously by English colleges, even if some teachers and administrators are highly critical of its efficacy:

“Ofsted come in, people change their lessons, and it’s for Ofsted to see, and then they get back to how they taught before. That’s my opinion on how it is. There is too much change for the sake of Ofsted, […]” (T3, E5)

However, teachers also acknowledge that external pressures – mostly related to funding – usually take on more generalised forms that motivate innovations, without prescribing their exact nature:

“I would say there is a certain pressure to make a student pass, because it’s all funded, so for the student to be successful, it’s all about getting people in, and getting them to pass. That’s the pressure I really feel. So not really how I deliver my lesson, or how to improve it. The pressure I feel is: we need to get this number of students passed.” (T3, E6)

At the other end of the organisational hierarchy, interviewees identified students as stakeholders in the implementation of innovative change. While not many felt that
students explicitly demanded pedagogic innovations, the wider socio-cultural context investigated in 5.5 played a recognizable role. On the one hand, a teacher explains:

“We are led to believe that learners are driving the need for change. I have not really seen any evidence of that. Learners predominantly feel they are delivering themselves into an institution, and they are paying for the privilege, or somebody is paying, and they expect to be given what they would think is going to be the best thing for them” (eLearning Manager, E2)

On the other hand, the direct interaction with students provides ideas and feedback for classroom innovation:

“Where do new impulses come from? Most significantly from my experience in the classroom, where I constantly try to reflect on what I’ve done, what effect it has had, and how I could change it in such a way that it gets even better.” (T2, A5)

Overall, the difference in perceptions that was identified with respect to school management was also evident in relation to quality assurance and inspection regimes. Whereas teachers in Germany and Austria saw them variously as threats to their professional autonomy, or as acceptable avenues of inspiring innovative change, they were aware of the relatively weak role such outside pressures play on classroom practice. In England, by contrast, teachers felt more significantly pressured into behaviours that conform with quality management objectives, and cited the need to satisfy the corresponding bureaucratic requirements. As far as students figured in responses on relevant actors in innovation processes, teachers in all three countries agreed that they receive valuable feedback from students, but rarely a direct inspiration for change. Instead, the pressures created by the changing nature of students formed part of the overall environment necessitating pedagogic innovation.

5.4. What role do practitioners’ self-perceptions and notions of professionalism play in the implementation of innovative change?

The analysis of the roles different actors play in innovation processes leads directly to teachers’ understandings of professionalism. This analysis includes questions about motivations and aims in relation to the permitted scope of autonomous decision making, and touches on opportunities for self reflection, connections to a vocational field of
practice, and the impact of teacher training and continuing professional development (CPD). In comparison to the preceding sections, there are notable differences in the findings from participating countries. In order to substantiate such claims, extensive use will be made of original quotes to demonstrate in their own voices how teachers’ attitudes differ. They show that it is not just a small minority of teachers in Austria and Germany that exhibit an active resistance to managerial control, supervision, and loss of autonomy in the classroom.

The sections discussed in this chapter comprise themes that could lend themselves to much more exhaustive research in their own right. Here they merely represent the extent to which interviewees mentioned different topics that the analysis has shown to be relevant to an understanding of professionalism in relation to innovative practice.

5.4.1. Motivations Underlying Professional Self-Images

All interview partners agree that by far the most relevant part of a teacher’s motivation to introduce new methods and pedagogies is intrinsic, and linked to reasons that run the gamut from a sense of responsibility, through professional ethics, to a desire to avoid boredom:

“Personally, I am intrinsically motivated, because that’s the best sort of motivation [...] that works through my own interest. Perhaps also because I feel responsible towards my students.” (T2, G1).

“I don’t want to be bored myself. Things I’ve done last year, I am changing, adding more interaction.” (T1, E6)

However, while most interviewees agree that there are always some colleagues who appear to lack such motivation, the complaint features more prominently in Austria and Germany than in England. Even at colleges that they perceived to be particularly innovative, teachers estimated between ‘very few’ to about a third of their colleagues to lack the desire to work in teams or try out new ideas. An example for the lower estimate was the following:

“A really small proportion says: ‘I am getting my [...] salary each month, and nice retirement benefits when I’m done here, so now I just have to get it over with.’ That sort of thing happens in the rarest of cases.” (T2, G2)

However, more frequently interviewees felt that too many of their colleagues actively
avoid change, or even the responsibility to work together:

“[...] sometimes it drove me insane, how persistently some teachers tried to avoid this, and on top of it all they kept whining about how there’s always something new!” (T3, A3)

Interestingly, German interviewees attribute the lack of motivation in colleagues to exhaustion, while Austrians leave it mostly unexplained and appear to talk about it as a character trait.

“We have many colleagues who were very diligent and ready to do things, but now they are simply at their limit, overworked, or used up.” (T4, G2)

“There is a lot to do at home; corrections, CPD, and work really never ends, you are always dealing with school issues. That is the downfall of many teachers, they get sick from it, they burn out, and they are eaten up by problems, they can’t switch off; [...].” (T2, G4)

Overall, the different structures of FE Colleges and their equivalents in German-speaking countries appear to find their reflection in teachers’ motivations in relation to self-perceptions. Whereas there is an agreement on the importance of intrinsic motivation, teachers in Austria and Germany particularly bemoaned a perceived lack of such motivation in colleagues. Later parts of the analysis hint at the greater degree of autonomy as part of an explanation, since there are fewer factors that pressure such low motivated teachers into changing their attitudes.

5.4.2. Aims and Purposes of Teaching

Teachers’ motivations frequently appeared in the context of the wider purpose of the profession, not just in relation to individual aims, but in the context of managerial and societal expectations. Motivations and aims provided the parameters within which professional autonomy – discussed in the next section – is exercised.

Teachers at all colleges professed aims that relate to students’ future professional and personal success. A typical view was:

“we are here to help these learners to get an education so that they can go on in society, and get a job, or go into HE” (T3, E3)

However, in a more narrow sense English FE college teachers also mentioned their institutions’ immediate expectations:
“As a tutor, your job is to get as many through as possible” (T1-1, E1)

A faculty head related the individual and institutional levels, further supporting the notion of intrinsic motivation in the process:

“From a management point of view the incentive is also success rates, and reputation of the institution. But for the individual teacher [...] it’s more intrinsic; it’s reputation as an individual teacher, satisfaction as a teacher, and satisfaction of the students” (T2 – Head of Faculty of Science, E5).

Austrian and German colleagues brought the term ‘Erziehung’ into play, specifically referring to those elements of education that go beyond knowledge and skills, but rather touch on personal development:

“At this age they definitely still need Erziehung; you can’t do that like you would at university, and reduce it all to saying that I am only there to impart knowledge [...]” (T2, A2)

In general, teachers in the three countries were in agreement on the student-centred purpose and aims of their profession. Interestingly, the English discussion revolved more around ‘skills’ as outcomes that satisfy particular management or quality expectations, while their German-speaking colleagues brought up Erziehung as a notion that relates to personal development, and is usually associated with a parental role.

5.4.3. Professional Autonomy and Self-Reflection

At the core of practitioners’ role definitions in interviews lay the idea of professional autonomy, particularly with respect to planning and decision making in the classroom situation. Here the analysis has uncovered significant differences between interviewees from different countries. Whereas interviewees appeared to say similar things about the freedoms granted to them, and in general seemed to think of themselves as more autonomous than many other professions, there was a clear distinction in the degrees of autonomy reported. Teachers in England accepted more severe restrictions given by management, quality assessments, and curricula, as a matter of course, and saw them as natural parts of their profession. There were complaints about rising demands on their time from paperwork, but the right of college administrators to manage teachers was not doubted. In Austria and Germany, by contrast, interviewees frequently stressed an
insistence on much greater autonomy, and viewed school leaders as systematically prone
to infringe on those rights. In practice, very few teachers gave examples of actually
exercising such autonomy in the face of opposition from college administrators and
colleagues, but they emphasised the need for a consensus based culture on the basis of
having retained such freedoms.

A quote given previously in 5.3.1 is repeated here because it is typical for English
teachers’ take on autonomy:

“We are very free in the way we plan; very free to use any innovative technique
on an individual basis: looking at content, and working out individually how to
do it. We have [...] an observation process; during each year we are all observed,
and there is an expectation by the college what should be seen. The quality team
evolves the quality of what should be going on, and monitors it quite closely” (T2,
E8)

That is, the observation and direct comparison to quality management objectives was
hardly questioned, and the instructor’s freedom was seen as conditional on finding
ongoing approval from outside observers. This differs markedly from a typical German
statement:

“It’s good to have this liberty and enjoy that trust [...] if I had to explain myself,
what I am doing in each lesson, I would quit my job.” (T2, G1)

This is mirrored by perceptions at the managerial level. A teacher-administrator
involved in staff development at an English college expressed the view that teachers
needed potentially interventionist guidance in their methodology:

“Vocational tutors are experts in their area, and possibly we have to help them
work on their teaching; [...] it takes a lot of work to get them to look at how
people learn in different ways, and how they look at their subjects and how they
put that across.” (T2-2, E1)

An Austrian colleague in a similar role enjoyed a lesser degree of influence with teachers,
and lesser acceptance of her quality management duties:

“[I] have become really disillusioned in recent years, because Austrian teachers
[…] are generally not very keen on innovation. That’s for well-known reasons,
that self-image of being a lone fighter, ‘I close the [classroom] door behind me,
and can do whatever I want in there.” (T3, A1)

This difference in professional autonomy played into the acceptance of change and
innovation processes. Teachers in England reported greater anxiety about being exposed to expectations of unrealistically fast or profound changes, although some put this into proportion:

“The radical change rhetoric happens when there is a change of government. They feel they have to come up with new ways of looking at education, crime, health … having an impact, to get the votes. Then in reality, by the time this trickles down to the street level bureaucrats like myself, it’s not that massive, and we have a lot of autonomy on how and whether we implement some of the changes.” (T1, E3)

Whereas most FE College teachers showed a greater degree of acceptance towards managerial oversight than their German-speaking colleagues, many expressed dissatisfaction with particular rules and regulations, especially relating to paperwork. This is discussed in more detail in the next section about responses to external influences. However, as illustrations of perceptions of individual freedoms, it is notable that no teacher in England admitted to wilfully ignoring or breaking such rules. Several teachers in Austria and particularly Germany did so quite openly. Assuming that this is more than the product of a higher degree of honesty to the researcher owing to language and cultural contexts, it may indicate a different stance towards authority in relation to a teacher’s professional role:

“If I actually did everything I am supposed to do, I would spend a lot of time on bureaucracy […]. As long as my line manager doesn’t ask specifically, and doesn’t come after me, I’m happy to take the risk, that I don’t do something and later on they tell me I should have done it for insurance reasons, for example. I am taking that risk. Particularly teaching physical education there is always criminal liability, but personally I can estimate that risk better than some form to fill in.” (T2, G1)

This was not a single, radical, point of view, but instead appeared to amount to an institutional tradition in several cases:

“We can’t start by changing a rule in order to try things out. Together with colleagues in a team, I have shown conclusively in a large project that breaking particular rules in certain ways can make sense, in order to point out their absurdity. You can see what’s important, and if a rule does not provide that space, we demand a regulatory change. In some such cases that gets green-lighted by decision makers […].” (T4, G2)

The marked emphasis of teachers in Austria and Germany on professional autonomy
corresponds to their traditional high job security. It has been outlined before that teachers are employed by the state, rather than colleges, and typically unionised. The head of a German municipal government’s VET council talked about problems with teachers whose under-performance is obvious:

“IT’s always a balancing act, because colleagues get annoyed, too, [by under-performing staff] and then they raise questions: can’t you do anything about this, can’t you take care of this? And I have to reply: there is no way to clamp down on it, except maybe a few things that are not so nice, like ordering someone to come to work earlier, or allocating them to classes they don’t prefer, but those are just pinpricks that don’t have big consequences.” (B – State VET Council)

The above statement indicates that there is a significant downside to professional autonomy. In all three countries, interviewees were aware that there was a possibility that teachers did not engage in teams and might show little enthusiasm or even cooperation for innovations. When asked about the main obstacle to innovation, a development manager in England answered:

“Some have been doing things the same way for years and are not going to change. They have set ways, and believe it works. […] that’s tricky because students are changing quite a lot, so delivering in the same old way leads to a mismatch. So the greatest obstacle may be individual teacher.” (T3 - Quality Improvement and Workforce Development Manager, E8)

However, the problem is stressed much more frequently and in slightly stronger terms in the other countries in the study:

“Colleagues that are not interested, or hardly work in teams, are left alone. They remain in their job, but aren’t forced to do anything that they don’t want.” (T1, A3)

A German colleague adds:

“Yes, that’s in their heads, but it’s not that they don’t want to do things; rather, they don’t understand new opportunities.” (T3, G1)

The interviewee’s conclusion in this last statement reflected an emphasis in Austria and Germany on a teacher’s expected ability to discover and develop opportunities without prompting and external pressure. Whether this was the result of understanding academically trained teachers as embodying Humboldtian ideals of Wissenschaft with respect to their profession, may warrant further investigation:
“[...] we are academics, with the ability to reflect anew on things, that is, it’s not about prescribing things that may then remain fixed for a while simply because they are fashionable at the time.” (T3, A4)

The relation of continual professional development and teacher training to professionalism will be addressed in more detail in a subsequent section.

Another apparent side-effect of greater professional autonomy in Austria and Germany was the more frequently expressed lack of sufficient support and communication structures:

“There is no need to compile the same exercise sheet time and time again [...] it’s all there, after all! Therefore I advocate platforms where everyone shares their materials. That would just require some structure.” (T1, A2)

Teachers in all three countries stated that their actual working hours exceed their contractual obligations, but English interviewees appeared to express less frustration with this state of affairs:

“it’s my personal time, but my contract is only 37.5 hours I week, but I do 45, and in that I don’t really have time to sit down in the office. So then I come to more that 50 hours a week. But I worked in the industry, so I am used to it” (T1, E6)

This contrasted, for example, with the exhaustion and burn-out described by several German teachers.

In conclusion, the focus on professional autonomy clearly illustrated the difference between English FE Colleges and their German and Austrian counterparts. Whereas most interviewees expressed an appreciation for their perceived autonomy, it was clear that both in terms of acceptance of managerial oversight, and reliance on management structures, teaching practitioners in England enjoyed significantly less freedom from intervention than their colleagues. However, the latter faced the significant downside of a lack of formal structures, greater motivational hurdles, and greater potentials for frictions with low-performing colleagues.

5.4.4. Influences on Professionalism from Outside Pressures

Previous sections touched upon the effect that influences from outside the classroom have on teachers’ role perceptions. In line with differences in professional autonomy, practitioners in England reported greater restrictions:
“The college does encourage us to do new things, but sometimes the curriculum sets specifics; so when you do try something new it may not fit in with it. Things like that are really annoying, because [...] then it’s the curriculum that prevents you from doing that.” (T3, E3)

This teacher went on to compare BTEC National Diplomas in her field – sports development and fitness – with equivalent NVQ level 3 diplomas. She stressed that the NVQ sets outcomes that leave the teacher uncertain about whether students were well equipped for the examination. By contrast, BTEC provides specific criteria, up to detailing the number of ‘guided learning hours’ per topic, which leaves the teacher less flexible to formulate their own teaching. Even a cursory comparison to the framework curriculum concept utilised in Austria and Germany shows that the latter is less specific than either of those examples. Assessment cannot be as straightforwardly compared, but for most subjects, teachers in Austria and Germany indicated that they were solely responsible for all assessments of their students, with the possible exception of final exams, where they still play a significant role. Another exception are professional vocational qualifications that are offered at many colleges, but teachers often work as assessors and are therefore well informed about all relevant requirements, and retain a feeling of ownership of the process.

As a result of stronger curricular and managerial influences on teachers in England, and more ambitious quality management systems, interviewees universally reported growing frustration with bureaucratic requirements:

“feel their role has gone from being in the classroom to being in the office [...] I didn’t go into teaching to do paperwork. I came here to stand in front of learners, and teach. That’s what’s putting a lot of people off teaching, that paperwork.” (T3, E3)

However, teachers also saw the advantages of more formalised structures:

“I think some things are required. Yes, it’s annoying to do my registers online, but from my position as a course leader, it allows me to know who is falling behind, so I have the relevant statistics to pinpoint. I can ask questions, and think about strategies to help my students.” (T1, E2)

This statement from a course leader confirmed the notion developed in 5.4.3 that English teachers accept the need for course leaders and other teacher-administrators to monitor their students and by extension their teachers’ performance across subjects. In practice, German and Austrian course leaders keep track of similar data, but rely more strongly on
informal channels and information provided by colleagues on the basis of ad-hoc requirements.

Another extract from the same interview showed an awareness of the context in which more extensive management control and reporting were expected:

“we have more accountability in terms of looking at our achievement, retention and success figures, because of links to funding streams, [...] there is an awful lot of pressure, there are funding cuts left right and centre, and I am certainly much more aware of the implications of losing one student, and what that means to my overall retention. And I have targets to meet.” (T1, E2)

It is notable that the key factors of retention and achievement in terms of grades, as well as funding considerations, were nearly absent from discussions with teachers in Austria and Germany.

All interviewees agreed that curricular and managerial influences played a role for teachers’ self-perceptions and work performance. This ranged from changes in qualifications, to quality management regimes, exerting pressures that reach all the way into the classroom. However, again it was teachers at English FE colleges who reported the more significant restrictions and bureaucratic hurdles to realizing an autonomous interpretation of their professional roles. The connection of such roles to particular vocational fields is discussed in the next section.

5.4.5. Professionalism and Connections to the Community of Practice

Most interviewees involved in teaching vocational subjects – as opposed to, for example, languages – mentioned their industry experience and ongoing interest in a vocational field as factors that inform their professional roles. Depending on school types and subjects observed, such relations differed in extent, ranging from instructors in healthcare and beauty related subjects who frequently had part-time teaching engagements, to full-time teachers in economics who expressed their ongoing private interest in the field, but did not see opportunities for practice. Many teachers at German colleges have classes in full-time Berufskollegs, as well as dual-system Berufsschulen, since in the countries studied – North Rhine Westphalia and Bremen – those institutions are usually integrated into single institutions. Several such interviewees reported strong
connections to training companies, both in terms of acquiring relevant subject knowledge, and for coordination and curricular planning purposes. In addition, such teachers were frequently involved in trade or industry bodies tasked with developing qualifications:

“We are both members of examination boards that also affect those students, so we would not forgive ourselves if we didn’t try everything we can to get those students to the point where we can honestly say they have earned their professional qualifications.” (T3, G1)

Interviewees in all three countries argued that prior work in industry not only provided practical experience, but also forced prospective teachers to make more conscious decisions to change careers. An Austrian teacher talked about the legal requirement for trainee teachers in some subjects to have worked in industry:

“That has the advantage that people who want to teach law and economics think hard about whether they really want to be a teacher, because at this point they’ve had five years of being settled down in a job.” (T2, A4)

The following contribution from a teacher at an FE college described a situation that appeared to be characteristic of vocational schools in all three countries:

“It’s mixed. We have a lot of full time tutors […]. There are visiting lecturers who are still working within the industry, […]. Also, many full time tutors still work officially or unofficially in the industry, work part time, or do some hands-on expertise. So some may be illegal, for example within the [mentions specific department].” (T2-2, E1)

This ongoing connection meant that instructors identified their teaching styles and interests with current trends in vocational practice:

“Our industry is creative, hairdressers have to find out what the next emerging trend in fashion is, you can’t learn your skill then sit back. You constantly have to explore what’s out there. So we are used to doing that” (T1, E8)

Interviewees generally agreed that connections to particular fields of practice influenced their thinking about all aspects of their teaching role, including the formation of a work ethos that reflects that of the vocation. This aspect appears throughout the analysis in this chapter, and relates to the way teachers report on defining pedagogy differently for students working on different professional qualifications (see 5.1.3). As the next section will discuss, this aspect also relates to teacher training.
5.4.6. Teacher Training and Continuing Professional Development

The connections to fields of practice, as discussed in the previous section, provide teachers with up-to-date access to the latest developments in their subject area. To complement this on the pedagogical side, all participating research subjects saw specific teacher training as an essential requirement. In all three countries studied, more experienced teachers described this in contrast to previous policies:

“When I came in, the only required qualification was to be advanced at your profession – I think it was five years experience – plus an advanced vocational qualification. When I came back after the break, everything had changed, you had to work towards your teaching qualification, [...]” (T1, E8)

This change was described as beneficial by all interviewees, but existing provisions for initial teacher training as well as continuing professional development (CPD) were frequently criticised. The reasons given by interview partners warrant a more specific look at details, since they appear to be at once specific to individual circumstances, but also widespread. Several teachers lamented the narrowing opportunities after initial training:

“The whole programme is about having to go and look at other teachers, developing innovative practice, so for the first two years you have that, [...]. But once they are qualified, they don’t see out beyond their own area. Occasionally they have supportive managers who let them out to see something. We have a staff training week in summer. It’s not enough” (T3 - Quality Improvement and Workforce Development Manager, E8)

Some teachers in each country, but most predominantly in Germany, criticised the perceived irrelevance of initial teacher training:

“Studying to be a teacher is catastrophic in vocational subjects [...] in addition, the mandatory internship is lacking in quality, or even insufficient. [...] I have experienced it that way, and have heard the same from many others. If you have a good teacher as an instructor for your internship, it’s all great.” (T3, G3)

German teachers in particular mentioned the lack of effective standards in training. By contrast, their Austrian colleagues expressed more satisfaction, but feel that they were not well equipped to handle innovative practice:

“Teachers are not trained to be innovators. I can answer that with a definite ‘no’. There is no training [for this]; rather, it’s the initiative of individuals who say: I’ll try this.” (T2, A2)
This related to their predominant attitude – analysed in 5.4.3 – that as trained academics their motivation to innovate is an intrinsic desire. While teachers felt they were instilled with the requisite scientific curiosity, their training lacked practical means to operationalise innovations.

Teachers in all three countries pointed out that CPD and training related to their vocational field was frequently undertaken in their spare time. This was reported by some to be particularly problematic in relation to functional skills in England, because not all teachers felt confident with content that lay outside their vocational area:

“And we hairdressers have to teach Maths, English, and ICT as well. Well, we are told we are not teaching it, we are facilitators. [Question: But you must still be quite involved in it?] Yes. There’s a lot of pressure. So yes, as far as furthering our academic goes, we can if we want to, but it’s in our time.” (T2, E4)

Interviews indicated that structures in England seemed to leave less freedom to find time away from teaching engagements to do CPD, but such findings cannot be conclusive due to the diverse nature of colleges and teachers observed. Despite this, English FE colleges were reported to exert more pressure on individual teachers to attend specific forms of CPD, followed by Germany, with Austrian colleges seeming to place the least emphasis on it. In most interviews, effective training participation was described to depend on individual initiative, and teachers in Austria repeatedly expressed their desire for independent choice. To them, training fell within the remit of their own practice, and they did not see it as a task for college administrators to structure and prescribe CPD:

“every teacher who is an academic wants to develop professionally, does not want to remain stagnant; it would be incompatible with being an academic, in my opinion, and from what I see from colleagues, not to continue training.” (T2, A4)

Part of this attitude may be explained by a lack of awareness of formal options that are on offer. A teacher who is involved in organising CPD acknowledged the widespread lack of awareness, after outlining the teacher training system:

“Possibly some colleagues don’t see this structure, but it’s there.” (T3, Team Leader for Economics, A4)

On the downside of such liberal arrangements, the data shows an effect similar to
that described in previous sections in relation to professional autonomy. Less engaged teachers may find too much leeway to remain obstacles to school development. The following example is from Germany, where the same problem has been pointed out in several interviews, albeit to a lesser degree than in Austria:

“That’s the point: if I am not interested as a teacher, I won’t do anything. [Question: A teacher is not compelled to attend particular training sessions?] No.” (T4, G3)

Overall, teachers in all three countries agreed on the significant role teacher training and CPD play in shaping their professional roles. However, they also frequently pointed out the lack of quality or relevance in both modes of training. In line with previous findings, FE College practitioners reported stronger pressures or more formal procedures to participate in CPD, whereas their German-speaking colleagues enjoyed more freedom, but also had to deal with the adverse effects of the ability of some colleagues to evade most meaningful training.

5.5. How do practitioners perceive changes in students and societal expectations in relation to innovation processes?

The last research question addressed in this first analytical chapter builds the bridge towards more interpretative and abstracting parts of this investigation. In order to go beyond a description of the status quo, it employs teachers as extensions of the research instrument, developing interpretations on how changes have affected their work, and how they relate to the introduction of pedagogic innovations. This section first discusses societal changes creating a need for addressing students in new ways. Then changes in expectations and opportunities for students in terms of further education, higher education, and the job market are considered. Finally, country specific challenges resulting from changed societal surroundings are investigated in more detail.

5.5.1. Societal Change and Students’ Needs for Innovative Practice

As previous quotes in this chapter have indicated, a majority of interviewees saw changing needs and expectations from students as an important reason for continuing
pedagogic innovation. In particular, teachers explained that students may seem at ease with current technology whilst lacking deeper understanding:

“The problem is, a lot of youngsters, although they are very quick with technology, texting people on their phones, or going off to Wikipedia, actually have very few skills on using computer technology, and non-technology correctly.” (T1-4, E1)

A colleague in the same focus group highlighted a simultaneous decline in communication skills:

“Nobody would discount the power of technology, but there is a problem with young people: they need to interact on an interpersonal basis.” (T2-1, E1)

Interviewees also highlighted their perceptions of a need to compete with interactive media and on-line environments, and they expressed concern at maintaining the balance in favour of productive learning:

“When we first introduced VLEs, students lapped it up, because there wasn’t anything like it [...] These days, a decade on, they are all completely familiar with their own personal, highly customizable social spaces online. For an institution to muscle into that place is rather a different matter now.” (T2, Director of Learning Assistance and IT, E2)

According to several interviewees, this competition finds its expression in behavioural changes with respect to learning:

“Students used to be able to listen more; today they hardly have that ability because of overstimulation.” (T2, A2)

English VET teachers in particular pointed out a need to make the classroom experience entertaining, which was reflected by the researcher’s subjective impression during classroom observation sessions:

“We are not in a generation where students listen quietly, and answer questions when I ask. That was in the 50s to 80s. That’s finished. They want entertaining lessons, want to move, stand up, go to the screen, they want to do things, they want interaction. Otherwise you lose them, and they won’t learn anything. Pretty straight away, it has to be catchy.” (T1, E6)

The direct result of this change, according to interview partners in all three countries, is a need for pedagogic innovation, backed up by continued self improvement.

15 Virtual Learning Environments
Several teachers stressed that this is not only a question of professional responsibility, but one of preventing problems in the classroom that could jeopardise their work:

“If you are not keeping up as a teacher when students have access to Wikipedia and the internet on their mobile phones, then students will get on to you, they will discover your weakness, and you will immediately lose their respect. With the loss of respect, all ability to teach, all joy in your profession, is lost.” (T1, A4)

Teachers were also aware of a need to react to changes in societal expectations. In England in particular, interviewees often mentioned a growing emphasis on individual care in relation to evaluating and addressing learning styles, as well as safeguarding issues and dealing with questions of access and disability:

“Lots of learners, more people, come to the college with a label, whether it’s Asperger’s, autism, specific learning difficulties, moderate learning difficulties [...]. So more people labelled in this way are coming, and therefore we have to try and support them.” (T2, E3)

In addition to changed expectations, the growing diversity of students creates new challenges. The focus of this study is on 16-19 education, but many classes observed in the research process included students that fell outside that traditional age range. At FE colleges in particular, initial VET and adult education increasingly overlap, as colleges branch out into new territories on a wide scale, ranging from re-engagement programmes, to Higher Education:

“[I teach] all age groups, up to 25. They come across from the foundation studies block, where they are being re-introduced to education. For various reasons they have dropped out of school: pregnancies, family reasons, ... so it’s a way of re-engaging them. So they come in, with very varied abilities; some have a very low level of learning; it’s not just formal education; it’s about how to socialise, how to work in a group, how to engage in conversation.” (T1, E4)

Teachers appeared divided in their opinions about the overall effect of those challenges. Whereas some appeared convinced that students were less able than previous generations to perform well academically, others saw this as a commonly held myth:

“They weren’t good then! People have this rosy glow of how the students were then.” (T3, E8)

In particular subjects, teachers reported an increase in quality and interest due to changes
in societal developments. Catering, for example, was mentioned at several colleges as a field that had recently been popularised by the media:

“They have higher expectation levels when they come into colleges. [...] So the expectation levels of what they are going to be taught I think are slightly raised. They always want to cook this, cook that, because of the TV, [...] You know, I wasn’t expecting maybe as much as that, but there was a lot of input from the students. They didn’t just sit there, being talked at, without expectations. They put in a lot.” (T3-1, E7)

However, in the same conversation a colleague pointed towards his perception of a growing quality divide:

“I think there is a lot more behaviour problems these days. Academically, their basic skills are quite shockingly poor, compared to when we were in school” (T3-3, E7)

A similar concern with a lack of academic as well as social skills was voiced by interview partners in Austria and Germany:

“In general the educational task has changed. Students come with different prerequisites, different prior education. The problem of deviance is substantial, and this whole construct of higher expectations [of students]; society changes, and students have a much bigger problem meeting expectations.” (T3, G1)

This awareness of falling levels of support from families, coupled with increasing societal expectations, was frequently shared in interviews:

“Students have not become more stupid [...] [but] support from families has changed, it’s not like it once was. With all those simultaneous influences on students that they can’t process, that’s a challenge for us as pedagogues [...] to make them learn to see what’s important.” (T2, A5)

Several interview partners recognised a problem in the interplay of policy demands for innovation on the one hand, and the need for pedagogic change that resulted from the challenges described above. With reference to demographic change, a teacher analysed:

“Schools face the problem of falling student numbers. Innovation is often motivated by the question of how to market it. [...] I think that’s where I see a deficit; it should be about the students, what helps students? After all that’s my primary task. But then there are those school rankings in glossy magazines, and I see a danger in how this is evaluated. There is for example a primary school where all students get iPads. Why? Because that’s so marketable.” (T2, A2)
5.5.2. Student progression

Related to societal change, but more directly linked in interviews to curricular and structural questions, was the issue of student progression and careers after VET. This factor entered the discussion of pedagogic innovation because it related classroom practices to the wider world of work and academia. Teachers reported continuing misconceptions about vocational training held by careers counsellors, parents, and colleagues at schools:

“[… I know colleagues who do look down on vocational courses, they would say, oh, put them on that course because it’s easy, when it’s not easy at all.” (T3, E5)

However, teachers in all three countries expressed that they did not expect VET to lose its relevance both as a route into work, as well as a stepping stone to continuing education. In Austria, this duality of purpose was seen as particularly successful, but similar sentiments were voiced at the upper end of the VET qualifications spectrum in all three countries:

“[…] I think more and more students go on to university; I can only speculate about the reasons; […] However, the focus is still: students can directly enter the workplace after this school.” (T3, A1)

Teachers in Germany involved in Fachhochschulreife qualifications expressed similar views, with the addition that the tendency to progress into higher education was strongly dependent on the vocational area. Asked whether more academically oriented students migrate away from VET, leaving the latter with worse qualified students overall, most teachers in Germany agreed that there is a trend towards academic qualifications, but feel that other abilities compensate:

“I don’t fully agree with this hypothesis. Certain required competencies have certainly declined over the years; however, there are other skills. Moreover, that’s very specific to the type of subject area.” (T1, G3)

At English FE colleges the question of progression was more complex, since teachers felt that not only students, but even school administrators and university admission officers, suffered from confusion about the number and types of qualifications on offer. They frequently saw this as the main obstacle for any qualification to achieve parity of esteem with A-levels. In some cases, such mixed messages came out in the interviews themselves:
“Academically you have student that come to level 3 [...] so it’s given them the same opportunities as the most academic ones that did A-levels. [...] I feel the Diploma has done that, and I think that the government that brought that in did a good job with it [...]” (T3, E5)

However, the same teacher later stated:

“*My fear is whether universities accept the diploma as an academic subject. So we are very careful who we put on what course if we know they want to go a particular route.*” (T3, E5)

Interestingly, there were examples of professions where increased media exposure has helped to inform prospective students about the nature of work as well as required qualifications. As has been noted in the previous section, catering is one such area that was specifically mentioned in England, but similar effects were pointed out at hospitality schools in Austria (no such college was visited in Germany):

“* [...] look about how many [TV] programmes run about food; they are making it interesting, the industry is interesting because you’ve got Gordon Ramsay, you’ve got Heston Blumenthal; that began about ten, 15 years ago, and it’s still going now. These students watch these programmes, and they go: I want to become a chef, from an early age, and then they come to us, with hopefully an understanding of what they are getting into. And that’s been a big help to us. And also, the qualifications we are running are endorsed by industry chefs such as Gary Rhodes, such as Gordon Ramsay; they are involved to say: this new qualification is great; and then they endorse it. The books are written by chefs, who have been in the industry, and also teaching, so it’s relevant.*” (T3-3, E7)

In summary, issues of student progression were characterised by frequent perceptions that VET is not well understood by society, including parents and students themselves. The role of factors such as TV shows in shaping potentially incorrect assumptions about the merits and challenges of particular vocations were pointed out in several interviews. In all three countries, issues summarized under the heading of ‘parity of esteem’, and the lack thereof, in comparison to academic qualifications, was seen as a significant obstacle to the proper understanding of VET. In England in particular, the problem is exacerbated by the wide range of qualifications on offer, which interviewees noted as a source of confusion, rather than an opportunity for better choice. Country-specific problems are discussed in the next section.
5.5.3. Country-Specific Challenges

In addition to changes in societal expectations and questions of student progression, interviewees pointed towards country-specific challenges that have an effect on teachers’ roles as pedagogic innovators. This is an opportunity for further research, as this section can only provide a first glance at the topic, as far as it is relevant for understanding the context of subsequent chapters.

In Austria, teachers frequently cited a growing gap between the five-year Berufsbildende Höhere Schule and the three-year Berufsbildende Mittlere Schule as a challenge that faces school administrators, teachers, and students. Whereas the former is going strong, producing students that progress well into higher education as well as to the work place, the latter suffers from widening social inequality, partly in connection with immigration. Since BHS and BMS are practically always run jointly as branches of the same institutions, structures and pedagogies have to contend with this growing disparity:

“[…] for HAS the target group has changed massively over the last ten years. We have a strong increase in youths from immigrant families. We can’t act like this type of college has to meet exactly the same requirements as it did ten years ago. Therefore one has to consider how to develop the product further in this situation.” (T3, A4)

The problem is not just confined to the urban setting of Vienna, although rural areas are less affected:

“There is a noticeable gap between HAK and HAS. The HAS has turned into a problem area, because there are fewer and fewer students that meet the requirements; that’s not purely a problem of immigration. It varies in Austria according to geographic location.” (T2 – Principal, A1)

However, it must be noted that both BHS and BMS do not cater for as wide a range of students as some English FE Colleges and most German Berufskollegs do. Since the latter, in particular, also house students in the dual system as well as diverse re-engagement programmes, teachers at such colleges are more exposed to social problems than their Austrian colleagues.

As expected, teachers in Germany frequently related such problems to language barriers and cultural clashes as a result of challenges posed by immigration. However, when asked specifically, several teachers also pointed towards a growing native German socio-economic underclass:
“By now the language problems are universal, including with non-immigrant Germans. [There are problems] with falling literacy, that can affect vocational training massively … if one can’t read technical instructions.” (T1, G3)

Many interviewees in Germany commented on the increasing need for social care, rather than traditional teaching:

“One can see families break up, and students with lots of problems that they take to school with them. We need a lot of social work and advice-giving; students are very distracted from school.” (T2, G4)

The growing challenge was also recognized by a German government official involved in setting VET policy:

“Something that will hit us even more […] is the shift within the young generation towards school classes that have practically no native German speakers, where almost everybody has a background in immigration.” (State VET Council)

Whereas similar challenges were reported by teachers in England, they seemed to be neither the primary concern driving the need for pedagogic change, nor the main challenge for such innovations. Instead, the competition between colleges and funding pressures were seen as significant problems:

“Funding; that’s a huge problem; it makes a difference in resources, you have to take more students on; maybe you have to take them at lower levels; the level of students has dropped, in terms of academic standards. It used to be much higher, in literacy and numeracy.” (T1, E4)

The emphasis on the effects of a lack of funding is noteworthy in this case. Rather than claiming that innovation is stifled because of insufficient budgets, the interviewee highlighted more complex dynamics: The funding pressures produce an environment in which traditional pedagogy reaches its limits because it changes the nature of students accepted into FE. On the curricular side of this picture, competition for funding has an effect that exacerbates the problem, by limiting the freedom to define teaching in ways that addresses students’ needs and expectations. A teacher contributed the following analysis of the effect of competitive pressures on FE colleges:

“When Dearing brought out the foundation degree, it was supposed to be a high level technical qualification, for vocational subjects, but at a higher level than just operative. A fabulous idea. Highly trained specialised vocational people to do it. But it fell down when it had to be linked to universities, to get the funding, and the progression, so it became something lesser [than A-levels]. It should have
been something completely different [from A-levels].” (T3, E8)

In summary, the country-specific issues addressed by interviewees in relation to the effects of societal change on pedagogic innovation processes confirmed some findings from previous sections about the continued struggle of VET to be recognised as a highly valued alternative to traditional academic qualifications. The specific type of Austrian colleges included in this study comes close to overcoming this perception, but is not entirely in the clear: their shorter and lesser qualified branches, BMS, are at risk of turning into the polar opposite of the success story that BHS have become.

This chapter has laid the groundwork for the next parts of this study, ‘Documentation of Practice’ and ‘Dynamics, Limitations, and Lessons for Innovation’. It interrogates practitioners’ interpretations of key terms, leading to the conclusion that substantial overlaps in understanding teaching and learning practices, as well as innovation in this context, allow for meaningful subsequent analysis. The influences of professionalism and autonomy of teachers is investigated in connection with their roles as significant actors in change processes, as it becomes clear that motivations for effective change must ultimately be intrinsic. School administrations and systems play a role as initiators and facilitators for innovation, and they do so with different degrees of pressure and intervention: English FE college teachers are subject to more oversight and direction, but also enjoy more support and clearly structured work places and team environments than their German-speaking colleagues. In each case, CPD and teacher training in general are seen critically, and the individual ability to innovate is perceived to be tied more to colleagues, communication, and relative freedom from bureaucratic hurdles, than to formal training. In addition, in vocational subjects the work ethos of the underlying professional community frequently shapes self-perceptions of teachers, particularly in how they relate to students and societal expectations associated with forms of training.
6. Data Analysis and Interpretation II – Documentation of Practice

This chapter builds on the preceding analysis, documenting examples of innovative pedagogic practice, and organisational and structural innovations from the point of view of teachers. It adds to the discussion of all of the topics of chapter 5, and brings into play the relevance of influences from outside the classroom, including those originating at the management level as well as policy and curricular changes. In accordance with the methodology outlined in 2.6, the section headings represent themes that emerged as part of the interview data analysis. Therefore the caveats outlined in the introduction to chapter 5 still apply; topics cannot always be clearly separated, and interview quotes may serve as evidence for several points at once. This illustrates the rich and compelling narrative that emerges from VET practitioners’ personal accounts of innovations in teaching.

6.1. Successful Pedagogic Innovation

By providing concrete accounts of practice as evidenced by verbatim quotes from teachers, this section addresses one of the primary aims of this study. The examples given shed light on a wide range of successful innovations, both in the classroom and at organisational or structural levels, but they do not constitute a statistically representative, exhaustive categorisation of innovative practice in VET. Rather, they represent ‘critical cases’ (see section 2.3) that illustrate the context in which VET practitioners implement change, and where this process is located in the interplay of motivations, opportunities, and limiting factors.

The interview data yields rich qualitative information on innovative practices that could conceivably be categorised along multiple dimensions. For the purpose of this analysis, the grounded theory approach employed in this study produced eight categories of pedagogic innovation. The following table derived from the data illustrates that many examples provided by teachers (in rows) fall into several categories (in columns). It represents particular examples, rather than a statement that all activities always fall into certain categories.
The categories derived from the analysis are discussed below, with an emphasis on examples provided in interviews, and a first level of reflection on differences between countries and institutions. This provides the background for a more in-depth analysis of the dynamics and obstacles to innovation presented in chapter 7.

6.1.1. Peer Collaborative Work

The learning potential of group work was stressed by teachers in all three countries. Collaborative work as a teaching strategy is not new, but one teacher at an FE college explained:

“Although it’s not a new concept, it is more effective, and the uptake of technology has been instrumental in that, because it’s quite easy for us to do a project together and not be in the same room, [...] so I suppose in a way it’s new; an old concept revised.” (T1, E1)

In addition to the potential for group work to foster learning interactions between students, several teachers mentioned that it allows them more space to address individual students when required:

“Co-operative open learning means innovation for me [...] the teacher acts more like a coach, doesn’t stand in front of the class any more, out there, and lectures [...] I like this better, especially the ability to individually address students.” (T1,
Teachers in Germany and Austria mentioned social aspects and improved work-ethics as explicit aims of group work, whereas their English colleagues tended to focus on the creative and stimulating effects:

“they love working in groups – so basically, doing things by thinking outside the box, that fit in with the teaching objectives, but stimulate them as opposed to them just sitting and taking notes” (T1, E3)

A typical German response was:

“[students are] now required to get organised, think about individual steps [...] that’s particularly important in shaping this: think first, then do! That’s the aim I have in mind: self-organisation.” (T2, G2)

This example highlights the possibility that there are different pedagogic aims behind similar methods in different countries. However, this study could not explicitly pursue this particular line of enquiry.

6.1.2. Play and Fun Activities

Similar to many other pedagogic methods, play is not a new idea. However, technology, communication, and a changed emphasis in teacher training have contributed to making fun and games count as innovation in the views of many interviewees. Teachers in England tended to stress the ability of play to sugar-coat the learning effort, or its potential to hold the students’ attention for longer, whereas their German-speaking colleagues emphasised the applied or personality-development potential:

“[...] I believe we are in the industry of edutainment. [...] We are having to hold their attention. [...] So, teaching and learning now, we feel, should be much more active.” (T1, E6)

This contrasts with:

“[...] games that teach them that it’s impossible to concentrate when everybody is talking over each other [...] so that they simply experience this, and then reflect on it with me.” (T2, G6)

Several teachers in England mentioned a pedagogic idea that may seem counter-intuitive from the point of view of traditional teaching methods, but reflects experiences that many young learners have had:

“I found it worked to have music on. When students do a written task, I have quiet music on [...]. It soothed them down. They were concentrated, hummed
along, and got on with work. I felt like I’d cracked a code, and shouted it from the
goof tops. I use music as motivation quite a lot. I passed it on to other lecturers,
and get very positive feedback on it.” (T1, E4)

In some VET work environments, for example hair dressing salons, students were used to
radios playing in the background, while in others, this was actively introduced. Colleagues
in Austria and Germany appeared intrigued by the idea, but did not mention this specific
strategy.

6.1.3. Improved Interaction with Teachers

Teachers mentioned a wide range of subject-specific didactics and methods to
transport learning content, and frequently expressed that this was in contrast to their own
memories of learning as a student. Usually such changes involved improved social and
communication skills in teachers, as well as greater interaction with students:

“I think we’ve moved away from pouring the information in, to interactive
approaches, and based on research.” (T2-1, E1)

Teachers were particularly aware of the enabling potential of classroom technology in this
context, linking it to the previously mentioned topics of games, and the perceived need to
engage students by entertainment.

Interviewees in all three countries highlighted the scope for team teaching, or
holding lessons with the assistance of learning coaches or other instructors to address
specific problems:

“The best teaching resource you’ve got is the person, the teacher. Never mind the
smart boards and all of that. If you can relate to the students, and they find you
interesting, that’s the key. If you have team teaching, you can vary who takes the
lead on that. It’s a different voice, a different person. But unfortunately, we don’t
have the option to do it that much.” (T3-1, E6)

The limits voiced at the end of this statement are addressed in more depth in subsequent
sections. Team teaching approaches and improved communication between teachers and
students were most frequently talked about by teachers at English FE colleges. German
colleagues focused more on optimising subject-specific didactics:

“There are step-by-step aids that enable them to self-help […] for every task there
is a complete solution, but in small steps […] and if they can’t proceed at all, I’ll
be there of course. So I have the opportunity to always be there at exactly the
point a student is stuck at.” (T2, G6)
There appeared to be some evidence in interviews that their Austrian counterparts placed a comparatively greater emphasis on personal development of teachers and students to improve interactions:

“I believe in pedagogies that encourage (‘Ermutigungspädagogik’). I believe that students are ready to do so many things if they are only encouraged, and if their achievements are valued. That also has to do with personal chemistry and social competence.” (T3, A3)

While interviewees in all three countries stressed the value of improving teacher-student interactions, it seemed that the curricula and course structures of FE colleges left comparatively little scope for teachers to introduce their own, creative methods for doing so.

6.1.4. Improved Inclusion

The theme of enabling a greater variety of students to participate successfully in the VET learning experience was addressed by several teachers in interviews, particularly in England. While this is often recognised as a policy issue, ranging from access for wheelchair users, to providing enabling technologies for visually impaired learners, it is also a topic on the pedagogic level. Frequently this includes assistance rendered to those who are not officially classified as special needs students, who may nonetheless find it challenging to keep up with the course. The following statement demonstrates how such initiatives benefit not only the original target audience:

“[…] there was a student with a very low reading age, could barely read and write, but was very intelligent, could articulate what he wanted to say. We encouraged him to use voice recognition, […] his progress was amazing. […] That’s not just [for] identified dyslexic learners, but everyone can access it.” (T2, E2)

This example may be classified under the heading ‘improved communication and access to information’ (see section 6.1.6), but it is also a powerful example of inclusion that makes learning possible for students who would otherwise fail, rather than just improving the experience of existing learners. The use of teaching assistants also falls into this category:

“[…] when you have a demanding group of learners it’s wonderful having somebody else here not to teach the subject, but just guide them with their English, or even putting things together, or even if you have a slightly disruptive student […]” (T1, E5)
In German and Austrian schools the theme of inclusion gets addressed most frequently under the heading of ‘Individuelle Förderung’ (individual support). While this is a general aim of several pedagogies geared towards existing students, its heightened significance lies in enabling access for students that would otherwise remain outside the system. Therefore a focus on this topic was seen by several teachers as innovation in its own right. However, inclusion was addressed significantly more frequently and in more detail at English FE colleges.

### 6.1.5. Focus on Relevance

Applied training for the workplace being the express purpose of VET, all interviewees mentioned innovations surrounding the motivational aspects of demonstrating the relevance of subject matter to students. The following examples refer to typical methods to achieve this, including outside work placements, practical examples in classroom settings, practical work within schools, and field trips:

- “in childcare we link everything to their work placements; have them come up with discussion scenario” (T2-2, E1),
- “going out on trips; just doing anything we can to make learning up to date and useful” (T1, E2),
- “we have our restaurant; this is our main RWA – realistic work environment. This provides them with Silver Service experience” (T1, E6),
- “the students go to trips to see the sectors; they’ve been to [a] hospital, understood the workings of the hospital, and the range of different careers. They’ve been to the courtroom to understand youth justice and the process, and the jobs that are in the your justice sector” (T2, E7).

However, English FE college teachers frequently complained about the increasing regulatory burden of outside activities:

- “what about taking them to hospitals so they can see for themselves what’s going on, [...] but it’s all the health and safety and the paperwork that stops us from doing it. So the only thing I have done is to get guest lecturers on, to tell s about what’s going on in the NHS, [...] but there is nothing for me where I can take to learners to see all this happening, because of health and safety, it just doesn’t allow it.” (T3, E2)

In addition, some found it hard to maintain good links to industry to make practical experience a possibility.

This contrasts markedly with teachers in Germany, who benefit from strong
industry links by virtue of Berufskollegs offering not only full-time VET, but also dual-system teaching:

“We do something in the classroom, and then proceed to practice in reality. For example, taking blood pressure. [Researcher: with real patients?] Yes, in retirement homes or in the context of nursing training, not just for practice. [Researcher: Although this isn’t the dual system, i.e. the students are not employed there; it’s organised by the college?] Yes, exactly. It’s an additional thing.” (T1, G3)

Possibly due to the fact that Austria is a much smaller country than the other two in this study, foreign work placements and relevant learning experience was mentioned most frequently at Austrian Business VET schools. The following is an unusual example, but echoes the aims expressed by teachers at several Austrian colleges:

“Many [students] do two or three longish stays abroad within their five years here. Half a year or a year in America, then three to four months in a French speaking country, and then individual stuff, as well as foreign travels for language learning classes as part of our school trips.” (T2, A6)

By contrast, the more modular and frequently shorter character of FE college courses did not seem to allow teachers there to adopt a similarly inclusive, long-term view of their students’ overall practical learning experience.

6.1.6. Improved Communication and Access to Information

In interviews, the topic most frequently associated with innovation was the introduction of new technologies, which in turn were generally understood to be information and communication technologies. The following interview quote provides a good example of this type of innovation, while being prefaced with a claim that was somewhat typical of English interviewees, in contrast to their continental colleagues, about the ubiquity of technology innovation. The instructor in question used smartphones for students to look up information and document their practical work with pictures and recorded quotes:

“I don’t think I’ve been exposed to a non-technology-related innovation. For example, hairdressers, they are part of my pilot project with Blackberries. So they are involved in technology use in the classroom whilst they are doing their hairstyles; they are doing both at the same time; that’s to encourage them to do their research, do their practical work with customers, capture and upload evidence, and do all that simultaneously.” (T3, E1)
Mobile technologies in particular appear to be received with significantly greater enthusiasm at FE Colleges, than at German and Austrian VET colleges. However, several German and Austrian teachers lamented the insufficient use of communication technology to enhance learning:

"We used to have a website where one could publish [course] materials, and some colleagues did that, but it wasn’t very well received overall. In the end, people didn’t put much on there, because it was too much additional effort." (T1, G5)

This appears to reflect the fact the greater independence of teachers in their pedagogic decision making is detrimental to the coordinated effort required to deploy comprehensive ICT-based learning and information resources.

6.1.7. Encouragement Through Presentation

Several innovative pedagogic strategies described in interviews highlighted aspects of encouraging student involvement by allowing them opportunities to present the outcomes. This may reflect real-world applications, set aims, or introduce competitive elements, but most teachers did not go into specific details of what aspect of presenting results is deemed most significant:

"We use […] iPods to record, we develop photo stories, use digicams, then put slides to music and project them. Everything is put on the learning channel for students. It’s about finding different approaches to make this as interesting as you can for the learners." (T2, E4)

Presentation can take multiple forms, ranging from on-line interactions to mock trade-fairs:

"Every other year I organise a trade fair of mock companies at our school, where students can buy their products, and teachers assess and certify them. It’s going to be big this year; there will be four or five classes of foreign students coming here to exhibit there as well." (T1, A3)

Courses at English FE Colleges mostly focus on presenting results within the class group, or to teachers and examiners, whereas in Germany and Austria, there appears to be more emphasis on presenting to the public, to parents, or students from other courses:

"Students undertake independent projects, with financial planning, sponsorship, […] Two weeks ago the Turkish girls of this class, with a few German guys, organised a Turkish cultural festival, with a visit to a mosque, and meals, dancing performances and for participants, and a music show." (T1, G4)
Some teachers – particularly in England – highlight the potential of presenting work results in less traditional ways to play on the strengths of particular students:

“So this student, she talks really well, [...] If she was asked to do that as an assignment, in a written form, it would look really poor. [...] So for that particular type of learner I use a lot of digital evidence, take pictures of her, film her, ... so at the end of the course I will submit the extra evidence, hopefully bump her marks up a bit.” (T5, E3)

Overall, interviewees in England appeared to view opportunities for presenting student work primarily as a way to demonstrate their abilities, while their continental colleagues saw them as a motivational tool to foster student engagement.

6.1.8. Multi-Sensory Approaches and Learning Styles

The analysis of interview data highlighted several commonly mentioned areas of innovative pedagogic practice, which are presented in the preceding sections. Interestingly, an awareness of learning styles and attempts to conduct multi-sensory approaches to teaching was brought up by a majority of interviewees in general terms, but with significantly fewer practical examples than the innovations described above. A teacher conceded:

“We look at different learning types, kinaesthetic, visual, aural, and we assess learning types of each learner at the beginning of the year. That’s put onto their [learning plan], so that’s formally done. We try to import all those styles in lectures, but sometimes you just can’t do that.” (T3, E2)

A German colleague explained in the context of addressing individual learning styles:

“A simple test of learning types is just possible, and not without merits [but addressing learning types] would be a good thing, and would be very innovative, but in my view that’s too much; we can’t do that.” (T4, G1)

Several teachers mentioned attempts at less individualised attempts at multi-sensory approaches, ranging from visualising concepts in creative ways, to combining traditional VET hands-on experience with different media. A teacher in Austria demonstrated how he rejected computer graphics in favour of traditional didactics:

“To visualise the three pillars of the EU administration – better than, and without PowerPoint – I take three rolls of toilet paper, and write on them what they symbolise while I talk. Then I put a little roof on them, ... that’s the construct of the EU. Then comes the Treaty of Lisbon, and the three pillars are swept off the
An English colleague in a Motorcycle Engineering course described his attempt at combining kinaesthetics and technology:

“I use a lot of learning aids. As you can see there are those cut-away models of different bike components [...] you can actually see the workings inside. [...] Today for example we did spark plugs, so we had measuring tools, we had a whiteboard to write up a lot of our stuff, use a computer screen to access web sites, and get a lot of information off of there. [...] Obviously many guys who come in here are very kinaesthetic learners, they like to get hands-on.” (T3, E8)

While teachers seemed very interested in opportunities to widen their pedagogic repertoire by including multi-sensory methods, they were also frequently aware of time pressures, limited budgets, or infrastructure that compelled them to fall back on more traditional, ‘chalk and talk’ styles of presentation.

The diversity of examples of pedagogic methods discussed in interviews highlights the role of teachers as creative agents in innovation processes. Practitioners may not necessarily have in mind a strategic categorisation such as ‘focus on relevance’ or ‘improved inclusion’, but the interview analysis clearly shows that teachers are aware of several distinct underlying principles that inform their own implementation of pedagogies. In this process, they frequently act as autonomous agents, developing, testing, and evaluating methods as part of their daily teaching practice, whilst simultaneously taking into account limiting factors, curricular aims, and expectations from school management. Therefore innovation outside the classroom – discussed in the next section – is an important influence on teaching practice, since it motivates or enables changes in the teaching and learning environment.

6.2. Successful Structural and Organisational Innovation

In the context of reflecting about pedagogic innovation, teachers mentioned changes taking place outside the classroom that have significant effects on the implementation of new pedagogies and on the learning experience. This section discusses some of them as far as they provide the context for classroom innovation or function as enabling factors. Since this study cannot comprehensively cover structural and organisational innovations in VET
colleges, this is an overview of the most pertinent issues addressed in interviews, structured according to the coding framework that arose during the analysis phase.

Frequently there is no clear line of distinction between pedagogic and other innovation. Changes in assessment, for example, affect pedagogy and learning:

“[Students] know they are responsible for their portfolios, [...] That’s new, and different from how exams were done, and different from what I have learned about assessment. Here they have to find stuff themselves, build up their own portfolio.” (T1, E5)

The most significant innovations in this category relate to improved course structures, aided by the provision of better information about courses and learning opportunities. Teachers also emphasised the effects of the introduction of quality management regimes and a focus on evidence based practice, as well as improved teacher training and CPD. Other factors were changes to school rules and the atmosphere amongst students and teachers, improved administrative organisation, changes to infrastructure, and better organisational support for marginal students, for example by offering extra support sessions or language courses.

6.2.1. Improved Course Structure, Curricula, and Information

Courses at English FE Colleges are intended as preparation for externally designed assessments that have more rigid criteria than the framework curricula in Germany and Austria for parameters such as course content, duration, and teaching materials. This leaves less scope for innovation in terms of changing structures and assessment, but creates a market for different qualifications in a wide range of vocational areas. A teacher for Health and Social Care explained, comparing the Higher Diploma in Society Health and Development to equivalent offerings from BTEC:

“For the BTEC, they’ve always been quite prescriptive; it’s always been: tick the box, do this and that, and you pass. But now, looking at the specifications, there is a lot more room for using your own initiative, and freedom. [...] It’s not as prescriptive as it used to be.” (T1, E2)

Several English interviewees mentioned experimenting with courses from different awarding bodies in order to find those that would best match their students’ prerequisites and aspirations. In this context, teachers reported that drop-out and failure rates could be
reduced by providing better counselling with respect to course choice. The teacher quoted above continued to outline initial problems with the diploma that offered greater autonomy:

“Students weren’t informed at the beginning how difficult the class would be. Now I make sure people know the truth, and they can make that decision.” (T1, E2)

While German and Austrian VET colleges enjoy greater independence in the realm of course contents, they might still struggle to implement some larger structural changes:

“Six years ago we applied for a school trial of a modular system, but were rejected [by the local education authority] [...] We tried this in an all-encompassing, radical way [...] for the entire school, starting at the very beginning: breaking up the system of distinct subjects; modules taught in trimesters [the Austrian education system is usually structured in semesters]; i.e to map out the curriculum in completely different ways.” (T2-Principal, A1)

However, in comparison to English FE colleges that offer modular certifications from a variety of awarding bodies, the longer duration of many courses at German and Austrian colleges (e.g. even the shorter courses of Fachoberschule in Germany and Handelsschule in Austria last at least two years) allows for a greater variety of extra-curricular activities, projects, and trips, including foreign language exchanges, to add to the core course structures. At the upper end of the scale of possibilities, Austrian school trials enable colleges to obtain special permission for organisational, structural, and curricular changes that fall outside the usual regulatory frameworks:

“We spent five years on developing the model [with academic backing by a university] [...] This stream has additional modules, for example each year there is a project for each class; [...] we have coaching with students: groups of four to five students are being coached once a week by a teacher; throughout all five years [...] the teachers have all received training as coaches from external advisers, management consultants, etc.” (T1, A3)

Interviewees explained that German school trials are particularly common in North-Rhine Westphalia, having similar characteristics, but are usually not the result of individual Colleges’ initiatives, but more centrally organised projects.

6.2.2. Quality Management and Evidence-based Practice

Teachers at all colleges in this study reported the significant impact of quality
management initiatives on teaching and learning practices. The critical aspects of this
discussion in relation to increased bureaucracy are discussed in 6.3. However, most
teachers presented a balanced view, being particularly aware of how quality management
and feedback processes influence their relations with students:

“That’s something I’ll also try, in each unit: what did and didn’t you like about
the way I taught this unit? When I teach the next unit, I’ll adapt my delivery in
relation to what the students said. Now I took that idea from here, and there was
no constraint on time or cost.” (T2 – Head of Faculty of Science, E7)

A German colleague outlined a more formal process that teachers themselves had designed
and committed to:

“We have made a commitment to question our teaching by canvassing opinions
from students, from colleagues, and by capturing a notion of how courses go
about what they do. [...] We developed 40 criteria and indicators. We got the
approval of the body of teaching staff, and those are our guidelines for teaching.
That’s quite a lot. Sometimes I wonder whether we were over-ambitious when we
started.” (T1 – Deputy Head of School, G1)

In line with the stronger role of college leadership in England, quality improvement
initiatives at FE colleges are more frequently viewed as information and steering tools for
management. In Germany and Austria, by contrast, such efforts usually focus on
convincing teachers to use quality management tools, and there is little expectation that
information would be passed on to school management or outside entities. In Austria, for
example, the government-mandated QIBB programme (*Qualitätsinitiative Berufsbildung*)
focuses on self-evaluation, providing best-practice cases and supporting materials. It has
limited reporting requirements, which seems to be a crucial factor for acceptance amongst
teachers. Similar observations apply for Q2E (*Qualität durch Evaluation und Entwicklung*), a
Swiss quality assurance system that has been introduced in the VET sectors of several
German states, as well as for specific evaluations in Germany:

“I support capturing the status quo for the entire college through our development
initiative, but it needs effective data protection, so that inspection bodies and
college leadership only receive the accumulated data for the entire department,
rather than that of individual teachers. This data does exist, but it’s only
distributed to each colleague individually.” (T4, G1)

The notable exception to the impression that many teachers appreciated such projects in
principle, were externally initiated quality evaluation initiatives. They were without
exception viewed with great suspicion by teachers and to some extent administrators, and are therefore discussed in more detail in section 6.3 which focuses on critiques of innovation attempts.

6.2.3. Improved Teacher Training and Continuing Professional Development

Teachers in all three countries underlined the importance of teacher training and development for facilitating pedagogic innovation. The introduction of a requirement for more formal qualifications for VET practitioners in England, for example, was described by one teacher for Hair and Beauty courses as revolutionary:

“when I came in [as a teacher], the only required qualification was to be advanced at your profession – I think it was five years experience – plus an advanced vocational qualification. When I came back after [a] break, everything had changed, you had to work towards your teaching qualification, needed lesson plans, schemes of work. Before, there was no need to prove what you were doing, you did it the best way you knew how, but there wasn’t a particular model to follow” (T1, E4)

An Austrian colleague added:

“Quite a bit has changed; nowadays most colleagues don’t see themselves as subject experts only, but also as pedagogues supporting young people to manage all that.” (T3 – Department Leader, A3)

In the context of stressing the crucial role of teamwork amongst teachers to create and implement innovative ideas, interviewees mentioned the impact of continuous learning from colleagues, and how organisational changes can support such efforts:

“We [at this college] have had a culture of open doors for a long time already; [...] it has become normal to just be able to walk into [a colleague’s] class. I don’t think anyone is disturbed by that any more.” (T1, A6)

However, as section 6.3 discusses, such attempts often require additional time, planning, and communication that frequently fall prey to organisational pressures individual teachers face. Therefore specific development supported by school leadership, as well as school-wide training days to facilitate teacher communication, were seen as enabling factors for innovation. Several teachers in all three countries mentioned working with trainers from outside the education sector – frequently professional management
consultants or coaches – as particularly stimulating:

“We work a lot with the Birkenbihl methodology:16 networked thinking, brain-friendly learning; my colleagues and I visited training seminars with Vera Birkenbihl, and we continue to work with her. Our school textbooks are based on this.” (T1, A5)

However, teachers and administrators in all three countries noted that opportunities for procuring high-quality training from outside experts was severely limited by the available budgets.

6.2.4. Improved School Environment and Atmosphere

Interviewees in all three countries recognised that students require more support to develop social skills, good work ethics, and improved self-discipline than previous generations (see also 5.5). In this context they stressed that the overall school atmosphere, in addition to specific pedagogies, plays a significant role: giving students greater personal responsibility for self-directed work, for example (see 6.1), was described in interviews as requiring an overall atmosphere that underlines particular personal qualities:

“So it’s a matter of simplifying things, having good teachers who have an interest in sessions, being organised, being disciplined with them, being firm, and being fair. Creating an atmosphere where [students] can thrive and develop as individuals, not only academically. A lot of them come with low confidence and low self esteem, not academically brilliant, but at the end of the year they can get the results, and have learned a lot more about themselves.” (T1, E2)

As this quote illustrates, changing the prevalent atmosphere at a college must include initiatives aimed at both students and teachers. An FE college head described an effort to raise the aspirations of students by way of motivating a wider set of stakeholders:

“[the number of our] applications to Oxbridge and the rest of the Russell Group have been very low, so we wrote a widening participation project [...] it sets out the idea of raising ambition and aspiration amongst all the city schools. Everybody is on board, all the MPs, all the counsellors, all the chief executives, industry, etc., and we have nine of the Russell group universities, including Oxford, to work on this with us. It includes a number of things, such as working on students’ exam skills, visits to the universities, etc.” (T1 – Principal, E7)

The interview analysis indicates that German and Austrian colleges appear to enjoy

16 The late Vera Felicitas Birkenbihl was a German management training consultant and learning coach.
significant opportunities for creating environments that are conducive to student qualities beyond academic or professional skills. This appears to be a result of the factors enumerated in the previous section ‘Improved Course Structure, Curricula, and Information’, in particular because of a focus that is less geared towards externally run qualifications than their English equivalents. An Austrian teacher described an initiative to improve students’ political awareness and responsibility by taking his course group to visit EU institutions in Brussels:

“The purpose of the journey was to create enthusiasm for the EU, an awareness of Europe. It started with an article in the Economist reporting that research had shown that people knew little about the EU, and would not make much use of additional information, even when it’s presented to them. That is, they know little, and want to know even less. [...] So the journey to Brussels is the current state of my ongoing effort of getting Europe into the heads of students.” (T2, A3)

This was an ambitious undertaking addressed at the high-achieving end of the Austrian VET spectrum, and might not be typical for full-time VET in any of the countries in this study. However, it contrasts with the limited scope for similar initiatives at English FE colleges. The teacher in question particularly stressed his conviction that understanding political institutions and having a favourable view of European integration was an important objective for students on a personal, rather than a particular professional level. Even in the context of students on English access to HE courses, or for those preparing for A-level equivalent qualifications, the applied focus, shorter duration, and more centrally managed curriculum leave less freedom for individual teachers to add their own priorities in similar ways.

Teachers at vocational colleges in subject areas that lend themselves to practical work with real customers highlighted the potential of professional responsibilities to create a focused and goal-oriented atmosphere for students. Several colleges surveyed in this project run hair-dressing salons, restaurants for in-house catering, and IT support operations staffed by students. One teacher explained that this creates a halo-effect leading to improved discipline even in classroom settings:

“That comes from the practical subjects. One thing is clear there: at half past twelve, lunch for 200 people must be served [...] and when we do practical work [outside], at the Ministry, or at Austria Center [a conference centre], everyone has to be ready. [...] That also transfers to academic subjects, and we can make good use of this effect.” (T1, A6)
Teachers in Germany particularly noticed the lack of this type of motivation in full-time VET courses compared to the dual system, and highlighted the need to create similar incentive structures through projects, improved industry cooperation, or especially strictly enforced rules:

“We are trying to show consistency: [...] students know very well that only a doctor’s note can excuse any absence. This is a vocational school, so particularly in full-time teaching, we have to be strict about that. In the dual system students know that the company enforces that. If someone working at Mercedes signs up to be taught, but doesn’t turn up, then he’ll run into trouble with Mercedes. In full time, that’s not so, and that’s a pedagogic challenge.” (T3, G6)

The theme of workplace atmosphere appeared in several contexts in this study, and arose particularly as a factor that substantially influenced teachers’ innovative behaviours in collaboration with colleagues and school leadership, as discussed in section 7.2.9.

The examples discussed in interviews underlined that individual perspectives vary about what groups of activities constitute a particular innovation: for policy-makers, a new curriculum counts as innovation in its own right, while teachers may see such a change primarily as the initial trigger for their own innovative efforts in the classroom. The preceding two sections present frameworks for categorising the examples of successful innovation provided by practitioners, while illustrating that innovative change within and outside the classroom are frequently interlinked. The same conclusion holds for failed innovation attempts, as the problem areas encountered by teachers in relation to improvements in teaching-learning arrangements – discussed in the next section – frequently arise at the interface of divergent or contradictory requirements.

6.3. Critical Views of Innovation Attempts

By asking about the negative aspects of innovative work and what constitutes success or failure, the teachers and administrators participating in this study were encouraged to think critically about pedagogic strategies that had failed, or that might be based on wrong assumptions and unrealistic goals. There was a general consensus in all three countries that there are very few outright failures at the level of pedagogy, since teachers’ relative freedom allows them to adapt ideas to make them work:
“Funnily enough, few things fail, because somehow, some of it will work.” (T1, A4)

However, a number of interviewees expressed strong opinions about failures at the interface of policy and classroom practice, in particular in relation to outside initiatives and innovative attempts at the management level. The following categorisation emerged from the data analysis, and therefore reflects subjective experiences by teachers at VET colleges. Bearing in mind that the colleges in this study are not necessarily typical, but rather more innovative than others, the opinions expressed here reflect critical cases that apply even more strongly to other VET colleges that may have less engaged leadership, and a lower focus on innovation. In addition, their relevance for a broader set of VET colleges appears intuitively likely, since none of the findings are particularly unexpected.

Interviewees pointed out that the introduction of new ideas in a VET context often works only because of personal efforts beyond employment obligations: innovation motivates many teachers, but it also exhausts them and it is frequently described in terms verging on self-exploitation:

“A colleague created a biotope in our garden as a project with students. That was great, but the question is: where are the resources to continue the project? Well, that comes out of a teacher’s spare time then. [...] I see that many teachers – particularly at our college where personal engagement is encouraged rather than blocked – do a lot of things based on private resources. That’s why things don’t fail.” (T2, A5)

The next parts of this section outline some of the most frequently voiced criticisms of innovation attempts. As a result of different management foci at FE colleges, criticism seemed more often related to outcomes, while in Austria and Germany they centred around workability and procedures. For example, for an FE college administrator, the success of an innovation to ‘deliver’ content was measured in grades:

“Trying to deliver top-end material in an abstract way really failed, because we are encouraged to stretch and challenge the most able, but we weren’t shown how. That led to a failure in high grade achievement.” (T2 – Head of Faculty of Science, E7)

The data analysis shows that criticism of externally mandated structures such as lesson plans and the durations of course modules was overall frequent, but particularly common in Austria, although those factors are evidently much more rigidly managed at English

Florian Friedrich – University of Oxford
colleges. This appears to relate to the greater professional autonomy of teachers in Austria, in the sense that having greater control over course contents and teaching strategies, they were more aware of any remaining limiting factors, while their English colleagues took those as given. In Germany, similar criticisms arose, but they tended towards the lack of resources and infrastructure. Teachers felt that the curriculum and school management provided them with opportunities, but space and equipment limited their application. However, this apparent difference between Austria and Germany may be an effect of the particular colleges visited, and the stronger emphasis at the latter on blue collar vocations that might require specialised equipment:

“So there is a mandate for practical teaching, and it takes place, but there are no provisions for workshop rooms in this school type. Someone imagined we would do that at the table, on a sheet of paper. That’s not enough for us.” (T2, G1)

6.3.1. Side-Effects of Technology-centred Innovation

In section 6.1, the introduction of technology to enable new pedagogies emerged as one of the central themes of successful innovation, both in classroom contexts, and in relation to wider issues of school organisation, teacher development, and communication. However, technology also ranks as the most criticised factor.

Teachers frequently mentioned the limited usefulness of particular technologies that had been introduced for the wrong reasons, or without awareness of their side effects, and with limited training. With respect to Second Life, a virtual world environment that was designed as a game rather than a teaching tool, a teacher explained:

“I’ve done some of the training, but I have yet to be convinced of its application. Partly because of my specific department, we have no computers in the classroom, so it’s very difficult to use that technological device; I am still struggling to work out how I would use Second Life as a teaching tool.” (T1 – Focus Group, E1)

Likewise, not all teachers are convinced that interacting with students in social networks adds tangible benefits:

“How would I do that in parallel to teaching? [...] That depends on the teacher. Social networks aren’t really used; probably rather by students to communicate with each other.” (T1, A1)

Some teachers mentioned their perception that social networks also replicate the negative
aspects of student interactions, such as bullying, and they felt ill equipped to police those actions in a setting that was new to them.

Nearly all interviewees addressing the benefits of information technology cautioned that its use required adaptations both in teaching styles and competencies, and in the emphasis on enhancing the critical faculties of students:

“Many students lose themselves on the net; they surf but can’t filter. [...] Basically one needs a subject like media pedagogics at school: how to handle media, newspapers, the press, TV.” (T2, G3).

The Head of Computing at an FE college pointed out:

“[…] my suspicion is, you find a large number of teachers who are OK with a PC, they can use a smart board, but actually, it’s not much more than a screen for them. They haven’t learned how to interact with it. They don’t use it as a teaching tool in that respect” (T3 – Head of Computing, E1)

Interviewees reported that an older generation of colleagues not only felt uncertainty about the advantages of technology, but were also insecure about using it, fearing a loss of authority and credibility in the classroom.

Some teachers, particularly in England, felt that school leaders and lesson plans insisted on an overuse of technology:

“Technology: there is a bit too much emphasis on that; it’s handy, but we shouldn’t have to use it all the time; in the session you saw we didn’t use it, we didn’t need it. It can detract from things sometimes” (T1, E2)

In addition, teachers in Austria and Germany seem more willing than their English colleagues to defend the usefulness of traditional methods:

“A blackboard can work a thousand times better than a projector, for example because students can’t make sense of all of it when they see the entire picture, rather than seeing it developed on the board.” (T2, A4)

Several teachers also voiced concerns about technology-mediated communication replacing real-life interactions to an extent that would be detrimental to learning and student development.

On the other hand, such complications have lead to increasing awareness among some decision makers. The Director of Learning Assistance and IT at an FE college remarked that technology may even be counterproductive:

“A classic example in schools and colleges across the country has been the introduction of whiteboards and data projectors over the last decade. Much of
that – not all, but much, in many cases – has simply reinforced the teacher standing in the front, and the whole class passively receiving. It’s actually counterproductive, and almost medieval teaching. So in that sense, technology has bred a lack of innovation and has stifled creativity.” (T2 – Director of Learning Assistance and IT, E3)

Teachers in Germany and Austrian voiced similar views more frequently, but also reported that they did not feel particularly pressured by school management to involve technologies in their teaching that they were not convinced of.

6.3.2. Overly Ambitious Innovation Attempts

Interviewees at nearly all colleges were able to relate accounts of innovation attempts that had come close to failure due to wrong expectations, optimistic projections, and unrealistic assessments of time scales or budgets. This problem of over-ambition can occur in innovations of any magnitude. On a pedagogic level, time constraints are the most common unanticipated obstacle in England:

“I had this before, of planning an amazing lesson, but then lacking the time to finish preparations. Then you are coming up with a sub-standard backup.” (T1, E3)

This contrasts with Austria and Germany, where issues of team work, resistance of more traditional colleagues, and lack of managerial coordination are perceived as particularly problematic. A German teacher explained the failure of a particular programme witnessed by the researcher on a college visit:

“During preparations it was already evident that things were going wrong, and those are problems that are not being addressed by our school leadership. […] We lack middle management. We have directors of study who comprise the leadership team, but they are colleagues, not leaders; they haven’t grown into that role of leadership. I don’t mean this as an insult, they just never learned it.” (T3, G3)

Similarly, several teachers recounted attempts of pedagogic change that failed to gain traction due to limited coordination or a lack of momentum:

“Several years ago there was a lot of effort put into seminars for all teachers [at this college], aiming to establish particular methodologies at the entire department, so that individual subjects could build on that, with documentation, and cross-subject work. That didn’t work out in the end. I found the seminars good, but I only use those things in small ways. We haven’t managed to transport
the methodology to our students, by coordinating among colleagues.” (T1, G4)

Similar problems relating to a disconnect between individual ambitions and a low level of reliable support from college leadership were mentioned in Austria, but less frequently in England, where a more established managerial culture appeared to produce more consistent planning.

On a level above classroom pedagogy, curricular designs and assessment decisions frequently leave teachers burdened with inadequately supported or pedagogically inappropriate designs that reflect ambitious aims without taking into account the context in which they are to be deployed. A teacher explained the apparent reasoning behind a new assessment requirement for a 5000 word essay:

“That’s been an issue. Something that the centres delivering it have found difficult. [...] the reason was to allow learners to demonstrate what they are doing in placement; to link in written ways the theory from the taught component of the course, to the practical part; so pulling together theory and practice. [...] But students find it difficult to do.” (T2, E4)

In Germany, even the most substantial reform at Berufsschulen of the last 15 years, the Lernfeldkonzept, is seen as highly problematic in certain areas. Although the concept is geared towards the dual system, interviewees pointed out the effects it has on full-time VET in connection with revised curricula, different teaching models, and changed time management. However, even top-level policy makers are aware that its ambitions are not always fulfilled:

“In the health care sector, there are perhaps two colleges in Germany that really teach according to the learning area concept. That’s across all German states. [Interviewer: I need to make sure I understand this. This is your personal impression? Aren’t there clear statistics?] [...] We know from most colleges that the concept is only used by small teams; most of the teachers are not interested. So that’s representative, not just an impression. Even Hamburg, who are really innovative, don’t do it. Well, on paper, yes, but not really.” (Germany; fully anonymous per request)

This particular example came from a state policy maker who was responsible for all aspects of operations at full-time and dual-system VET colleges. Taking a pragmatic approach, he had concluded that learning areas were such an ambitious change for some sectors that their implementation had to rely on colleges and teachers picking workable elements over time, since German structures made more forceful interventions impractical.
6.3.3. Problematic Aspects of Increased Independence

Student-centred learning, group work, flexible access to information via online resources, and more individualised approaches featured prominently in interviews as some of the most significant pedagogic improvements in recent years. However, teachers in all three countries pointed out the limitations of new pedagogies:

“Go and find out about this particular area of motorcycles, and come back in an hour or 90 minutes and we’ll sit down and discuss it. [...] giving them a little bit more ownership on their learning. But you do expect to have an end product to bring in afterwards. It doesn’t always work. They come back in and have nothing.” (T3, E8)

Since they types of students encountered in VET classrooms vary significantly in terms of academic ability and socialisation, teachers frequently expressed their awareness that modern pedagogies that gave learners increased autonomy needed to be adapted accordingly.

Some teachers stated that they were still working out feasible modes for more open teaching arrangements:

“It’s not clear that students for whom conventional teaching doesn’t work well would benefit from more liberal teaching. The question is, how do I introduce more commitment into liberal arrangements? That’s where I need to see some improvements.” (T1, G2)

Others explain that they have explicitly decided against giving students more time and independence:

“I hold team work as a central principle in high regard, but I don’t do much group work in my own teaching. [...] In relation to what’s required by exams, and the amount of time I have to prepare students, it’s a method that’s interesting in principle, but it doesn’t often fit our work styles.” (T4, G4)

Limiting factors such as time, infrastructure for open learning arrangements, and resources such as IT equipment, were cited as significant complicating factors in attempts to introduce more independent learning. In conjunction with aspects to do with academic ability and motivation, the fact that more individualised approaches cannot be accommodated within given time and resource limits can leave them stuck at preliminary stages:

“In my opinion this needs individual assessments of student achievement levels and individual planning for each student: where do we want to go, where is he at? That can’t be done in my view, given current student numbers and staff
teaching hours. It’s a question of time resources.” (T4, G1)

Overall, German teachers appeared to be most aware of the problems of independent learning approaches. Possibly due to the fact German Berufskollegs cater to a more diverse student body than the more academically oriented Austrian colleges in this study, teachers at the latter seemed to find open learning arrangements less problematic. Similar complaints in England were likely pre-empted by more prescriptive curricula and tighter time management that does not always allow similar questions at the discretion of individual teachers in the first place.

6.3.4. Innovation-in-name-only

Despite the fact that colleges participated in this study specifically because their leaders considered them innovative and welcoming to change, several interviewees pointed out the problem of re-labelling existing methods:

“Because of decreasing student numbers, the innovative motivation for colleges is often: how can I sell this? [...] Individuals want to be able to say: I’ve done this number of projects, and the school wants to say: we have done this and that. [...] So now there is a primary school, for example, where every student gets an iPad. Why? Because that idea sells so well. That’s the big danger of innovation; one loses sight of what’s important, and it becomes self-serving. It’s done because everyone else does it.” (T2, A2)

A teacher in Germany provided a concrete example of the distraction and confusion caused by novelty without real effects:

“Many things to do with innovation at colleges in recent years were done with loud publicity, and became inflated, and nothing came of it. There were Kopfnoten [grades for achievements other than exam performance] [...] that came in, and went out, within three years. So there are regularly innovations that appear, but don’t make anything easier.” (T3, G3)

Somewhat surprisingly, criticism of this nature was less prevalent in England, although funding models and a focus on retention rates and grades provides significantly stronger incentives for colleges to advertise their innovative impulse. The data analysis indicates that English teachers generally focused on problems with specific innovation attempts, and talked less abstractly about college policy. It is not clear whether this is related to their more limited autonomy, or simply greater acceptance of change.
6.3.5. Side-Effects of Innovation

In addition to warnings about the negative effects of increased ICT use, teachers provided other examples of innovations that worked in some context, but were detrimental in others. Interviewees at colleges in all three countries highlighted the context-specific nature of successful pedagogic innovation. For example, even widely recognised motivational tools such as portfolios and presentations were criticised in some cases:

“*It means extra written work for students; that’s difficult for them, and they all resist it, because practical work is what they want, and the other stuff is more of a nuisance to them, because they don’t quite see the purpose behind it; one has to make that more plausible for them.*” (T1, G2)

Whereas teachers in England did not specifically mention negative effects of changing the atmosphere in the classroom by emphasising more cooperative approaches, several Austrian and German colleagues were more critical:

“*In my own teaching, a certain way of teachers and students being partners has failed. That works well for a while, but somehow there isn’t enough pressure, so the good relations continue, but work ethics and attitudes deteriorate significantly.*” (T1, G3)

Particularly in Germany, where the proximity to the dual system emphasises the vocational context, some feel that for a change, a practical focus is not always desirable:

“*[…] students aren’t always happy about this permanent professional relevance. They are sometimes quite grateful for other stuff. […] So it’s not the case that students insist on professional relevance; it’s more strongly given by regulations.*” (T1, G4)

Another significant caution raised by several teachers in Germany concerns the concept of learning-areas, and how it has undermined general and theoretical knowledge in dual-system VET. Since this study is focused on full-time VET, it cannot pursue this line of inquiry. Several changes introduced for dual-system *Berufsschule* classes had an impact on full-time VET, so that similar criticisms apply. A teacher explained how separate grades for mathematics were abolished in an attempt to include relevant mathematical knowledge in applied subjects:

“*That was supposed to be an innovation, in order not to give bad grades to students so they could do better in the job market. […] The idea was good, but it*
failed in the end, the learning areas idea, [...] the employer wants to know whether a student can deal with mathematical problems beyond the immediate work context." (T3, G6).

This case illustrates the challenges created by unintentional side-effects at the interface of education and the job market. While interviewees in Germany and Austria generally felt that their systems allowed them sufficient flexibility to design their teaching in accordance with their own interpretation of employer expectations, their English colleagues more frequently expressed misgivings about the fact that top-down changes may have unplanned negative consequences.

6.3.6. Criticism of External Inspection

Teachers in all three countries reported high levels of dissatisfaction with external inspections. Ofsted in England, in particular, was viewed as oppressive and threatening, not least because in contrast to nearly all teaching evaluations in Germany and Austria, it applies specific notions of quality in teaching, and its reports can have a significant impact on colleges. In the German speaking countries, teachers appeared more annoyed than threatened, to the extent that efforts to manipulate outcomes or subvert the information gathering process were seen as a matter of course by many:

“[... and suddenly everyone worked like crazy [...] we asked ourselves why this stuff was required on paper, digitally, and in whatever other formats. But we filled folders to no end, and didn’t quite understand what for. On the other hand there were rumours that those things aren’t ever read; they are just looking for quantity, rather than quality. That sort of thing really shouldn’t happen!” (T3, G2)

Particularly in Germany, this wide-ranging unease even with successful new initiatives that are suspected to curtail teachers’ freedoms leads to frustration among some interviewees with administrative functions. The following quote by a college principal highlights the problematic role of the consensus-based culture at German colleges in this context:

“We introduced a lesson documentation system and a digital register for presence [...] Yes, Big Brother is watching you. So there is a wholesale suspicion that such things are questionable from a data protection perspective [...] I don’t yet know whether I can push this through; I’m not sure [...] well, certainly I could, of course, because it’s my right to do so, but if I do that, I may lose the ability to
innovate in other areas, because teachers would say: ok, we’ll only do what’s legally required.” (T2 – Head of College, G5).

Despite their misgivings, teachers in England showed more understanding of the need for oversight and control by college management, and external evaluation by standards bodies and quality assurance initiatives. This is related to the employment status and concomitant professional autonomy of German and Austrian teachers, whose position as state employees makes them less susceptible to disciplinary action by school leaders. Therefore oversight, evaluation, and inspection in the German speaking countries frequently takes the shape of informal visits and confidential direct feedback from school leaders to teachers.

6.4. Origins and Dissemination of Examples Given for Innovation

Being asked to give examples of innovation at VET colleges, teachers provided rich contextual information on the circumstances in which new pedagogies or organisational changes arose. This section summarises similarities and differences found, aiming to shed light on how innovative processes arise and spread in practice. In order to provide comprehensive narratives, it presents substantial parts of selected examples that data analysis showed to be typical of each country or particularly informative. In line with the three-level model underlying the analysis, the presentation distinguishes between innovations originating from external influences, from college management, and from teachers. The examples were selected from each of the three countries to reflect a particular type of innovation that was prevalent in each, but they illustrate more general points that appeared in narratives from practitioners at nearly all colleges.

6.4.1. Innovation Initiated Through External Influences

Whereas individual teachers at German and Austrian VET colleges are more autonomous than their English colleagues, the situation is reversed at the institutional level. Being state-funded and state-run, German and Austrian colleges are open to direct interventions from the political sphere. In practice, this extends to personnel policy, approval for projects that need additional budgets, and permitting innovation attempts that
require deviations from regulatory or legal frameworks. This connection may also introduce innovative impulses. However, as interviews in Austria and Germany illustrated, it appears to be easier for government bodies to restrict or prevent particular initiatives, than to force colleges to do specific things. Therefore, most new initiatives originating at the policy level are introduced on the basis of convincing schools to participate, rather than legal mandates. This section presents the case of an Austrian VET college that became involved in a government initiative under guidance from external advisers. This example is typical of several similar projects outlined in interviews in Austria and Germany, involving the introduction of new school structures, quality management initiatives, and pedagogies. It does not translate directly to experiences at English FE colleges, where outside influences that may shape pedagogic innovation are typically changes to assessment frameworks and teaching quality criteria such as those inspected by Ofsted.

Following the success of a particular type of academic-track secondary school (Gymnasium) named after the political philosopher Karl Popper, that had started to focus on exceptionally able students, the city government of Vienna sought to bring a similar initiative to the VET sector:

“That was a strategic decision by the city education council, inspired by the Sir Karl Popper school […], that is the education council said there should be something in the VET sector that didn’t just give special assistance to weak students, but that would particularly focus on very talented ones. They presented this idea to us, but I don’t know why to us only. I think they picked us because we had worked in that direction, we have many leaders of state-wide working groups among out teachers, and many also teach at universities.” (T4 – QM Manager, A3)

The idea behind the project was summarized under the heading of ‘entrepreneurship education’, and it was developed over five years under guidance from educational researchers from Vienna university. It affected pedagogy as well as several organisational and curricular aspects:

“[…] every year each class undertakes a project for the entire year. From the second to the fourth year, each student has to individually write an extended essay throughout the year […] that exceeds the regulatory framework […] students sign a personal education contract, with aims for the year […] that is subsequently evaluated and discussed.” (T1, A3)

The interviews did not provide data on the college’s specific decision-making process to agree on participation, but the involvement of individual teachers was organised on a
voluntary basis:

“The concept was presented, and teachers volunteered to join. So a small team constituted itself in the beginning, in 2000. Now we are 25 to 30 teachers.” (T4 – QM Manager, A3)

This participation is particularly significant in light of the fact that it required unpaid overtime from teachers:

“I definitely spend private time on this. But it gives us the privilege of working with smaller classes.” (ibid.)

Another teacher at the same college explained how the overall change in methodology allowed him to create his own initiatives:

“I think it stirred things up a bit when I simply said from one year to the next: ok, I am going to teach in English. […] There was no bureaucratic process; I asked the college head informally, and said I’d like to do that. She said: yes, of course, just go ahead and try it. […] I’ve heard from many former students that that helped them a lot.” (T2, A3)

A third colleague stressed how the framework curriculum and independence from centrally assigned exams allowed teachers to create their own materials:

“For example, I wrote new textbooks; we wrote new ones for each year of the course, and from my personal point of view, as well as educational researchers who gave me very positive feedback, those books are markedly different.” (T3 – Fachbereichsleiter BWL, A3)

He then gave examples ranging from how his students had repeatedly won European contests in business education, to having published a multi-lingual cook book with students whose families had immigrated from nine different countries.

The same interviewee highlighted the importance of a stable regulatory environment in order to allow for planned changes at the college level, and related her personal impression that Austrian teachers were adequately involved in reform processes:

“From my point of view the innovations coming from the education authority are rather careful. We don’t have collisions of different reforms. I know this happens in some German states, where they introduce reforms very quickly when the government changes. That’s not the case here. Every ten years there is a new curriculum, and there are procedures in advance, a formal evaluation, surveys of former students, surveys of employers, and on that basis it is determined where there are problem areas, and where action is required. Usually they proceed carefully, throughout the country […] most measures are designed jointly by teachers and school leaders. I was in several meetings, with 60 colleagues, working in groups, and that’s what came out.” (T3, A3)
This example case highlights typical characteristics of successful externally initiated innovation. Rather than being designed in its entirety before roll-out, the project was presented to colleges with a specific aim, but without mandating a particular form of implementation. The education authority then picked a college that had a reputation for highly motivated staff who were already individually involved in a range of initiatives beyond their immediate teaching engagements. The project time frame of five years was relatively long, in order to allow for changes to filter through all classes of the five-year educational cycle at the institution involved, and guidance and evaluation by academic specialists was provided throughout. This was possible because the overall regulatory environment was perceived as stable, so there was sufficient time for fine-tuning at the levels of school management and classroom practice. As the interviewees pointed out, curricular, pedagogic, organisational, and staff training changes went hand-in-hand, and centred around a consensus-based culture in which a small, efficient team of volunteers pioneered the necessary changes. Participation for teachers was made attractive despite the additional workload, and teachers were given freedom to add their own initiatives.

6.4.2. Innovation Projects Initiated and Guided by College Management

Teachers in all three countries reported on innovative changes that had taken place on the initiative of college management or leadership. In Austria and Germany, greater teacher autonomy and – with few exceptions – the lack of middle management, require college leaders to facilitate communication, investigate funding options, and convince teachers to volunteer for such projects. In England, by contrast, the directive role of college principals and their teams of part-time or full-time administrators is more pronounced. However, since English interviewees did not mention any cases of pedagogic innovation attempts that were met by widespread resistance from teachers, the need for consensual decision making appears to be well understood by college leaders. Nearly all examples of large-scale change, particularly when aimed at improving classroom interactions, underlined the importance of teachers as crucial stakeholders who needed an element of intrinsic motivation rather than external pressure.
The following is an example of this type of change, taken from interviews at an English FE college. Most of the information comes from separate conversations with two mid-level college administrators who teach part-time. The full-time teachers interviewed did not mention the project specifically, but spoke about methods that had been introduced by it. The perception of a need for innovative change in pedagogic methods originated at the interface of teaching practice and management. According to the college’s Head of Business School who had previously served as the curriculum manager:

"Business Education at [this college] was perceived two and a half years ago as a route to solve a number of problems. On our full time business courses, about 260 full time students, we had big difficulties with attendance and success rates. [...] it was unacceptable from my perspective and from our perspective as a pure figure. Clearly, it would be long term unacceptable for all the agencies. So [the project] was seen as a route to enliven what we did. There was a perception that some of the teaching was too didactic, lacking interactivity and creativity. [...] ‘We’ was a team of the managing director of IT, the IT project director, myself as the curriculum manager, and a number of teachers.” (T3 – Head of Business School, E3)

The Director of Learning Assistance and IT outlined the idea to

“blend online and face-to-face teaching in a thoughtful way. That has probably been fairly innovative in terms of – not so much in thinking about the learning-teaching interaction in an immediate sense – but more the framework within which that interaction would take place. The [project’s pedagogic/didactic] models, seven of them, help us to think about a whole scheme of work, a whole package, and how you can break it down into sections. For a week of face-to-face contact time [...] we may for example have one session online, then define what’s expected to be done until when, with exercises and quizzes in between, for example you’ll have to do a preparatory exercise by Wednesday, and you can find it online. It might be some podcast content, it may be some exercises on the VLE. So when you come in on Wednesday, we’d expect you to do work which would otherwise have been done in class, so that would be an example of one model. There are others. So that is a step up from most institutions that would just bolt on technology on top of standard curricula, and expect it to fit in somehow, and there is not a lot of thought that’s gone into the integration with face-to-face experience.” (T2 – Director of Learning Assistance and IT, E3)

The development process of the new models relied heavily on existing experience amongst teaching practitioners:

“It was from the ground up, really, teachers having ideas. [...] the plan was to give teachers scope, encouragement, training, some resources, to give them a bit of free reign to look at how they could start to integrate technology into learning
and teaching. [...] someone would say ‘oh, you are using this approach in accountancy, and that in English, and there is another approach here that seems to be working!’ If we think of the current scheme of work [...] we can recognize seven different approaches here. So it was then represented in this cube format, and started to be presented to colleagues across the institution, and we’ve now recognized that quite a lot of the provision we have done actually fits in with the model. [...] from it has emerged a way of articulating practice that was already there, but in doing so, it has been a helpful vehicle to enable colleagues to think about how they could incorporate blended learning, where it hadn’t been adopted.” (T2 – Director of Learning Assistance and IT, E3)

Both interviewees admitted that the project may have been overly ambitious at the outset. Their account of how this was addressed is representative of similar narratives from other teachers:

“So we as a group started with a ridiculously broad remit, which failed miserably. [...] we are also trying to convert people on the lecturer team who don’t want to do this, we are only having tiny impacts, so it has no impact on the students; we didn’t have enough resources for the whole course, financially or people-wise. Therefore we chose to focus upon a semester of the course and a certain number of modules in year one. The reason was that this was the area where we thought we could try and uplift performance most. Secondly, the course was already being restructured, we had to change things anyway, so there was a synergy of effort. Also, it was realistically doable, and we had people who in that small number of modules wanted to do it, and had the skills. [...] So basically in two thirds of the project we got little done; lost of discussions, lots of ideas, but scattered things; but we got nowhere essentially. The last third of the time, there was a real focus upon particular activities.” (T3 – Head of Business School, E3)

In similarity with the implementation processes described by other interviewees, both managers in this example described the need to feed back findings after the project started to show initial results and influence teacher’s day to day pedagogy. There were particular concerns that triggered specific evaluations against specified criteria for success:

“It was successful, the students told us because they knew where to go every time. [...] so one of the things we learned was that for people finding and accessing things was essential. Once they found something they would use it.” (T3 – Head of Business School, E3)

Several attributes of this example case are typical for other accounts of pedagogic innovation that is led by college management or leadership. In particular, the need to have teachers on board from the outset, and a desire for change shared between them and
management is frequently mentioned as a crucial starting point. In addition, the intense involvement of teachers from the outset, and a solid basis in existing practice and experience appear to be characteristic of successful pedagogic innovation. As the example illustrates, the change process was first initiated at a particular department, and subsequently disseminated to other parts of the college not by mandate, but by convincing colleagues of its benefits. Beyond the initial design phase, the above example highlights the need for a continuous learning and improvement cycle, as well as a shared awareness of success criteria. It should be noted that this particular example is not specific to England, since the consensus-based approach it highlights played a similar, if not greater, role in projects initiated by school leadership cited by German and Austrian teachers.

6.4.3. Pedagogic Innovation by Individual Teachers

In addition to the effects of directed innovation on classroom pedagogy, interview partners in all three countries gave examples of individual initiatives by teachers and collaborative efforts by teams without management involvement. According to the interview data, this appears particularly prevalent in Germany, and least frequent in England. The difference seems in accordance with teacher autonomy, although it is not clear whether the different school types selected for this study contributed at least to the observed distinction between Germany and Austria. This section presents the example of a German Berufskolleg as evidenced by extracts from individual interviews with three teachers as well as the college’s deputy principal.

Addressing the question about the origins of innovative efforts, the deputy principal explained that government agencies and regulators had a role in initiating particular projects, but

“there isn’t really any way to exert much pressure if we don’t achieve something. Of course we try to do what’s expected, but if we sabotaged it, I don’t know, as long as we don’t mess up completely, not much would happen.” (T1 – Deputy Principal, G1)

A teacher added when being asked specifically if he felt any pressure or incentive from school management, government agencies, and regulatory bodies to innovate pedagogically:
“No. Not here. [...] This [recent] project was not the trigger for us to work in teams. We already did that before. [...] The only thing this project does now is to get us to set a particular priority on co-operative learning, and have seminars about it.” (T2, G1)

He explained the origin of initiatives to implement new pedagogic ideas came from

“inspiring each other; exchange ideas, talk about things; communicate within the core team, and subject teams, that’s the most crucial factor. Talking about content, introducing new ideas, that comes from talking to each other. [...] As a colleague I am allowed to contribute in the management of things, and that shows that we are seeing eye to eye with the organisational layer above us, and that we are working together.” (ibid.)

Another colleague gave an example, outlining in particular parallel initiatives and efforts:

“Together with a colleague I am planning co-operative learning as a complete team-teaching effort. That is, we are working together closely for the entire week, with a group of students in an open learning arrangement. [...] there are meetings on Wednesday for all colleagues in the construction department, that’s voluntary, and I meet once a week with the bricklayers who we also do team-teaching with, and once with the bricklayers and carpenters to coordinate all this. I would like to have time credited to my for all this. [...] A pedagogic trial day where we don’t do some nonsense, but where we plan some real teaching, and think about what models to build and what we can realistically achieve.” (T3, G1)

The same interviewee went on to critically evaluate the role of school management and the government education authority in a way that can be seen as typical of a large number of German interviewees. In particular, he stressed that there existed little formal pressure on individual teachers to engage in innovative efforts. After stating that school management had very limited powers, he explained:

“In our department, innovation comes from us. From us colleagues. In principle I believe that our school leaders would like to work innovatively; [...] and I believe they do things well. But I do claim that the system of the education authorities is not designed to get us to make improvements. Those [teachers] that are bad remain bad, and those that are good, remain so.” (T3, G1)

A fourth colleague conceded that the impulse for innovation might come from external quality assessment, but added:

“Other than that I believe that the most successful innovations tend to come from colleagues, from the bottom. Often that happens by chance: someone has a child attending another school, and they try something. Or someone tries something privately, and that spreads from class to class, course to course.” (T4, G1)

Similarly to most of her colleagues in Austria and Germany, she underlined the crucial role
of informal communication within teams. In her particular view, there was a distinct absence of any formal structure to encourage pedagogic innovation:

“There is no systematic exchange, neither within the college, nor between colleges. Generally, teachers just talk to each other [...] so you get ideas; or just around the table in the teachers’ room – but on an informal basis. Systematic exchange would be nice, but it’s a question of time. And of energy. That sort of thing comes on top of everything else, and colleagues say: well, I want to present this well, do this right, if I have to show this to others, and that takes time.” (T4, G1)

The importance of creating a work environment that is conducive to such informal interactions was underlined by one of her colleagues:

“When I work innovatively it has a lot to do with my surroundings. Am I feeling comfortable there, or will I retreat quickly to my own department and don’t want to have much to do with others? [...] That’s an important aspect: how is the chemistry among the staff? Here, I experience that as positive throughout. Our office is open, there are no tables for separate departments; instead, groups are heterogeneous. Of course there are also concentrated groups where departments meet, but there is exchange going on beyond that, and I believe that’s an important element, to see that there’s a good atmosphere.” (T2, G1)

Section 6.5 treats the role of teachers’ work contexts in more depth.

The case of the college presented in this section draws attention to several salient aspects of teacher-driven innovation whose principles apply to all three countries in this study. From the point of view of teachers, intrinsic motivation and co-operation between colleagues play a crucial role, both in generating ideas for innovation attempts, and in their implementation. In this particular example, this is visible in its strongest form, since school management is perceived merely as not standing in the way of teachers, and external influences are regarded as minimally effective. However, to a lesser extent the message of allowing teachers to organise their own innovative efforts was visible in a large proportion of interviews. In addition, it is notable that from their own point of view, teachers frequently do so in informal or loosely structured ways that are more dependent on their subjective perceptions of ‘chemistry’ and ‘atmosphere’ among colleagues, than on organisational principles or documented procedures. However, as this example also demonstrates, the perception of time pressures is usually seen as the main detractor from such informal, voluntary, and frequently unpaid initiatives.
The examples in this section present typical cases of pedagogic innovation arising at three different levels, namely from sources external to colleges, college management, and teachers. In each case, the changes comprised innovative action in several realms beyond the classroom setting, and involved stakeholders from all three organisational levels, either directly – that is through intentional action – or indirectly, through allowing the requisite degree of local autonomy. A large number of examples given throughout the interview phase of this project highlighted a similar need for environments that provide practitioners with triggers and opportunities for innovation. The next section investigates such contextual factors.

6.5. The Influence of Teachers’ Work Contexts on Innovation

The examples and analysis presented in preceding sections indicate the importance of teachers’ work environments for allowing and shaping innovative processes. Based on interview data, this section investigates those factors in detail. A teacher’s work environment is characterised by physical attributes such as infrastructure, architecture, and equipment, but also by the interplay of relations with students, colleagues, and school management. Since the interview data analysis showed that those social factors are by far the most talked about characteristics of teachers’ job contexts, this section is structured accordingly. External influences such as curricular changes are treated separately in the next section, since they are not part of the immediate work context.

6.5.1. Work Time Arrangements

Before analysing colleges as work environments along the lines of social relations, the temporal structure of a teacher’s job must be understood. Since a substantial share of teachers’ innovative work is performed on their own initiative, both the overall workload and the flexibility of work time arrangements are relevant factors in practitioners’ ability to step outside their usual routine and create new pedagogic ideas. According to interview data from all three countries, working hours for teachers can roughly be categorised into time spent interacting with students, preparing for teaching, performing administrative tasks, and engaging in professional development. In almost all cases, those activities are
balanced dynamically, instead of being allocated to pre-defined time slices. In Germany and Austria in particular, only part of the interactions with students, namely classroom teaching, was seen by most teachers and administrators as the defining factor of a teacher’s workload. However, the question of how teachers perceive their work times in relation to contractual obligations warrants further study. While most teachers in Austria and Germany – and some in England – insisted that substantial parts of their work are performed in unpaid overtime, other colleagues disagreed:

“There are three to four months of holidays when we are not required to be here. I say: this is in fact work time, we are just not here. So of course in order not to have an unfair advantage over other employees or public sector workers, that is added to the weeks spent teaching. That way we get to a regular commitment of 50 hours during teaching weeks.” (T2, G6)

Innovation takes preparation time outside the classroom or during school holidays, so it is a relevant question whether teachers interpret this as part of the required job profile, or a voluntary effort.

Since this topic only emerged during the interview process, the data is not comprehensive. When prompted, several teachers in Germany and Austria insisted that from their point of view, only teaching hours were contractually prescribed, stipulating the requirement for teaching preparation without a specific time frame. This lack of clarity is compounded by the fact that teachers are usually not tied to a particular work place, which allows them to perform tasks such as marking and preparation from home, and out of usual work hours. Teachers in England enjoy less flexibility, and there appears to be a greater expectation to spend time at the workplace even when not directly engaged in teaching activities, but cases like the following are very common. Being asked about preparation times, a teacher in Catering and Hospitality in England explained:

“Well, I have my weekends for that; […] in a way you are paid; when you deliver theory you are paid at a different rate than when you do an hour in practical. So that’s included, whichever way you do it, you are paid for it. So yes, I may get a good amount of money for teaching one hour, but I have spent seven hours to do that. But I am not fussy, as long as I’m happy with what I’ve got to deliver, it doesn’t really matter how much time I spend on it.” (T2, E8)

That is, unlike some of his German and Austrian colleagues, this teacher felt that his wages for theoretical lessons specifically included remuneration for the time spent on preparing them, but similarly to other teachers, he did not see this as a key motivator, and implied
that the extent of his preparation time is voluntarily chosen.

The view that overtime is accepted or even welcomed in exchange for greater flexibility, as well as the notion that a teacher’s intrinsic motivation leads him or her to tolerate a number of adverse working conditions as long as students are happy and a high teaching standard is achieved, is a common theme in nearly all interviews. The above example illustrates that such views are frequent in England despite stricter managerial oversight than in the other countries. This theme relates to issues of professional autonomy discussed in 5.4.3. It must be noted that this analysis does not reflect the potential downside of such flexible arrangements. Given the biased sample of interviewees as particularly engaged and innovative teachers, it seems likely that in the absence of documentation and controls, other colleagues might attempt to stay below the average of typical weekly work hours. To the extent that it influences relations between teachers, the role of colleagues is discussed later in this chapter.

6.5.2. Infrastructure

In addition to the social relations outlined in subsequent sections, problems with infrastructure were highlighted in interviews as constituting an important aspect of teachers’ work environments. Possibly because of the greater emphasis on ICT use at FE colleges, teachers there felt particularly restricted by its failings:

“The major factor for that is ILT provision, that hinders it. My computer is archaic.” (T1, E3)

By contrast, the following interview quote illustrates a view typical for German and Austrian teachers in the study, shifting the focus from technology to questions of space and other infrastructure:

“Our IT provision is catastrophic [but] if we said, we need IT and technical equipment, otherwise we can’t be innovative, that’s not a sufficient argument. I believe that one can be innovative without those things. However, what makes things harder, also because we are always at the limits with room availability [...] that complicates things, although we regularly extend teaching until 3 p.m. Starting at 8 a.m., without a cafeteria [...] I do think that’s an obstacle; the whole question of infrastructure [...] we don’t have sufficient work spaces for colleagues, not enough rooms to retreat to at times, to hold a meeting.” (T3, G3)

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Complaints about a lack of space for teachers to retreat to for relaxation, individual work, and team meetings were particularly frequent in Austrian schools, but generally appeared at colleges in all three countries. Other aspects, such as classrooms, equipment, and specialised facilities, were mentioned, including cases in which such limitations prompted innovative pedagogic solutions to overcome them.

6.5.3. Relations with Students

In interviews, teachers stated that their interactions with students shaped their ability to implement and reflect upon innovative pedagogies. In particular, opportunities for receiving feedback from students were highlighted by a majority of interviewees as crucial to successfully implementing pedagogic innovation:

“The best evaluation is the students. They’ll say: that didn’t work today. And you’ll say, well, let’s try something different next time.” (T3-3, E6)

Several teachers pointed out that they had come to understand potential criticism from students as learning opportunities for themselves:

“In particular when I’m having trouble with a class […] I try to receive feedback via a questionnaire: what’s going wrong? I can see that productively; others might find it humiliating, or feel it puts pressure on them.” (T4, G4)

Successful project work and initiatives that go beyond the core curriculum are often dependent on a respectful and disciplined learning atmosphere. Experienced teachers stressed their growing comfort with taking opportunities that allowed them to leverage their professional autonomy:

“from [workshops for] beating the drums, to adventures in the wilderness, […] I see people who I want to educate and shape; I want to accompany them on a path towards a new, better world. So I have to give examples, and show things that they don’t know yet, maybe even things that scare them. The theatre project: some were scared by that. But they succeeded. Or in the wilderness: when they had trekked through the wilderness for five days, they were proud; when they abseiled [from cliffs], carried each other as part of a team exercise […] it’s just beautiful for me to experience that.” (T3, G6)

Similar possibilities exist in Austria, while teachers in England felt markedly more constrained to projects that are immediately relevant to particular vocational skills.

Almost all interviewees displayed an awareness of the innovative pressures resulting
from diverse student types that allow or necessitate the use of particular pedagogic strategies:

“[...] they have a lot of personal background that will affect how they learn, [...] so I come up with genius ideas how I can change things, but [the main problem is] the background of the students here, because they come from different areas within [the city] and I do find that affects things. And not a lot of parents think education is a good idea, so that’s a big barrier for me.” (T3, E7)

Similar challenges were common in all three countries:

“The social component is growing in importance, because parents delegate education to teachers. They don’t talk enough to each other at home. Students perceive teachers as significant others to relate to with their problems, whether it’s eating disorders, drugs, etc., that parents know nothing of. That’s a big challenge, and we are not trained for this, so it takes a big toll.” (T1, A5)

In Germany in particular, several teachers raised the theme of immigration and the resultant cultural and linguistic barriers as a driver for classroom innovation:

“There are [in this class] 18 students, and there’s only one who’s not from an immigrant background. [...] That results in language problems, for example that tasks are not understood. But for exams I believe: you must practice that; you must practice to understand the necessary information.” (T2, G6)

However, several interviewees indicated that they saw themselves as exceptions in an environment where other teachers needed more explicit clues in order to adapt their pedagogies:

“[...] some colleagues in HAS teach exactly as they do in HAK; 18 so changing the subjects substantially signalled clearly: that’s an entirely different target group.” (T3, A3)

This underlines the fact that the interviewees for this study were a largely self-selected sample of particularly engaged individuals whose perceptions of colleagues and interpretations of innovative processes in their work environment were likely to be more detailed and critical than those of their peers.

6.5.4. Relations with Management

Due to structural differences between FE Colleges in England, and their equivalents in Germany and Austria, the latter have flatter hierarchies and distinctly less managerial

18 HAS (Handelsschule) is the three-year form; HAK (Handelsakademie) the five year course with Matura qualifications.
control over teaching. While the majority of English colleges in this study had several managers such as division heads, heads of school, quality managers, or managers for particular projects with minimal teaching involvements, a similar role would only be typical for the principal at most German and Austrian colleges. However, complaints about growing bureaucracy were common in each case, albeit significantly more pronounced in England:

“[Teachers] feel that their role has gone from being in the classroom to being in the office, doing lots of paperwork. It has only been this year that I’ve seen that change in the amount of paperwork in my experience, even within such a short period of time. I didn’t go into teaching to do paperwork. I came here to stand in front of learners, and teach. That’s what’s putting a lot of people off teaching, that paperwork.” (T3, E2)

A typical German statement indicated lower levels of frustration:

“I do think that some things could be less bureaucratic, so that time is available for other things. Examples are grading schemes, conferences, coordination ... but it’s a fine line, because those things are also very important. It’s difficult.” (T2, G1)

In addition to such organisational burdens, nearly all teachers acknowledged that they themselves, or colleagues, were overworked. Frequently, FE college management was aware of how this affected innovations in pedagogy:

“[…] and that’s not going to get better; with funding cuts they’re looking at getting more from a teacher. Teachers need time to try something, to reflect, to talk about it. You miss out on that richness. When I first started we had a lot of time to sit and talk about teaching, what was working, and working in teams on projects with students. Now each member of staff is just trying to hold out on their own, there isn’t time to talk, to chat, and in fact only time when they get to chat about teaching is when they are still in training.” (T3 – Quality Improvement and Workforce Development Manager, E4)

An Austrian teacher concurred:

“I face many obstacles [to innovation]. For one, there is the enormous number of hours we have to teach; the time effort, the lack of teachers. Since I am doing one and a half times the regular work, I don’t know when I even have time to prepare my teaching. […] In my case, after 20 years, there is little to prepare myself for in terms of subject matter, so I can focus on didactics, but even that’s difficult.” (T2, A4)

A deputy principal at a German college agreed with his English colleague, and added a more nuanced view in relation to the professional autonomy of teachers:

“It’s logically clear that just 38 ½ hours a week won’t suffice, even for those that work efficiently. So then there are substantial differences. There are some – very
few, I believe – that laze around. On the other hand, there are about one third who work amazingly, innovatively, pedagogically with students, and where I am afraid for half of them to end up burnt out.” (T1 – Deputy Principal, G1)

Similarly to this level of awareness, college leadership was reported to be supportive of teachers and their innovative efforts in general terms, but frequently criticised for not implementing concrete measures. In all three countries, CPD stands out as a typical example:

“We do have staff development, and they do offer that, so when you do PGCE, they offer you advanced teaching skills, so they do that, but we haven’t had it in the last three to four years, so there isn’t much that we can do, where we can stretch ourselves once we’ve done the PGCE.” (T2 – colleague, E5)

Austrian colleagues tended to suggest that innovative practice must be up to individual teachers, not management, despite the fact that the system reflects a tradition that does not place any emphasis on quality improvement and innovation:

“There is very little support from school leadership for designing good teaching. However, I don’t believe that it’s the task of school leaders to support good teaching, because they can’t do that. They are good at managing schools, and making sure that teaching happens. [...] That is, the individual initiative of employees in management is not what’s required [by the system]; so I am working on my own initiative, under my own responsibility, for an employer in an area where my sort of behaviour is alien.” (T1, A4)

Other Austrian and German teachers held similar views, but appeared generally more positive about the intentions of college leadership, implying that leaders were open to innovations even if they did not take the initiative for bringing it about.

“I believe the main reason why innovation is desired … and it is clearly desired by school leadership … but also within the department, at least in my area, there’s just a consensus about this among colleagues. [...] So there is never a situation where one tries something and only meets resistance. There are always open doors.” (T1, G2)

In several cases German and Austrian interviewees appeared satisfied in principle with what they perceived as a merely reactive stance by school leaders, but pointed out that their efforts were suffering from a lack of support structures and allocations of time and budgets. On the positive side, an Austrian teacher described the freedom to make mistakes as a result of school leaders allowing teachers take the initiative on innovation projects:

“Traditionally at our school, almost anything is possible […] You are free to try whatever you want, but there is no requirement to evaluate things […] if it goes
Another colleague drew attention to the negative aspects of this degree of liberty, talking about a lack of evaluations and discussions for improvements:

“Our superiors have an enormous workload [...] The wouldn’t have time for things [formal evaluation] like that, and neither do we, amongst colleagues, because there are not the right conditions for it, and because colleagues don’t know what it would be good for.” (T2, G6).

The differences in the points raised by interviewees about their relations with management reflect a general divide: whereas English FE college teachers complained about restrictive regulations and limited time, their continental colleagues struggled more with a lack of initiative on the part of school leaders:

“About budgets, I’d say I see less of a problem there; for example, we already have the technical equipment, hardware. So someone would just have to take the initiative; so it’s a question of the extent to which school management would support that.” (T2, A2)

Connections between relations with management and the provision of infrastructure can be traced throughout interviews in all three countries, but in contrast to this example often concern budgeting issues.

6.5.5. Relations with Colleagues

The analysis of interview data showed a strong consensus among teachers about relations with colleagues constituting the single most important factor shaping their work environment. The specific role of team work in developing innovative practice is visible throughout this analysis and has been addressed in previous chapters. Teachers stressed that an inspiring atmosphere made an important contribution to their intrinsic motivation. For example, several teachers gave examples of cultural diversity among teaching staff adding to teaching and learning opportunities. Referring to team teaching, one interviewee explained:

“ [...] we often like to have a male and a female, or teachers with different cultural perspectives. For example a colleague of mine, we do team teaching, he is a Sikh, he grew up in India; I am English. We are a multicultural society, we have to have that. We have black people from Uganda and Jamaica who teach here, and we have a French chef lecturer. It’s about introducing students to as many people
as you can. I think the wider curriculum is sometimes more important than their actual assessment. What they take away from a session with that Indian colleague and me is potentially much more valuable than the curriculum.” (T1 – Deputy Head of Faculty, E6)

Teachers in all three countries agreed that most inspiration through colleagues takes place outside formal structures. The following illustrates a common perception in Austria and Germany about communication amongst colleagues in the absence of well established conduits for innovations:

“Formal procedures are onerous and not as fast as things should be in a large group of colleagues. Also, there are interfaces to the outside where new things arrive, not from within the school, and then it doesn't get communicated onwards; [...] we exchange our experiences, exchange materials, or when someone discovers something new. That works very well within our subject team.” (T2, A4)

Whereas a large majority of interviewees appeared to use terms such as ‘informal communication’ to denote conversations with colleagues outside specifically arranged meetings, workshops, or CPD events, some voiced dissent:

“I find it funny when colleagues claim that it’s informal. This communication takes place within the job, so it’s formal. It’s not like we are talking about those things at the tennis club; it happens regularly on the job.” (T3, A3)

However, data analysis indicates that the distinction is not entirely meaningless, since teachers particularly seemed to denote communication that is not explicitly facilitated, encouraged, or enforced by management, and not strictly required for teachers’ individual task fulfilment. The fact that this form of communication cannot be mandated, despite being almost universally identified as a crucial contributing factor to successful pedagogic innovation, makes it a central feature of teachers’ professional autonomy.

Some interviewees provided particularly candid examples for how their work environment also functioned as a social space. A college principal from Germany explained his success in forging a more motivated and cohesive team among teachers:

“For example, we have our Christmas party. So we get 90 teachers into our largest restaurant, and we start at three in the afternoon, and at two in the morning the last ones leave, and we get smashed, if I may say so. It’s great fun […] When I became leader of this college we had just 43 people who attended this event, but now we are booked out. That’s the point: you’ve got to have fun. You can’t just work all the time. You have to do things together. Such things show whether there’s a good atmosphere.” (German college principal; fully anonymous per request)
The importance of a good understanding between colleagues and a shared intrinsic desire to improve teaching, makes its absence particularly problematic. The following expresses the fact that atmosphere or chemistry between colleagues depends on personal connections that cannot easily be enforced by managerial intervention:

“I have worked at this college and one other, and this one is particularly good at sharing ideas. The barrier, however, is that there are some staff who have worked here for 15, 20 years, and are not interested in what they classify as younger people’s more modern techniques and ways of delivery [...] They feel: I am doing what I have always done, and I am not changing. That’s a real challenge.” (T2 – Head of Faculty of Science, E7)

This complaint was evident in interviews from all three countries, particularly in Austria:

“Ultimately the problem exists in the heads of colleagues who say: never change a running system!” (T1, A2)

After several teachers in Austria had independently volunteered an estimate of one third of their colleagues being unable or unwilling to work in teams or contribute meaningfully to joint innovative efforts, questions in subsequent interviews explicitly mentioned this percentage and asked for comments. Teachers in Austria and Germany reacted similarly:

“That’s correct. You’ll find that percentage everywhere. I believe at our college it’s lower than at others, otherwise we wouldn’t be where we are, but it’s definitely at 20 to 30% who are just free riders.” (T2, A6)

Teachers in several colleges in both German states included in this study agreed:

“More than a third. Rather 40% sometimes. It also depends on what other tasks there are.” (T3, G2)

Several interviewees identified this phenomenon as a downside of professional autonomy and flexibility:

“About the ability to work in teams: looking at our college, there is a third that can’t do that, and aren’t ready to. That has to do with time resources, to sit down to work in the afternoon, stay at school. Only if one is here, one can work with others.” (T3, G6)

Although this interviewee did not mention it specifically, the availability of infrastructure for staying at school after teaching hours and working effectively was frequently related to this perceived reluctance of teachers to work with colleagues.

In addition to their immediate work context – shaped by infrastructure and relations to students, management, and colleagues – the pedagogic work of VET teachers takes place
within the constraints set and opportunities created by factors at the top level of the innovation framework used in this study. Such influences from the policy level are discussed in the next section.

6.6. Influence of Factors External to Schools on Pedagogic Innovation

Given the differences between education systems such as assessment structures and funding, investigating the influence of external factors on classroom innovation was one of the central aims of this study. Interviewees frequently remarked on the effects that curricula, assessments, and teaching standards have on their opportunities for innovative practice. Several interview questions were specifically designed to elucidate the incentives and disincentives to teachers arising from such external factors. The current section documents the most salient findings from interviews, laying the groundwork for more extensive interpretations in chapter 7.

According to the data analysis, the most significant differences between teachers’ opinions about external pressures stem from the funding structures and concomitant competition for resources that English FE colleges find themselves subjected to. English interviewees were particularly aware of pressures to attract, retain, and pass students:

“*There is a certain pressure to make a student pass, because it’s all funded, so for the student to be successful, it’s all about getting people in, and getting them to pass. That’s the pressure I really feel. So not really how I deliver my lesson, or how to improve it. The pressure I feel is: we need to get this number of students passed.*” (T3, E8)

As the following sections on the impact of curricula, assessment, and standards demonstrate, the incentive structure that is created by increasing pass rates has far-reaching consequences for FE colleges. By contrast, only a small number of teachers in Austria and Germany mentioned any pressure to pass students in exams, citing reasons such as bureaucratic hurdles arising from failing students, or an outright rejection of branding a student a ‘failure’.

The bulk of this section discusses curricula, assessments, and standards as the main external factors influencing on classroom innovation. It is important to note that those factors work in conjunction and cannot be entirely separated:
“It’s impacted upon by Ofsted. But a lot of the time we are led by our qualifications [...] because they are expecting you to meet certain criteria to pass. City & Guilds are very prescriptive. They will tell you exactly what a student needs to do to achieve. BTEC will give you a task [...] How you do that is up to you.” (T1 – Deputy Head of Faculty, E6)

Another teacher explained how changes in each of them trigger disruptive effects for both teachers and students:

“I’ve put a lot of work into the diploma, they were starting it, and now we wonder whether they are going to scrap it now because we have a new government. [...] So I feel that’d make changes when they really need to let the diploma run before they scrap it just because someone else had put it together. [...] are they going to change it, is there any point for me to put a lot of work in, because if I put a lot of work in this year, I can re-use that next year. But if they are going to scrap it, I sit there and think, is it worth the effort? So it’s insecurity, and time, and also the insecurity towards the students.” (T3, E7)

By comparison, the Austrian and German systems are based on framework curricula that have legal status, which means they are changed infrequently and are formulated in abstract ways that allow individual teachers broad scope of interpretation. Both systems are in the process of transitioning to centrally coordinated final exams at the upper end of the qualification spectrum (Abitur or Fachabitur in Germany, Matura in Austria), but at the time of this research project, only the first steps of any implementation had been taken. Moreover, interviewees in both Austria and Germany expressed an expectation that most vocational subjects would not fall under additional central governance. Since the practical subjects of some vocational qualifications are already handled by external examiners from the dual system, they would also be exempt from new assessment regulations that originate from the academic side of the system. In addition, school inspections in Germany and Austria are carried out by local government agencies that do not enjoy Ofsted’s centralised power and prescriptive vision of teaching quality. Nonetheless, the influence of policy changes for curricula, modes of assessment, and teaching standards, are making themselves felt in the classroom, albeit not to the same extent as in England.

In similarity with their English colleagues, German and Austrian teachers also reported on the distracting effects of changes instigated at the policy level, but typically took a longer-term view:

“Here in Bremen we certainly experienced a lot of structural reforms in the last
30 years [...] and as I experienced it, it leads away from the question of that’s really happening in the classroom, and what sort of innovation is required there. [...] That consumes a lot of energy, and results in thinking less about the inner workings, about the things that affect students.” (T2 - College Principal, G5)

It was common for German and Austrian interviewees to talk in time-frames from ten to 30 years, while such perspectives were almost entirely absent from conversations at FE colleges. This difference corresponds to the relatively slow pace of framework curriculum changes in the German speaking countries, and the high rate of qualification and structural changes in England. The remainder of this section details this discussion of external influences in terms of curricula, assessment, and standards.

6.6.1. Curriculum

Curricular changes can have significant and obvious effects on teaching strategies, since they directly influence the content and emphasis of classroom interactions. Several interviewees gave examples of innovative changes resulting from curricular influences, but the overall tendency, particularly in England, went in the other direction:

“So sometimes, as much as we’d like to meet the learners’ needs, the actual curriculum prevents you from doing that.” (T3, E2)

Austria and Germany give teachers more freedom:

“[The curriculum] is the framework; partly it’s vague, partly it’s abysmally badly formulated. [...] You get the impression that there were three committees that were not really in harmony about the final product. In daily practice one doesn’t much look at the curriculum. Except when new things arrive, for example in German teaching they introduced so-called cultural portfolios about ten years ago [...] So students should attend cultural events and create portfolios. So that was externally mandated pedagogic innovation.” (T1, A1)

German colleagues tended to complain more explicitly about the depth and frequency of curricular changes, but usually found it hard to enumerate the problems in concrete terms:

“I always see how particularly in the school sector, authorities say: you must be innovative, must change something once again, when it has just been settled, about modes of teaching or something. And again there’s another thing on the table, and the previous one hasn’t even consolidated, or hasn’t yet been tried properly.” (T1, G3)

When asked to provide concrete examples, this teacher, like most of her colleagues in Germany, mentioned learning areas, which was the single largest change in the dual
system in the last decade, with implications for full-time VET. She argued that

“contents and how they relate to each other, what’s being taught when, and what fits in with that, the learning situations, had to be redeveloped. We had to conceptualise of new tasks, and develop an entirely different structure of lessons to fit those things in.” (T1, G3)

This example also illustrates the analytical problem of separating between full-time and dual-system VET at German colleges, since most teachers are active in both areas, and it is not always clear whether they could effectively distinguish between those work contexts for the purposes of the research interview.

Due to the assessment-centred nature of teaching at FE colleges, teachers there tended to prefer highly prescriptive curricula but remained aware of their drawbacks:

“In NVQs you get given a load of learning outcomes [...] at the end they have an exam for that. For me as a teacher I don’t know whether I am giving them enough information to do their exam, or if I am giving them too much, because the outline is so general, not specific. With BTEC, you have a list of specific criteria you need to meet; that works well, it’s structured, you know what you need to do, you know when the learners hand in an assignment, what they need to meet. However, it means you can’t go off from that. If a learner asks a question [...] I need to get them back on track because I haven’t got the time to talk about all that extra information.” (T3, E2)

By contrast, the same teacher offered an insight into the scope of opportunities in the context of a curriculum and assessment that was developed locally:

“With that you get given some outcomes, and then can build the curriculum yourself. That works really well, because if we have written it ourselves, we know what to expect, and how to guide the learners much more easily.” (T3, E2)

This reflects a widespread perception among teachers at FE colleges that they have the skills and knowledge to develop curricula and assessments that could address learners’ needs, if they had the freedom to do so.

In this context, the choice of new alternatives constitutes an innovative change. However, the analysis did not indicate that FE colleges experienced a significantly greater innovative impetus through externally given curricular changes than their German and Austrian counterparts. Rather, curricula in England place greater restrictions on teachers, so that changes offer opportunities for innovations that might otherwise have been instigated by teachers on their own. Most interviewees appeared keenly aware of the problems of this centralised approach. After explaining his perception that frequent
changes

“are reinventing the wheel somewhat, because I see it going in circles; that’s absolutely a common experience with education in England” (T2, E8),

a lecturer and subject learning coach at an FE college summarised how they add to the bureaucratic load and engender a sense of frustration:

“They have changed things so fast they haven’t caught up with themselves on the paperwork, which has a massive impact on tutors, because we have to prepare teaching resources, schemes of work, etc, and they haven’t caught up with themselves. [...] And because of the sheer volume of paperwork, it has a massive impact on your quality of teaching; that’s what’s happening, because it occupies your time; rather than concentrating on what you’ve got right and developing that, you keep going back to the beginning, and having to jump through the latest hoop.” (T2, E8)

Similar complaints about the confluence of a disorientating effect, additional paperwork, and a sense of futility as a result of curricular changes were frequent at FE colleges, and never formulated in similarly concrete terms in the other countries in this study.

6.6.2. Assessment

In England, curricula and assessment regulations developed by qualification bodies go hand-in-hand, so that their impacts on classroom innovation cannot always be determined individually. However, several teachers explicitly referred to the latter:

“Some constraints are around assessment, the assessment framework that we are obliged to conform to for externally validated qualifications. That limits to some extent the degree to which we are able to innovate, because we have limited opportunities for assessing student performance where we educate them for public qualifications.” (T2 – Director of Learning Assistance and IT, E3)

Several English teachers noted a trend in assessment that supported student-centred learning and more practical approaches, arguing that it made it easier to prepare students for exams due to improved relevance and more lenient examination procedures:

“[In hairdressing] students had to pass the science part. [...] They had science lessons in science lab, doing experiments, but were not sure how they fit together. [...] The practical part was an external exam. [...] If you failed one part of it, you would have to re-do the year, and re-apply to re-sit. [...] [Now] students are assessed on competence, and the theory side is taught to be completely relevant to practical units. [...] In tests they need 100%, but they have three attempts on it. If they get 70% or more on the first, they can do an oral exam on the failed questions. It’s easier to get students through NVQ questions compared to how questions in exams were pre [19]96.” (T1, E4)
Some teachers explicitly pointed out a perception of continuously falling standards in attempts to make assessments more relevant.

For teachers in Germany and Austria, the potential problems of ongoing reforms to centralise some assessment structures are a contentious theme. In both countries, interviewees focused on the negative consequences to teaching, while admitting that some standardisation was welcome, largely agreeing that it would not result in overly disruptive changes:

“There is a danger of training students in a very targeted way just for the exam. The problem is also that every teacher has their preferences, […] so they would have to deviate from those favourites, and maybe expand in breadth. […] It won’t change much in terms of teacher-student relations in my subject […] but I can imagine that that might be different for others. In the end we have a joint project: my aim is to get them to Matura, and prepare them.” (T1, A2)

At German colleges that maintained a vocationally-oriented Gymnasium, leading to full academic qualifications, the impact of Zentralabitur was more keenly felt than at other branches. A teacher at a college specialising on food technology and nutrition explained:

“There is a branch for food technologies and biotechnology, so that’s of course directly vocationally oriented, but you could for example also introduce a vocational direction to chemistry, mathematics, German, and English. However, we can’t, because the exam guidelines require them to do the same exam as the academic Gymnasium. […] In my opinion that doesn’t do justice for this particular course.” (T1, G5)

However, it must be noted that even those centralised final exams generally follow a pattern that allows teachers a substantial degree of input, in comparison to assessments by English awarding bodies:

“We have a curriculum we stick to, but we do make proposals for exams and send them to the local education authority. So there is always tension between freedom and determinism. That’s a fundamental pedagogic problem: how much freedom can I grant, how many rules must I make? That needs to be handled very individually.” (T2, G3)

This study could not fully clarify the degree to which teachers in Germany and Austria have opportunities to influence assessment regimes; on the one hand, interviewees voiced complaints about external dictates, and on the other some colleagues, particularly in Austria, gave accounts of high levels of co-operation with policy makers. For example, an Austrian teacher talked about Zentralmatura:

“Recently I attended a meeting at the state education board where teachers for
economic subjects needed to find a common understanding – which wasn’t required before – about what we all examine for Matura. […] A typical example where we already ran into problems: at what percentages do you give certain grades? There are colleges where a pass is at 50%, and others where it’s 55%, which is unfair. […] It’s nearly impossible to find a compromise, and the question remains unresolved. That would be a first, small step, one would think, but it became so unwieldy that we agreed after an hour that we couldn’t resolve it.” (T2, A2)

Due to the more prescriptive mode of assessments in England, some teachers were able to point towards new pedagogic ideas that had been enforced through assessment changes:

“[The emphasis of portfolios for NVQs is] on students taking responsibility for their own learning. […] So I think having that, something physical, that you can handle, and see it getting physically bigger, a visual experience, particularly in a vocational area, that’s important. It’s like having a height chart as a child, the idea of physically measuring yourself, it’s the same idea. That’s been a big step towards helping students learn.” (T1, E5)

Similar effects do not apply to Germany and Austria, since strategies like portfolio work take place at the discretion of individual teachers.

6.6.3. Standards

In addition to curricular and assessment changes, interviewees mentioned teaching standards as the third significant external factor influencing pedagogic practice. The stricter regulatory environment in England was perceived by most teachers as a mixed blessing, driving up quality in some respects, and limiting opportunities in others. A manager at an FE college explained:

“We used to assume when someone didn’t understand, it’s their fault. Now responsibility has changed, driven by a government agenda and Ofsted: We have to make sure in every lesson that they’ve learned. […] lots of stuff we do, [teachers] may not know there’s an Ofsted agenda behind it. For example, every new teacher here gets [an introductory] one-day session […]; we show how we like lesson plans and schemes of work to be done; this is active learning; […] and to some extent good teaching anyway, since Ofsted is not going off on a limb to do things that aren’t appropriate. I think it’s positive that they don’t quite know this driver, but the staff development we put on, the one-to-one training, the lesson observation process, have all got an Ofsted backing; I don’t know if that’s good, they have a lot of power, don’t they?” (T3 – Quality Improvement and Workforce Development Manager, E4)
Therefore opinions among teachers about the practical effects of inspections appeared to vary, and proved hard to discern from other factors like college-internal quality improvement initiatives:

“So when you mention Ofsted to a teacher they instantly react. We got Ofsted-ed twice last year. [...] I did not change my teaching because of that. So in my eyes that shows that I am a good teacher; if I don’t need to change the way I am teaching, then I am obviously doing it right. [...] I learned that from my peers, people around me, and going in and observing lessons, seeing how they structure it, and deal with loud groups, and things like that. So, no, I don’t think I took that from Ofsted.” (T3, E7)

Other teachers were more critical, and as one head of faculty pointed out:

“The problem with Ofsted is, they have a tick box about what is an excellent lesson. Whereas I also do lots of lesson inspections, I observed some that didn’t tick all the boxes, but were excellent, because they were reactive [...] But if Ofsted were coming in, it’s not on your scheme of work, and doesn’t tick it all. Sometimes that can halt innovation. Hats off to that lecturer, she comes in on the tram, sees an article, and decides: ‘I am teaching that today, that’s more important than what I was doing, I’ll do that another week.’ She had the confidence to do that. Not all lecturers would.” (T1 – Deputy Head of Faculty, E6)

Such experiences appear alien in German and Austrian contexts, where most interviewees not only drew attention to the liberties they enjoyed, but also felt the need to warn of the consequences of more strictly enforced standards:

“Yes, of course one has to fulfil those requirements as part of one’s official duties. However, they are relatively vague. Partly they sound very altruistic, education for what’s good and beautiful and such things, so they are framework curricula, that luckily leave a lot of room for inspiration on the part of the teacher. Just to meet standards [...] the more there is a connection to my career, the more I would deviate from my aims, and decidedly only go for what’s required, just from a sense of self-preservation. But I wouldn’t be happy about that.” (T2, A3)

However, interviews produced mixed evidence, particularly in Austria, about the concrete ways in which increased standardisation influenced the work of teachers. At another school in the same city as the teacher quoted above, a colleague lamented:

“What’s happening with those standards20 is that teachers are being curtailed. [...] The liberty of teaching is much reduced, and that hurts me a lot, because I think there are strengths in individual teachers that they can pass on, that

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20 The interviewee mentioned “Bildungsstandards” when in fact Austria introduced “Regelstandards”. However, there appeared to be little clarity among interviewees, including experts, about whether Austrian Regelstandards would be similar in character to German Bildungsstandards.
another might not have, and students can benefit from that; those standards take that away completely.” (T2, A4)

Many interviewees in the German-speaking countries traced connections between quality evaluations, external observations, and attempts to regulate their behaviour. Since there is no tradition of centralised reviews of teaching quality in Germany and Austria, emotions about one such attempt undertaken in 2009 in North-Rhine Westphalia were still running high two years later. Several teachers and administrators expressed highly critical opinions about this particular initiative, as well as similar attempts in general:

“That is a decidedly questionable approach. […] Three inspectors came in, with a hostile facial expression, being very uncommunicative. They came into lessons, stayed for ten minutes, and left. They did 80 visits in classrooms, sometimes repeatedly in classes by the same colleagues, and when they had 80 times ten minutes, they made a detailed report that you can see on our website. They concluded that we approached students in the wrong way, which lead to howls of indignation from colleagues. In fact, we believe – and many colleagues support this view – that we have a particularly good rapport with students. […] So once again this is an attempt to measure teaching, and I am of the opinion that that’s impossible.” (T3, G3)

Asked about the consequences, the teacher agreed that there was no legal remit for the Land government which employs the teachers, or the city government which provides for school infrastructure, to change budget allocation or threaten any particular consequences resulting from evaluations, except, as he added jokingly

“Yes, if we had students in chains.” (T3, G3)

In conjunction with the analysis of practitioner perceptions in chapter 5, the rich interview data presented in the current chapter on examples, origins, and contexts of successful innovation, as well as critical views of innovation attempts provide the basis for further analysis in chapter 7 that approaches the research questions on what obstacles and incentives exist for pedagogic innovation. The analysis in this chapter produced eight categories of pedagogic innovation which arose at the initiative of teachers or which was designed by them in response to outside triggers. Those origins of innovation in turn fell into four categories, ranging from changes in course structures and curricula, to the introduction of quality management, better teacher training, and improvements in the
college atmosphere both as a work place for teachers, and a learning environment for students. Cases illustrating innovation triggered directly by influences external to the college, by college management, and by individual teachers were discussed in depth, and several factors shaping the innovative behaviour of teachers were identified. In the immediate work context those include work time arrangements, infrastructure, and relations with students, management, and colleagues. Outside factors were curricula, assessment regimes, and educational standards. Practitioners noted that innovation in their immediate work context hardly ever failed because they had sufficient autonomy to pick and focus on aspects of changes that worked, but their data provided opportunities to identify six particular problem factors for pedagogic innovation in practice. They were related to the unintended side-effects of technology innovation, overly ambitious innovation attempts, problems arising from increased independence without appropriate support, innovation that only existed on paper, the side effects of innovation in the wrong context, and the problematic influence of external inspections. The next chapter builds on those results to create a more abstract view of pedagogic innovation, potential obstacles, and of means to address them.

7. Data Analysis and Interpretation III – Dynamics, Limitations, and Lessons for Innovation

This part of the analysis departs from the strong focus on primary data from interviews of the preceding chapters in order to present the connections between previous stages of data analysis, explore overarching themes, and link them to this study’s initial assumptions and frameworks. The discussion is structured in three sections, following the research questions formulated in section 2.4. They proceed from outlining the dynamics of innovative changes at VET colleges, to highlighting impediments to such processes, and investigating ways to facilitate them. This also addresses the core research question and continues to emphasise the importance of focusing on teaching practitioners and their concrete experiences in accordance with the aims set out in section 2.2. The analysis connects strands from the findings of chapters 5 and 6, links them to themes that were discussed in the initial research phase involving educational experts, and presents issues that emerged from the iterative data analysis at levels that go beyond an immediate
correspondence to particular interview questions. Whereas the preceding chapters kept their analysis very close to the data, this chapter synthesises their findings and further analysis into a multi-faceted narrative of innovation from the point of view of practitioners.

7.1. The Dynamics of Innovation

This section summarises this study’s findings on what pedagogic innovation looks like from the classroom level, and how teachers experience several different kinds of change processes. Since this links to several initial assumptions about a three-level model of innovation in education systems, the role of teachers as street-level bureaucrats (Lipsky, 1980), and the nature of innovation, these topics are explored in the context of the frameworks presented at the outset in section 1.2.

7.1.1. The Three-Level Model of Pedagogic Innovation

A three-level model used by Ertl and Kremer (2009) to conceptualise different classes of actors in pedagogic innovation proved a good fit with teachers’ understanding of educational system structures as far as they are relevant to change processes. However, its predominant application to reform efforts originating at the policy level, being filtered at the college level, and operationalised by teachers in classroom settings, does not explicitly account for the fact that a significant portion of pedagogic innovation takes place outside of this process.

According to the research data, teachers perceive themselves and their colleagues at the interface of administration and teaching as clearly different in role and motivations from school leaders and middle management. They emphasise the classroom setting as the locus of putting pedagogic change into action, and view this as an environment with pressures and expectations that are distinct from colleges’ managerial and organisational settings. In addition, teachers are strongly aware of the specific function of college leadership for supporting and managing teaching and learning processes, and they frequently stress the role played by the local managerial layer as intermediary between educational policy and the classroom. Therefore the evidence from this study clearly
supports the usefulness of a three-level model comprising classroom settings with teachers as main actors, college management layers with administrators and school leaders at the centre, and an external policy level representing formal external influences.

The data does not support the introduction of further levels for the purposes of understanding how pedagogic reform is generated, disseminated, and operationalised. It identifies some stakeholders not explicitly accounted for in this model, for example students, and distinct groups comprising the top layer, ranging from policy makers, to media and ‘society’ as a general construct. However, from the point of view of teaching practitioners, the three-level model adequately reflects the roles and settings of those actors who actively engage in shaping and implementing pedagogic innovation. It does not explicitly contain teams of teachers as a separate entity, because they do not constitute a distinct organisational level. Rather, teams exist at the interface of the classroom level and the administrative layer.

According to the interview data, teams may be defined explicitly or arise organically. The former may be the case for the implementation of particular projects, or in the shape of groups of teachers responsible for the same subjects or year groups. The latter, organically arising team structures, are groups of colleagues self-organising based on friendship, similar ideas, and the identification of work related synergies. Teams of both types were mentioned by nearly all interviewees, and there is a significant overlap between then. English FE colleges tended to have a predominance of formalised team structures in response to more pervasive managerial influences, whereas Austrian and German teachers reported more significant involvements in self-organising team structures. Of the latter, German colleges showed a greater tendency to turn such spontaneous groups into structured project teams over time, which appears to be related to the nature of Berufskollegs as integrated entities providing several distinct school types with a more pronounced management structure than Austrian BMHS.

Although they frequently encompass college administrators and stakeholders with roles beyond pure teaching, such as quality management, teams can be seen as the structural base from which teachers generate innovative change, respond to demands for change by designing its implementation, or resist change processes. However, in the
descriptions from teachers in all three countries, teams are relatively insular. Especially at large colleges there is very little interaction between teams from different departments, and the data showed hardly any evidence for co-operation between teams of teachers from different colleges, even in the presence of similar organisational structures, subjects, and curricula. Individual teachers may meet in the context of CPD, but there is little structure beyond that. In the case of FE colleges this is clearly related to their nature as independent or even competing economic entities. Considering that teachers at Austrian and German colleges are state employees, a different emphasis on collaboration would seem feasible there. However, the interpretation of interview data supports the impression that German and Austrian policy makers do not appear to see teachers as the principal agents of service delivery. Instead, it seems that from a policy level, colleges are viewed as the relevant interface to the learning public, and teachers merely as a resource to that end.

If viewed as an organisational hierarchy, the layer above teachers in the three-level model encompasses school leadership, administrative roles, and an area of overlap with the pedagogic level. This is due to the dual role of some teachers between managerial and teaching tasks. Towards the classroom-based end of that spectrum, the administrative level comprises functions that facilitate teaching and learning practices, and towards the policy end it contains strategic planning functions and business decisions. In terms of change management, it represents managerial authority towards teachers at English FE colleges, being ultimately driven by economic imperatives. In Germany and Austria, the role of this organisational layer is substantially weaker and smaller in terms of personnel, acting as an intermediary between more autonomous teachers and their employer, the state. Administrative and managerial functions are frequently performed by teachers in dual roles who wield little managerial power, but have informal influence through their facilitation and coordinative tasks.

This difference in the nature of the college administrative level between England on the one hand, and Germany and Austria on the other, has a notable effect on fault-lines resulting from tensions over pedagogic innovation. In England, management and teachers represent potentially conflicting interests, being caught between securing funding, maintaining retention rates, and achieving high results for students in externally provided qualifications on the one hand, and the necessities arising from classroom situations on the
other. In Austria and Germany, the success of school leaders is more dependent on the respect and good-will from teachers, since the latter are state employees with significant autonomy and strong protections against dismissal. In addition, the lack of dedicated middle-management and a tradition that encourages views of education that are less driven by grades, results in closer alignment between the world views of college administrators and teachers than is the case in England. Nonetheless, school leaders that successfully provide motivation, inspiration, and impetus for change, play an important role in large scale projects, both encouraging teachers to disseminate local innovation, and communicating top-down innovations to the teaching staff. In the case of a particular Austrian BMHS, for example, nearly the entire operation of the college is based on a series of school trials for which teachers had created new subjects and curricula, and wrote new government-approved textbooks meeting their particular needs. All interviewees at this college underlined the important role of school leadership in instigating the project, but stressed the fact that it would have been impossible for management to force teachers to perform the frequently unpaid work required.

Differences in the respective roles of the administrative layer are a significant factor shaping innovation dynamics. However, there are other influences in addition to the interplay between decision makers, implementers, and the tension between policy and individual motivations. Most notably, interview data shows that quality management systems differ markedly in this study’s comparison. In Germany and Austria, their introduction raised awareness amongst teachers and administrators for quality issues, but their data generally does not flow into fine-grained management evaluations and is frequently kept entirely anonymous with respect to individual teachers’ performance. By contrast, QM at English FE colleges is one of the main vectors of managerial control, feedback, forward planning, and documentation. In addition to internal QM, external evaluations and inspection regimes can shape innovation dynamics. Whereas they are generally not perceived by teachers as driving factors of innovation, they exert varying degrees of influence on the managerial level. In England, inspections conducted by Ofsted can force the adoption of particular innovative pedagogies, and colleges compete explicitly on the issue of good inspection scores and high performance in evaluations. By contrast, school leaders and teachers in Austria and Germany reported on the inspirational potential
of being provided with systematic performance data from an external point of view, whilst
acknowledging that such initiatives wield very little real power. This relates both to the
role of teachers as state employees, and the funding structures of colleges that are largely
independent of performance indicators.

The three-level model comprises both a particular view of settings and actors that
are relevant to innovation processes, and a structure in which such processes happen.
Whereas the research data has established the usefulness of the former, the latter
represents a myopic view in which pedagogic innovation takes place in response to top-
down reform efforts, whilst feeding back particulars of the implementation. However, the
interview data from all three countries in this study establishes unequivocally that teachers
locate the main impetus for innovative pedagogic changes in the classroom, either based
on individual motivations with respect to addressing improvements in teaching and
learning, or on joint efforts initiated by teams of teachers. From this perspective,
innovation in response to directed, top-down change may be far-reaching and substantial
in nature, but significantly less frequent than innovation originating at the classroom level.
Whereas the former represents a view of pedagogic, curricular, or policy reforms as the
typical case of innovation in VET, the latter constitutes the street-level-bureaucrats’
perspective, based on their immediate contextual knowledge of the new ideas, adaptations,
and changes that continuously accompany the teaching process.

The examples discussed in interviews illustrate the complex interplay of both
directions of innovation. Teachers frequently talked about purportedly intrinsic
motivations for the adaptation of particular pedagogic ideas, when further questioning
revealed that external factors had at least played a role in pushing those ideas to the
forefront, or creating the need for pedagogic change. Conversely, it appeared that the
pedagogies implemented under guidance from or in reaction to top-down innovation
attempts often did not fully represent the intentions of policy makers, curriculum
designers, and school leadership. In addition, teachers widely reported their impression
that those decision makers were not fully aware of the extent and degree of ongoing
innovative change motivated and created at the classroom level.

The three-level model highlights the relevant actors in pedagogic innovation
processes, and it captures their dynamics well for the purpose of reform processes. Therefore it remains relevant for the further analysis in this chapter. The changes it describes are particularly visible because they relate to organisational structures, different qualifications and curricula, modifications in college and funding structures, and broad pedagogic paradigms. However, they do not always have significant effects on the actual delivery in teaching situations. Their influence is more significant in England than in Germany and Austria, because top-down changes in the qualification frameworks and management structures of FE colleges tend to be more prescriptive, whereas framework curricula and the professional autonomy of teachers allow for greater independence. From their own point of view, teachers in all three countries respond to a large number of influences that are not accounted for by the three-level model of pedagogic reform, such as perceived changes in societal expectations, different types of students, trends in educational theory, and influences from colleagues. However, the interview data showed that some of the same reasons underlie both directions of innovation, and there exists a large intersection. Teachers may not always be convinced that a prescribed modification of teaching strategies is the best way of addressing a particular need, and different stakeholders may argue over implementations, but the overall intention and direction of change is often welcomed or recognised as unavoidable.

### 7.1.2. Street-level Bureaucracy

Lipsky’s (1980) concept of understanding the front-line workers of a system whose principal interface with the public is at the level of its organisationally lowest ranking representatives, as ‘street-level bureaucrats’ lends itself well to analysing the role of teachers. As this study’s research data shows, teachers actively shape teaching and learning processes in both top-down and local innovation, seeing themselves as central, substantially intrinsically motivated actors. In Germany and Austria teachers self-perception is that of autonomous professionals entrusted with educational tasks, having school management as support structure. Ultimately they feel answerable to society, represented by their employer, the state. In England, the emphasis of teachers’ self-images is on being a team member, ideally jointly with college management. Within that setting,
English teachers understand themselves as relatively autonomous agents in comparison to other white-collar professions, as specialists in teaching and learning organisations they are embedded in and answerable to. The analysis of interview data underlines the accuracy of those perceptions.

Classroom settings and pedagogic tasks pose complex challenges which are addressed by teachers with considerable interpretative freedom within frames of requirements, pedagogic theory, curricula, and a multiplicity of other factors. The data indicates that German and Austrian teachers, guided by framework curricula and an emphasis on pedagogic theory in training, are more conversant in the theoretical language of pedagogy and didactics, whereas their English colleagues, being subjected to precise qualification specifications, are focused on practical methodology. This correlates with the stated aims of teachers, who frequently cite the ideal of providing Erziehung – that is, an education of the whole person – in the German-speaking countries, and successfully marketable skills in England. The former may be to the detriment of exam performance and particular subject matter, as teachers are more independent in curricular decisions, whereas the latter encourages formal support strategies such as learning coaches and learning type assessments in order to address every student’s performance.

This also relates to the impression that in Germany and Austria, innovation is more frequently the result of personal initiative in the classroom, and in England it springs from dedicated team work with colleagues. Such differences became particularly apparent in interviews with those teachers who fulfil a dual role as administrators. In England, such individuals were more aware of management needs, strategic implications, and policy issues, than their colleagues. In Germany and Austria, they took active roles in teacher training at academies, had part-time engagements teaching pedagogy at universities, and appeared to take a more academic approach to describing their work situation. That is, in both cases teacher-administrators showed more strongly the typical traits of their teaching-only colleagues: at FE colleges, they appeared to identify explicitly with their particular college as an organisational entity, whereas their German-speaking colleagues were more intensely connected with ‘teaching’ in the abstract. However, such findings are not present in all cases, and their overall generalizability needs further research. Ultimately teachers in all three countries attempt to adjust their pedagogies flexibly to different
student types, and general observations reflect tendencies found in the interview data, rather than fundamentally different approaches.

As the education system’s street-level bureaucrats, teachers represent the system’s human face; they frequently value their emotional connections to students, colleagues, and sometimes parents and the community. Moreover, they are aware of the individual emotional and behavioural responses of students to the system, as represented by their particular college and their individual learning situations. Therefore teachers are not neutral in the performance of their profession. They want to motivate and engage students, and their innovative impetus is driven by a desire to find approaches that can do this. In England, interviewees displayed a particular emphasis on supporting individual students to succeed, whereas the self-reported focus of teachers in Germany and Austria as on motivating students in the first place. Since teachers in VET are often rooted in particular occupational fields, the professions’ widely shared preconceptions inform their thinking about the types of students who aspire to enter the field. Such expectations about personality types, interests, and student behaviours shape pedagogic decisions and their emphasis. In terms of ideas for pedagogic innovations, as well as the way they are implemented, this may result in different behaviours: German and Austrian teachers tended to emphasise personal qualities, voluntarism, and initiative, whereas English teachers focused on perfecting individual skills, fulfilling all aspects of a task, and a clear understanding of expectations.

In addition teachers are aware of their role beyond the classroom, in representing the machinery of the education to all of society. In Germany and especially in Austria, many feel that their image in society does not do justice to their function as guardians of a future generation’s Erziehung. This heightens their disdain for political decisions which might undo the achievements of a working system in favour of populist reform efforts. In England, teachers did not report a perception of hostility or under-appreciation from society to nearly the same extent, but they were equally wary of political intervention. This is probably connected to FE college teachers having less scope for resisting change, and being exposed to more pervasive and rapid top-down influences, than their German-speaking colleagues.
This research shows that teachers’ individual interpretations of pedagogy are practically focused, not primarily theoretical or rule-based. As street-level bureaucrats, practitioners think in terms of what works, which may result in resistance to changes that seem to them too theoretical, impractical, or motivated by aims that are not apparent to teachers. From experience, teachers report on a frequent disconnect between pedagogic practice and policy frameworks, and they are wary of changes that may compromise strategies and methods that work for them. The interview data indicates that teachers aims are situated at the intersection of idealistic motivations and realistic experience, in that they display a genuine desire to improve students’ lives, whilst being realistic about what can be achieved. Since this particular evaluation was not a focus of this study, an inquiry into those motivations – particularly with a more representative sample of typical teachers – could shed more light on this factor. However, this intrinsic motivation is sometimes at odds with other, externally imposed aims, such as exam performance in England, and personal aims that may be conflicting. Teachers reported a desire not to be bored as a significant motivation factor for pedagogic innovation, whilst also showing appreciation for routine. At times they are worried by different pedagogic requirements in the wake of social change, but also recognise their inherent opportunities. Possibly atypically, the teachers participating in this study were clearly not aiming simply for a minimisation of their workloads, but most of them seemed to feel that any new work may quickly grow to unmanageable proportions, and they invariably felt close to their personal limits.

As innovators at the street-level of education systems, teachers recognise different limits to their professional autonomy. In England, innovative processes are more strongly contained within the confines of their bureaucratic organisation, and most innovations by teachers are geared towards the same aims as the overall organisation, even when their primary goal is student-focused. This means for example improving exam scores and retention rates, developing new funding streams, responding to changed qualifications, and contributing to the marketability of the college. In Germany and Austria, individual aims of teachers are at the forefront, and the scope for deviation from formal curricula or pedagogic principles appears substantial. Frequently, this revolves around personal ideas of Erziehung, or improving the classroom atmosphere and rapport with students. The analysis of interview data shows some evidence that this results in a less pronounced innovative
impetus than the English system. Such differences in teacher autonomy are a reflection of the particular expectations the system places on its front-line workers. This is illustrated most obviously by the contrast between framework curricula and teaching-to-the-test. In one case, innovation in the classroom must operationalise relatively vague guidelines, in the other it aims towards the most effective delivery of more precise content. That can mean in the absence of intrinsic motivations, German and Austrian teachers are free to settle for a minimally effective routine with little innovative change taking place. This was frequently observed by interview partners, several of which independently estimated the proportion of colleagues who fall into this category to be as high as one third of all teachers at their college.

According to this study’s data, autonomy is not only defined by its structurally imposed limits, but also by the way teachers are socialised as actors within a particular system. Interviewees in England appeared to exhibit fewer traits of autonomous decision-making, but they worked better in teams and organisational structures, and seemed to show a better awareness of system requirements and managerial needs than their German and Austrian colleagues. They were generally more willing and possibly better able to put into practice precisely specified reforms, respond to external innovative influences, and embrace change when it was unavoidable. This further highlights the role of teacher training, because it implicitly reflects the system’s views of teaching roles, particularly with respect to acting as innovators in pedagogies and methods. Training shapes the practitioners’ capability of modifying and updating the content and methods of the service the system renders to the public. However, the verdict from interviewees in all three countries about their training was not particularly positive. Teachers generally felt sufficiently equipped for their initial role, but found the skills that Mulder and Sloane (2004) call ‘innovation competence’ lacking. Most reported that their training in subject contents was more satisfactory than that in methods and teaching strategy. Despite individual positive accounts, a majority of interviewees argued that managers at FE colleges and policy makers in Austria in Germany pay frequent lip-service to the central role of teachers as innovators, when in reality that task remains a private pursuit. However, such observations are tentative, and can be expected to differ significantly in dependence on particular communities of practice. They clearly point towards the
desirability of further investigations into the professional autonomy and self-perceptions of teachers in VET.

### 7.1.3. The Nature of Pedagogic Innovation

This section investigates the nature of innovation as evidenced in research interviews. It introduces four different origins of innovation, structured along two dimensions. Firstly, it identifies innovation arising from the classroom context as markedly distinct from externally initiated innovation. Secondly, it elaborates on the distinctions between innovations that are implicit in the organic development of teaching and learning processes, and those that are explicitly designed as deliberate changes.

Given the pronounced innovative impulse evidenced in the examples teachers provided in research interviews, it may seem surprising that according to the data analysis, practitioners in VET teaching do not think of ‘innovation’ as an explicit task. Instead, they conceptualise of their pedagogic work as an ongoing process of iterations and improvements, structured by yearly progression or course durations. As subject matter is repeated, they rely on growing experience whilst organically identifying needs for change. Despite the growing role of formal measurements as starting points for managed improvements, and the increasing use of similar tools to evaluate such attempts, teachers in all three countries rely strongly on their subjective personal impressions, and their memories of past successes and failures.

This is markedly distinct from cases in which school management, awarding bodies, and other authorities require or ask for innovative change. In addition, managerial authority at English FE colleges on the one hand, and German and Austrian colleges on the other, differs substantially. Both cultures value consensus-based decision-making and often attempt to include teachers as stakeholders, but teachers in England are subsequently expected to implement changes as agreed, and work in teams under management supervision. In Germany and Austria individual teachers frequently opt out or only pay lip-service to changes, whilst voicing dissent clearly and repeatedly. This correlates with practical differences in the implementation and nature of innovative changes, described in the next paragraphs.
Innovation for teachers and management at FE colleges most frequently revolves around the use of particular new tools, often in the shape of technology, and changes in formal assessment requirements that require pedagogic adaptations. Their critical thinking is focused on the effectiveness of changes, and if deemed necessary, participants at all levels are prepared to execute frequent changes – for example to technologies, curricula, and assessments – in order to achieve better outcomes. Teachers may feel that they are suffering at the receiving end of a high pace of such innovations, but they generally accept the overall logic of necessary improvements. This emphasis may be related to the fact that the introduction of technology innovations is a good match for a managerial culture: they can be planned, orchestrated, and run by management processes, based on specific measures. Moreover, a management-led organisational approach is good at identifying technical training needs, evaluating ICT projects, and marketing statistics such as the number of computers and whiteboards deployed.

In contrast, school management and teachers in Germany and Austria are more preoccupied with structural discussions in agreement with – or in opposition to – policymakers. They appear less worried about tools and immediate learning outcomes, more frequently raise societal issues, and are more likely to engage in long-term projections of the consequences of changes. This attitude overall results in a lower willingness to participate constructively in top-down innovative processes and a lower rate of adoption of potentially improved methods, than at English FE colleges. The fact that typical educational reforms in Germany and Austria are infrequent, but fundamental changes, such as the introduction of the Lernfeldkonzept and Zentralmatura, corresponds to this attitude of teachers towards innovative change. This seems to be a case of co-evolution of teachers’ typical roles as relatively autonomous actors, and systems that respect that autonomy.

In practice, teachers’ innovation strategies for externally given versus self-motivated innovation are unlikely to be entirely distinct. However, practitioners are keenly aware of changes they perceive to arise from particular needs or possible improvements in their classroom work context, and those that originate from the outside. In the former, a teacher’s role is that of a proactive innovator, whereas in the latter he or she easily identifies as a victim of change. In interviews teachers provided several examples of
successful innovations despite complications, because they existed at the intersection of a locally identified need and a more general, top-down reform. Those cases include curricular and assessment changes that facilitated new modes of learning such as group work and portfolio work, as well as the introduction of new media and communication technologies, and it extends to individual decisions by teams of teachers to transport aspects of the Lernfeldkonzept into full-time VET, after it had become mandatory on dual-system courses.

The interview data indicates that the term ‘innovation’ is frequently associated with policy initiatives, inspection regimes, and curricular changes, sometimes eliciting substantial negative responses, particularly in England. However, when asked to consider innovative examples arising from their own daily work, teachers are generally able to provide ample information. Instead of considering this type of innovation a strategic issue, they treat it as a matter of course that arises in the process of adapting normal teaching routines. Thus innovative change is part of everyday teaching preparations, but not entirely coincidental. Instead, it is deliberate change directed at pedagogic improvements, sometimes taking the shape of projects by several teachers in teams, but it is seldom explicitly termed ‘innovation’. In interviews, teachers are able to explain the contexts, causes, motivations, and expected consequences of such innovations, and they frequently change aims ranging from personal goals to wider societal considerations, but their practical motivations usually do not start at such theoretical considerations. This implicit innovation competence develops as part of growing into teaching roles, as teachers report on being well trained to cope with the classroom situation and make required adaptations over time. However, they frequently feel let down by the lack of specific training to fulfil the role of innovator more explicitly, and claim that related competences are due to personal initiative.

Combining the distinctions between externally driven innovations and those that arise from the classroom context on the one hand, and explicitly planned and implicitly enacted innovations on the other, four origins of pedagogic innovation arise:
<table>
<thead>
<tr>
<th>Source and Intent</th>
<th>External (top-down)</th>
<th>Internal (arising from classroom situation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicitly planned as innovation</td>
<td>e.g. inspection frameworks changing definitions of desired pedagogies; high risk of rejection by teachers; frequently seen critically; has potential to open entirely new avenues not accessible purely through local changes</td>
<td>Innovation projects by individual teachers or teams; requires experience, explicit efforts, and support from school leadership; most successful as team project; most teachers feel not sufficiently trained for this</td>
</tr>
<tr>
<td>Implicitly arising, frequently not called 'innovation'</td>
<td>e.g. pedagogic innovation resulting from adaptation to changing curricula; generally accepted by teachers, but often sceptical of specific demands; teachers often feel that the resultant workload is underestimated by planners, or that effects are not properly considered</td>
<td>Ongoing changes in teaching methods in response to different student groups, intrinsic motivations, and desire to improve teaching; this mode happens continuously, and also as a side- and after-effect of all other origins of innovation</td>
</tr>
</tbody>
</table>

Table 6 - Origins of innovation categorised by source and intent

In practice, those origins of innovation overlap and co-exist, but the distinction is more than an abstract construct. Teachers’ accounts of innovative processes clearly show different levels of engagement, different expected problems and outcomes, and different implementation dynamics for each of them. Most crucially, this distinction enables a better awareness of the factors that block pedagogic innovation, and ways to address them. Recognising that education systems give rise to particular predominant origins of innovation helps understand the role of teachers as innovators in response to various intrinsic and external incentives, and it sheds light on the prerequisites for successful innovation.

According to the majority of interviewees, time and budgets are nearly always limiting factors to better teaching. However, they are rarely the reasons for bad teaching. That is, most teachers in the colleges visited for this study acknowledge that the existing resources are not hopelessly limited, and a good degree on continuous improvement is possible even within those constraints. Above all, personal qualities, acquired through training and experience, as well as surrounding factors such as good team work, support from school leadership, and good curriculum design, are essential enablers for pedagogic innovation. Financial factors are relevant in the shape of budgets for innovative ideas, but not as direct remunerative incentives for teachers. Although this was not explicitly
addressed in this study, teachers appeared to have split opinions on whether they feel underpaid, but this was rarely the deciding factor for their innovative motivations. However, particularly in Austria, interviewees did report the impression that colleagues could be convinced to take on more work, or act on such motivations more frequently, if they were explicitly paid to do so. Other colleagues argued that this perception related to a lack of clarity about the contractual work time, and was an artefact of the freedom teachers enjoyed to flexibly manage their work time outside the classroom. Since financial incentives were not a focus of this study, it remains unclear whether German teachers voiced this sentiment less strongly because of wage differentials, or whether there are other relevant factors to do with professional autonomy.

Instead of financial incentives, the motivating factors that underlie all four origins of innovation for teachers are frequently a genuine desire to improve learning outcomes for students, but also the avoidance of the negative consequences of inertia, such as losing students’ interest, and falling out with colleagues. In England, motivations are more directly related to performance measures such as grades and retention rates, since teachers – like any private sector employee – need to follow the direction laid out by management. In Germany and Austria, this is replaced by less concrete desires to maintain a good atmosphere in the classroom and among colleagues, as well as an acceptable level of job satisfaction. In addition, interviews provided evidence that VET teachers’ identifications with particular fields of practice shapes their views and attitudes towards innovative change. In areas whose content is subject to rapid current developments, the desire to change and adapt methods of teaching is frequently explained as a result of teachers’ personality types as practitioners of that field.

The term ‘innovation’ is rarely used among teachers in the way that they feel school leaders and policy makers – particularly in England – treat it, namely as a marketable or quantifiable commodity. Instead, teachers’ understandings of innovation fit the model of innovation as a process, rather than a project. They focus on the organic, developing aspects of innovative processes, and rarely envision a classic innovation management pattern of explicit requirement analysis, design, implementation, and evaluation, with a fixed end-point and measurable outcomes. Instead, layers of innovative change supersede each other. The interview data provided few examples of failed innovation because at the
classroom level, teachers usually find ways of making some aspects work, while – sometimes tacitly – dropping others. Teachers specifically mentioned the need for allowing potential failure as a substantial factor contributing to successful innovation, as they autonomously navigate innovation processes. School leaders subsequently make sense of the respective outcomes in more formalised ways, but they are aware that some changes may only be implemented partially, or in modified forms. For example, innovation that arises from classroom situations, but is explicitly planned as an improvement process, frequently starts with a vague wish or indication of direction from school management in response to suggestions from teachers, and the bulk of the innovative process as well as the definition of outcomes is left to teams of teachers. With hindsight the process may be presented as a deliberate, management-led innovation project, when the reality of the process was far less deterministic.

The analysis of interviews for this study shows that teachers are frequently critical of the term ‘innovation’ because they associate it with the incentive structures school leadership responds to, rather their own work-related needs. They are sceptical of what they perceive as change for change’s sake, the introduction of buzzwords, and efforts wasted on feeding the machinery of bureaucracy. However, innovative changes that make sense to teachers on a practical level, chime with classroom experience, and represent a likelihood of tangible improvements, are embraced willingly. Teachers feel that top-down innovation is often formulated either as a particular narrow change that does not take into account its context, or as a wide-ranging, unspecific change that does not respect existing structures. The next section investigates in greater detail the factors that teachers see as the most important impediments to innovation.

7.2. Impediments to Innovation

The interviews conducted for this study contain not only detailed accounts of innovation processes in practice, but also teachers’ own reflections on the nature of innovation and generalisations about what makes it possible or prevents it. This section connects strands from all parts of the analysis in order to investigate the factors that VET practitioners experience as the main obstacles to pedagogic innovation. It identifies nine
issues that arose from the iterative process of data analysis. They are clustered thematically and in relation to the origins of innovation they affect most severely according to research interviews. Although it cannot lay any claim to completeness, the list represents the outcome of the specific cases under investigation, albeit on the understanding that the participating interviewees constitute ‘critical cases’ in Flyvbjerg’s (2006) sense. Therefore their experiences and interpretations of obstacles to innovation can be assumed to be shared by many VET college teachers in England, Germany, and Austria.

In similarity with analytic results in previous sections, differences by country continue to be related to teacher autonomy and other system-specific characteristics. Moreover, the four different origins of innovation discussed in the previous section are prone to different types of problems. Therefore education systems in which particular origins are predominant will suffer more from some impediments than from others. The analysis suggests that factors that prevent pedagogic innovation are multi-dimensional. Rather than existing in isolation, they correlate in different ways depending on particular circumstances, and form clusters that can be described in broader terms.

The following table provides an overview of a classification scheme that has proved useful in the current analysis. The rows provide nine issues that have been identified as typical obstacles, and the columns describe the four origins of innovation developed in section 7.1, and short characterisations of the type of impediments they are particularly prone to. The issues are clustered by country, as a general but not entirely deterministic indicator of the problems that were most prevalent in each system. Depending on the context, most issues can arise in the context of each origin of innovation, and cases of innovative behaviour can rarely be classified strictly to fit a single origin, but as an overall guide to understanding innovation failures in VET, this schematic underlines the usefulness of distinguishing innovation origins. The nine issues are subsequently discussed in more detail.
Table 7 - Obstacles to innovation described in interviews

<table>
<thead>
<tr>
<th>Innovation Obstacle</th>
<th>Typically mentioned in interviews</th>
<th>External/Explicit</th>
<th>External/Implicit</th>
<th>Internal/Explicit</th>
<th>Internal/Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Time</td>
<td>All three countries</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Limited Budgets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureaucracy</td>
<td></td>
<td></td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Lack of Autonomy</td>
<td>England</td>
<td>●</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Misunderstanding Context and Focus</td>
<td></td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Lack of Teamwork</td>
<td>Austria</td>
<td></td>
<td></td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Planning Failures and Lack of Continuity</td>
<td>Germany</td>
<td>●</td>
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<tr>
<td>Low Quality Training</td>
<td>Germany/Austria</td>
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<td>Hostile Atmosphere</td>
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The following sections describing the impediments to innovation do not constitute an exhaustive classification. The causes and consequences of several of them overlap in practice, and some cases of undesirable results are not specifically accounted for. For example, there exists the possibility of hidden failures where innovative change exists on paper, but is not implemented in practice, or where technology is deployed, but not used. Teachers also gave examples of non-innovation, where supposedly innovative changes had no noticeable effect, or resulted in mere re-labelling of existing practices. Being focused on practitioners’ perceptions, it was not an aim of this study to evaluate the outcomes of innovation attempts objectively.

In addition, the classification in this section does not represent the only way in which the obstacles to innovation from research interviews can be systematised, and cause and effect relationships depend on particular interpretations. For example, this list does not
mention the failure of teachers to share policy makers’ innovative vision as an obstacle to innovation, but instead implicitly assumes that such a failure is due to failed planning, lack of training, or wrongly focused policies. Moreover, different problems may be strongly interdependent. A lack of teamwork, for example, could be caused by limited time and a hostile atmosphere, rather than being a root-cause of its own. Since this schematic emerged from the analysis of interviews, its conclusions on individual topics are supported by different amounts of data. Therefore the findings on some of the issues are more tentative than others.

The scheme developed in this chapter emerges from the data analysis instead of being based on an existing framework of obstacles to innovation. The relevant literature focuses predominantly on ICT projects, so that an adaptation of such frameworks appeared impractical. Pelgrum (2001), for example, conducted a “worldwide survey among national representative samples of schools form 26 countries”, and distinguishes 38 “obstacles as perceived by educational practitioners” (Pelgrum, 2001:173) that contain “insufficient number of computers”, “insufficient teacher time”, and “quality of teacher training too low”. Whereas those items may seem intuitively useful for similar frameworks that go beyond ICT projects at schools, many others, such as “not enough simultaneous access” and other ICT specific issues complicate attempts to map the current research findings onto this or similar constructs. Since the grounded theory based approach of this study proved a useful tool for generating a general inventory of obstacles to innovation perceived by VET practitioners, it is discussed here in detail without reference to ICT-centric schemes.

7.2.1. Lack of Time

Time constraints are the most frequently reported obstacle to innovation. Many teachers feel that their regular duties leave barely enough time to engage in the regular updating of teaching materials and methods that can be classified as internal-implicit innovation. This includes reviewing and evaluating previous teaching and learning processes with a focus on potential improvements, adapting new pedagogic ideas to address shortcomings, and creating the required teaching materials and lesson plans. In
addition, even such regular innovative efforts may require fall-back plans and additional
time-buffers for classroom interactions, since teachers are not always certain of the success
of particular pedagogic strategies.

Beyond that, explicitly planned innovation projects with colleagues are dependent
on significant time investments for communication, collaboration, and learning from
others. According to teachers, some of the most valuable innovation projects arise from
informal and spontaneous interactions with colleagues. However, those are particularly
sensitive to time pressures. More formal starting points for pedagogic innovation, such as
work based on CPD and the voluntary participation in projects are equally dependent on
time resources.

Teachers are particularly concerned about the time perspective of pedagogic changes
that are necessitated by top-down innovation, if they feel policy makers and administrators
did not adequately anticipate the effects of their decisions. Curricular changes, for
example, may be intended merely as an update of subject matter, whilst placing a
significant burden on teachers to develop suitable pedagogic strategies. This effect is most
visible in England due to the prevalence of strictly defined curricula and external
assessments. In Austria and Germany, framework curricula change less frequently, but
leave teachers with a potentially more significant burden to develop their particular
materials in the absence of clear guidelines.

Several teachers in this study felt that their colleagues put too much blame on time
constraints instead of improving their time management and getting a more realistic idea
of what the teaching role entails. For example, some teachers in Germany and Austria
compared the overall workload to other white-collar professions that enjoy shorter
holidays, and pointed out that significant time spent outside the classroom must be seen as
regular work time, rather than as an unpaid personal sacrifice. According to those
accounts, a significant proportion of teachers feel that their participation in innovative
projects goes beyond their professional role, and is performed voluntarily, on personal
time. It remains an open question how widespread and realistic such subjective opinions
are, and how they compare to other professions. Mummert (2005) conducted a detailed
study into teaching hours at German schools and colleges, quoting results obtained for
North-Rhine Westphalia in 1998 that showed that “the real work time of teachers is subject to an extremely wide spread” (Mummert, 2005:12; translation by the author). Full time teachers at VET colleges worked between 606 and 3,000 hours per year, with a mean of 1,839 (ibid.), with results varying significantly by subject area. The report notes that German labour law for public sector employees typically results in 1,770 hours per year, based on 40-hour weeks, and 30 days holidays per year (Mummert, 2005:14), which lends credence to teachers’ subjective impressions. A study commissioned by the Austrian ministry of education points out that internationally, systems like Austria’s that define teachers’ work obligations in terms of teaching hours, are increasingly uncommon (Schmid and Pirolt, 2009: 5), noting that this makes it particularly hard to determine their effective annual work load.

The interviews as well as Mummert (2005) and Schmid and Pirolt (2009) suggest that the workload of teachers is spread very unevenly over the year, so that teaching weeks leave most teachers struggling to find any additional time for new ideas. In contrast, school holidays give them ample time, but little direct incentive and opportunity for innovation, since they remove teachers from the work environment and disrupt communications with colleagues and school management.

### 7.2.2. Limited Budgets

Closely related to time constraints on individual teachers is the issue of limited budgets, since better funding could potentially translate into larger numbers of staff. This was expressed more clearly by teachers and administrators at English FE colleges, than at German and Austrian colleges, since the organisational structure at the latter does not allow school leaders independence in staffing decisions.

In terms of day to day operations, teachers in all three countries blamed the lack of funding for shortcomings in infrastructure, technology, and additional support for staff and students. Most frequently this related to the availability of flexible learning spaces, locations to carry out practical work, such as laboratories, and IT provision for teachers. English FE colleges in particular seemed to vary significantly in the latter category. While a sizeable number of teachers complained about the lack of high quality IT equipment and
dedicated software, others seemed outright enthusiastic about the support they experienced in that area. This issue was raised less vocally in Germany and Austria, which may be due to notions of innovation that are less technology focused. Instead, both leaders and teachers at some colleges in those countries saw the lack of recreational spaces for students and teachers as a significant impediment to innovative pedagogies. Flexible learning support in the afternoon, for example, is limited by the lack of school cafeterias at colleges that were designed for half-day operations only.

The analysis of interviews indicated that monetary incentives are not a crucial motivator for teachers, but the availability of budgets for new projects, even if they are conducted without extra remuneration, can be a significant factor. Austrian teachers frequently mentioned that a significant share of their work was conducted in unpaid overtime, but some interviewees argued that this was due to confusion about the way a teacher’s work is spread over time. However, teachers credibly complained that even relatively minor expenses for training, materials, travel, and communications, require prolonged discussions with college management. This was particularly pronounced in Germany and Austria, where greater autonomy and a lower degree of bureaucracy allows teachers to organise more extensive exchange programmes, work placements for students, and school trips. Especially for the latter, teachers often reported spending significant amounts of their own money without compensation, for example on telephone costs, supporting literature, and personal expenses such as accommodation and food during the trip. Teachers in all three countries talked about their own professional development as partly self-funded, occasionally indicating that particularly worthwhile training programmes were unavailable to them for financial reasons.

Budget constraints further discourage innovative projects if teachers feel that their continuity cannot be assured. At German colleges in particular, teachers mentioned several projects that had to be discontinued after an initial successful start because the school could not afford to pay staff to maintain them. There was no conclusive data on why such experiences seemed less frequent in Austria. Since English FE colleges experience innovation in a more centrally managed way, with more explicit planning and long-term commitment, this seemed to be less problematic for them.
7.2.3. Bureaucracy

It is no surprise that teachers as street-level bureaucrats are keenly aware of the effects the bureaucratic structure has on their individual autonomy. In contrast to time and budgets, where more is always preferable in terms of facilitating innovation, bureaucracy plays a more differentiated role. Teachers acknowledge that being forced to plan, structure, document, and evaluate their work is often beneficial, and they understand the needs of management, parents, and the state to ensure compliance with relevant regulations, and safeguarding principles. However, individual interpretations of what degree of bureaucratic complexity is justified, vary significantly. Austrian teachers seemed least willing to be distracted from their work, as they saw it, by bureaucratic requirements. Their German colleagues were slightly less vocal on the subject, and both groups were markedly different from FE college teachers, who appeared to have both the greatest exposure to, and the highest tolerance for, paperwork and administrative tasks.

Perhaps due to the relatively low bureaucratic burden in Austria and Germany, the problem bureaucracy poses for innovation was most apparent at FE colleges, where teachers frequently felt overwhelmed by what they perceived to be contradictory or paradoxical requirements. Despite their relatively high acceptance of bureaucratic procedures, they noted that efforts to ensure individual learning approaches by documenting lesson planning on a per-student basis, had left them with significantly less time to work on improving their course delivery. Others pointed out that health and safety regulations and safeguarding requirements made school trips, inviting guest speakers, and several forms of practical work either impossible, or prohibitively complicated.

In addition to the extra work required to document and justify their own innovative approaches, teachers complained about the bureaucratic requirements that arise from external changes, which make such initiatives less attractive. Quality management and inspection regimes, in particular, were criticised for adding to the workload under the banner of innovation, while running the risk of causing little perceptible improvement. In this context, teachers frequently referred to Ofsted inspections in England, and regulatory efforts to strengthen competency-driven learning (Bildungsstandards and Regelstandards) in Germany and Austria. At FE colleges, in particular, they felt they had to ‘jump through
hoops’ for curriculum and assessment changes that they perceived to be mere re-labelling exercises. Teachers expressed frustration at the fact that it is often not clear whether a proposed top-down change ends up as one such non-innovation, or whether its effect is the opposite, by causing significant new work even when it was intended to be a limited adjustment. Interestingly, many German and Austrian colleagues expressed a willingness to cheat bureaucratic requirements by entirely making up paperwork, but complained less than their English colleagues about the waste of time this constituted. This may be due to the fact that their bureaucratic workload is generally lower than in England.

7.2.4. Lack of Autonomy

The professional autonomy of teachers emerged as a central topic in this study’s data analysis. VET practitioners in all three countries felt they enjoyed a sufficient degree of freedom to fulfil their responsibilities, but in practice there were significant differences between England on the one hand, and Germany and Austria on the other. Teachers’ self-perceptions are dependent on the traditions and standards of the system they are socialised in, so it may be hard to assess on an absolute scale what degree of autonomy in conducting teaching tasks might be ideal for pedagogic innovation. In addition, it became clear that some of the obstacles to innovation discussed in later sections of this chapter correlate with lax managerial oversight, insufficient direction, and other factors that may be interpreted as an excess of individual autonomy. However, in terms of everyday practice the interview data provides many examples of cases in which teachers were hampered by a lack of freedom to implement new ideas. The high prevalence of such complaints at English FE colleges may indicate that even in the context of English systemic traditions and the managerial efforts teachers benefit from, a greater degree of professional autonomy would boost innovation.

An obvious factor determining teacher autonomy is the difference of teachers’ contractual arrangements. As state employees, German and Austrian teachers enjoy a higher degree of independence from school management than their English colleagues, who are employed by FE colleges which themselves function as competing economic entities. According to interviews, the lack of autonomy is linked to a multitude of factors,
ranging from formal regulations such as highly prescriptive curricula, to practical obstacles, such as short module durations that do not provide space for larger projects. Although this latter factor was not mentioned in the context of Germany’s and Austria’s multi-year programmes, their inflexible legal regulations, limits of extending teaching or project work to the later afternoon, and rigid norms on assessment structures, remained problematic. Teachers generally felt that policy makers showed a lack of understanding for processes of innovation emerging from feedback and adaptation. Instead, policies appeared to be designed with a particular outcome in mind that may itself be innovative, but is formulated in ways that preclude peripheral or subsequent improvements. In addition, and overlapping with criticisms of bureaucracy, teachers voiced concerns that particular visions of teaching that are implicitly defined by inspection regimes such as Ofsted, or explicitly given in the form of Bildungsstandards, effectively prevented some situationally aware adaptations to classroom interactions, and complicated the informal dissemination of best practices amongst colleagues.

7.2.5. Misunderstanding Context and Focus

For many examples of innovation projects provided by VET practitioners in interviews, questions of defining their context and focus were central. This matters particularly for centrally orchestrated innovations arising at the level of school management, where teachers’ implementation may be at odds with the aims of school management. This ranges from open questions about meeting the needs of learners when changes cause a shift in curricular emphasis, to feelings that the nature of particular types of learners is not sufficiently taken into account. In England in particular, FE colleges as economic entities are required to market themselves to the public, which can lead to innovation projects that have the wrong focus from the point of view of teachers, or do not adequately take into account local contexts.

Since the primary focus of VET practitioners the immediate impact their work has on learning processes, they are often wary of changes that seem to disrupt existing procedures in favour of unproven and potentially time-consuming experiments, especially if they are not in full control of their implementation. In England’s competitively managed
system, that means teachers often feel that proposed innovations do not adequately take into account the context in which they are to be deployed. Similar criticisms came from their German and Austrian colleagues in relation to large reforms such as Zentralmatura and the creation or abolition of particular course types.

Another frequent example was the tension between technology and pedagogy, where visible indicators of successful technology deployments are the numbers of devices installed, or the percentage of course content made available in on-line systems, while teachers may remain doubtful of the learning impacts. Internal evaluations are often based on more complex criteria, and while it does not seem that outcomes for students are simply ignored, the motivations of college leaders and managers remain biased towards factors that include a visible element of novelty. This criticism is often a question of degree, rather than one of complete failure, since most interviewees agreed that such projects do add to student learning, and their focus is rarely so narrow as to completely miss the mark. However, teachers frequently questioned the time and effort they spent on making them work, when other, less spectacular and more methods-focused pedagogic innovations, may have achieved comparable results.

Context insensitive novelties crowding out innovative work can arise from a wide spectrum of causes. Decision makers at all levels, from policy-making to the classroom, may focus on what is easy rather than what is required, or may attempt to solve a multitude of small problems, rather than the large ones at their root. Frequently teachers feel that innovative efforts are made for the wrong reasons, or based on wrong expectations. Better ways of ‘teaching to the test’, for example, may benefit students and directly address the aims of school management, but sit uneasily with teachers who feel that their responsibility is more broadly defined. Teachers are frustrated when they are repeatedly forced to develop new course materials and pedagogic methodologies due to changes that ignore what has already been established. This experience was mentioned by nearly all interviewees in England, where teachers frequently feel at the mercy of Ofsted inspections, changes in funding arrangements causing course changes, and curriculum development organisations. Although Germany and Austria provide significantly more stable regulatory environments, teachers at Berufskollegs and BMHS similarly expressed concerns that even infrequent reforms that are overambitious and sweeping
disruption that is felt for several years. Therefore teachers exhibit resistance to proposed innovations that are not sensitive to the context in which they are to be deployed, whether in terms of existing procedures, available resources, or already ongoing changes.

Questions of focus and context are closely connected to issues of planning, including the anticipation of possible side effects, and the topic of adequate training. Those questions are discussed in the following sections.

7.2.6. Lack of Teamwork

Previous sections discuss the central position of teams of teachers in innovation processes. It is intuitively likely that not all team workers are innovators. However, the evidence from this study strongly points to the team as the most significant locus of pedagogic innovation, with significant potential to inspire, motivate, or pressure less pedagogically creative colleagues into adopting new pedagogies. The topic was addressed in all interviews, and a large number of accounts of successful innovation involved either the spontaneous or organised formation of teams to accomplish change. However, this study’s interviewees mostly constituted a self-selected sample of individuals who identified as particularly innovative. This renders their accounts of obstacles to innovation particularly credible, but it also means that their enthusiasm and initiative is perhaps atypical. German and Austrian teachers in particular lamented the disengagement of many of their colleagues. This study was not set up to estimate concrete numbers, but it may be noteworthy that several interviewees in both German-speaking countries independently and spontaneously claimed that about a third of their colleagues was not interested in team work and joint innovative initiatives. Usually this was qualified by claims that those colleagues may be good and innovative teachers on their own, but it was clear that they disappointed expectations for the types of projects that require voluntary commitment, co-ordination between subject areas, and a shared understanding of aims.

Whereas Germans tended to blame this lack of willingness on the overall workload and lack of organisational flexibility, Austrian interviewees predominantly attributed it to particular, individual character traits. They stressed more strongly than their German colleagues the fact that aspiring teachers were not selected on qualities such as pedagogic
ability, communication skills, and enthusiasm for innovative change, but their formal qualifications emphasised a thorough theoretical grounding in subject content, and an academic take on pedagogy. Such complaints were less evident in England, where teamwork appeared both to have a stronger tradition, and to be more necessary due to more prescriptive course structures, coupled with more intense managerial involvement. The observation that a lack of organisational structures can be detrimental to team-work is inversely related to the problem of bureaucracy. This was mentioned in individual cases at English FE colleges, but more frequently in the German-speaking colleges, where very flat hierarchies without effective middle management left teachers without the formal structures to support, encourage, and require team work. Therefore collaboration between teachers often depends on individual efforts and volunteer arrangements. However, managerial oversight itself can also discourage effective team work, when it impinges on the autonomy and intrinsic motivations of teachers.

Teachers in all three countries mentioned a variety of environmental factors that were detrimental to team work. Among those, infrastructure ranked prominently, with the lack of office space, meeting rooms, and social areas all contributing to a widespread tendency of teachers to do large parts of their out-of-classroom work at home. In light of the importance of informal communications and opportunity-based collaboration that emerges from this study’s data, such factors that discourage teachers from staying at the workplace significantly undermine innovative work. They impede opportunities for communication and learning from colleagues, and make it harder to find time for meetings and joint organisational tasks.

7.2.7. Planning Failures and Lack of Continuity

Mistakes in planning are potential problems for any innovation effort, whether conducted by a single teacher trying to implement a pedagogic strategy, or curriculum authorities creating entirely new qualifications. In the context of VET colleges, planning issues are particularly closely connected to inadequate training, lack of communication and teamwork, and a lack of time. In particular, interviewees at all levels expressed frustration that some successful innovations did not endure due to inadequate planning beyond the
introduction phase. This lack of continuity acts as a detractor from innovation attempts, when there is a likelihood that significant investments of time and effort will be in vain.

The problem typically appears in different ways in England on the one hand, and Germany and Austria on the other. According to teacher’s accounts in interviews, the leaders and middle-management of FE colleges seem to be generally better trained in project planning and management, and accompanying tasks such as quality assurance and budgeting, than teachers who double up as project managers at German and especially Austrian colleges in the absence of dedicated managers. In the English context, inefficient planning more often seems to involve excessive micro-management, a lack of flexibility, and top-down decision making that involves the wrong people, whereas in Germany and Austria, it is about wrong estimates of the required effort, and unclear responsibilities. In either case, teachers highlighted the need for planned feedback loops as a lesson learned from experience with planning problems. Since any undertaking with multiple stakeholders in the complex environment of a VET college can have unintended side-effects, identifying potential improvements and modifications during all phases of project work, is seen as a crucial attribute of well-planned innovation. Failure to take into account feedback from staff and students was a typical attribute of the negative examples provided by VET practitioners.

There were examples in all three countries where projects were abandoned because funding was discontinued, or it proved impossible to find a successor to take over. In several cases this involved innovations that were supported by school leadership, and recognised for their positive effects, but the lack of long-term planning, unstable financial situations, management changes, and time limits led to their abandonment. Teachers were aware that such uncertainties are unavoidable, and generally expressed optimism about their projects, but some warned that a sense of futility meant that innovations were not even attempted, even when they were possible under present circumstances. This phenomenon is related to several issues outlined in this section, most notably budgets and sustainable long-term management.
7.2.8. Low Quality Training

Initial teacher training and continuing professional development appeared in the data for this study in several different contexts. Previous sections draw attention to the fact that a significant proportion of teachers in all three countries feel that the provision of pedagogic methodology training trails behind updating on subject matter. This has an obvious impact on practitioners ‘innovation competence’, failing to provide the tools to translate abstract concepts into concrete pedagogies. In addition, it results in a lack of skills for project planning and management, so that teachers are forced to pick up experience in coordinating and working together on innovative projects in a fairly haphazard fashion. Several interviewees felt that basic communication and conflict resolution training would have benefited them in their work with each other, in addition to the effects it might have had on their classroom interactions.

Since a majority of classroom innovation involves aspects of information technology, new media, or online communications and research, the interviews revealed notable differences between teachers who actively drove such developments, and those that felt ill-equipped to stay on top of them. The former group mostly included individuals who had made deliberate efforts to seek the requisite training, frequently spending their own money on courses, software, and hardware. They argued that they invested significant amounts of private time in gaining the technological proficiency their projects required, and sometimes admitted that there was a blurry border between their teaching tasks and IT as a private pursuit. The other group, by contrast, tended to feel that their colleges’ ambitious aims with respect to technology were formed on the example of enthusiasts who did not adequately consider the need for training and the time scales involved in delivering it. This causes different effects, depending on the degree of professional autonomy teachers enjoy.

In Germany and Austria, technology enthusiasts forge ahead, while others follow half-heartedly in the wake of peer-pressure amongst colleagues, and some simply opt out for as long as they can. In England, training provision, particularly for IT projects, is more pervasive, so less enthusiastic teachers are not entirely left behind. However, frequently the available time or the quality of the training are such that teachers are still left in an uncomfortable position between low confidence in the use of new technologies, and a lack
of vision for how they might improve teaching and learning processes.

Most teachers and college leaders in this study stressed how their particular college’s innovative success was based on embedding new teachers in a culture that was open to experimentation. The staff at colleges in all three countries consisted of highly educated, relatively autonomous professionals, who are used to develop their own teaching styles, and are significantly motivated by the social mission embodied in educational tasks. As a result, a college’s shared beliefs, motivations, and strategies seem to acquire distinct characteristics that emerge from the complex interplay of different stakeholders. While this can result in an innovative atmosphere, especially when supported by dedicated training, it may also have the opposite effect, in particular with respect to changes from the outside. Typical opinions for this view are that policy makers are incompetent, outside experts hostile, and society’s expectations unrealistic. Such beliefs may foster a cohesive spirit within colleges, but make them unreceptive to innovative influences from elsewhere.

7.2.9. Hostile Atmosphere

Although the interview questions for this study did not extend specifically to topics of workplace atmosphere, the data analysis indicated that the high relevance of voluntarism for projects, and the central role of informal communications amongst colleagues, make interpersonal problems significant obstacles for innovation. Since the colleges included in the research were atypical cases in the sense that they displayed an exceptional degree of innovative impetus, they are unsuitable candidates for exploring the detrimental effects of conflicts amongst teachers or management. However, as far as teachers themselves were able to assess their environments in comparison to prior experience and anecdotal evidence from colleagues, they placed a significant and sometimes enthusiastic emphasis on the atmosphere in which particularly successful innovation projects had taken place. On the other hand, several examples of troubled efforts bore signs of conflict, such as a lack of recognition from colleagues and college leadership.

During interviews, teachers found it hard to come up with clear-cut examples of unequivocal failures. Rather than assuming that VET colleges are either so risk-averse that
they hardly ever engage in projects that might fail, or are so outstanding at project management that everything turns out successful, it seems reasonable to trust the assessment of practitioners who argued that they usually 'make things work'. That means their autonomy on the one hand, and flexible approaches by management on the other, allow them to identify and strengthen those aspects of troubled innovations that are worth keeping, while compensating for their less desirable effects in other ways.

This ability depends on a productive way of dealing with potential failures, and an organisational culture that recognises them as a normal part of innovation. It requires school management to lend flexible support, and teachers that learn how to plan around problems. Such factors, in turn, consume time and constitute an administrative effort that may be in conflict with external pressures. Formal evaluations, inspection regimes, and certain QM practices were seen by teachers as particularly detrimental to their ability to risk failure, even on a relatively small scale. In addition, a focus on frequent and fine grained grading schemes makes failed innovations particularly expensive, for both individual teachers and colleges. In a setting where teachers are blamed for failures by college leaders and colleagues, they face direct disincentives for innovative behaviour.

Interpersonal factors seemed particularly relevant at German and Austrian colleges, where new initiatives depend more significantly than in England on voluntary cooperation and self-organised coordination among teachers. In addition, multi-year courses with the same learners can create strong bonds between teachers and students, encouraging the former to undertake project work and extra-curricular activities with significant private investments of effort. Teachers in Austria seemed most keen to stress that they enjoyed particular projects that were neither expected as a matter of course by school leadership, nor adequately financially compensated, because they liked certain classes or groups of students. The fact that this was less obvious at German Berufskollegs may be related to different types of learners, and course structures that are less uniform than at Austrian BMHS, so student groups change more frequently. Teachers at nearly all colleges implied that disciplinary problems with students had the opposite effect, and contributed to their desire to stick to established pedagogies and rigorous classroom management.

The data analysis indicates that the quality of the work place atmosphere is seen as
intangible in the sense that it is not the result of a particular management initiative, yet crucially dependent on school leadership. Teachers connected several factors that are discussed in this chapter to the subjective feeling of a hostile atmosphere, including the lack of trust shown by school management, excessive bureaucracy, inadequate infrastructure, and a culture that does not recognise the possibility of failures.

7.3. Facilitating Effective Innovation

This section builds on the analysis of the dynamics and shortcomings of innovation at VET colleges, and includes findings on strategies to foster effective innovation. It builds a bridge to the concluding chapter which returns to the literature to put the combined findings into context, and point towards wider issues. Whereas the analysis of obstacles to innovation can be derived entirely from the data, recommendations for improvement are necessarily of a more speculative character. In particular, the specific setting of this study means that such recommendations cannot be universally true for all aspects of VET. As the analysis in chapter 4 shows, the VET sector is not clearly demarcated, and several segments of each country’s respective VET systems are not represented in this study. Moreover, innovation at VET colleges is highly specific, since they differ significantly in relation to the particular occupations they teach, and by the formal regulations and informal professional socialisation they represent.

On the other hand, the suggestions derived from the data are instances of current practice, and they represent experiences and working modes that exist in different settings in the three countries investigated. As section 7.2 demonstrates, each education system has typical characteristics that affect innovation form each origin differently. Societal expectations and system traditions differ in England, Germany, and Austria, but as this study demonstrates, valuable insights can be derived from a comparative perspective. Therefore this section discusses country-specific strategies after presenting general considerations relevant to facilitating innovation in VET. It juxtaposes England on the one hand, and Germany and Austria on the other, since the analysis showed the German-speaking countries to be much more similar to each other with respect to the research question, than to England. This similarity is not due to particular school types, since
German *Berufskollegs* and Austrian *BHMS* differ significantly in nearly all aspects. Rather, the issue of teacher autonomy and the adjacent themes of management structures and system characteristics are the most obvious differentiators.

German and Austrian VET colleges have differences that are relevant in the context of innovation, and this section will continue to address them. However, since autonomy emerged as a central theme from the analysis, most recommendations in this section revolve around addressing shortcomings that relate to a fundamental distinction: on the one hand, English FE colleges constitute competitive economic entities with teachers who are expected to deliver measurable outcomes, guided by overall educational policies that attempt to create a framework within such a market model can work. This includes competing awarding bodies, competition for funding, and formal inspections and quality measures to provide oversight and direction. On the other hand, German and Austrian colleges represent environments in which state-employed specialists teach students – frequently with an understanding that encompasses *Erziehung* in addition to skills – based on personal experience, with loose framework curricula, and a thin layer of management for coordination. While any such characterisation must be incomplete and sets up a dichotomy that does not capture the grey areas and exceptions found in practice, the preceding analysis showed that issues relating to this distinction are threaded throughout most aspects of innovative practice at VET colleges. Before addressing country-specific recommendations arising from this difference, the next sections focus on generalised findings on facilitating innovation from the interview analysis.

### 7.3.1. Findings on Facilitating and Encouraging Effective Pedagogic Innovation

**Understanding the Role of Teachers**

The literature on change management and educational policy implementation frequently mentions the central role of teachers for innovation, but it fails to detail the activities and interpretations that position them within the overall dynamics of such processes. Cedefop (2011) explains that teachers at VET institutions across Europe often take on leadership roles within teams and at the managerial level of colleges, and concedes
that “policy-makers have introduced measures to increase the knowledge, competences and skills of VET teachers and trainers, to prepare them for developments in pedagogy, technology and the labour market” (Cedefop, 2011:5), but points out that their functions in leadership and management are both insufficiently addressed and under-researched. Since one of the aims of this study, outlined in section 2.2, was to approach its investigation from the ‘street-level’ point of view of practitioners (Lipsky, 1980), it allows close insights into their self-perceptions as they take on roles as ‘classroom leaders’ (Cedefop, 2011) and beyond. The data analysis strongly supports an interpretation of innovation in VET that assigns complex roles to teachers, as they not only execute the implementation of innovative pedagogic designs, but frequently produce such designs in the first place, and initiate, disseminate, evaluate, and improve innovations. A widespread understanding of that role among school leaders and policy makers is a critical prerequisite for adequately identifying the opportunities and challenges related to VET innovation and reform. This links to several themes outlined the remainder of this section.

The main consequence deriving from a recognition of teachers as central actors is the requirement to involve teachers early in innovation processes, at both the policy and managerial levels, and allow them power to influence decisions and planning. Developing a shared understanding of the problems to be addressed by a particular change, and a shared vision of its aims, not only allows teachers to assume responsibility in its implementation, but also has the potential to improve the initial design. In addition, the data shows that a large share of pedagogic innovations arises implicitly from the daily work of teachers. School leaders and policy makers can benefit from recognising the importance and developing ways to foster the spread of such small-scale but ubiquitous pedagogic changes. Collecting and disseminating best-practice cases not only provides incentives to teachers by enabling and supporting innovative, self-directed projects, but also because it can highlight further improvement potentials by breaking down communication boundaries between subject areas, departments, and colleges. However, it is important in this context to heed the other findings in this chapter to avoid turning best-practice schemes into additional bureaucratic exercises.
Innovation Competence in Teacher Training

The recognition of the complexity of innovation tasks carried out by teachers highlights the need for improved teacher training to instil the skills and confidence that can be summed up by ‘innovation competence’ (Mulder and Sloane, 2004; Ertl and Kremer, 2009). In interviews, teachers found their training lacking in a variety of ways, extending both to initial teacher training, and CPD, in all three countries. Their accounts portrayed an understanding of CPD by school leaders and policy makers that was heavily focused on updating subject matter. In practice, many teachers feel they reach a level of pedagogic proficiency after some years of experience, so that a routine of keeping up with subject matter but not pedagogic methodology appears to be a common way to optimise individual workloads under time pressure. Since the deficits of this strategy are not immediately apparent, they only become visible when individual teachers find it hard to keep up with the continuous cultural and professional change that pedagogic innovation requires. Therefore it is crucial to conceptualise of colleges as learning institutions not only in the sense that they dispense learning, but also in that they need constant learning, implicit innovation, and re-shaping.

In addition to redressing the balance between subject matter and pedagogic methodology in CPD, interviewees suggested an enhanced focus on skills required outside the classroom. Rather than seeing time spent with students as the only relevant part of the teaching role, training must extend to generalised skills that address personal obstacles to fulfilling the innovative function of teachers. Those include time management, coping with emotional stress, disciplinary issues, conflict with colleagues, communication, and project planning.

Understanding the Nature of Innovation in Teaching

According to interpretations expressed in research interviews, the perceptions of both teachers and school leaders of the nature of teaching are influenced by their respective backgrounds and occupational alignments. In slightly bold terms, school leaders with predominantly academic backgrounds tend to think of teaching as a science, where innovations are derived from observation, evaluation, analysis, and planning. Hands-on
vocational practitioners think of it as a craft, where advances come from practice and learning from more experienced colleagues. Many teachers, by contrast, explicitly called it an art, where improvements stem from inspiration, experimentation, and the creative handling of near-failures. This point expresses a tendency found in the analysis, but would merit a more dedicated in-depth analysis.

It seems intuitively likely that teaching practice in fact encompasses all of the aspects outlined above, and the successful implementation of change will depend on accepting the organic, complex, and multi-faceted nature of improving teaching and learning. Far from being a deterministic, mechanistic process of implementation, innovation in schools is an iterative process that depends on the atmosphere as much as on formal factors. In interviews teachers gave the impression that this is generally understood better by school leaders than by policy makers. The leaders of directed, top-down change may pay lip-service to recognising teachers as stakeholders, but in reality their initiatives are frequently seen as tightly controlled from the top. The resultant pressures, especially in England, in terms of inspections, funding requirements, and incentives for teaching-to-the-test, leave less opportunity for teachers to shape innovations than they feel they are capable of.

The interview analysis highlighted several cases of wrong incentives being created by innovations that were insensitive to their contexts. Effective innovation, particularly in the context of policy reform, requires a realistic assessment of the reactions of colleges, teachers, and students. Teachers who are tired and frustrated from frequent changes may take the path of least resistance and pay lip-service to innovations without substantially adapting their pedagogies. This in turn increases their workload without resulting in tangible benefits and further adds to their disillusionment with reform initiatives. Therefore an awareness of how frequently a particular area of practice has been changed before, as well as the thorough consideration of side-effects, and a clear vision of who will benefit from any changes, can contribute significantly to the success of policy innovations.

### 7.3.2. Policy Lessons Derived from the Interview Analysis

Since this study is focused on VET teachers’ perceptions, the analysis is informed by
a particular point of view of innovation dynamics that cannot encompass the wide range of policy and organisational issues that are relevant for pedagogic reform. However, as street-level bureaucrats teachers are exposed to the effects of policy changes, and they frequently expressed detailed opinions about those issues in interviews. In conjunction with the analysis of examples practitioners provided on innovation, this data offers some insights into the possibility of improving the innovative potentials of policy reforms, curricular and assessment changes, and quality assessment initiatives. This section discusses lessons for policy that are derived from the arguments presented in the previous section.

**Benchmarking**

Interviews revealed several examples of colleges located in all three countries that had decided to benchmark particular areas of operations against other VET institutions. Such initiatives were usually voluntary, bilateral projects under guidance from outside experts such as educational researchers from local universities. In contrast to formally prescribed quality assessment exercises, this benchmarking appeared to be received well by college leaders and teachers alike, as it underlined the local capacity of colleges for introspection in order to learn and improve as organisations. In some cases, particularly in Austria, education authorities supported such efforts with reportedly good results in terms of acceptance, despite the otherwise pronounced unease of Austrian VET teachers with outside intervention. Therefore it seems likely that encouraging this form of evaluation, particularly when the results are not openly published or used for policy decisions, will have a positive impact on colleges’ ability to generate organisational and pedagogic innovations from a motivation that is more aspirational than pressured. Whereas the Austrian QIBB quality initiative is not focused on benchmarking, its mandatory yet goodwill-based character may serve as a template for similar efforts: Austrian VET colleges cannot opt out of participation in QIBB evaluations, but the results cannot lead to sanctions against individual colleges or teachers. They are formulated qualitatively, with individual recommendations, rather than quantified, and its targets formulate aspirations without severe consequences for failures.
Stakeholder Involvement and Curriculum Design

Previous sections underline the need to involve teachers as stakeholders in policy and curricular design. In addition, interviewees stressed the particular importance in VET of drawing other relevant parties such as industry representatives and VET experts into the process. Due to the significant role of the dual-system in Germany, and a less pervasive but well-established similar sector in Austria, there exists a tradition for professional qualifications in the German-speaking countries facilitate such involvement. Moreover, the state-operated character of their qualifications and assessment systems has made it easier than in England to involve a wide range of relevant stakeholders in curricular decisions. This study cannot provide a straightforward recommendation for how to achieve similar levels of involvement in England’s more fragmented system, but it should be noted that according to interviews with teachers, significant amounts of resistance to pedagogic innovations embedded in new qualifications and curricula stem from perceptions of unrealistic expectations, impractical aims, and decision-making dictated by politics. Several examples indicated that curriculum and assessment changes that facilitated or even enforced practical work experience for students, including industry placements, training companies, and participation in competitions, encouraged teachers to engage with both the subject matter and relevant pedagogies in new ways.

Gradual Introduction of Innovations

The argument presented in section 7.3.1 on the need for understanding the nature of innovation highlights the importance of introducing innovation gradually. Several successful examples included piloting schemes with colleges that spearheaded and iteratively adapted new initiatives. The data indicates that colleges that are allowed some leeway in the implementation and even the definition of particular aims of innovation efforts often show a high willingness to get involved early and intensely. Equally, institutions must be allowed the time for changes to take effect, and settle into newly established routines. Finally, both colleges and individual teachers are strongly committed to the need to provide continuity for learners, and usually have few spare resources to prepare and seamlessly execute radical changes while maintaining day to day operations. Therefore gradual optimisations and tangible, step-by-step improvements are seen less...
sceptically than sweeping innovations, even if the latter are theoretically recognised as positive. In the case of education systems, that may mean multi-year cycles. Teachers warned that policy makers do not always understand this in all of the three countries, despite the fact that system and curricular changes take place at a much slower frequency in the German-speaking countries than in England.

**Long-Term Policy Issues**

At the periphery of this research, teachers expressed opinions about societal and long-term political factors that had an influence on their work and their ability to innovate pedagogically. In England in particular, but in some cases also in Germany and Austria, teachers felt that policy work towards meaningful new professional qualifications was undermined by equating high status education with an academic focus and direct pathways from VET to universities. Since Austrian BMHS specifically offer only courses of this type at their BHS branches, which were the main focus of this study in that country, they may serve as an example that what is called ‘parity of esteem’ in the English context (Working Group on 14-19 Reform, 2004) is achievable for some subjects. However, the BMHS subject range is limited in comparison to FE colleges, and a substantial part of traditional VET is carried out under the Austrian dual-system. Teachers in all three countries argued that there must be more scope for respected, high-level vocational education that does not detract from its practical focus. Interviews conveyed the impression in both the German-speaking countries as well as England, that the German dual system comes close to fulfilling that role, while maintaining pathways into vocational higher education.

The most deep-seated societal issue that was addressed by teachers in the context of innovation in VET related to the general perception of the sector among policy makers, parents, students, and the general population. They suggested that the role of education in knowledge economies must be better understood not as a political issue or managerial task, but as an implicit function of the development of society. They argued for fundamental shifts in perceptions towards recognising the status of teachers as professionals, towards new priorities on training, budgets, and autonomy. Somewhat surprisingly, Austrian teachers who enjoyed a comparatively high level of autonomy,
expressed more vocally than their English and German colleagues that the public recognition of their work was inadequate. In a study of professionalism at German VET colleges in the context of New Public Management approaches, Wittmann proposes a view of teacher professionalism that corresponds to three key areas, namely the freedom and ability to decide autonomously about pedagogic strategies, self-reflexive, experimental, and critical attitudes towards one’s own practice, and a strong pedagogic ethos and identity (Wittmann, 2007, elaborating on Sektion BWP, 2003). She argues that professionalism is “necessarily linked to a strongly institutionalised [view of the] teaching profession” (Wittmann, 2007:11; translation by the author). Given that teachers at Austrian BMHS are trained similarly – and frequently identically – to their colleagues at academic upper secondary schools, including the requirement of several years of pedagogic training before entering the classroom, Wittmann’s position lends some credence to the hypothesis that BMHS teachers may feel a stronger professional identity than their colleagues at German Berufskollegs and English FE colleges, where there is less explicit focus on academic pedagogic training. It will require further research to investigate this question, but interviews suggested that their more pronounced self-perceptions as autonomous professionals led Austrian teachers to compare themselves critically with higher-income professionals such as medical doctors and the legal professions.

7.3.3. Addressing Obstacles to Pedagogic Innovation in England

This section outlines recommendations derived from interviews for fostering pedagogic innovation at English FE colleges. Its findings are influenced by the comparative approach employed in the data analysis, since the education systems under comparison displayed significant complementary strengths and weaknesses. The issues presented here are not entirely specific to England, but stand out as particularly relevant in the context of the English VET sector.

Teachers at FE colleges generally feel well supported by their institutions’ management structures, and they frequently express their satisfaction with the autonomy granted to them, but the comparison shows significant differences between them and their colleagues in Germany and Austria in terms of independent decision making, scope for
innovative efforts, and freedom to implement the curriculum. This suggests that FE college teachers are not always aware of alternatives to the bureaucracy they frequently feel burdened by, and the comparatively prescriptive course designs that guide their work. Therefore attempts to grant teachers greater professional autonomy must be paired with changes in CPD to enable them to fulfil actively innovative roles. In addition, managerial and technical support structures must be maintained in order to free up teachers’ time and resources to develop more individual approaches and gain the requisite experience. In this model, colleges are defined by teachers as professionals, with administrative staff to support them, rather than by a hierarchical structure at whose street-level end teachers are sent into the classroom.

In terms of quality management, professional autonomy requires definitions of success for teachers that are broader than exam performance and retention rates may suggest, possibly by taking into account qualitative factors. In interviews, teachers repeatedly expressed their conviction that good teaching is not adequately circumscribed by efficiency measures that may apply to other products or services. Therefore inspections that focus on qualitative, interpretative, and personalised feedback rather than rankings and lists of criteria may allow teachers to take more responsibility for their own work. The German and Austrian experience shows that formalised quality management does not necessarily have to extend to managerial decision making. Frequently self-assessment, feedback from students that is only accessible to the teacher in question, and personalised, confidential evaluations from superiors, highlight opportunities for improvement that is not driven by fear of failure or anxiety about reaching certain benchmarks. Since teachers collectively constitute a highly self-reflexive and analytical group of experts on pedagogic matters, peer support and informal coaching and supervision structures from colleagues may prove successful tools in this context.

Since teams of teachers are identified in this study as a central locus of pedagogic innovation, their function can be enhanced by providing opportunities for structured as well as informal communication in the context of well-equipped work environments. Teachers respond to incentives that are of practical use in their immediate application to classroom settings. Successful ideas from colleagues and well-prepared didactic materials, for example, were mentioned in interviews as part of innovations that spread almost
automatically, without formal dissemination strategies. Therefore a reduction of bureaucratic overheads and administration that frees up time, better opportunities for communication and information sharing, and active support in creating and disseminating best-practice templates help them realise their role as pedagogic innovators. Colleges frequently pursue initiatives to facilitate the sharing of methods and materials, but according to interviews such systems must be carefully designed and supported in order not to cause additional workloads.

From a policy perspective, several issues apply specifically to the way FE colleges compete for students and funding. Previous chapters shed light on innovation incentives for FE colleges that encourage particularly visible and marketable ideas. Teachers voiced criticisms that this can lead to a preference for novelty, especially with respect to new technologies. Similarly, due to competition for funding, FE colleges face incentives to offer qualifications whose assessments can be passed as easily as possible, and for which students can be most effectively prepared. That means nominally analogous qualifications in the same subject area compete for uptake by colleges on those terms. Both school leaders and teachers voiced their impressions that this continues to contribute to effectively falling standards, even when formal requirements are held constant. The comparison to Germany and Austria indicates that policies which reflect a view of education that encompasses not only pass rates, and recognise that standardised exams only capture part of what an education may provide, could allow teachers to exercise a greater degree of professional judgement on the skills and competencies that define a particular vocational profile. This also means that innovation in teaching may benefit from less prescriptive curricula, and granting teachers more influence on assessment. In analogy to the need to evaluate teachers differently, as presented in previous paragraphs, that means extending a similarly qualitative view to colleges, for example by abandoning rankings.

Teachers in all three countries mentioned instances of being overwhelmed by the number of changes. The problem appeared particularly acute in England, where there are frequent modifications to education system structures. In addition, the system of competing awarding bodies adds to the instability faced by teachers. Colleges face a wide choice of qualifications to offer, and evidence from interviews indicates that college
administrators routinely make use of opportunities to switch between them in order to differentiate themselves in the marketplace or achieve higher success rates. Consequently, teachers are forced to adapt to those changes. In addition, this competition may induce the providers themselves to pursue a rate of innovation – including some instances of mere novelty – that teachers are unable to follow in practice. By comparison, German and Austrian framework curricula are updated less frequently, but are less prescriptive, so that adaptations can be carried out locally by colleges and teachers. The drawbacks of this approach are discussed in the next section.

The colleges involved in this research effort are particularly innovative examples within their respective VET systems. Several of them pursued pedagogic innovation in conjunction with external evaluation, advice, and backing. In England, such efforts were based on individual initiatives by FE colleges, often in cooperation with universities, or as part of their growing involvement in higher education activities. Considering the positive opinions of teachers and school leaders in Germany and Austria about their state-supported experimental innovation schemes, Modellversuchsforschung and Schulversuche, respectively, FE colleges may benefit from more active support for similar schemes in England. Interestingly, at the time of the interviews, German Modellversuchsforschung had just been officially discontinued, and interested colleges had fallen back to different funding sources, such as EU projects, to continue similar initiatives. Likewise, some interviewees seemed uncertain about the future of Austrian school trials at BMHS.

Beyond the scope of this study, the comparative analysis of interviews suggests that innovation at English FE colleges could benefit from a wider societal and political recognition of the role and scope of the VET system. Taking on important functions for social integration, VET and therefore the potential innovative scope for VET practitioners, goes beyond skills for work, and extends to citizenship education. Course contents and frameworks that acknowledge this wider picture could allow teachers to be more personally engaged in the social aspect of their role, and contribute to their intrinsic motivations towards innovative pedagogies that may be akin to German and Austrian notions of Erziehung.
7.3.4. Addressing Obstacles to Pedagogic Innovation in Germany and Austria

Several of the recommendations made in the previous section for fostering innovation in English VET are derived from German and Austrian research findings. However, those countries’ state-run, non-market oriented model and its high degree of autonomy for teachers are associated with their own sets of idiosyncratic problems.

Most significantly, interviewees repeatedly mentioned an alarmingly large proportion of colleagues who in their judgement had effectively seceded from the professional community at their colleges. In some cases, it was pointed out that such colleagues may individually pursue innovative pedagogies, but given the significant role of teams in encouraging, executing, and disseminating new ideas, the phenomenon is certainly an issue for innovation. The exact reasons for this development would merit a separate investigation, but it appears to be connected to different understandings of the professional role of teachers. Colleges could attempt to underline that time spent in the classroom is only part of the total time commitment expected at the workplace, and it would help to create a greater degree of awareness among teachers about their overall yearly work time in comparison to other professions. Many teachers, particularly in Austria, seem convinced that their workload significantly exceeds that of other occupations, even to the extent that it is not offset by significantly longer holidays.

Opportunities for CPD, preparation time, and administrative tasks are frequently shifted into holiday times, which makes it even harder to correctly assess the truth of such claims. Some interviewees expressed a pronounced degree of frustration with such conceptions and claimed to have done calculations that showed on average relatively low yearly work hours. This study was not aimed at settling the argument, but an awareness of the issue might add to the preparedness of teachers to undertake additional projects and innovative work.

Encouraging better team work hinges on facilitating the presence of teachers at colleges by providing adequate infrastructure and administrative support. This may include individual work plans that explicitly recognise time spent working with colleagues, and flexible technology assistance for creating teaching materials. In addition, school leaders
can address the ‘lone fighter’ self-image of teachers by supporting team-teaching, joint training, projects, and peer observation. Interviewees judged the latter to be effective even when it was relatively unstructured. There appears to be a wide scope for trusting teachers as professionals to learn from observation and feedback, and not all such procedures must cause additional bureaucratic workloads. Similar arguments apply to self-assessment, where the effectiveness of direct managerial control is limited, but intrinsic motivations are addressed.

Teachers at English FE colleges enjoy two significant forms of support that were rarely reported at German and Austrian VET colleges, namely significant efforts by school leaders to improve access to information for teachers, and freeing teachers from student support roles. The former frees up time for better interactions with colleagues and students, and the latter provides more specialised and directed support for students in need, making the role fulfilment of other teachers both more efficient and less emotionally intense.

At the policy level, the English example shows that curriculum and assessment design can foster particular pedagogies that either constitute innovation, or require teachers to develop innovative adaptations. Group work, portfolio work including new media, and presentations were specifically pointed out by teachers at English VET colleges to have introduced worthwhile new perspectives to their own teaching efforts. The disadvantages in terms of innovative freedoms of tightly managed curricula and centralised assessment regimes are discussed in the previous section. However, it must be noted that German and Austrian non-centralised assessment is likewise open to substantial criticism, ranging from quality variations of unknown magnitude, to the lack of incentives for individual teachers to improve their students’ performance. Interviewees indicated that framework curricula and details of the application of educational policy, such as the approval of topics for final exams, are handled significantly differently in different geographic regions, or at different colleges. In comparison to England it seems likely that such arrangements do not send strong innovative impulses to teachers, since ways of exploiting loopholes in the system may be relatively less effort for them than competing by innovation.
As a long-term policy perspective, several interviewees in Germany and particularly Austria indicated that they blame the inadequate selection of aspiring teachers for the perceived lack of motivation and innovative impetus in colleagues. While such complaints seemed to focus mainly on an older generation, the details of those claims remain to be investigated. Interviews showed that there exists a conviction amongst particularly engaged teachers that a better selection for team-work and project-oriented individuals in teacher training, and providing them with the knowledge to make the most of innovation opportunities, would contribute significantly to the quality of VET colleges.

8. Conclusion

This research project constituted an in-depth, qualitative assessment of VET teachers’ perceptions of pedagogic innovation, with a particular emphasis on obstacles and supporting factors. The research question was formulated as: “How do teachers’ roles and perspectives shape innovation processes in VET and what does this imply for the development of teaching and learning practices?” From this, three clusters of subsidiary questions were derived, centred around thematic foci identified as ‘perceptions and concepts’, ‘documentation of practice’, and ‘dynamics, limitations, and lessons for innovation’. Based on analytical strategies derived from grounded theory, two phases of interviews were conducted in England, Germany, and Austria. The first round comprised ten expert interviews to provide background information on each country’s respective VET system, and to facilitate decisions on research design, interview focus, and analytical strategies. The second phase consisted of visits to 20 VET colleges where classroom observation and interviews were conducted with 62 teachers, managers, and school leaders. Interviews were semi-structured, lasting between 30 minutes and an hour, based on separate sets of questions for experts, teachers, and administrators. The question catalogues evolved throughout the interview process and the preliminary analytical steps. As a result of the discussions with experts in the first phase, the investigation in the second phase focused on full-time VET institutions catering to the 16-19 age range for reasons of comparability. That meant FE colleges in England, Berufskollegs in Germany, and BMHS (Berufsbildende Mittlere und Höhere Schulen) in Austria. In each case, colleges were
recommended by experts or college leaders as particularly innovative institutions.

The choice of countries was guided by prior research that had taken place in Germany and England, as well as the perspectives offered for comparison by each respective system. English FE colleges are independent economic entities, offering a wide range of qualifications from different providers. Their teaching quality is regularly assessed by Ofsted, and their main funding streams are dependent on student success and retention rates. They currently face challenges in connection with expansion into higher education, increased competition in a wide range of specific qualifications, as well as significant funding cuts. By contrast, German and Austrian VET colleges are state-run, qualifications and curricula are centrally defined, and teachers are employed by the state. Curricula constitute frameworks that are changed infrequently, and teachers have a high degree of protection from dismissal, which gives them wide-ranging autonomy in the classroom. Whereas German VET is traditionally dominated by the dual system of apprenticeships and college-based training, VET colleges in some states, like North-Rhine Westphalia and Bremen, which are the focus of this study, have significant full-time capacities. In Austria, the dual system is considered of lower status, but its full-time VET colleges play a particularly important role for the education system overall, training large numbers of students for both VET qualifications and university entry. Austrian and German colleges are facing challenges in connection with the introduction of quality management initiatives, demographic change and the changing nature of students, as well as reforms that centralise assessment.

The decision to keep this research purely qualitative reflects the fact that capturing the diversity of three distinct VET systems and hundreds of different vocational subjects in a statistically representative way was not an option, given the constraints for this project. Instead, it constitutes a case study of innovation from a practitioners’ perspective, focusing on teachers’ examples as critical cases (Flyvbjerg, 2006). As extensions of the research instrument (see Lincoln and Guba, 1985; Tesch, 1990:44), practitioners deliver rich data including their own interpretations. This promised to yield representative findings on the dynamics and limitations of innovation from the point of view of individuals who were themselves particularly engaged innovators. Therefore the analysis was heavily reliant on teachers’ self-perceptions, impressions, and individual reports. Consequently the
presentation in this document avoided a false sense of numerical certainty, by consciously steering clear of reporting statistical data, since it would be heavily biased and far from representative. For triangulation, it may be instructive to attempt a study with similar questions at colleges where teachers can provide opposite critical cases. That is, badly performing colleges might be investigated to discover how the current research project’s findings apply when intrinsic motivations are low, and some of the obstacles described here are particularly in evidence.

The data analysis was guided by the three thematic foci on ‘perceptions and concepts’, ‘documentation of practice’, and ‘dynamics, limitations, and lessons for innovation’, and structured by the subsidiary questions contained in each. At that level, comparative perspectives between countries, college types, and teacher roles facilitated the development of coherent and detailed answers to all questions. Both the research design and data analysis were based on prior research, in particular comparative studies undertaken by Ertl and Kremer (most directly connecting to Ertl and Kremer, 2009), and frameworks found in the literature. They are primarily a three-level model of pedagogic innovation taken from Ertl and Kremer (2009), a view of teachers as street-level-bureaucrats according to Lipsky (1980), a justification for generalisations derived from ‘critical cases’ provided by Flyvbjerg (2006), and literature on the nature of innovation, particularly Eyal (2009), on systemic behaviours in educational innovation.

The practitioner-centric, qualitative, comparative approach of this research project allowed it fill a gap in the educational literature, which usually focuses on pedagogic innovation from a top-down perspective, inquiring into the success of reforms, or managerial strategies. In contrast, this evaluation of practitioner perspectives highlighted the complex interplay of factors at several distinct levels of the VET system. This practitioner focus adheres to Messmann and Mulder’s assertion that “if schools and educational administrators are interested in sustainable innovations that meet the requirements of local contexts, an emphasis on teachers as developers of innovations is required” (Messmann and Mulder, 2011:64). In this context, the three-country comparison added the opportunity of uncovering commonalities in teachers’ perspectives despite highly different VET system structures, thus adding to the power of the conclusions presented here. Ertl and Kremer (2009), in a prior study involving interviews with
practitioners in Germany and England, distinguished two levels of analysis, namely institutional frameworks and individual roles. The current research was built on this methodology, splitting the institutional framework into VET system characteristics and college specifics. The focus on the roles of teachers at colleges in the three countries introduced a practitioners’ perspective to each of those aspects, from the system level, to the managerial realm, to individuals. Aspects of institutional processes and individual interactions with them emerged as central themes, in particular in relation to issues of professional autonomy and innovation competence. This echoes similar findings of Ertl and Kremer (2009), where both autonomy and teacher training were identified as significant influences on innovative behaviours.

The data analysis strongly underlined that pedagogic innovations cannot be analysed without their respective contexts, as this project shed light on the complex environments in which innovation in VET takes place. On a systemic level, the research identified structural limitations, curricular requirements, education system traditions, societal views, and country-specific politics with respect to reform and innovation, as some of the relevant factors. At individual colleges, questions of management styles, team work, quality assurance, and the specifics and opportunities of particular vocational areas and the types of students typical for them, all shape innovation efforts. For teachers, autonomy, initial and continued professional development, interpersonal chemistry with colleagues, the classroom atmosphere, and professional self-perceptions based on fields of practice are significant influences. Those findings reflect Barber and Fullan’s (2005) conception of ‘tri-level development’ that draws on a different delineation between actors, but fundamentally identifies the same classes of stakeholders, and most crucially, argues for the assumption “that we need initiatives that deliberately set out to cause improvement at the three levels and in their interrelationships” (Barber and Fullan, 2005:32).

Since Messmann and Mulder highlight that, with respect to VET colleges, “the development of innovations in schools has not been analysed from the perspective of single schools that deliberately takes into account teachers’ work activities” (Messmann and Mulder, 2011:69), this research project attempted to address this gap by centring its emphasis research around the practical innovative experience of VET teachers. The following sections present the conclusions to the three research foci outlined in section 2.4.
that reflect this approach. Rather than being summaries of the previous analytical chapters that apply to each focus, they constitute a synthesis of results from the entire analysis. In addition, they connect to the central areas of Ertl and Kremer’s prior research, which they formulated for the German part of their study as “the perception of innovation by lecturers”, “the connection between innovative practice and lecturers’ competence”, and “the pre-conditions for innovative practice at colleges” (Ertl and Kremer, 2009:8).

8.1. Perceptions and Concepts

Teachers’ self-perceptions in all three countries revolved around their role as practical experts in education. Although VET teachers increasingly receive formal pedagogic training, they were less concerned with learning theory and definitions of key terms such as ‘pedagogy’ and ‘didactics’ than full-time managerial staff. This echoes findings by Ertl and Kremer who found that innovation was seen as “continuous and central task of lecturers” (Ertl and Kremer, 2009:9, quoting one of their interviewees), but discovered that this often referred to subject knowledge rather than pedagogies. There was a notable gap between practitioners in Germany and Austria on the one hand, and their colleagues in England on the other, in the use of academic language to describe pedagogic thinking in interviews. The analysis suggests that this relates to different degrees of professional autonomy, allowing teachers in the German-speaking countries to work more independently on their individual pedagogic styles, whereas their FE college counterparts are required to follow established procedures more strictly. This finding is in line with a similar impression Ertl and Kremer (2009) called “speculative” in their more limited research. There was a wide agreement between teachers in all three countries that the preferred interpretations of the teaching role centred on effective teaching practice.

In Germany and Austria, conceptions of effective teaching were informed by professional self-perceptions shaped by occupational fields of practice, as well as the types of learners teachers expected to find in this context. Even in full-time VET this appears to relate to a strong dual-system tradition that has defined training occupations at its centre. At English FE colleges, teachers’ definitions of effective teaching appeared to be more focused on individual learners and their respective needs. Reflections on teaching practice
in all three countries suggested that there is a correlation between occupational areas and
different philosophical stances that classify teaching as a science, a craft, or an art. Since
this avenue of inquiry fell outside the scope of this study, it may be of interest for further
research to explore this perception in greater depth.

This study did not impose prior definitions on what constitutes pedagogic
innovation, but instead sought to investigate teachers’ own definitions. As it emerged from
the analysis, innovation is frequently seen as closely linked to the introduction of new
technology. It was seen as an enabler, but teachers took a critical view of its shortcomings,
including the challenges posed by generational differences in handling technology between
teachers and students. There was more awareness in Austria and Germany of non-
technology-led pedagogic innovation, whereas some teachers at FE colleges even appeared
to use the terms innovation and technology interchangeably.

Based on Lipsky’s (1980) concept of street-level bureaucracy, and the three-level
model of pedagogic innovation that distinguishes between classroom, managerial, and
policy levels, the interview analysis identifies several roles practitioners played in
innovation processes, in correspondence with the categories of innovation outlined above.
Teachers described themselves as implementers as well as designers of pedagogic
innovation, citing practice rather than theory that defines the meaning of innovation in
relation to given contexts. In particular, the analysis strongly drew attention to teams of
teachers as the crucial unit of innovative change. Informal communications amongst
colleagues were essential in this context, both in the absence of better formal structures (as
particularly pointed out in Austria), and to complement them. This corresponds with
Messmann and Mulder’s (2011) similar findings about the centrality of communicating
with colleagues as part of the innovation process. Teachers expected school leadership to
be facilitators for innovative processes, but had mixed reactions if they felt pressured into
supposedly innovative change. Bureaucratic requirements, for example, were met with
more tolerance in England than in Austria and Germany, despite the fact that they were
less pronounced in the latter. They were generally seen as stifling innovation, but
recognized for their potential to manage effectively.

Teachers’ self-perceptions as related in interviews were a good fit for the framework
of street-level bureaucracy. However, there existed an underlying difference between
countries in relation to professional autonomy. Teachers at FE colleges saw themselves
primarily as team members of organisations that were entrusted with educational tasks.
German and Austrian self-images were those of individual specialists in education,
working within organisations that existed to support them. In daily practice, the
distinction may not always be apparent, but it found its expression throughout the data
analysis, for example in expectations towards autonomous decision making, professional
development, team work, the influence of management, and the role of quality assurance.

The question of professional autonomy emerged as a central issue from the data
analysis. Due to different system traditions, but in particular enabled by significant
differences in employment characteristics, German and Austrian teachers enjoy a stronger
bargaining position vis a vis college leadership than their English colleagues. They are
federal employees in colleges that are usually run by local education authorities, in an
environment where there is little competition in student numbers and no formal
comparison between either teachers or colleges in terms of grades and student
achievement. Mostly without an organisational layer of professional administrators,
teachers in the German-speaking countries rely mainly on intrinsic motivation. As a result
of this, interviewees in those countries reported perceptions of a greater spread of teaching
quality than in England. While strongly motivated teachers enjoyed more freedom and
efficiency due to lower reporting and planning requirements, less motivated ones were free
to remain stagnant and unchallenged. As a consequence, interviewees in different
countries had distinct views of obstacles to innovation. In England bureaucracy was cited
as a leading factor, and in Austria and Germany the lack of co-operation from colleagues.
Ertl and Kremer reported similar findings, noting that the autonomy enjoyed by German
teachers is “not always used effectively, particularly in terms of innovation and teaching
approaches” (Ertl and Kremer, 2009:20).

In conjunction with teacher training, professional autonomy connects to the theme
of innovation competence, and thus lies at the core of innovative behaviours. The findings
of this study confirm Ertl and Kremer’s interpretation that “a wider notion of ‘innovation
competence’ combines the personal attributes of individuals, such as knowledge and skills,
with organisational elements of an institution, such as regulations and hierarchies.” (Ertl
and Kremer, 2009:2) From a systems perspective, the greater innovative freedom of teachers in Germany and Austria compared to England is bought at the price of less scope for motivating those teachers that are not by themselves engaged innovators. Several interviewees in Germany and Austria appeared convinced that the proportion of colleagues who had disengaged from team work and joint innovative processes was about one third, which seems alarmingly high given that the schools involved in this research were recommended by experts as exceptionally innovative. Since this study neither sought to evaluate the success or failure of reported innovations, nor to construct measures to quantify the innovative progress made at different colleges, it remains for further research to determine to what extent this trade-off between autonomy and management benefits either side in a comparative framework, and whether there may be an optimal point for fostering pedagogic innovation in VET.

8.2. Documentation of Practice

This study constructed a framework for distinguishing four different origins of innovation from the perspective of teachers, ordered in a two-by-two matrix. Along one dimension, innovation can arise internally, that is from the immediate work context of VET practitioners, or it can take place in reaction to external influences such as management and policy requirements, curricular reform, or other changes outside the classroom context. The second dimension distinguishes innovation that is explicitly designed as such, that is, with a view to introduce new pedagogic practices, in contrast to that which is implicitly given as a by-product of other factors influencing the teaching-learning situation. The possibility of such a categorisation was anticipated by Ertl and Kremer (2009) who noted significant differences between teachers’ attitudes towards internally generated innovations, and externally mandated reforms. Their findings were confirmed by this study, and the addition of a second dimension proved useful. Interviewees reported examples for all four combinations that arise in the matrix of those two dimensions, although most cases contain elements of several categories. A management decision at an FE college, for example, to switch a course from qualifications offered by one awarding body, to another, may result in implicitly given, externally required innovation to be
carried out by teachers, but it may in addition spark explicit, practitioner-driven pedagogic innovation in response. This study did not aim to provide a full classification scheme for this framework, but it proposed the distinction in order to make sense of different motivations and obstacles arising from particular innovative efforts. For example, innovation that takes place as a continuous task for teachers as part of their adaptation of curricula to the classroom context faces different challenges than that which is undertaken as an explicit project, and planned by college management or teams of teachers, with defined objectives and time frames.

In practice, teachers reported the most frequent innovative pressures to result from changing needs of learners and shifts in the societal perception of VET. Students worked and behaved differently than many teachers expected from their own school experience. This was in large part attributed to changing technologies, putting pressures on teachers and school systems to react by offering new methods of delivery but also by taking into account changed learning patterns and communication styles. In addition, society places greater emphasis on individualised learning than previously, which was a topic particularly frequently addressed by interviewees in England. Overall, there was no clear picture whether students are better or worse than they used to be, but there existed an agreement that the focus of pedagogy has had to change from conformist to more individualistic approaches. In terms of the general nature of VET students, the potential effects of academic drift remained uncertain. Interviews indicated evidence of polarisation, with some VET teachers on high quality courses observing a continued interest in dedicated vocational training by high-ability students, while others saw VET as increasingly burdened with a care-taker role for disengaged students or other ills of society, such as problems resulting from immigration. The more diversified college types appeared to create fertile environments for innovative approaches, but also posed challenges for teachers being required to adapt to different types of learners. However, specific challenges differed between countries. In Austria the growing quality gap between BHS (5 years; university entry in addition to vocational qualifications) and HAS (3 years; vocational qualifications) was seen as particularly problematic. In Germany teachers in some fields reported a falling recognition of VET, and challenges posed by the perceived breakdown of social cohesion. Teachers in England particularly expressed their worries about lower
standards due to competition among colleges, and pressing financial constraints.

The accounts of innovation dynamics collected for this study confirm the usefulness of the three-level framework adapted from Ertl and Kremer (2006, 2009), but they also demonstrate that a significant proportion of pedagogic innovations do not occur in response to educational reforms or management-led innovation efforts. The continuous updating of pedagogic methods as well as deliberate projects undertaken by individuals or teams contribute significantly to pedagogic innovation from the point of view of VET practitioners. In England, such teams were most frequently formalised and supported by management structures, whereas they appeared more self-selecting and spontaneous in the German-speaking countries.

This corresponds to the fact that in England, innovation was predominantly accepted to be technology-driven, top-down change, even if it was sometimes perceived as burdensome. In Germany and Austria, with less frequent substantial reforms, there was a stronger focus on classroom-level innovations and voluntary initiatives from teachers, which reflected a prevalence of implicit, internal innovation. Simultaneously, the analysis indicated differences in the degree to which teachers, teacher-administrators, and college leaders related to their institutions. In England, teachers as well as college managers appeared to identify more strongly with their colleges, including its competitive profile and business strategies, than their continental colleagues. The latter seemed to feel more closely aligned with teaching as a societal role or individual task. This reflects Ertl and Kremer’s (2009) findings that FE college teachers “stressed the perception of their work as taking place in a competitive environment, a notion that was not expressed in the German context” (Ertl and Kremer, 2009:15). Such country differences also correlated with potential friction in the three-level model: in England, conflicts of interest appeared to arise more frequently between teachers and managers than in Germany and Austria. Instead, in those countries, practitioners seemed to expect greater scope for disagreement between colleges and policy makers, since school leaders were more closely aligned with teachers.

Differences in managerial structures also extend to the role of quality management systems, with notably different effects of professional autonomy. At all English FE colleges in this study, formal QM appeared to be an established part of the administrative tool set.
In conjunction with other metrics such as student achievement and retention rates, its data is used throughout colleges, as well as for external inspections and reporting. In Germany and Austria, QM is a relatively recent phenomenon for most VET colleges, and its use is frequently seen with some suspicion by teachers. The formal systems that have been rolled out across colleges, such as Q2E in North-Rhine Westphalia and Bremen, and QIBB in Austria, emphasise the confidential and part-voluntary aspects of the system. Rather than constituting performance management tools for school administrators, their emphasis is on enabling teachers to receive personalised feedback in order to motivate self-assessment and improvement. In QIBB, for example, conducting evaluations is mandatory for teachers, but they do not have to report the results. In parallel to differences in quality control, opportunities for school management to intervene in order to improve teaching quality differed markedly. Teachers in England accepted more involved management oversight than their colleagues in Austria and Germany.

Ertl and Kremer’s (2009) findings on ‘innovation competence’ as well as the data from interviews in the current research, emphasised the role of teacher training, both as initial and as continuing professional development (CPD), as an enabler of innovation. However, in all three countries both types were widely reported by interviewees not to live up to their full potential. In practice, both training and teachers’ interest in training was driven by subject-matter rather than methods and pedagogy, which appeared to be a vicious cycle in which teachers placed more emphasis on content rather than pedagogy, and perceived training for the latter to be badly designed and insufficient. In Germany and Austria, where teachers enjoy significant freedom in their choice of CPD, some practitioners might entirely opt out of pedagogic updating. There is a strong expectation that teachers could arrange their own training, but they expressed little enthusiasm about the majority of training opportunities on offer. In England colleges are more prepared to organise training, and are expected by teachers to do so.

Those differences between countries led to distinct recommendations emerging from the analysis. In England, the innovation competence of teachers could generally be improved by training that focuses on increased professional autonomy, and at some colleges by more independent choices of training options. However, given inspection regimes, prescriptive curricula, and the bureaucratic workload in connection with
formalised quality management and safeguarding regulations, it seems likely that greater autonomy is not only a matter of training, and has to be introduced at a systemic level, rather than by individual colleges. In Germany and Austria, where the quality of pedagogic methods training was frequently heavily criticised, innovation competence may benefit from improvements in existing options, as well as from a more prescriptive approach that forces teachers to attend not only subject knowledge CPD.

The next section details the research conclusions on topics that emerged from the analysis of perceptions and practice, and relates issues such as continued professional development with autonomy, planning, and societal perceptions with each other.

8.3. Dynamics, Limitations, and Lessons for Innovation

This project developed a model for understanding different situations that give rise to innovative pedagogies, and it created a classification of obstacles encountered by VET practitioners. Simultaneously, it conducted a detailed investigation of their views on relevant actors in innovation processes, leading to suggestions on how policy makers and college leaders can support them. The data analysis consisted of multiple perspectives, including comparative views of education systems, institutions, and individual roles. During the research design phase it was decided to build the analytical framework around the research questions first, connect them directly to interview quotes, and then introduce the remaining perspectives in this context. This strategy allowed the use of approaches from grounded theory to generate further analytical categories, refine themes, and structure their presentation.

The catalogue of nine distinct obstacles to innovation that arose from the data analysis sets their impact in relation to the four origins of innovation discussed in section 7.1. They were: lack of time, limited budgets, bureaucracy, lack of autonomy, misunderstanding context and focus, lack of teamwork, planning failures and lack of continuity, low quality training, and a hostile atmosphere. Those findings are more detailed than Ertl and Kremer’s, who distinguished “bureaucratic, hierarchical structures”, “rigid organisational patterns”, “top-down reforms”, and “lack of time” (Ertl and Kremer, 2009:10) Similarly to their findings, bureaucracy and lack of time were the most important
complaints at English FE colleges.

The following paragraphs outline the conclusions about supporting innovation processes and relate them to a combined view of those obstacles. This addresses several opportunities for further research suggested by Ertl and Kremer (2009:20). Firstly, it substantiates many of their tentative findings on interpretations, dynamics, and obstacles to pedagogic innovation, and secondly, it discusses elements of effective strategies to develop and support teachers’ innovative competence. The analytic results are broadly similar to those reported by Messmann and Mulder, who list several “personal and contextual factors triggering innovative work behaviour” (Messmann and Mulder, 2011:79). However, they disagree about a lack of resources and a lack of communication as potential motivations for innovation. While there were individual accounts from some of the interviewees in this study that mentioned cases of adversity that triggered new approaches, it was clear from the data that in general a lack of resources and communication hinders innovation.

The most frequently cited and wide-ranging impediment to innovation, from the point of view of teachers, was limited time. The analysis established that informal, spontaneous co-operation and learning from colleagues plays a central role in pedagogic innovation, and is particularly sensitive to time pressures. In addition, teachers felt that policy makers and managers may not take into account the time required to put changes into practice, which is a particular concern for implicitly given, externally initiated innovation. The views reported in this study are not representative of teachers’ typical acceptance of educational reform. However, it is noteworthy that interviewees were clearly most receptive to externally initiated change when it addressed a need they recognised, such as changed requirements from students, and when it consisted of strategies that were immediately applicable in the classroom.

In England, the frequency of such changes was the main concern, whereas teachers in Germany and Austria worried about the extent to which they were left to their own devices and thus were required to invest significant time in adapting their teaching to changes. However, the interviews also indicated that there existed significant disagreements, particularly amongst teachers in the German-speaking countries, about the
total annual workload of teachers when holidays are taken into account. This research was not focused on determining an objective view about this matter. The analysis of examples showed that time concerns are in fact obstacles to pedagogic innovation in all three countries, but it is possible that this has more to do with high-activity phases during which teachers are overworked, than with the theoretical workload normalised over the year.

Several impediments to innovation that emerged from the analysis were related to each other, such as limited budgets causing a lack of suitable infrastructure, or leading to an inability to sustain innovative projects beyond the initial phase, in cases where innovation is explicit, rather than a continuous, implicit process. In this context it must be noted that there was no evidence that teachers’ job motivation and engagement in innovative efforts were significantly dependent on personal monetary incentives. Teachers expressed their desire for budgets to cover materials, training, and compensation for overtime, but did not indicate that bonus payments or higher wages would encourage innovation. While complaints about budgets were universal, their patterns reflected different degrees of professional autonomy, focusing more strongly on the availability of technology at English colleges, and on discretionary spending for projects at German and Austrian schools.

The research uncovered a discrepancy in complaints about bureaucracy as an impediment to innovation between English teachers and their continental colleagues. Whereas the former showed a markedly higher degree of acceptance of paperwork and administrative tasks, and the latter sometimes appeared hostile to such requirements, it was nonetheless the former who saw them as a significant obstacle to pedagogic improvement. This included both the lack of resources to pursue new avenues due to the existing administrative workload, and considerations of the potential bureaucratic hurdles of new pedagogies. In addition, the stricter nature of regulatory frameworks and Ofsted inspections in England were perceived as particularly problematic, both by adding to the administrative burden, and by not allowing pedagogic experiments. By contrast, German and Austrian teachers appeared more willing than their colleagues at FE colleges to ‘play the system’ by meeting bureaucratic requirements with the minimum amount of effort expended, even if that might involve misrepresenting their work on paper.
From a recognition of the detrimental effects of bureaucracy on the professional autonomy of teachers follows a central conclusion from this research, relating to the need to understand the role of teachers as more than client-facing operatives of service organisations. This is supported by a similar conclusion reached by Messmann and Mulder stating that “the mediating role of teachers’ perceptions for triggering innovative work behaviour can be assumed as a hypothesis for further studies” (Messmann and Mulder, 2011:81f.) Teachers are experts in their field, responding not only to top-down reform, but also continuously innovating on their own or in teams. They respond to new ideas that are spread formally or informally among colleagues, as well as changed student needs, in addition to the explicit, externally given change processes initiated by policy makers. In order to respect their local knowledge and context, and leverage their intrinsic motivation, it is necessary to respect their ability to innovate in cases where doing so is implicitly required in response to external factors. Interviewees particularly highlighted the need for adequate resources, especially with respect to the infrastructure required for effective team work, as well as training, to fulfil the innovative potential inherent in their profession. The relevant managerial support to address common obstacles can consist of enabling better continuity for projects, decreased bureaucracy, and strategies to disseminate best practice that require minimal additional effort. The findings in this respect are consistent with Messmann and Mulder’s conclusion that “a teacher will only explore opportunities for improvement of the learning environment if this facilitates the accomplishment of job-related goals and needs such as self-actualisation or job satisfaction” (Messmann and Mulder, 2011:71). The analysis showed that some teachers consider themselves so strongly intrinsically motivated that given a sufficient degree of autonomy, they will pursue such opportunities even in the face of what they consider adverse conditions such as lack of time and limited support from management.

In light of the differences between VET colleges in the countries of this study, the consequences of recognising the role of teachers as innovators are varied. In England, increasing their autonomy in relation to management, inspection, and curricular implementation, emerged as a possible step towards addressing some of the most salient obstacles to innovation. Complaints about inefficient planning at FE colleges also relate to questions of autonomy, being centred around invasive micro-management and top-down
decision making. Similar conclusions apply to the use of quality management systems and the recognition of aspects of teachers’ work that cannot be quantified. An awareness of the societal role of teaching, and enhanced understanding of the incentives set by quantitative measures, may suggest that quality management frequently limits the scope of teachers’ own efforts. If measures that allow teachers more freedom and less supervision result in reduced bureaucratic workloads, they also help to alleviate the problem of time constraints. Simultaneously, improved training can support teachers’ ability to make optimal use of that freedom, and increased ties between both colleges and individual teachers on the one hand, and industry on the other, can foster connections to practice.

In Germany and Austria, supporting teachers’ innovation cultures has to include efforts to re-engage teachers who have lost interest in working productively within the system. That requires steps to improve support for teamwork, including the provision of adequate infrastructure, and new ways to equalise the workload over the course of the year, with better ways of communicating the scope of work expected from teachers. Such measures could address typical complaints in the German-speaking countries related to unclear responsibilities, and wrong estimates of requirements and the efforts involved in projects. On the curricular side, innovation at German and Austrian VET colleges may benefit from somewhat more prescriptive designs that encourage or force teachers to implement innovative pedagogies.

From a systems perspective, this research project suggests that benchmarking and comparisons between colleges as well as individual teachers benefit innovative behaviours most when they constitute a learning experience, rather than competition. This implies that educational policy should provide frameworks for such comparisons, but let teachers and colleges draw their own conclusions, rather than rank and rate them. Further policy lessons derived from the data analysis continue the theme of increased involvement of teachers in designing innovations. The involvement of several groups of stakeholders, as exemplified by dual-system curricula in Germany, may be a model for producing relevant curricula while giving teachers the opportunity to adapt them according to their own experience.

This project did not focus on the effects of modularisation, but the analysis suggests
that many FE college courses are so modular and interchangeable that it is hard for teachers to pursue their own strategies within them, especially in comparison to Austrian BHAS where teachers are in charge of particular classes of students for several years in a very consistent manner. Similarly, a system of gradual, rather than sudden changes or jumps between qualification systems, may allow teachers to optimise their materials over time if they are granted the freedom to carry out such adaptations. For English policy makers that may mean accepting sub-optimal designs and living with them, rather than hoping to eventually hit upon optimal long-term solutions by repeated, fast-paced reforms. As Eyal (2009) pointed out, a free-market approach to education systems in particular leads to the emergence of actors whose collective behaviours are highly resilient, that is, who “overcome the disturbance [e.g top-down reform] through a multiplicity of pathways supporting the same function” (Eyal, 2009:488). Whereas Eyal referred to education institutions, this research project indicated that similar conclusions are true for teachers, and especially teams of teachers.

In terms of the societal position of vocational education and training, this research highlighted the importance of recognising its distinct, high-value role within national education systems. In Austria in particular, some VET teachers felt that perceptions of their sector by policy makers and some parts of the public were outright hostile, despite not being based on a clear understanding of its significance and size. Teachers reported that the public, including a majority of political decision makers, saw vocational training as a low-status education option, and mainly thought of it in the context of apprenticeship training. Teachers felt that the role of BMHS in contributing around a third of all students proceeding to higher education appeared to be overlooked, while their own work is seen as less academic and important than that of colleagues in non-VET parts of the system. This may mean that BMHS face problems recruiting the best teachers, and that their public funding and political support is weaker than their strategic importance would warrant.

Practitioners at German colleges expressed similar views, and agreed with their Austrian colleagues that media portrayals of teachers in general were frustrating due to a focus on perceptions of long holidays, low work effort, and unusually flexible work arrangements. In addition, teachers in both countries seemed aware of widespread anecdotal evidence of extremely low-quality teaching, which appeared to strongly colour
public perceptions. The interviews for this study indicated that teachers’ high degree of autonomy combined with insufficient training may conceivably result in such low quality cases, but there was an overall agreement amongst interviewees that they are rare. Given that the sample of teachers was naturally biased, it fell outside the focus of this study to further assess such claims.

In England, teachers did not display a similar degree of frustration with public perceptions of their role, but they felt that policy makers were not aware of the time-scales and efforts needed to effect sustainable change in educational settings. Apart from feeling burdened with regulations, they saw a disconnect between their purported role of creatively instilling high-level skills and autonomous abilities in students, and the fact that they themselves were not sufficiently free to act on their experience as teaching professionals. Teachers also suggested that the proliferation of VET qualifications confused the job market and the public, ultimately undermining an alternative vision of high-status qualifications that could exist outside irrelevant comparisons to purely academic pathways.

8.4. Limitations and Opportunities for Further Research

Due to the broad range of topics touched upon in interviews, this research project highlighted a number of subjects that may be worthwhile pursuits for further research. Given the complexity of the systems involved, decisions about the research design and focus naturally limit the generalisability of findings. In particular, the inclusion of colleges that were explicitly described as innovative may mean that results do not translate straightforwardly to less privileged settings. However, it must be noted that engaged teachers at innovative colleges do offer insights into both obstacles and potential lessons for fostering innovation, since they have first-hand experience with both. It appears likely that practitioners in less innovative settings would exclusively blame the most obvious problems such as limited time and budgets, whereas their more engaged colleagues, or those with stronger support from school leadership, would be able to identify a wider range of factors that are detrimental to – or supportive of – classroom innovation.

The choice of qualitative interviews as the principal research method resulted in limited opportunities for verifying or triangulating claims made by interview subjects. For
example, teachers must be assumed to be biased towards seeing their own role as particularly decisive in innovation dynamics, but there was no objective measure to shed further light on the relative contributions of different actors. In addition, this research did not seek to evaluate claims of innovation or failure; that is, it did not impose a particular view of what constitutes innovation, and did not attempt to apply a measure of innovative success to the examples provided in interviews. Classroom observation sessions were designed to provide sufficient contextual information for interviews, and therefore took place in advance. This strategy, as well as the relatively short duration and limited thematic coverage of observation sessions, meant that they did not offer opportunities for verifying particular claims made in interviews. Comparing examples of innovation processes with independently undertaken observations, and finding more objective – possibly quantitative – ways to assess their impact, would therefore be a fruitful next step in a research programme continuing on the theme of practitioners as innovators.

In so far as the qualitative nature of this research project allowed insights beyond the immediate work context of teachers, it highlighted differences between all three countries in VET system traditions and societal perceptions of education. Whereas this study started its investigation of practitioners’ conceptions of pedagogy in order to understand their views on pedagogic innovation, it proceeded to find evidence for fundamental differences in expectations of the societal role of teaching and learning. For example, this was reflected by the use of ‘delivery’ instead of ‘teaching’ at some English FE colleges, whereas German and Austrian teachers frequently spoke of ‘Erziehung’ rather than ‘Bildung’. The former denotes aspects to do with personal development, while the latter would more typically be associated with formal schooling. However, the data in this study was clearly not sufficiently representative to systematise this difference. It may be interesting to see how such differences emerge in larger-scale studies, especially with respect to VET systems and their wider social roles.

Both expert interviews and conversations with teachers demonstrated that further research into the public perceptions of VET is required, including the views of politicians, parents, and firms. In each of the countries under investigation, experts highlighted that the VET sector appeared to be treated and perceived as less significant than the academic school sector, when in fact its student numbers and budgets significantly exceeded the
former. A better understanding of the role of VET beyond skills and catering to the job market, particularly in England, may be part of an effort to investigate public perceptions and expectations from VET. In this context, research faces the problem that the delineations of the term ‘VET sector’ in each of the three countries not only vary, but are also used inconsistently in the literature, in the policy discourse, and by practitioners in the sector. New academic approaches may be able to produce more formal frameworks or catalogues of criteria to assist international comparisons, and definitions on which to base further VET research.

This research highlighted the strong influence teachers’ role perceptions have on their professional practice. Therefore it may be of interest to investigate in more detail how teachers differ from colleagues with partly managerial roles in their awareness of school development and strategy. The analysis indicated that such differences exist, but the numbers of research subjects and the biased sample did not permit any generalised conclusions. Similar caveats apply to teachers’ perceptions of authority. In Austria, in particular, the open disdain for authority displayed by several interviewees could be an artefact of the particular sample of this study, but it may be interesting to investigate whether such differences are widespread, and how they relate to teacher professionalism and training.

8.5. Lessons from Translation and the Use of Language

Taking place in three countries, in two different languages, this research project faced the challenge of incorporating translations in order to adequately conduct qualitative analysis. Section 2.6.2 outlines how taking into account Halai’s caution that transcribing and translating in multi-lingual contexts is “not a simple matter of converting spoken language to text” (Halai, 2007:347), led to the decision to work with original-language transcripts, but a single, English coding framework.

Initial trials using this sequence showed encouraging results, which were confirmed by the analytic process of all phases of this research study. Transcriptions in English and German were straightforward and did not differ significantly from the process in mono-lingual studies. However, since for this study the relevance of utterances in interviews
derived from their meaning and interpretation, rather than from interviewees’ particular linguistic idiosyncrasies, the transcription process in each language included an element of simplification and thereby interpretation. Austrian interviewees in particular tended towards sarcasm, double-negatives, and dialect expressions which it seemed prudent to transcribe to more standard German for the purposes of analysis. Neither the analysis nor the subsequent discussions of results indicated any loss of meaning as a result of this decision.

After transcription, interviews were coded within a single, evolving, English-language coding framework. This strategy acted as a bridge of the language gap, since it highlighted meaning as understood by the researcher as part of the interpretative process that coding at this level necessarily entails. That is, in the analysis the meaning of particular clusters of data categorised under a given code derived from the interpretation of context and the researcher’s understanding, rather than for example dictionary definitions of words that act as codes. Staying fixed to the original language meant that such interpretations could be made when similar words (e.g. “innovation”) may have different connotations in English and German. To the extent that there are cultural differences between Austria and Germany, it even appeared advisable to approach their common language with a sceptical attitude, too. Viewing the coding framework as grouping labels based on meaning, rather than definitions, also allowed the analysis to take account of such considerations.

As a result of the data analysis stage, initial drafts of this document included interview quotes in the original language, enabling the researcher to take into account nuances of meaning in the context of their presentation. This helped avoid potential pitfalls when contrasting one set of quotes that were unaltered, with another that had possibly been changed by translation. When German quotes were finally replaced with translations in the final draft, the fact that at this point they were already embedded within a particular context in the presentation of the analysis was a useful input for the endeavour of capturing their precise meanings and analytic contribution. For reference, original German interview quotes are provided in Annex B.

The process of conducting this research work has confirmed that its chosen
approach to the challenges posed by multiple languages not only made the resulting issues less problematic, but also helped uncover cultural and linguistic differences in attitudes, expression, and communication practices of teaching practitioners. Since a more explicit focus on language and its possible connections to teacher professionalism was not a focal point of this study, the topic was only touched upon peripherally in the analysis, but it may be fruitful to attempt an inter-cultural linguistic analysis on similar data to elucidate in particular differences between the self-representations of German and Austrian teachers.

8.6. Research Findings in the Context of Current Debates

When this research project started in 2009, part of the justification of its focus on practitioners’ perspectives was the notable absence of this angle from the policy discourse in England. This argument still holds in 2013, as current debates in England continue to revolve around qualifications and funding, and the autonomy of colleges, but not that of teachers. There are voices calling for widening the focus, such as Keep, who states that the Wolf Review (Wolf, 2011) conclusively confirmed that “large numbers [...] have found themselves studying for qualifications that neither have much impact on subsequent earnings, nor offer a substantive platform for progression” (Keep, 2012:1), and argues that this is due to policies that reflect an overly limited definition of the purpose of VET. Referencing Brockmann et al. (2011), Keep points out that “elsewhere there are expectations that VQs serve wider social and economic purposes in ways that are not understood or acted upon in England” (Keep, 2011: 2011). Reiterating a previous argument by Unwin et al (2004), he attributes this shortcoming to “too much attention [that] has been paid to qualifications as a supposedly critical point of leverage in generating change, and not enough to issues to do with the curriculum, course design, or to wider questions about the shape, nature and regulation of our labour market” (Keep, 2011:4) However, a call for action on widening the remit and flexibility of VET by improving education policy and college management, by deepening the understanding of teachers’ roles in innovation processes, is notably absent from the debate. Current discussions on addressing the skills shortage by new qualifications, and raising the participation age, equally fail to take into account the wider opportunities such changes may offer in terms of their social impact.
This study shows conclusively that there exists at FE colleges a significant innovative potential that is hampered by bureaucracy and prescriptive curricula. Moreover, the comparison with Germany and Austria indicates that more autonomous teachers who closely identify with communities of professional practice can implement aspects of VET education that go beyond particular technical skills. This may address the development of personal qualities in students that the labour market expects, but that are hard to quantify, and are therefore not adequately captured by educational approaches based on numeric performance measures and tick-boxing requirements lists.

Current debates in Germany and Austria concern issues that are more recent in those countries than in England, such as increased school autonomy and the introduction of new public management approaches and quality management. Similarly to England, transitions from VET to higher education continue to fuel public and academic discourse, albeit with local variations. In Germany, the topic is driven by demographic change (Rosendahl and Wahle, 2012) and has a stronger focus than in Austria on widening the portfolio of full-time VET to provide alternatives to HE, for example through new school types and courses at Berufskollegs. In Austria, the issue is discussed in terms of permeability and widening access to HE opportunities. In an analysis of VET at the intersection with HE in North-Rhine Westphalia, Rosendahl and Wahle (2012) note a number of challenges that drive this development: “demographic change and with it the forecast of the decreasing number of students, as well as apprentices; the shortage of skilled workers in the near future; increasing demands on vocational qualifications; and the academicisation [sic] of work, professions and society. [...]” (Rosendahl and Wahle, 2012:2)

They point out that Berufskollegs in Germany have historically had to contend with different – frequently conflicting – policy aims ranging from establishing them as a cornerstone of general education, to widening their role for adult learning. This debate was reflected by interviews for the current research project, as teachers outlined the challenges linked to changing societal expectations, increased heterogeneity of students, and unclear political directions. In this context, following recommendations for more relevant pedagogic updating for teachers, better support from management for individual initiatives, and stronger impulses through curricular reform may help teachers define their role as part of innovative teams.
The Austrian debate is centred around *Berufsmatura* and *Berufsreifeprüfung*, which are university entry qualifications provided in parallel or as add-on courses for apprentices or graduates of non-academic VET courses. Mayerl argues that their success highlights the “need and the demand to systematically increase the ability of vocational education at the upper level to connect [to higher education]” (Mayerl, 2012:10; translation by the author). Given the innovative impetus this research has documented at successful BMHS which prepare students for university entry, such conclusions are strongly supported. However, the question of how those new types of assessment are structured remains open, since interviews indicated that the challenges posed by the increasing centralisation of *Matura* exams may have mixed effects of teachers’ ability to deliver the innovative pedagogies such a move would require.

Another recent debate in Austrian VET has been the introduction of quality management initiatives, particularly the centrally-coordinated programme QIBB. Wulz, Jonach and Gramlinger describe QIBB as a success and enumerate several factors for its high acceptance among colleges and teachers. Above all, they mention that “the creation of a culture of trust […] proved a fundamental prerequisite for conducting its procedures” (Wulz, Jonach and Gramlinger, 2011:10; translation by the author). They stress the importance of voluntary participation for colleges and a large degree of freedom to implement the details in different school contexts. The recognition of those factors matches this study’s findings on the necessity to convince teachers and college leaders of reforms, and to allow them significant autonomy in their operationalisation. However, the authors also highlight the importance of support structures to accompany policy implementation: “[There are] a multitude of challenges and decision points for colleges. The experience from the implementation phase indicates that at this point a sufficiently resourced support system is a crucial factor for success” (Wulz, Jonach, and Gramlinger, 2011:10; translation by the author). This may indicate that the findings of the current study about a lack of support structures for innovation at Austrian colleges are already addressed at some levels, or for specific reforms. In a further similarity to the current results, Wulz, Jonach and Gramlinger note that the most successful college leaders are those who manage to make the implementation of QIBB a shared responsibility for all teaching staff. Others are reported to focus on factors that are not primarily expected to improve quality, such as
the programme’s marketing potential, leading to conflict within colleges and a low willingness to act on the results of the peer review process. This outcome further underlines the differences between motivations for innovation described in the current study, and how failures are frequently connected to unrealistic expectations and attempts at superficial change.

This project contributed to an existing body of research investigating the effects of VET reforms in comparative settings with a particular focus on practitioners. Building directly on prior work by Ertl and Kremer (2009, 2006, 2005a,b, 2003), Ertl (2005), and Ertl and Sloane (2004), it added rich qualitative evidence from interviews with educational experts, policy makers, college leaders, and teachers. The analysis confirmed several key findings with respect to differences in teacher autonomy, professionalism, and innovation cultures, and added details on obstacles to innovation. Going beyond existing work, and as a basis for further qualitative and possibly quantitative elaboration, this research contributed several tools and frameworks:

• a comparative investigation of practitioners’ interpretations of terms surrounding teaching practice, such as ‘pedagogy’ and ‘didactics’, as well as their notion of ‘innovation’;

• an in-depth account of teachers’ self-perceptions as innovators, including their aims and motivations, as well as the influence of professionalism, outside factors, connections to communities of practice, and continuing professional development;

• a detailed analysis of innovation dynamics, including considerations pertaining to different classes of actors, teachers’ work environments, and factors external to colleges, such as curricula, assessment, and standards;

• a scheme for distinguishing four different origins of pedagogic innovation along two dimensions;

• a suggested classification matrix matching particular examples to types of pedagogic innovation, and detailed descriptions of the latter;
• an investigation of examples of structural and organisational innovation that influence pedagogic settings, and an abstraction to classify such examples;

• an enumeration, detailed descriptions, and comparative discussion of nine distinct classes of obstacles to pedagogic innovation;

• recommendations for college leaders and policy makers for facilitating pedagogic innovation, whilst placing such recommendations in particular national contexts.

Given the scope of VET systems in general, and the particular challenges posed by a three-country comparative study in this context, this research project can only be seen as a stepping-stone towards a more detailed understanding of the diverse roles of VET teachers as pedagogic innovators. Beyond adding to the academic research agenda of SKOPE, it is hoped that it may also function as a guide towards a wider awareness and appreciation of practitioners’ potential contributions as autonomous professionals, and thus leave some mark within the groundwork underlying future policy discussions of vocational education and training in England, Germany, and Austria.
A. Appendix A – Interview Materials
Teacher Interview Schedule (Version 1.6, May 20th, 2011)

Questions to all participants

• Describe your role and your background within the organisation (school, training company, etc.) you are working at.

• What is your understanding or definition of ‘teaching and learning practices’ and related terms such as ‘pedagogy’?

• What is your understanding of the term “innovation” when applied to teaching and learning practices?

• Can you describe examples from recent years of “successful innovation”?

• Can you describe examples from recent years of “failed innovation”? (If possible, something that was or seemed like a good idea, but ended up not being implemented, or failing upon implementation)

• Could innovation/change take place to a greater extent, and if so, why doesn’t it?

Teachers/Trainers (General: give examples!)

• What courses do you teach, to what age groups?

• How are those courses structured? (Practical elements? Lab? Placements?)

• How do/did you experience the introduction of ...
  ◦ England: the new Diploma framework?
  ◦ Austria: the Zentralmatura?
  ◦ Germany: Lernfelder?

• What changes have you witnessed to your and your colleagues’ work in recent years?
  ◦ Why did those changes take place?
  ◦ Do you feel your role – or your institution’s role – has changed in recent years,
and of so, why and how?

○ What does ‘climate’ (or Schulkultur) mean to you?

○ Have the students or their expectations changed? How?

○ Has the profile of students or your teaching practice changed due to connections to HE?

• In your experience, where do incentives to innovate come from ...
  
  ○ … for your institution?

  ○ … for teachers/trainers?

• Who innovates at your institution?

  ○ In particular, who innovates new or changed teaching practices?

  ○ Who are the relevant decision makers?

  ○ How do students get to know about innovative learning approaches?

• How are attempts at innovation in teaching and learning appraised or evaluated?

  ○ Are there formal quality management schemes in place?

  ○ How did you experience their introduction?

  ○ Have they changed anything?

  ○ What are the consequences of formal evaluation?

• What constraints do you see on innovative classroom practice?

• How do you keep informed about teaching approaches, and how much time do you spend on it?

• How well did your training prepare you for the role of “innovator” in education?

• If you have a novel idea about (or find out about a new way for) how to conduct your teaching, or how students should learn, how will you go about putting it into practice?

• How and to what extent do you exchange knowledge and experience with other
teachers/trainers at your institution and at organisations that you work with?

- Do you observe the work and teaching of colleagues?
- What happens formally, what informally?
- Who produces teaching materials?

- What is the impact of external inspection regimes on your work (Ofsted, Schulaufsicht)?
B. Appendix B – Original Quotes from Interviews

Chapter 4

4.3 Use of Scientific Basis in Pedagogic Practice

“ [...] deeply linked to the idea of thinking about what one is doing; they may not call it innovation, but it is self-motivated, problem-driven, reflexive, and creative.”

“[Der Begriff des Ausbildungsberufes ist] stark mit der Idee verbunden, darüber nachzudenken, was man da tut; das bezeichnen sie vielleicht nicht als Innovation, aber es ist aus sich selbst heraus motiviert, problemorientiert, reflexiv, und kreativ.” (GE1)

4.4 Participation and Societal Attitudes Towards VET Qualifications

“the system nowadays does not nearly exhibit the same socially integrative function that it did in the 1970s.”

“ [...] das System erfüllt heutzutage nicht annähernd die gleiche sozial integrative Funktion wie in den 70ern.” (GE3)

Chapter 5

5.1 What are practitioners’ conceptions of teaching practice, and how do they relate to pedagogy?

“I don’t have a textbook definition. Teaching practice is what we do in the classroom; the act of teaching. Learning practices are what students do; how they learn, and what help them doing so.”

“Ich habe keine Definition aus dem Buch im Kopf. Lehrpraxis ist das, was wir in der Klasse tun; das Unterrichten. Die Lernpraxis liegt auf Schülerseite; wie sie lernen, und mit welchen Hilfsmitteln.” (T3, A1)

“For me, pedagogy is not just imparting knowledge, but also ‘Erziehung’ ”

“Pädagogik ist für mich nicht nur Wissensvermittlung, sondern auch Erziehung” (T2, A2)
“[...] because here I can focus on the subject, rather than the pedagogy. I do work pedagogically, too, but that’s a different target group”

“[...] weil ich da noch mehr fachlich arbeiten kann, weniger pädagogisch. Ich arbeite auch pädagogisch, aber es ist eine andere Klientel[...]” (T2, G1)

“one should make use of methods and media in a way that is relevant for students, so they can make connections to their own experiences [...] if you can capture students pedagogically in this way, that’s innovation”

“[man soll] auch Methoden und Medien so einsetzen, wie sie für die S einen Bezug haben, dass die sich wiederfinden. [...] Wenn man Schüler da pädagogisch packen kann, dann ist das Innovation.” (T3, G1)

“I would perhaps change this to ‘Didactics’ [...] I hardly have real pedagogic parts in my work here because the students are old enough, and I tend to work with students that need relatively little advice. Therefore I see myself as conveyor of subject matter, which I try to structure didactically well, by building on existing knowledge, and meeting students at the point they are at.”

“Ich würde das vielleicht sofort in ‘Didaktik’ ändern. [...] Wirkliche pädagogische Anteile [...] habe ich hier kaum, weil die Schüler so alt sind, und ich eher auch mit Schülern arbeite die einen relativ geringen Beratungsbedarf haben. Daher sehe ich mich als Überbringerin fachlicher Inhalte, die ich versuche, didaktisch gut aufzuarbeiten, indem ich versuche, die Vorkenntnisse einzubinden, die Schüler da abzuholen, wo sie stehen” (T1, G2)

“[Question:] What is the definition of the term ‘pedagogy’? [Interviewee:] That’s a difficult question [...] what is the difference from didactics?”

“[Frage:] Definition des Begriffs Pädagogik? [Antwort:] Das ist eine schwierige Frage [...] was ist der Unterschied zur Didaktik?” (T3, G3)
“Pedagogy? That’s so vague and all-encompassing in this context; I would see the term in the realm of educational science, and that has little to do with my daily teaching practice. I am good at making use of ideas from this area, but for me pedagogy means the scientific examination of teaching and learning practices.”

“Pädagogik? Das ist sowas nebuloses und umfassendes in diesem Zusammenhang; ich würde ihn zunächst eher in der Erziehungswissenschaft ansiedeln, und das hat zunächst mit meiner eigenen alltäglichen Unterrichtspraxis wenig zu tun. Ich kann da gut Impulse aus dem Bereich aufnehmen, aber für mich wäre Pädagogik [...] die Auseinandersetzung der Wissenschaft mit der Lehr- und Lernpraxis.” (T3, A3)

“Pedagogy means for me: the scientific background on how to fulfill such a role.”

“Pädagogik bedeut für mich dann: der wissenschaftliche Hintergrund darüber, wie ich so eine Rolle erfüllen kann.” (T4, G3)

“When [students] find some relevance for themselves; that’s not new, that’s Klafki or Piaget, that is ancient, but nonetheless: in connection with new findings, also with today’s psychology on learning, I believe that does the trick to capture students.”

“Wenn die [Schüler] eine Relevanz für sich erkennen; das ist nichts neues, das ist Klafki oder Piaget, das ist uralt, und dennoch: geknüpft mit neuen Erkenntnissen, auch mit der Lernpsychologie von heute, glaube ich, ist das der Trick, die Schüler zu packen” (T3, G1)

“The simple questions are the difficult ones. I’ll start by talking about how I perceive my role.”

“Die einfachen Fragen sind die schwierigen. Ich fange damit an, wie ich meine Rolle sehe” (T4, G3)

“one needs a positive attitude: believe in students, support them, but also challenge them [...] have joy with your subject; [...] show students the relevance of things: why is this important? How do I need it? That is, offer consistency, take them seriously; show justice,
so they know where they are at [...] students should be interested in things beyond school, and involve themselves. The emotional component is a crucial point.”

“man muss eine positive Einstellung haben, Schülern etwas zutrauen, sie unterstützen, aber auch herausfordern [...]; selber Freude am eigenen Fach haben; [...] Schülern Bedeutung zu zeigen: Warum ist das wichtig? Wo brauch ich das? - d.h. Verslässlichkeit zu bieten, Schüler ernst zu nehmen; Gerechtigkeit zu zeigen, damit sich Schüler orientieren können; [...] Schüler sollen sich über die Schule hinaus sich mit Dingen beschäftigen, und sich selber mehr einbringen. Das Emotionale ist ein wichtiger Punkt!” (T1, A4)

“I don’t have a classic pedagogic career […] I largely detach myself from an academic understanding [of pedagogy], since we have students – particularly in the dual system – that to not bring the usual prerequisites for learning [...] I can’t do that with textbook pedagogies. That’s why I have adopted a stance from experiential pedagogy, where I always ask: what sort of person is this, and how can I support them with my knowledge and skills?”


“When I teach bricklayers, they are down-to-earth guys [...] that is, my pedagogy with them is very different from the way it is with architectural draftsmen, who are calm, delicate people; delicate also meaning fragile. That is my choice of words, my way of treating them is a very different one, in order to facilitate optimal learning with this demographic.”

“Wenn ich mit den Maurern unterrichte habe ich bodenständige Jungs, [...] d.h. meine Pädagogik ist eine ganz andere als bei den Bauzeichnern, die sind ganz ruhige feine Menschen, fein im Sinn von- auch zerbrechlich, d.h. meine Wortwahl, meine Art und Weise
wie ich mit diesen Menschen umgehe ist eine völlig andere, um ein optimales Lernen in dieser sozialen Gruppe zu finden.” (T3, G3)

“From a teaching point of view I am basically in the didactics of engineering subjects, that is, structured in sequence, and inductively designed. All that can be found in the theory there.”

“Grundsätzlich befinde ich mich pädagogisch in der Technikdidaktik, d.h. häufig in der Reihenfolge und induktiv angelegt. Das ist alles von der Theorie her dort zu finden” (T3, G1)

“Ideally [students] will want to gain a deeper understanding of these matters, and they will perhaps look for further information: self-study, specialised literature, journals like the Economist, or reading quality newspapers; that’s how it should be, for both subjects, law and economics; as a result, students should be able to engage with such topics.”

“Im besten Fall werden sie diese Dinge tiefer verstehen wollen, und vielleicht weitere Informationen suchen: ein Studium, Fachliteratur, Zeitschriften, wie den Economist lesen, Qualitätszeitung lesen; das soll es sein, für beide Fächer, Recht und VWL, die Schüler sollen sich nachher bewusst mit diesen Themen beschäftigen können.” (T2, A4)

5.2. What are practitioners’ conceptions of innovation?

“There are always possibilities for improvement. There is nothing that cannot be improved.”

“Gut, erst mal Verbesserungen in allen Bereichen gibt’s immer. Es gibt nichts was nicht zu verbessern ist.” (T1, G1)

“Innovation definitely is the plurality of methods that I have increased over the years, and that I use with greater awareness.”

“Innovation ist sicher die Methodenvielfalt die ich im Lauf der Jahre vergrößert habe und
“The definition of innovation depends on a teacher’s personality; how he or she approaches teaching and students, and it’s about being open for new things, but without discarding things that have proven successful. Being open to new concepts that are possible in this system is an important point. The most important thing is keeping an open mind.”

“Die Definition von Innovation hängt von der Lehrerpersönlichkeit ab; wie der Lehrer in den Unterricht geht, wie er auf Schüler zugeht, dass er offen bleibt für Neues, wobei Bewährtes nicht über Bord geworfen werden soll. Die Offenheit für neue Konzepte, die in diesem System machbar sind, ist ein wichtiger Punkt. Das Wichtigste ist eine offene Geisteshaltung.” (T3, A5)

“co-operative learning means innovation for me”

“kooperatives offenes Lernen, heißt für mich Innovation” (T1, A2)

“Innovation means adapting to current society. I believe schools are often behind the times.”

“Innovation heißt Anpassung an die aktuelle Gesellschaft. Ich glaube, dass Schule oft hinterherhinkt.” (T2, G4)

“[… an absolutely necessary and continuing process that does not necessarily mean re-inventing the wheel all the time, but […] to probe into my own practice, and to build on and continue the useful approaches I can find there.”

“[… ein unbedingt notwendiger und kontinuierlicher Prozess, der nicht unbedingt darin bestehen muss, ständig das Rad neu zu erfinden, sondern […] meine eigene Praxis zu überprüfen, und dort wo ich positive Ansätze habe, diese weiterführend auszubauen.” (T3, A3)
Innovation takes resources. Those would have to be taken away from something else.”

“Innovation ist Aufwand. Den müsste man an anderer Stelle sein lassen” (T2, G2)

“Being alert to opportunities; keeping one’s eyes open, recognising what useful new things are possible. Understanding innovation as something that happens in schools methodically, didactically, and questioning that critically.”

“Hellhörig zu sein, welche Möglichkeiten es gibt; die Augen offen halten, mitkriegen, was an gutem Neuen möglich ist. Wenn man Innovation als etwas versteht, was methodisch, didaktisch in der Schule passiert, und das auch kritisch untersucht” (T2, G2).

“Society has changed and is subject to constant change, [...] school cannot escape that change, it cannot opt out, [...] we used to be trained for a different world of work than [students are] nowadays. Therefore: innovation [is needed] so that one is prepared to internalise those facts even during teacher training, so that one accepts this even if it is sometimes hard to leave the beaten track; but it’s indispensable.”

“Die Gesellschaft hat sich verändert und ist einem permanenten Wandel unterworfen, [...] die Schule kann sich dem Wandel nicht entziehen, kann sich nicht ausklinken [...] wir sind auf eine andere Arbeitswelt vorbereitet worden, als heute. Deswegen: [...] Innovation, damit man sich auch in der Ausbildung auf diese Gegebenheiten einlässt, und es zulässt, auch wenn es manchmal schwer fällt, den Trampelpfad zu verlassen, aber es ist unabdingbar.” (T2, A2)

“One is always confronted with different students, different generations. There was no such thing as an iPhone generation when I became a teacher, there was no iPhone in the classroom to compete with for attention.”

“Man ist immer mit anderen Schülern konfrontiert; immer mit anderen Generationen. Die iPhone Generation, das gab’s am Anfang meines Lehrerdaseins nicht, da gab’s kein iPhone als Konkurrenten im Unterricht.” (T2, A4)
“First of all, it has to work. If something does not chime well with students, then it may be a nice theoretical construct, but it does not work, so that is neither innovation nor pedagogy. So, the interaction between the added benefit and traditional ways, that’s what’s innovative.”

“Erstmal muss sie funktionieren. Wenn etwas bei den Schülern nicht ankommt, dann habe ich ein schönes theoretisches Konstrukt, aber das funktioniert nicht, das ist keine Innovation und keine Pädagogik. Also die Wechselwirkung mit dem Mehrgewinn über das Tradierte, das ist innovativ.” (T3, G1)

“[…] and so it looks like that school is incredibly innovative, but I keep suspecting that it’s a lot of hot air, that a lot of paper is being produced only to rot somewhere.”

“[…] und das sieht dann so aus als ob diese Schule unglaublich innovativ ist, aber ich habe immer wieder den Verdacht, dass da viel Schaumschlägerei dabei ist, dass Papier produziert wird, und dann verrottet.” (T3, G4)

“That’s the great problem with innovation; one loses the focus on what’s important, and it becomes an end in itself. It’s done because everyone else does it.”

“Das ist die große Gefahr der Innovation; man verliert den Blick für das Wesentliche, und sie wird zum Selbstzweck. Man macht das, weil es alle anderen auch machen” (T2, A2)

“Innovation always comes with a risk of failure, so it’s hard when there is a strict plan, and a lot of time pressure; and as a result of external exams one is always afraid that one hasn’t prepared [students] well.”

“Innovation bedeutet ja auch immer das Risiko des Scheiterns mit dabei zu haben, und das ist eben schwer wenn man so einen strengen Plan hat, dass man zeitlich so unter Druck ist, und durch zentrale Prüfungen hat man dann auch immer Angst, dass ich dann nicht richtig vorbereitet habe.” (T1, G2)
“[Question:] In some cases in England, innovation is seen solely as synonymous with the introduction of new technologies. [interviewee:] [surprised] Oh really? Oh, well, I didn’t think … I wouldn’t have thought of that at all.”

“Q: In England wird Innovation manchmal ausschließlich synonym mit der Einführung moderner Technologien gesehen. A: [überrascht] Ach so! Ach ok, das habe ich gar nicht so … darauf wäre ich jetzt gar nicht gekommen! “ (T1, G2)

“I am not sure I can answer this self-reflexively. I have trouble answering those questions, to be honest. I have never thought intensively and deeply about those terms, so I can only answer intuitively. So it has less to do with pedagogic aims; for me, innovation means laying the groundwork for achieving the aims that are laid out in terms of desired educational goals.”

“Ich weiß nicht, ob ich das jetzt für mich selbstreflexiv beantworten kann. Ich habe Schwierigkeiten, diese Fragen zu beantworten, das sage ich ganz ehrlich. Da ich mich noch nie intensiv und tief mit dieser Begrifflichkeit auseinandergesetzt habe kann ich nur aus dem Bauch antworten. Das hat vielleicht weniger mit der pädagogischen Zielrichtung zu tun. Innovation ist für mich, die Grundlagen zu schaffen, dass das was an Bildungszielen vorgegeben ist, erreicht werden kann.“ (T2, G1)

“basically teachers are free in their teaching; whether one uses that in order to innovate is a different question, but theoretically – and that’s what I enjoy about being a teacher – nobody interferes with what you are doing.”

“eigentlich hat der Lehrer im Unterricht Freiheit; ob das jemand zur Innovation nutzt ist die andere Frage, aber theoretisch – und das ist es was ich am Leherdasein geniesse – redet einem eigentlich selten jemand drein.” (T1, A1)

“that’s the point about innovation: your attitude towards students; that’s what comes through in my teaching. Of course you can always innovate new methods, but that’s not what’s important, if there is no heart in it.”
“das ist der Innovationsknackpunkt: die Einstellung zum Schüler; das drückt sich in meinem Unterricht aus. Natürlich kann man immer methodische Innovationen vornehmen aber das ist nicht das Essentielle wenn das Herz nicht mitspielt.” (T1, A4)

5.3. Who are the relevant actors in the operationalisation innovative change?

“Theoretically the work groups and subject teams should meet regularly; in practice that works better in some cases than in others […] The German teachers meet in the smokers’ room.”

“Theoretisch sollten sich auch die Arbeitsgruppen und Fachgruppen regelmäßig treffen; praktisch funktioniert das bei einigen besser als bei anderen. […] [Die Lehrer des Faches] Deutsch trifft sich im Raucherzimmer.” (T1, A1)

“I close the door, and I am king. That’s how it is. Definitely.”

“Ich mache die Tür zu, und bin König. Es ist so. Es ist definitiv so.” (T2, G4)

“I believe that the most successful innovations rather come from colleagues, from the bottom. They often get disseminated by chance.”

“Ansonsten glaube ich dass die erfolgreichsten Innovationen eher von den Kollegen, von unten kommen. Die werden oft durch Zufälle reingetragen” (T4, G3)

“I know that it’s possible to communicate requests from the staff to the administration […] those are the most effective ones, because we can see what’s needed.”

“Ich weiß, dass es hier möglich ist, Wünsche aus dem Kollegium heraus an die Schulleitung zu tragen. […] Das sind die effektivsten, weil wir ja sehen was ist der Bedarf, […]” (T2, G1)

“[…] by way of mutual cross-fertilisation, exchange of ideas, talking about things, communication within the core team, or subject team, that’s the most important element. Talking about subject matter, contributing new ideas, that comes from talking to each
“We have this saying: despite the administration we teach well, despite being in this strict corset [...] it’s an immense [effort for] all this coordination, but we do it nonetheless.”

“Wir haben da so einen Spruch: Trotz Administration machen wir guten Unterricht, obwohl wir in diesem engen Korsett leben [...] Das ist immens [der Aufwand für] diese ganzen Absprachen aber wir machen es trotzdem.” (T3, G3)

“We have a middle management of sorts at this school – that’s unusual [in Austria] [...] A team of five to six teachers together with the principal, that steer a bit.”

“Wir haben bei uns an der Schule eine Art mittleres Management – das ist nicht üblich. [...] Eine Gruppe von 5-6 Lehrern neben dem Direktor die ein bisschen steuern” (T3, A1)

“I think teachers don’t sufficiently see themselves as a team [...] in my school I can hardly find a place ot sit down [and work]; how can I feel comfortable there, and get work done?”

“Ich glaube Lehrer verstehen sich viel zu wenig als Team; [...] in der Schule finde ich kaum einen Platz wo man sitzen kann; wie soll ich mich da wohlfühlen und etwas arbeiten?” (T1, A4)

“We are very lucky in that our school leadership always creates opportunities, and I always volunteer for that sort of thing.”

“We haben das große Glück, dass diese Schulleitung uns immer wieder Möglichkeiten schafft, und ich schreie immer ’Ja’ bei so was.” (T3, G3)

“Our principal is very keen on innovations, and active, frequently to the chagrin of
“Unser Direktor ist sehr innovationsfreudig und aktiv, oft zum Leidwesen der Lehrer.” (T1, A1)

“[…] it depends on the colleagues and school management; but really mainly on the colleagues. If the management wants something, but the staff say we don’t want that, it’s very hard for management.”

“[…] es liegt an den Kollegen und an der Schulleitung; aber eigentlich vor allem an den Kollegen. Wenn die Schulleitung das will, aber die Kollegen sagen, ‘das will ich nicht’, dann tut sich die Leitung schwer.” (T1, A2)

“I don’t feel influenced from the outside – quality management and similar things – at all, because the things I want to do simply cannot be captured in numbers or data. If at all, it would be by its success, if there were standards, and if they asked particular questions in final exams, then that would perhaps influence me, because I would of course do more teaching to the test. So it would influence me negatively.”

“Von Außen, beeinflusst durch QM und dergleichen, fühle ich mich überhaupt nicht, weil das was ich tun will einfach nicht in Zahlen und Daten packbar ist. Höchstens der Erfolg dessen, wenn man Standards macht, und Maturanten bestimmte Fragen stellt, dann würde mich das vielleicht beeinflussen, indem ich mehr teaching to the test mache, natürlich. Das würde mich aber negativ beeinflussen.” (T2, A4)

“Little, I would say.”

“Wenig, würde ich sagen” (Vice Principal, G3)

“As a measurement device we have so-called external evaluations [...] and for that, for example, schools pushed through a decision in its first phase that we would not receive the reports from that evaluation. So those only went to schools, and schools are then mandated to write their own report to us, about their results.”
“Dann haben wir als Überprüfungsinstrument die sogenannte externe Evaluation, [...] und
da haben die Schulen zum Beispiel damals in der ersten Phase durchgesetzt, dass wir auch
den Bericht der externen Evaluation nicht bekommen. Die gingen also nur an die Schulen,
und die Schule ist verpflichtet, einen Bericht abzugeben, über die Ergebnisse.” (A – State
VET Council)

“Where do new impulses come from? Most significantly from my experience in the
classroom, where I constantly try to reflect on what I’ve done, what effect it has had, and
how I could change it in such a way that it gets even better.”

“Woher kommen neue Anstöße? Am stärksten aus der Erfahrung aus dem Unterricht, wo
ich versuche ständig zu reflektieren, was ich gemacht habe, was es gebracht hat, und wie
ich es so ändern kann, dass es noch besser wird.” (T2, A5)

5.4. What role do practitioners’ self-perceptions and notions of professionalism play in the
implementation of innovative change?

“Personally, I am intrinsically motivated, because that’s the best sort of motivation [...] that
works through my own interest. Perhaps also because I feel responsible towards my
students.”

“[Ich bin] persönlich intrinsisch motiviert, weil das die beste Motivation ist, [...] das
funktioniert durch das Eigeninteresse. Vielleicht auch aus Verantwortungsgefühl den
Schülern gegenüber” (T2, G1)

“A really small proportion says: ‘I am getting my [...] salary each month, and nice
retirement benefits when I’m done here, so now I just have to get it over with.’ That sort of
thing happens in the rarest of cases.”

“Ein wirklich geringer Teil sagt: ich kriege monatlich meine A13 Bezüge, und eine feine
Pension wenn ich fertig bin, jetzt muss ich nur noch sehen, dass ich das überstehe. Das
passiert in den seltensten Fällen” (T2, G2)
“[...] sometimes it drove me insane, how persistently some teachers tried to avoid this, and on top of it all they kept whining about how there’s always something new!”

“[...] das hat mich fast manchmal wahnsinnig gemacht, wie lang sich manche Lehrer da gedrückt haben, und die haben dann auch noch gejammert ‘schon wieder was neues, und schon wieder!’” (T3, A3)

“We have many colleagues who were very diligent and ready to do things, but now they are simply at their limit, overworked, or used up.”

“Wir haben viele Kollegen die sehr fleißig und bereit waren, die aber einfach ausgelastet, überlastet oder verschlissen sind” (T4, G2)

“There is a lot to do at home; corrections, CPD, and work really never ends, you are always dealing with school issues. That is the downfall of many teachers, they get sick from it, they burn out, and they are eaten up by problems, they can’t switch off, [...]”

“Es gibt schon sehr viel zuhause, Korrekturen und Fortbildungen, und der Beruf hört eigentlich nie auf, man ist immer mit der Schule beschäftigt. Daran scheitern auch viele Lehrer, das macht viele auch krank, treibt sie in den Burnout, dass sie die Probleme auffressen, dass sie nicht abschalten können, [...]” (T2, G4)

“At this age they definitely still need Erziehung; you can’t do that like you would at university, and reduce it all to saying that I am only there to impart knowledge [...]”

“In diesem Alter brauche ich die Erziehung noch ganz gewaltig; man kann das nicht wie auf der Uni machen und es reduzieren auf ‘ich bin nur zur Wissensvermittlung da’ [...]” (T2, A2)

“It’s good to have this liberty and enjoy that trust [...] if I had to explain myself, what I am doing in each lesson, I would quit my job.”

“Das ist schön, diese Freiheit und das Vertrauen zu haben, [...] Wenn ich da groß
Rechenschaft ablegen müsste, was ich in jeder Stunde mache, ich würde’s nicht mehr machen” (T2, G1)

“[I] have become really disillusioned in recent years, because Austrian teachers [...] are generally not very keen on innovation. That’s for well-known reasons, that self-image of being a lone fighter, ‘I close the [classroom] door behind me, and can do whatever I want in there’.”

“[Ich] bin im Laufe der letzten Jahre sehr desillusioniert worden, weil die österreichischen Lehrer [...] sind [...] generell nicht so innovationsfreudig. Eben aus den bekannten Gründen, aus diesem Selbstbild als Einzelkämpfer, ich mach die Tür zu, ich kann in der Klasse machen was ich will.” (T3, A1)

“If I actually did everything I am supposed to do, I would spend a lot of time on bureaucracy [...]. As long as my line manager doesn’t ask specifically, and doesn’t come after me, I’m happy to take the risk, that I don’t so something and later on they tell me I should have done it for insurance reasons, for example. I am taking that risk. Particularly teaching physical education there is always criminal liability, but personally I can estimate that risk better than some form to fill in.”

“Wenn man alles das macht was man machen müsste, würde ich sehr viel Zeit für Bürokratie, [...] aufwenden. [...] Wenn mein Vorgesetzter nicht nachfragt oder mir da hinterherrennt, dann riskier ich das, dass ich mal was nicht mache, und hinterher gesagt kriege, das hätten sie doch aus versicherungstechnischen Gründen machen müssen, das Riskio geh ich ein. Da stehe ich gerade im Sportunterricht immer im Gefängnis, aber das kann ich persönlich besser einschätzen, als so ein Zettel.” (T2, G1)

“We can’t start by changing a rule in order to try things out. Together with colleagues in a team, I have shown conclusively in a large project that breaking particular rules in certain ways can make sense, in order to point out their absurdity. You can see what’s important, and if a rule does not provide that space, we demand a regulatory change. In some such
cases that gets green lighted by decision makers [...]”

“Wir können nicht vorher eine Regel ändern, um dann zu probieren. Ich habe aber schon mal in einem größeren Projekt nachgewiesen, mit den Kollegen im Team, dass eine Regelüberschreitung in bestimmte Richtungen sinnvoll ist, und damit eine Regel als absurd nachgewiesen: ihr seht doch, das und das ist wichtig, die Regel lässt uns aber den Raum nicht, ich möchte, dass das legalisiert wird. Dann kommt teilweise von Entscheidungsträgern auch das grüne Licht, [...]” (T4, G2)

“It’s always a balancing act, because colleagues get annoyed, too, [by under-performing staff] and then they raise questions: can’t you do anything about this, can’t you take care of this? And I have to reply: there is no way to clamp down on it, except maybe a few things that are not so nice, like ordering someone to come to work earlier, or allocating them to classes they don’t prefer, but those are just pinpricks that don’t have big consequences.”

“Es ist immer eine Gratwanderung, weil das ja auch die Kollegen nervt, und dann kommen die Fragen: was kann man da machen, warum greift man nicht durch? Und da muss man sagen: es gibt keine Durchgreifmöglichkeit, außer ein paar Unnettigkeiten, wie jemanden früher kommen lassen, der eigentlich später kommen will, oder dem andere Klassen geben, also diese kleinen Nadelstiche, aber es hat keine große Konsequenz.” (B – State VET Council)

“Colleagues that are not interested, or hardly work in teams, are left alone. They remain in their job, but aren’t forced to do anything that they don’t want.”

“Kollegen die kein Interesse haben, oder zum Beispiel kaum im Team arbeiten, die werden in Ruhe gelassen. Sie sind weiterhin Lehrer, werden aber nicht gezwungen irgendwas durchzuführen was gegen ihren Willen ist.” (T1, A3)

“Yes, that’s in their heads, but it’s not that they don’t want to do things; rather, they don’t understand new opportunities.”
“Ja, das ist in den Köpfen, aber nicht nicht-Wollen, sondern ein Unverständnis von neuen Chancen.” (T3, G1)

“[…] we are academics, with the ability to reflect anew on things, that is, it’s not about prescribing things that may then remain fixed for a while simply because they are fashionable at the time.”

“[…] wir sind ja Akademiker, die die Möglichkeit haben, Dinge auch immer wieder neu zu reflektieren, also [wo man] nicht nur Dinge vorgibt, die dann halt eine Zeit lang halten, weil das ja vielleicht gerade modisch wäre” (T3, A4)

“There is no need to compile the same exercise sheet time and time again […] it’s all there, after all! Therefore I advocate platforms where everyone shares their materials. That would just require some structure.”

“Man braucht ja nicht zum tausendsten mal eine eigene neue Schularbeit zusammenstellen […]. Es ist ja alles vorhanden! Da wäre ich für Plattformen, wo jeder seine Sachen zur Verfügung stellt. Das bräuchte halt eine Struktur.” (T1, A2)

“We are both members of examination boards that also affect those students, so we would not forgive ourselves if we didn’t try everything we can to get those students to the point where we can honestly say they have earned their professional qualifications.”

“We sitzen beide in Prüfungsausschüssen, die auch diese Schüler betreffen, und wir würden es uns nicht verzeihen, wenn wir nicht alles Menschenmögliche, auch Lehrermögliche getan hätten, um die Schüler so weit zu bekommen, dass wir guten Gewissens sagen können, sie haben eine Gesellenprüfung oder einen Facharbeiterbrief erworben.” (T3, G1)

“That has the advantage that people who want to teach law and economics think hard about whether they really want to be a teacher, because at this point they’ve had five years of being settled down in a job.”
“Das hat auch den Vorteil, dass jene Leute, die Recht- und VWL Lehrer werden wollen es sich genau überlegen, ob sie wirklich Lehrer sein wollen, weil sie dann ja schon 5 Jahre in einem Job gesetzt sind.” (T2, A4)

“Studying to be a teacher is catastrophic in vocational subjects [...] in addition, the mandatory internship is lacking in quality, or even insufficient. [...] I have experienced it that way, and have heard the same from many others. If you have a good teacher as an instructor for your internship, it’s all great.”

“Das Studium ist eine Katastrophe für Berufsschullehrer [...] plus das Referendiat mangelhaft bis ungenügend. [...] Ich hab das so erlebt und von anderen Leuten auch so gehört. Wenn man einen guten Lehrer im Referendiat hat, ist alles super.” (T3, G3)

“Teachers are not trained to be innovators. I can answer that with a definite ‘no’. There is no training [for this]; rather, it’s the initiative of individuals who say: I’ll try this.”

“Lehrer werden nicht zu Innovatoren ausgebildet. Das kann ich mit einem definitiven Nein beantworten. Eine Ausbildung erfolgt nicht; das ist eher Engangement des Einzelnen, der sagt, das probiere ich jetzt.” (T2, A2)

“every teacher who is an academic wants to develop professionally, does not want to remain stagnant; it would be incompatible with being an academic, in my opinion, and from what I see from colleagues, not to continue training.”

“jeder Lehrer der Akademiker ist, der will sich fortbilden, der will nicht am gleichen Stand blieben; das ist mit dem Akademikerdasein soweit ich glaube, und auch an Kollegen sehe und spüre, unvereinbar, sich nicht selbst fortzubilden. Der Akademiker ist in der Lage, sich selber fortzubilden” (T2, A4)

“Possibly some colleagues don’t see this structure, but it’s there.”

“Das mag in der Wahrnehmung mancher Kollegen nicht so strukturiert sein, aber es ist so strukturiert.” (T3, Team Leader for Economics, A4)
“That’s the point: if I am not interested as a teacher, I won’t do anything. [Question: A teacher is not compelled to attend particular training sessions?] No.”

“Das ist der Punkt: wenn ich mich als Lehrer dafür nicht interessiere, mache ich da gar nichts. [Frage: Ein Lehrer ist also nicht gezwungen, bestimmte Fortbildungen zu machen?] Nein.” (T4, G3)

5.5. How do practitioners perceive changes in students and societal expectations in relation to innovation processes?

“Students used to be able to listen more; today they hardly have that ability because of overstimulation.”

“Früher haben Schüler eher zuhören können; heute können Schüler kaum mehr zuhören, weil diese Reizüberflutung einfach zu viel ist.” (T2, A2)

“If you are not keeping up as a teacher when students have access to Wikipedia and the internet on their mobile phones, then students will get on to you, they will discover your weakness, and you will immediately lose their respect. With the loss of respect, all ability to teach, all joy in your profession, is lost.”

“Wenn die Schüler am Handy Wikipedia und Internet haben, und man als Lehrer nicht am Stand der Zeit ist, dann werden einen die Schüler auf die Spur kommen, sie werden das entdecken, und man wird augenblicklich den Respekt der Schüler verlieren. Mit dem Verlust des Respekts ist jegliche Fähigkeit zu unterrichten, jegliche Freude an dem Beruf, weg.” (T1, A4)

“In general the educational task has changed. Students come with different prerequisites, different prior education. The problem of deviance is substantial, and this whole construct of higher expectations [of students]; society changes, and students have a much bigger problem meeting expectations.”

“Es hat sich ja auch insgesamt der Erziehungsauftrag geändert. Die Schüler kommen ja mit
“Students have not become more stupid [...] but support from families has changed, it’s not like it once was. With all those simultaneous influences on students that they can’t process, that’s a challenge for us as pedagogues [...] to make them learn to see what’s important.”

“Die Schüler sind nicht dümmer geworden [...] auch die Unterstützung in der Familie hat sich geändert, sie bekommen nicht mehr die Unterstützung wie früher. Diese vielen Einflüsse die Schüler gleichzeitig bekommen und nicht verarbeiten können, da sind wir Pädagogen eigentlich auch gefragt, [...] dass sie lernen, den Blick auf das Wesentliche zu richten [...]” (T2, A5)

“Schools face the problem of falling student numbers. Innovation is often motivated by the question of how to market it. [...] I think that’s where I see a deficit; it should be about the students, what helps students? After all that’s my primary task. But then there are those school rankings in glossy magazines, and I see a danger in how this is evaluated. There is for example a primary school where all students get iPads. Why? Because that’s so marketable.”

“Das Problem der Schulen ist [dass] die Schülerzahlen zurückgehen. Die Motivation für Innovation ist oft: wie kann ich’s verkaufen? [...] Ich denke, das geht mir ab, letztendlich geht’s um den Schüler, was bring dem Schüler was? Das ist ja meine ureigenste Aufgabe. Da gibt es dann diese Schul-Rankings in Hochglanzillustrierten, und ich sehe da eine große Gefahr, wie das überhaupt beurteilt wird. Da gibt’s jetzt zb eine Volksschule die haben alle iPads. Warum? Weil sich das so toll verkaufen lässt.” (T2, A2)

“[...] I think more and more students go on to university; I can only speculate about the reasons; [...] However, the focus is still: students can directly enter the workplace after this
“[...] Ich glaube, dass immer mehr Schüler studieren gehen; die Gründe kann ich nur vermuten; [...] Aber noch immer ist der Fokus: man kann direkt danach ins Berufsleben einsteigen” (T3, A1)

“I don’t fully agree with this hypothesis. Certain required competencies have certainly declined over the years; however, there are other skills. Moreover, that’s very specific to the type of subject area.”

“Ich würde der These nicht voll zustimmen. Bestimmte notwenige Kompetenzen sind über den Vergleich über die Jahre hinweg sicherlich in geringerem Maße anzutreffen; aber dafür sind andere Fähigkeiten vorhanden. Außerdem ist das sehr bildungsgangsspezifisch.” (T1, G3)

“[...] for HAS the target group has changed massively over the last ten years. We have a strong increase in youths from immigrant families. We can’t act like this type of college has to meet exactly the same requirements as it did ten years ago. Therefore one has to consider how to develop the product further in this situation.”

“[...] bei der HAS: da hat sich die Zielgruppe in den letzten 10 Jahren massiv verändert. Wir haben einen starken Zuwachs an Migranten-Jugendlichen. Wir können nicht so tun als müsste unser Schultyp genau die gleichen Voraussetzungen erfüllen, die er vor 10 Jahren erfüllen musste. Dementsprechend muss man sich in dieser Situation auch überlegen, wie das Produkt weiterentwickelt werden muss.” (T3, A4)

“There is a marked gap between HAK and HAS. The HAS has turned into a problem area, because there are fewer and fewer students that meet the requirements; that’s not purely a problem of immigration. It varies in Austria according to geographic location.”

“Der Split zwischen HAK und HAS ist ganz klar. Die HAS ist ein Problembereich geworden, weil dort immer weniger Schüler kommen die die entsprechenden Voraussetzungen bringen; das ist nicht nur ein Migrantenproblem, aber auch. Das variiert in Österreich je
“By now the language problems are universal, including with non-immigrant Germans. [There are problems] with falling literacy, that can affect vocational training massively ... if one can’t read technical instructions.”

“Die Sprachprobleme haben wir mittlerweile überall, aber auch bei Deutschen. [Da existieren Probleme] mit den zunehmend geringeren schriftsprachlichen Kenntnissen, die dann eine Berufsausbildung massiv tangieren ... wenn jemand kein technisches Merkblatt lesen kann.” (T1, G3)

“One can see families break up, and students with lots of problems that they take to school with them. We need a lot of social work and advice-giving; students are very distracted from school.”

“Es ist zu beobachten, dass Familien zerbrechen und Schüler sehr viele Probleme haben, und die auch in die Schule hereinragen. Wir brauchen sehr viel Sozialarbeit und Beratung; die Schüler sind von Schule sehr abgelenkt” (T2, G4)

“Something that will hit us even more [...] is the shift within the young generation towards school classes that have practically no native German speakers, where almost everybody has a background in immigration.”

“Was uns noch trifft, und auch schon zutrifft, [...], ist die Verschiebung innerhalb der Population der Jugendlichen, zunehmend zu Klassen wo fast keine ursprünglich Deutschen drinnen sind, wo die Schüler fast alle Migrationshintergrund haben.” (State VET Council)

Chapter 6

6.1.1. Peer Collaborative Work

“Co-operative open learning means innovation for me [...] the teacher acts more like a coach, doesn’t stand in front of the class any more, out there, and lectures [...] I like this
better, especially the ability to individually address students.”

“Kooperatives offenes lernen, heißt für mich Innovation, [...] der Lehrer ist eher Coach, steht nicht mehr vorne, draußen, und macht Frontalunterricht, [...] das gefällt mir auch besser; vor allem kann man individuell auf einzelne Schüler eingehen.” (T1, A2)

“[students are] now required to get organised, think about individual steps [...] that’s particularly important in shaping this: think first, then do! That’s the aim I have in mind: self-organisation.”

“[speaking of students:] ich muss mich jetzt selber organisieren, muss mir Arbeitsschritte überlegen [...] Das ist in der Gestaltung ganz wichtig: erst denken, dann machen! Das ist so das Ziel, das ich daran sehe. Selbstorganisation.” (T2, G2)

6.1.2. Play and Fun Activities

“[...] games that teach them that it’s impossible to concentrate when everybody is talking over each other [...] so that they simply experience this, and then reflect on it with me.”

“[...] Spiele, wo sie lernen, dass man sich nicht konzentrieren kann, wenn alle durcheinander reden. [...] damit sie einfach mal die Erfahrung haben und das mit mir zusammen reflektieren.” (T2, G6)

6.1.3. Improved Interaction with Teachers

“There are step-by-step aids that enable them to self-help [...] for every task there is a complete solution, but in small steps [...] and if they can’t proceed at all, I’ll be there of course. So I have the opportunity to always be there at exactly the point a student is stuck at.”

“Dann gibt es gestufte Hilfen mit denen sie sich selbst helfen können. [...] Zu jeder Aufgabe gibt es den Lösungsweg, aber häppchenweise. [...] Wenn sie gar nicht weiter kommen, bin ich natürlich da. Da hab ich die Möglichkeit, dort immer sofort zur Hilfe zu stehen wo ein Schüler in dem Moment auch hängt.” (T2, G6)
“I believe in pedagogies that encourage [Ermutigungspädagogik]. I believe that students are ready to do so many things if they are only encouraged, and if their achievements are valued. That also has to do with personal chemistry and social competence.”

“Ich vertrete den Ansatz der Ermutigungspädagogik. Ich denke, dass Schüler bereit sind, sehr viel zu machen, wenn man sie dazu ermutigt, und ihren Leistungen Wertschätzung entgegenbringt. Das hat auch mit persönlicher Chemie und Sozialkompetenz zu tun.” (T3, A3)

6.1.5. Focus on Relevance

“We do something in the classroom, and then proceed to practice in reality. For example, taking blood pressure. [Researcher: with real patients?] Yes, in retirement homes or in the context of nursing training, not just for practice. [Researcher: Although this isn’t the dual system, i.e. the students are not employed there; it’s organised by the college?] Yes, exactly. It’s an additional thing.”

“Wir nehmen im Unterricht was durch, und dann soll das nachher in der Praxis geübt werden. Z.B. Blutdruck messen. [Interviewer: An tatsächlichen Patienten?] Ja, in Altenheimen oder Pflegeausbildungen, nicht nur Übung. [Interviewer: Obwohl das ja nicht duales System ist, dh die Schüler sind dort nicht angestellt sondern das wird von der Schule aus organisiert?] Ja, genau, zusätzlich.” (T1, G3)

“Many [students] do two or three longish stays abroad within their five years here. Half a year or a year in America, then three to four months in a French speaking country, and then individual stuff, as well as foreign travels for language learning classes as part of our school trips.”

“Viele haben zum Teil zwei bis drei längere Aufenthalte während der 5 Jahre absolviert. Ein halbes Jahr oder ein Jahr in Amerika, dann 3-4 Monate Praxis in einem frankophonem Land, und dann individuelle Sachen, Sprachreisen im Rahmen der Klasse.” (T2, A6)
6.1.6. Improved Communication and Access to Information

“We used to have a website where one could publish [course] materials, and some colleagues did that, but it wasn’t very well received overall. In the end, people didn’t put much on there, because it was too much additional effort.”

“Wir hatten zwar mal eine Website wo man auch Inhalte draufstellen konnte, das haben einige Kollegen auch gemacht, aber das ist nicht so richtig angenommen worden. Also da haben die Kollegen die nicht so viel reingestellt, weil das war dann doch ein zusätzlicher Aufwand” (T1, G5)

6.1.7. Encouragement Through Presentation

“Every other year I organise a trade fair of mock companies at our school, where students can buy their products, and teachers assess and certify them. It’s going to be big this year; there will be four or five classes of foreign students coming here to exhibit there as well.”

“Ich organisiere jedes zweite Jahr eine schulinterne Haus-Übungsfirmen-Messe, wo alle Schüler des Hauses einkaufen können, und andere Lehrer zertifizieren das. Heuer wird’s ganz groß, da kommen auch 4-5 Klassen aus dem Ausland und stellen bei uns aus.” (T1, A3)

“Students undertake independent projects, with financial planning, sponsorship, […] Two weeks ago the Turkish girls of this class, with a few German guys, organised a Turkish cultural festival, with a visit to a mosque, and meals, dancing performances and for participants, and a music show.”

“Da führen die Schüler selbständig Projekte durch, mit Finanzplanung, Sponsoren. […] Jetzt war vor 2 Wochen von den türkischen Mädchen dieser Klasse, mit ein paar deutschen Jungs, ein türkisches Kulturfest, das sie organisiert haben, mit Moscheeführung, Essen, Tanz zum teilnehmen und als Vorführung, musikalische Darbietungen.” (T1, G4)

6.1.8. Multi-Sensory Approaches and Learning Styles

“A simple test of learning types is just possible, and not without merits [but addressing learning types] would be a good thing, and would be very innovative, but in my view
that’s too much; we can’t do that.”

“So ein einfacher Lerntypentest ist noch machbar, und gar nicht unsinnig, [aber Lerntypen individuell anzusprechen] das ist eine tolle Sache, wäre sehr innovativ, aber in meinen Augen zuviel, das schaffen wir nicht.” (T4, G1)

“To visualise the three pillars of the EU administration – better than, and without Powerpoint – I take three rolls of toilet paper, and write on them what they symbolise while I talk. Then I put a little roof on them, … that’s the construct of the EU. Then comes the Treaty of Lisbon, and the three pillars are swept off the table. […] That has a lot to do with inspiration.”

“Um die drei Säulen der EU zu visualisieren – besser und abseits von PowerPoint – nehme ich drei Klorollen, schreibe drauf die drei Säulen der EU während ich erzähle, lege dann ein kleines Dach drüber; das ist das Konstrukt der EU. Dann kommt der Vertrag von Lissabon, und die 3 Säulen werden vom Tisch gefegt. […] Das hat viel mit Inspiration zu tun.” (T2, A3)

6.2.1. Improved Course Structure and Information

“Six years ago we applied for a school trial of a modular system, but were rejected [by the local education authority] […] We tried this in an all-encompassing, radical way […] for the entire school, starting at the very beginning: breaking up the system of distinct subjects; modules taught in trimesters [the Austrian education system is usually structured in semesters]; i.e to map out the curriculum in completely different ways.”

“Das Modulsystem wurde vor ca. 6 Jahren als Schulversuch beantragt, wurde aber [von der Schulaufsichtsbehörde] abgelehnt. […] Wir haben das umfassend und radikal versucht, […] für die gesamte Schule von allem Anfang an: Aufbrechen der Fächersystematik; die Module sind trimesterweise, […] Dh den Lehrplan ganz anders abzbilden.” (T2-Principal, A1)

“We spent five years on developing the model [with academic backing by a university] […] This stream has additional modules, for example each year there is a project for each class;
[...] we have coaching with students: groups of four to five students are being coached once a week by a teacher, throughout all five years [...] the teachers have all received training as coaches from external advisers, management consultants, etc."


### 6.2.2. Quality Management and Evidence-based Practice

“We have made a commitment to question our teaching by canvassing opinions from students, from colleagues, and by capturing a notion of how courses go about what they do. [...] We developed 40 criteria and indicators. We got the approval of the body of teaching staff, and those are our guidelines for teaching. That’s quite a lot. Sometimes I wonder whether we were over-ambitious when we started.”

“Wir haben die Verpflichtung auf uns genommen, den Unterricht zu hinterfragen, indem wir Meinungen von Schülern einholen, von Kollegen, und die Bildungsgänge in dem, wie sie das ganze angehen, erfassen. [...] Wir haben 40 Kriterien und Indikatoren entwickelt. Dafür haben wir vom Kollegium die Zustimmung geholt, das sind unsere Leitlinien zum Unterricht. Das ist relativ viel. Manchmal denke ich mittlerweile, ob wir das nicht ein Stück zu groß angefangen haben.” (T1 – Deputy Head of School, G1)

“I support capturing the status quo for the entire college through our development initiative, but it needs effective data protection, so that inspection bodies and college leadership only receive the accumulated data for the entire department, rather than that of individual teachers. This data does exist, but it’s only distributed to each colleague individually.”

“Die Bestandsaufnahme für die ganze Schule in [der schulspezifischen Entwicklungsinitiative] finde ich gut, aber tatsächlich so mit Datenschutz versehen, dass die
6.2.3. Improved Teacher Qualifications and Training and Continuing Professional Development

“Quite a bit has changed; nowadays most colleagues don’t see themselves as subject experts only, but also as pedagogues supporting young people to manage all that.”

“Da hat sich einiges verändert; heute sehen sich die meisten Kollegen nicht nur als Fachleute, sondern auch als Pädagogen, die Jugendliche unterstützen, um das auch zu schaffen.” (T3 – Fachbereichsleiter, A3)

“We [at this college] have had a culture of open doors for a long time already; […] it has become normal to just be able to walk into [a colleague’s] class. I don’t think anyone is disturbed by that any more.”

“wir leben schon seit langem eine Kultur der offenen Türen; [...] da hat sich eingebürgert, dass man einfach reingehen kann. Ich glaube das stört niemanden mehr” (T1, A6)

“We work a lot with the Birkenbihl methodology: networked thinking, brain-friendly learning; my colleagues and I visited training seminars with Vera Birkenbihl, and we continue to work with her. Our school textbooks are based on this.”

“Wir arbeiten viel mit Birkenbihl-Methoden: vernetztes Denken, gehirngerechtes Lernen; ich und Kollegen waren auf Seminaren von Vera Birkenbihl, und arbeiten weiterhin mit ihr zusammen. Unsere Schulbücher sind auf dieser Basis.” (T1, A5)

6.2.4. Improved School Environment and Atmosphere

“The purpose of the journey was to create enthusiasm for the EU, an awareness of Europe. It started with an article in the Economist reporting that research had shown that people
knew little about the EU, and would not make much use of additional information, even when it’s presented to them. That is, they know little, and want to know even less. [...] So the journey to Brussels is the current state of my ongoing effort of getting Europe into the heads of students.”

“Sinn der Reise war Begeisterung für die EU, ein Europabewusstsein zu schaffen. Anstoß war ein Economist Artikel, in dem berichtet wurde, dass eine Untersuchung ergeben hätte, dass die Leute über die EU sehr wenig wissen, und selbst wenn sie mehr Info-Angebot hätten, dieses nicht in Anspruch nehmen würden. D.h. sie wissen wenig, und wollen noch weniger wissen. [...] Die Reise nach Brüssel ist der derzeitige Letztstand meines Versuches, Europa in die Köpfe der Schüler zu bringen.” (T2, A3)

“That comes from the practical subjects. One thing is clear there: at half past twelve, lunch for 200 people must be served [...] and when we do practical work [outside], at the Ministry, or at Austria Center [a conference centre], everyone has to be ready. [...] That also transfers to academic subjects, and we can make good use of this effect.”

“Das liegt an den Praxisfächern. Da ist klar: um halb eins muss das Mittagessen für 200 Leute auf dem Tisch stehen [...] Und wenn wir einen Praxiseinsatz haben, im Ministerium oder im Austria Center, dann müssen alle da sein, [...] Das überträgt sich auch auf die Theoriefächer, das kann man sehr gut nutzen.” (T1, A6)

“We are trying to show consistency: [...] students know very well that only a doctor’s note can excuse any absence. This is a vocational school, so particularly in full-time teaching, we have to be strict about that. In the dual system students know that the company enforces that. If someone working at Mercedes signs up to be taught, but doesn’t turn up, then he’ll run into trouble with Mercedes. In full time, that’s not so, and that’s a pedagogic challenge.”

6.3. Critical Views of Innovation Attempts

“Funnily enough, few things fail, because somehow, some of it will work.”
“Lustigerweise scheitert wenig, weil irgendwie irgendwas davon geht.” (T1, A4)

“A colleague created a biotope in our garden as a project with students. That was great, but the question is: where are the resources to continue the project? Well, that comes out of a teacher’s spare time then. [...] I see that many teachers – particularly at our college where personal engagement is encouraged rather than blocked – do a lot of things based on private resources. That’s why things don’t fail.”

“Eine Kollegin hat ein Biotop im Garten in Projektarbeit gemacht. Das war super, aber die Frage ist, woher kommen die Ressourcen, um das Projekt zu erhalten? Das ist halt dann die Freizeit des Lehrers. [...] Ich sehe, dass viele Lehrer – gerade in unserer Schule, wo persönliches Engagement nicht verhindert sondern gefördert wird – sehr viel aus privaten Ressourcen machen. Deswegen scheitert es eben nicht.” (T2, A5)

“So there is a mandate for practical teaching, and it takes place, but there are no provisions for workshop rooms in this school type. Someone imagined we would do that at the table, on a sheet of paper. That’s not enough for us.”

“Es ist also praktischer Unterricht vorgegeben, es findet fachpraktischer Unterricht statt, aber es sind keine Werkstätten in der Schule vorgesehen. Da stellt man sich vor, das am Tisch auf dem Blatt Papier zu machen, aber das reicht uns nicht aus.” (T2, G1)

6.3.1. Side-Effects of Technology-centred Innovation

“How would I do that in parallel to teaching? [...] That depends on the teacher. Social networks aren’t really used; probably rather by students to communicate with each other.”
“Wie mache ich das parallel zum Unterricht? [...] Das hängt vom Lehrer ab. Social networks werden nicht wirklich verwendet; eher wohl zur Kommunikation unter Schülern.” (T1, A1)

“Many students lose themselves on the net; they surf but can’t filter. [...] Basically one needs a subject like media pedagogics at school: how to handle media, newspapers, the press, TV.”

“Viele Schüler verlieren sich im Netz, surfen viel aber können nicht filtern. [...] Im Grunde müsste es ein Fach wie Medienpädagogik in der Schule geben: der Umgang mit Medien, Zeitung, Presse, Fernsehen.” (T2, G3)

A blackboard can work a thousand times better than a projector, for example because students can’t make sense of all of it when they see the entire picture, rather than seeing it developed on the board.”

“Eine Tafel tut’s 1000 mal besser als der Beamer zb, weil die Schüler das gar nicht so schnell erfassen können wenn sie ein Bild als ganzes sehen, als wenn man das an der Tafel entwickelt.” (T2, A4)

6.3.2. Overly Ambitious Innovation Attempts

“During preparations it was already evident that things were going wrong, and those are problems that are not being addressed by our school leadership. [...] We lack middle management. We have directors of study who comprise the leadership team, but they are colleagues, not leaders; they haven’t grown into that role of leadership. I don’t mean this insultingly, they just never learned it.”

“Schon in der Vorbereitung war abzusehen, dass es schief läuft, und das sind strukturelle Probleme die auch nicht von Schulleitungsseite abgefangen werden. [...] Es fehlt das mittlere Management. Wir haben hier Studiendirektoren, die im Schulleitungsteam sind, aber die sind Kollegen, keine Schulleiter; die haben diese Rolle der Leitung nicht angenommen. Das ist nicht böse gemeint, aber die haben das nicht gelernt.” (T3, G3)
“Several years ago there was a lot of effort put into seminars for all teachers [at this college], aiming to establish particular methodologies at the entire department, so that individual subjects could build on that, with documentation, and cross-subject work. That didn’t work out in the end. I found the seminars good, but I only use those things in small ways. We haven’t managed to transport the methodology to our students, by coordinating among colleagues.”

“Da gab’s vor einigen Jahren sehr aufwändige Fortbildungen für das gesamte Kollegium, die eigentlich zum Ziel hatten, in einem Bildungsgang konsequent bestimmte Methoden einzusetzen, dass die Fächer weiter drauf aufbauen können, mit Lernkarteien, und fächerverbindernder Arbeit. Das hat dann nicht geklappt. Ich fand die Fortbildung trotzdem gut, aber ich setzte das nur im Kleinen ein. Wir haben es nicht geschafft, die Schüler da methodisch so aufzubauen, in Absprache unter den Kollegen.” (T1, G4)

“In the health care sector, there are perhaps two colleges in Germany that really teach according to the learning area concept. That’s across all German states. [Interviewer: I need to make sure I understand this. This is your personal impression? Aren’t there clear statistics?] […] We know from most colleges that the concept is only used by small teams; most of the teachers are not interested. So that’s representative, not just an impression. Even Hamburg, who are really innovative, don’t do it. Well, on paper, yes, but not really.”

“Bei den Gesundheitsberufen gibt’s vielleicht zwei Schulen in Deutschland, die das Lernfeldkonzept auch wirklich unterrichten. Von allen Bundesländern. [Interviewer: Da muss ich nachhaken. Das ist ihr persönlicher Eindruck? Da gibt es keine klare Statistik?] […] von den Schulen wissen wir, dass dort dieses Konzept nur von kleinen Teams umgesetzt wird; die Masse der Lehrer haben daran kein Interesse. Also das ist schon repräsentativ, es ist nicht nur ein Eindruck. Selbst Hamburg, die ja wirklich innovativ sind, machen’s nicht. Auf dem Papier schon, aber eigentlich nicht.” (Germany, fully anonymous per request)

6.3.3. Problematic Aspects of Increased Independence
“It’s not clear that students for whom conventional teaching doesn’t work well would benefit from more liberal teaching. The question is, how do I introduce more commitment into liberal arrangements? That’s where I need to see some improvements.”

“Die Schüler, die vom konventionellen Unterricht nicht so angesprochen werden, dass die vom freien Unterricht so profitieren, das ist auch nicht gesagt. Das Thema ist also, wie führe ich auch in den freien Unterricht mehr Verbindlichkeit ein; da sehe ich noch Handlungsbedarf.” (T1, G2)

“I hold team work as a central principle in high regard, but I don’t do much group work in my own teaching. […] In relation to what’s required by exams, and the amount of time I have to prepare students, it’s a method that’s interesting in principle, but it doesn’t often fit our work styles.”

“Ich halte von Teamarbeit als zentrale Orientierung sehr viel, aber ich mache im Unterricht relativ wenig Gruppenarbeit […]. Gemessen an dem, was die Prüfungen verlangen, und was ich an Zeit zur Verfügung habe, um die Schüler dafür aufzustellen, ist das eine Methode, die grundsätzlich sehr interessant ist, aber selten zu unserem Arbeiten passt.” (T4, G4)

“In my opinion this needs individual assessments of student achievement levels and individual planning for each student: where do we want to go, where is he at? That can’t be done in my view, given current student numbers and staff teaching hours. It’s a question of time resources.”

“Für mich gehört dazu eine individuelle Lernstandsdiagnose und individuelle Planung für jeden Schüler: wo soll es hingehen, wo steht er? Das ist in meinen Augen bei aktuellen Schülerzahlen und Lehrerstunden nicht leistbar. Es ist eine Frage der Zeitressourcen.” (T4, G1)

6.3.4. Innovation-in-name-only

“Because of decreasing student numbers, the innovative motivation for colleges is often:
how can I sell this? [...] Individuals want to be able to say: I’ve done this number of projects, and the school wants to say: we have done this and that. [...] So now there is a primary school, for example, where every student gets an iPad. Why? Because that idea sells so well. That’s the big danger of innovation; one loses sight of what’s important, and it becomes self-serving. It’s done because everyone else does it.”

“Weil die Schülerzahlen zurückgehen ist das Problem der Schulen, dass die Motivation für Innovation oft ist: wie kann ich’s verkaufen? [...] man will sich selber profilieren; ‘ich habe so und so viele Projekte gemacht’, und die Schule will sich profilieren: ‘wir haben das und das gemacht!’ [...] Da gibt’s jetzt zb eine Volksschule die haben alle iPads. Warum? Weil sich das so toll verkaufen lässt. Das ist die große Gefahr der Innovation; man verliert den Blick für das Wesentliche, und sie wird zum Selbstzweck. Man macht das, weil es alle anderen auch machen.” (T2, A2)

“Many things to do with innovation at colleges in recent years were done with loud publicity, and became inflated, and nothing came of it. There were Kopfnoten [grades for achievements other than exam performance] [...] that came in, and went out, within three years. So there are regularly innovations that appear, but don’t make anything easier.”

“Viele Sachen die mit Innovation in der Schule in letzten Jahren zu tun hatten waren mit viel Geschrei verbunden, und wurden aufgeblasen, und vieles hat nichts gebracht. Da waren die Kopfnoten, [...] innerhalb von 3 Jahren rein, und wieder raus. Das sind immer wieder Innovationen die in der Schule auftauchen, und nicht das Leben erleichtern.” (T3, G3)

6.3.5. Side-Effects of Innovation

“It means extra written work for students; that’s difficult for them, and they all resist it, because practical work is what they want, and the other stuff is more of a nuisance to them, because they don’t quite see the purpose behind it; one has to make that more plausible for them.”

“Wobei das dann für die Schüler schriftlichen Aufwand bedeutet; das ist für die Schüler
schwer, das lehnen alle auch ab, weil diese praktische Arbeit ist das was sie wollen, und das andere ist eher lästig für sie, die sehen da den Sinn nicht so richtig, also muss man den irgendwie plausibel machen.” (T1, G2)

“In my own teaching, a certain way of teachers and students being partners has failed. That works well for a while, but somehow there isn’t enough pressure, so the good relations continue, but work ethics and attitudes deteriorate significantly.”

“Gescheitert ist in meinem Unterricht ein gewisser partnerschaftlicher Umgang zwischen Lehrern und Schülern. Das läuft zwar eine Zeit ganz gut, aber irgendwo fehlt dann doch von oben der Druck. Das Verhältnis ist zwar trotzdem gut, aber die Arbeitsmoral und Arbeitshaltung lässt dann deutlich nach.” (T1, G3)

“[...] students aren’t always happy about this permanent professional relevance. They are sometimes quite grateful for other stuff. [...] So it’s not the case that students insist on professional relevance; it’s more strongly given by regulations.”

“[...] dass sich Schüler nicht immer sehr über den permanenten beruflichen Bezug freuen. Sie sind schon auch ganz froh, wenn man mal was anderes macht. [...] Es ist also nicht so, dass die Schüler den Berufsbezug so einfordern; es ist mehr von den Vorgaben her.” (T1, G4)

“That was supposed to be an innovation, in order not to give bad grades to students so they could do better in the job market. [...] The idea was good, but it failed in the end, the learning areas idea, [...] the employer wants to know whether a student can deal with mathematical problems beyond the immediate work context.”

“Das sollte eine Innovation sein, den Schülern damit nichts schlechtes zu bescheinigen, um bessere Chancen am Arbeitsmarkt zu haben. [...] Der Gedanke ist gut, aber der ist letztendlich gescheitert, der Lernfeldgedanke. [...] Der Betrieb will wissen, ob der Schüler über die unmittelbaren Aufgaben hinaus mathematische Zusammenhänge erkennen kann” (T3, G6)
6.3.6. Criticism of External Inspection

“[...] and suddenly everyone worked like crazy [...] we asked ourselves why this stuff was required on paper, digitally, and in whatever other formats. But we filled folders to no end, and didn’t quite understand what for. On the other hand there were rumours that those things aren’t ever read; they are just looking for quantity, rather than quality. That sort of thing really shouldn’t happen!”

“[...] und dann haben plötzlich alle [Lehrer] wie die Wilden gearbeitet. [...] Wir haben uns auch gefragt, warum die das in Papierform, in digitaler Form, und was weiß ich was sonst noch brauchen. Wir haben Ordner gefüllt ohne Ende und haben nicht genau verstanden wofür. Auf der anderen Seite gab es Gerüchte, dass die die Sachen gar nicht lesen, die sehen nur auf die Quantität, nicht die Qualität. Das ist eine Nummer, das geht eigentlich nicht!” (T3, G2)

“We introduced a lesson documentation system and a digital register for presence [...] Yes, Big Brother is watching you. So there is a wholesale suspicion that such things are questionable from a data protection perspective [...] I don’t yet know whether I can push this through; I’m not sure [...] well, certainly I could, of course, because it’s my right to do so, but if I do that I may lose the ability to innovate in other areas, because teachers would say: ok, we’ll only do what’s legally required.”

“Wir haben das Unterrichtsdoku-System und ein elektronisches Anwesenheitssystem für die Schüler eingeführt. [...] Ja, Big Brother is Watching You. Das ist sozusagen eine pauschale Verdächtigung, dass solche Dinge irgendwie datenschutzrechtlich bedenklich seien. [...] Ob ich das durchsetzen kann, weiß ich noch nicht; ich bin nicht sicher [...] naja, ich kann es durchsetzen, logisch, ich habe ja das Recht dazu. Aber durch das geht mir möglicherweise die Innovationskraft an anderen Stellen verloren. Dann sagen die Lehrer: ok, dann machen wir Dienst nach Vorschrift.” (T2 – Head of College, G5)

6.4.1. Innovation Initiated Through External Influences
“That was a strategic decision by the city education council, inspired by the Sir Karl Popper school [...] that is the education council said there should be something in the VET sector that didn’t just give special assistance to weak students, but that would particularly focus on very talented ones. They presented this idea to us, but I don’t know why to us only. I think they picked us because we had worked in that direction, we have many leaders of state-wide working groups among our teachers, and many also teach at universities.”

“Das war eine strategische Entscheidung des Stadtschulrates, inspiriert von der Sir Karl Popper Schule. [...] Das heißt, der Stadtschulrat hat gemeint, es sollte im berufsbildenden Schulwesen etwas geben, das nicht nur die schwächeren Schüler fördert, sondern besonders die Begabten. Das wurde spezifisch uns vorgestellt, aber ich weiß nicht, warum nur uns. Ich denke wir wurden gewählt, weil wir bereits in dieser Richtung gearbeitet haben, es gab bei uns viele ARGE-Leiter, Bundes-ARGE Leiter, und wir haben viele Lehraufträge auf den Unis.” (T4 – QM Manager, A3)

“ [...] every year each class undertakes a project for the entire year. From the second to the fourth year, each student has to individually write an extended essay throughout the year [...] that exceeds the regulatory framework [...] students sign a personal education contract, with aims for the year [...] that is subsequently evaluated and discussed.”

“ [...] jedes Jahr ein Klassenjahresprojekt. Vom zweiten bis zum vierten Jahr müssen die Schüler jedes Jahr eine persönliche Jahresarbeit schreiben. [...] das geht über den gesetzlichen Rahmen hinaus. [...] Die Schüler machen eine persönlichen Bildungsvertrag, mit eignen Jahreszielen, [...] der wird dann evaluiert und besprochen.” (T1, A3)

“The concept was presented, and teachers volunteered to join. So a small team constituted itself in the beginning, in 2000. Now we are 25 to 30 teachers.”

“I definitely spend private time on this. But it gives us the privilege of working with smaller classes.”

“Ich muss definitiv private Zeit dafür aufwenden. Wir haben aber das Privileg, mit kleineren Klassen zu arbeiten.” (T4 – QM Manager, A3)

“I think it stirred things up a bit when I simply said from one year to the next: ok, I am going to teach in English. […] There was no bureaucratic process; I asked the college head informally, and said I’d like to do that. She said: yes, of course, just go ahead and try it. […] I’ve heard from many former students that that helped them a lot.”


“For example, I wrote new textbooks; we wrote new ones for each year of the course, and from my personal point of view, as well as educational researchers who gave me very positive feedback, those books are markedly different.”

“Ich habe z.B. die Schulbücher neu geschrieben; wir haben alle Jahre neu geschrieben, und aus meiner Sicht und der von manchen Bildungsforschern, die freundlicherweise sehr positive Rückmeldungen gegeben haben, sind diese Bücher markant anders.” (T3 – Fachbereichsleiter BWL, A3)

“From my point of view the innovations coming from the education authority are rather careful. We don’t have collisions of different reforms. I know this happens in some German states, where they introduce reforms very quickly when the government changes. That’s not the case here. Every ten years there is a new curriculum, and there are procedures in advance, a formal evaluation, surveys of former students, surveys of employers, and on
that basis it is determined where there are problem areas, and where action is required. Usually they proceed carefully, throughout the country [...] most measures are designed jointly by teachers and school leaders. I was in several meetings, with 60 colleagues, working in groups, and that’s what came out.”


6.4.3. Pedagogic Innovation by Individual Teachers

“there isn’t really any way to exert much pressure if we don’t achieve something. Of course we try to do what’s expected, but if we sabotaged it, I don’t know, as long as we don’t mess up completely, not much would happen.”

“einen Wahnsinns-Druck wenn wir etwas nicht erreichen, kann man da nicht machen. Natürlich versuchen wir, was zu tun, aber wenn wir das hintertreiben würden, weiß ich nicht, solang wir die Kanne nicht ganz gegen die Wand fahren, kommt da nicht viel.” (T1 – stellvertretender Schulleiter, G1)

“No. Not here. […] This [recent] project was not the trigger for us to work in teams. We already did that before. […] The only thing this project does now is to get us to set a particular priority on co-operative learning, and have seminars about it.”

“inspiring each other; exchange ideas, talk about things; communicate within the core
team, and subject teams, that’s the most crucial factor. Talking about content, introducing
new ideas, that comes from talking to each other. [...] As a colleague I am allowed to
contribute in the management of things, and that shows that we are seeing eye to eye with
the organisational layer above us, and that we are working together.”

“durch gegenseitige Befruchtung; austauschen, drüber sprechen, die Kommunikation im
Kernteam, im Fachteam, ist das wichtigste Element. Dass man über Inhalte spricht, neue
Ideen einbringt; das erwächst aus dem Gespräch miteinander. [...] Ich darf als Kollege
mitsteuern, und das zeigt, dass wir auf Augenhöhe gleichberechtigt mit der Ebene über uns
sprechen, und auch zusammen arbeiten.” (T2, G1)

“Together with a colleague I am planning co-operative learning as a complete team-teaching
effort. That is, we are working together closely for the entire week, with a group of students in
an open learning arrangement. [...] there are meetings on Wednesday for all colleagues in the
construction department, that’s voluntary, and I meet once a week with the bricklayers who
we also do team-teaching with, and once with the bricklayers and carpenters to coordinate all
this. I would like to have time credited to my for all this. [...] A pedagogic trial day where we
don’t do some nonsense, but where we plan some real teaching, and think about what models
to build and what we can realistically achieve.”

“Ich plane mit einem Kollegen zusammen kooperatives Lernen als komplettes Teamteaching.
D.h. wir arbeiten die ganze Woche über zu zweit im ganz engen Team mit einer Gruppe im
offenen Lernprozeß von Stunde zu Stunde. [...] es gibt das Mittwochstreffen aller Baukollegen,
das ist freiwillig, ich treffe mich einmal mit den Maurern, wo wir auch im Team arbeiten, wir
treffen uns einmal mit den Maurern und Tischlern, um diese Absprachen zu treffen. Ich hätte
gern Zeit, die mir angerechnet wird dafür [...] einen pädagogischen Tag, wo ich nicht so
einen Quatsch machen muß, sondern wo wir echt Unterricht machen und dann uns zu
überlegen, was für Modelle bauen wir, was können wir umsetzen? [...] (T3, G1)

“In our department, innovation comes from us. From us colleagues. In principle I believe that our school leaders would like to work innovatively; [...] and I believe they do things well. But I do claim that the system of the education authorities is not designed to get us to make improvements. Those that are bad remain bad, and those that are good, remain so.”


“Other than that I believe that the most successful innovations tend to come from colleagues, from the bottom. Often that happens by chance: someone has a child attending another school, and they try something. Or someone tries something privately, and that spreads from class to class, course to course.”

“Ansonsten glaube ich dass die erfolgreichsten Innovationen eher von den Kollegen, von unten kommen. Die werden oft durch Zufälle reingetragen: einer hat ein Kind an einer anderen Schule, und die probieren dort was aus. Oder einer hat privat was ausprobiert, und dann verbreitet sich das von einer Klasse, von einem Bildungsgang zum anderen.” (T4, G1)

“There is no systematic exchange, neither within the college, nor between colleges. Generally, teachers just talk to each other [...] so you get ideas; or just around the table in the teachers’ room – but on an informal basis. Systematic exchange would be nice, but it’s a question of time. And of energy. That sort of thing comes on top of everything else, and colleagues say: well, I want to present this well, do this right, if I have to show this to others, and that takes time.”

“Es gibt keinen systematischen Austausch, weder an unserer Schule, noch über die Schulen hinweg. Man erzählt sich in der Regel [...] da kriegt man das mit, oder eben im
Lehrerzimmer am Tisch – aber auf dieser informellen Ebene. Ein systematischer Austausch wäre sicherlich schön, ist aber eine Zeitfrage. Und eine Energiefrage: das kommt oben drauf, und die Kollegen sagen: 'Naja ich will das ja auch schön darstellen, nicht nur irgendwie, ich will das auch richtig machen, wenn ich das den anderen vorstelle, und das kostet Zeit’. (T4, G1)

“When I work innovatively it has a lot to do with my surroundings. Am I feeling comfortable there, or will I retreat quickly to my own department and don’t want to have much to do with others? [...] That’s an important aspect: how is the chemistry among the staff? Here, I experience that as positive throughout. Our office is open, there are no tables for separate departments; instead, groups are heterogeneous. Of course there are also concentrated groups where departments meet, but there is exchange going on beyond that, and I believe that’s an important element, to see that there’s a good atmosphere.”


6.5. Influence of Teachers’ Work Contexts on Innovation

“There are three to four months of holidays when we are not required to be here. I say: this is in fact work time, we are just not here. So of course in order not to have an unfair advantage over other employees or public sector workers, that is added to the weeks spent teaching. That way we get to a regular commitment of 50 hours during teaching weeks.”

“Wir haben 3-4 Monate Ferien in denen wir keine Präsenzzeit haben. Ich sage: das ist schon Arbeitszeit, aber wir sind nicht präsent. Dadurch wurde die natürlich, um anderen Arbeitnehmern und Beamten nicht vorgezogen zu sein, auf die Unterrichtswochen
dazugerechnet. So kommen wir auf eine reguläre, festgesetzte Arbeitszeit von über 50 Stunden in den Wochen wo Unterricht ist.” (T2, G6)

6.5.1. Relations with Students

“In particular when I’m having trouble with a class […] I try to receive feedback via a questionnaire: what’s going wrong? I can see that productively; others might find it humiliating, or feel it puts pressure on them.”

“Insbesondere wenn ich mit einer Klasse nicht so gut klar komme […] Dann hole ich mir über einen Fragebogen Rückmeldungen: was läuft da schief? Ich kann das konstruktiv sehen; andere würden das vielleicht als Erniedrigung auffassen, oder fühlen sich unter Druck gesetzt.” (T4, G4)

“from [workshops for] beating the drums, to adventures in the wilderness, […] I see people who I want to educate and shape; I want to accompany them on a path towards a new, better world. So I have to give examples, and show things that they don’t know yet, maybe even things that scare them. The theatre project: some were scared by that. But they succeeded. Or in the wilderness: when they had trekked through the wilderness for five days, they were proud; when they abseiled [from cliffs], carried each other as part of a team exercise […] it’s just beautiful for me to experience that.”

“von Trommeln bis Wildnis, […] Ich habe Menschen, die ich ausbilden, formen möchte, ich will Begleiter sein auf dem Weg in eine neue, bessere Welt. Ich muss also Beispiele, Vorbilder bringen, etwas zeigen, das sie nicht kennen, wo sie vielleicht sogar Angst vor haben. Das Projekt Theater: da hatten auch manche Angst. Aber sie haben es geschafft. Auch die Wildnis: wenn sie 5 Tage durch die Wildnis gelaufen sind, da waren die dann so stolz; sich abgeseilt haben, getragen, als Teamübung. […] Das ist einfach schön für mich, so etwas zu erleben.” (T3, G6)

“The social component is growing in importance, because parents delegate education to teachers. They don’t talk enough to each other at home. Students perceive teachers as
significant others to relate to with their problems, whether it’s anorexia, drugs, etc., that parents know nothing of. That’s a big challenge, and we are not trained for this, so it takes a big toll.”

“Die soziale Komponente wird immer wichtiger, weil Eltern die Erziehung auf Lehrer abschieben. Die reden zuhause viel zu wenig. Viele Schüler nehmen den Lehrer als Bezugspersonen bei Problemen wahr, sei es Essstörungen, Drogen, etc, wo Eltern gar nichts wissen. Das ist eine große Herausforderung, wir sind dafür nicht ausgebildet, und es kostet sehr viel Substanz.” (T1, A5)

“There are [in this class] 18 students, and there’s only one who’s not from an immigrant background. [...] That results in language problems, for example that tasks are not understood. But for exams I believe: we must practice that; you must practice to understand the necessary information.”


“[...] some colleagues in HAS teach exactly as they do in HAK; so changing the subjects substantially signalled clearly: that’s an entirely different target group.”

“[...] dass manche Kollegen in der HAS genauso unterrichten wie in der HAK; dadurch, dass man die Unterrichtsfächer dezidiert verändert hat, setzt man ein klares Signal: das ist eine ganz andere Zielgruppe.” (T3, A3)

6.5.2 Relations with Management

“I do think that some things could be less bureaucratic, so that time is available for other things. Examples are grading schemes, conferences, coordination ... but it’s a fine line, because those things are also very important. It’s difficult.”

“Da denke ich schon, dass gewisse Sachen einfacher, weniger bürokratisch geregelt werden
können, die dann dafür sorgen dass Zeitressourcen einfach mehr zur Verfügung stehen. Beispiele sind Kopfnoten; Konferenzen, Absprachen ... aber das ist eine Gradwanderung, die sind auch sehr wichtig. Das macht es sehr schwierig.” (T2, G1)

“I face many obstacles [to innovation]. For one, there is the enormous number of hours we have to teach; the time effort, the lack of teachers. Since I am doing one and a half times the regular work, I don’t know when I even have time to prepare my teaching. [...] In my case, after 20 years, there is little to prepare myself for in terms of subject matter, so I can focus on didactics, but even that’s difficult.”


“It’s logically clear that just 38 ½ hours a week won’t suffice, even for those that work efficiently. So then there are substantial differences. There are some – very few, I believe – that laze around. On the other hand, there are about one third who work amazingly, innovatively, pedagogically with students, and where I am afraid for half of them to end up burnt out.”

“Es ist logisch, dass sie während der Schulzeit nicht mit 38.5 Stunden auskommen, und das ist auch so für die, die vernünftig arbeiten. Wir kommen halt dann auf riesige Unterschiede. Es gibt Leute – ganz wenige, denke ich – die machen sich einen Lenz. Und auf der anderen Seite gibt’s ein Dritten der Leute die absolut toll, innovatorisch, pädagogisch mit den Schülern arbeiten, und wo man aber bei der Hälfte Angst haben muss, dass sie nicht in den Burnout gehen.” (T1 – Deputy Principal, G1)

“There is very little support from school leadership for designing good teaching. However, I don’t believe that it’s the task of school leaders to support good teaching, because they
can’t do that. They are good at managing schools, and making sure that teaching happens. […] That is, the individual initiative of employees in management is not what’s required [by the system]; so I am working on my own initiative, under my own responsibility, for an employer in an area where my sort of behaviour is alien.”

“Es gibt für die Gestaltung von gutem Unterricht durch die Schulverwaltung sehr wenig Unterstützung. Aber ich glaube auch nicht, dass es die Aufgabe der Schulverwaltung ist, guten Unterricht zu unterstützen, weil das können die Leute nicht. Die können Schulen verwalten, und dafür sorgen, dass die Schule stattfindet. […] Das heißt, das Eigenengagement der Mitarbeiter in dieser Verwaltung ist nirgends gefragt; ich arbeite hier selbstinitiativ, eigenverantwortlich, bei einem Dienstgeber in einem Bereich, der das nicht kennt.” (T1, A4)

“I believe the main reason why innovation is desired … and it is clearly desired by school leadership .. but also within the department, at least in my area, there’s just a consensus about this among colleagues. […] So there is never a situation where one tries something and only meets resistance. There are always open doors.”

“Ich denke der Hauptgrund warum hier auch Innovation gewünscht wird … von der Schulleitung wird’s gewünscht, ganz klar … aber auch in den Abteilungen, zumindest dort, wo ich tätig bin, ist das einfach Konsens unter den Kollegen. […] Also es gibt nicht die Situation, dass hier einer was versucht und dann nur auf Widerstände stößt. Man rennt hier immer offene Türen ein.” (T1, G2)

“Traditionally at our school, almost anything is possible […] You are free to try whatever you want, but there is no requirement to evaluate things […] if it goes wrong, well, then that’s that. Nobody has to find out about it.”

“Wir haben eine Schultradition, wo fast alles möglich ist. […] Man darf alles ausprobieren, aber es fehlt die Verpflichtung, das auch zu evaluieren. […] Wenn’s schief geht, dann ist es eben schief gegangen. Das muss niemand erfahren.” (T1, A6)
“Our superiors have an enormous workload […] The wouldn’t have time for things [formal evaluation] like that, and neither do we, amongst colleagues, because there are not the right conditions for it, and because colleagues don’t know what it would be good for.”

“Unsere Vorgesetzten haben ein riesiges Arbeitspensum […] Die haben gar keine Zeit für derartige Dinge, und wir als Kollegen auch nicht. […] Das kriegen wir zeitlich und organisatorisch nicht hin, weil die Rahmenbedingungen nicht stimmen, und weil die Kollegen auch nicht wissen, was es hilft.” (T2, G6)

“About budgets, I’d say I see less of a problem there; for example, we already have the technical equipment, hardware. So someone would just have to take the initiative; so it’s a question of the extent to which school management would support that.”

“Zu Kosten sage ich da sehe ich das Problem weniger; wir haben ja z.B. schon die technische Ausstattung, die Hardware. Das müsste also nur mal wer initiieren; da ist dann die Frage inwieweit die Schulleitung dann bereit ist, das zu unterstützen.” (T2, A2)

“Our IT provision is catastrophic […] If we said, we need IT and technical equipment, otherwise we can’t be innovative, that’s not a sufficient argument. I believe that one can be innovative without those things. However, it makes things harder, also because we are always at the limits with room availability […] that complicates things, although we regularly extend teaching until 3 p.m. Starting at 8 a.m., without a cafeteria […] I do think that’s an obstacle; the whole question of infrastructure […] we don’t have sufficient work spaces for colleagues, not enough rooms to retreat to at times, to hold a meeting.”

“Die EDV Ausstattung ist katastrophal […] Wenn wir sagen, wir brauchen EDV und technische Ausstattung, sonst können wir nicht innovativ werden, das ist zu dünn – ich glaube dass man auch ohne diese Sachen innovativ sein kann. Aber es ist sicherlich mit ein Hemmnis, weil ich auch von den Räumlichkeiten hier immer am Limit bin. […] das macht die Sache schwieriger, obwohl wir schon bis 15 Uhr Unterricht haben, fast regulär. Von 8 Uhr an, ohne Cafeteria […] Ich denke, dass das ein Hindernis ist; die ganze Ausstattung. […] wir haben nicht genug Arbeitsplätze für die Kollegen, nicht genug Räume, um uns auch mal zurückzuziehen, was zu besprechen.” (T3, G3)
6.5.3. Relations with Colleagues

“Formal procedures are onerous and not as fast as things should be in a large group of colleagues. Also, there are interfaces to the outside where new things arrive, not from within the school, and then it doesn’t get communicated onwards; [...] we exchange our experiences, exchange materials, or when someone discovers something new. That works very well within our subject team.”

“For example, we have our Christmas party. So we get 90 teachers into our largest restaurant, and we start at three in the afternoon, and at two in the morning the last ones leave, and we get smashed, if I may say so. It’s great fun [...] When I became leader of this college we had just 43 people who attended this event, but now we are booked out. That’s the point: you’ve got to have fun. You can’t just work all the time. You have to do things together. Such things show whether there’s a good atmosphere.”

“I find it funny when colleagues claim that it’s informal. This communication takes place within the job, so it’s formal. It’s not like we are talking about those things at the tennis club; it happens regularly on the job.”

“Formelles ist sehr träger und im großen Kollegenkreis auch nicht so rasch, wie es sein sollte. Auch weil es ja Schnittstellen gibt, wo das Neue ja von außen kommt und nicht aus der Schule, und das dann nicht weiterkommuniziert wird; [...] wir geben uns die Erfahrungen gegenseitig weiter; wir tauschen auch Materialien aus, bzw wenn jemand was Neues gefunden hat usw. Das funktioniert bei uns in der Fachgruppe [...] sehr gut.” (T2, A4)

“I finde es komisch, dass Kollegen sagen, das sei informell. Dieser Austausch ist im Rahmen ihres Jobs, somit ist er formell. Wir reden nicht im Tennisclub über diese Sachen, sondern das passiert normal im Job.” (T3, A3)


Florian Friedrich – University of Oxford
[…] Als ich Leiter dieser Schule wurde, hatten wir bei diesem Essen noch 43 leute die da hingingen, jetzt haben wir die Bude voll. Das ist also so ein Punkt: man muss auch Spaß haben. Man muss nicht nur arbeiten. Man muss auch was miteinander machen. Solche Sachen zeigen, ob die Stimmung gut ist.” (German college principal; fully anonymous per request)

“Ultimately the problem exists in the heads of colleagues who say: never change a running system!”

“Wenn, dann ist das Problem in den Köpfen von Kollegen, die sagen ‘never change a running system’!” (T1, A2)

“That’s correct. You’ll find that percentage everywhere. I believe at our college it’s lower than at others, otherwise we wouldn’t be where we are, but it’s definitely at 20 to 30% who are just free riders.”

“Das stimmt. Das gibt’s. Den Prozentsatz hat man überall. Der ist bei uns glaube ich niedriger als in anderen Schulen, sonst wären wir nicht da, wo wir sind, aber er liegt sicher bei 20-30%, die genau so trittbrettmäßig unterwegs sind.” (T2, A6)

“More than a third. Rather 40% sometimes. It also depends on what other tasks there are.”

“Höher als ein Drittel ... eher 40% sind’s machmal schon. Es hängt auch davon ab, was sonst an Aufgaben da ist.” (T3, G2)

“About the ability to work in teams: looking at our college, there is a third that can’t do that, and aren’t ready to. That has to do with time resources, to sit down to work in the afternoon, stay at school. Only if one is here, one can work with others.”

6.6. Influence of Factors External to Schools on Pedagogic Innovation

“Here in Bremen we certainly experienced a lot of structural reforms in the last 30 years […] and as I experienced it, it leads away from the question of that’s really happening in the classroom, and what sort of innovation is required there. […] That consumes a lot of energy, and results in thinking less about the inner workings, about the things that affect students.”

“Hier in Bremen haben wir jedenfalls an Strukturen, was Bildung angeht in den letzten 30 Jahren sehr viel erlebt […] und das führt nach meinem Erleben weg von der Debatte, was eigentlich im Klassenraum geschieht, was ist dort an Innovation notwendig? […] Das bindet sehr viel Kraft, und führt dazu, dass weniger nach innen hinein gedacht wird, was beim Schüler ankommt.” (T2 – Schulleiter, G5)

6.6.1. Curriculum

“[The curriculum] is the framework; partly it’s vague, partly it’s abysmally badly formulated. […] You get the impression that there were three committees that were not really in harmony about the final product. In daily practice one doesn’t much look at the curriculum. Except when new things arrive, for example in German teaching they introduced so-called cultural portfolios about ten years ago […] So students should attend cultural events and create portfolios. So that was externally mandated pedagogic innovation.”

“[Der Lehrplan] ist der Rahmen, zum Teil ist er vage, zum Teil miserabel formuliert, […] da hat man das Gefühl, drei Kommissionen haben da beim endgültigen Produkt nicht wirklich harmoniert. Im täglichen Leben schaut man selten in den Lehrplan. Außer es kommen neue Dinge, z.B. in Deutsch wurden vor 10 Jahren sogenannte Kulturportfolios eingeführt. […] Da sollen die Schüler also Kulturveranstaltungen besuchen, und dann das portfoliomäßig aufarbeiten. Das ist z.B. von außen verordnete pädagogische Innovation.” (T1, A1)
“I always see how particularly in the school sector, authorities say: you must be innovative, must change something once again, when it has just been settled, about modes of teaching or something. And again there’s another thing on the table, and the previous one hasn’t even consolidated, or hasn’t yet been tried properly.”

“Ich sehe ich immer, dass gerade im Bereich Schule sehr häufig von oben gesagt wird: ihr müsst innovativ sein, müsst etwas schon wieder ändern, wo gerade erst mal irgendwas festgezurrt wird, an Unterrichtsarten oder ähnlichem. Da wird schon wieder eine neue Sache auf den Tisch gebracht, und man hat das Alte noch gar nicht so richtig an Land gebracht. Oder richtig ausprobiert.” (T1, G3)

“The contents and how they relate to each other, what’s being taught when, and what fits in with that, the learning situations, had to be redeveloped. We had to conceptualise of new tasks, and develop an entirely different structure of lessons to fit those things in.”

“Die Inhalte, wie die zusammengefügt wurden, was wann unterrichtet wird, was an Inhalten dazu passt, die Lernsituationen mussten entwickelt werden. Neue Arbeiten mussten konzipiert werden, es musste ein ganz anderer Stundenplan ausgearbeitet werden, um diese Sachen unterzubringen.” (T1, G3)

6.6.2 Assessment

“There is a danger of training students in a very targeted way just for the exam. The problem is also that every teacher has their preferences, [...] so they would have to deviate from those favourites, and maybe expand in breadth. [...] It won’t change much in terms of teacher-student relations in my subject [...] but I can imagine that that might be different for others. In the end we have a joint project: my aim is to bet them to Matura, and prepare them.”

“[Da] besteht die Gefahr des zielgerichteten Drillens der Schüler nur auf die Prüfung. Das Problem ist auch, dass oft einmal jeder Lehrer seine Vorlieben hat [...] und da müßte er jetzt weg von seinen Favourites, und vielleicht mehr in die Breite gehen [...] In der Rolle der Schüler-Lehrer Beziehung, da wird sich in meinem Fach nicht groß was ändern [...]"
kann mir aber vorstellen, dass das bei anderen in eine andere Richtung geht. Wir haben ja eigentlich ein gemeinsames Projekt; mein Ziel ist ja, sie zur Matura zu bringen, und sie vorzubereiten.” (T1, A2)

“There is a branch for food technologies and biotechnology, so that’s of course directly vocationally oriented, but you could for example also introduce a vocational direction to chemistry, mathematics, German, and English. However, we can’t, because the exam guidelines require them to do the same exam as the academic Gymnasium. […] In my opinion that doesn’t do justice for this particular course.”

“Da haben wir […] das Profil Lebensmittel- und Biotechnologie, das ist natürlich ganz konkret beruflich orientiert, aber man könnte beispielsweise in Chemie, in Mathe, in Deutsch, in Englisch auch eine berufliche Orientierung hineinbringen. Das geht aber nicht, weil von den Prüfungsvoraussetzungen verlangt wird, die müssen die gleiche Prüfung machen wie im allgemeinbildenden Gymnasium. […] Das wird meiner Meinung nach einem solchen Bildungsgang eigentlich nicht gerecht.” (T1, G5)

“We have a curriculum we stick to, but we do make proposals for exams and send them to the local education authority. So there is always tension between freedom and determinism. That’s a fundamental pedagogic problem: how much freedom can I grant, how many rules must I make? That needs to be handled very individually.”

“Wir haben ein Curriculum an das wir uns auch halten, aber dann schon die Abiturvorschläge machen, zur Bezirksregierung einschicken. Es ist also immer der Spagat zwischen Freiheit und Determinismus. Das ist aber ein grundsätzliches pädagogisches Problem: wie viel Freiheit muss ich gewähren, wie viel Regeln muss ich einfordern, das wird sehr individuell gehandhabt.” (T2, G3)

“Recently I attended a meeting at the state education board where teachers for economic subjects needed to find a common understanding – which wasn’t required before – about what we all examine for Matura. […] A typical example where we already ran into
problems: at what percentages do you give certain grades? There are colleges where a pass is at 50%, and others where it’s 55%, which is unfair. [...] It’s nearly impossible to find a compromise, and the question remains unresolved. That would be a first, small step, one would think, but it became so unwieldy that we agreed after an hour that we couldn’t resolve it.”

“Ich war unlängst bei einer Sitzung des Landesschulrats, wo die Kommerzialisten eine Eben finden mussten – was es früher auch nicht gegeben hat – was bringen wir gemeinsam zur Matura? [...] Ein typisches Beispiel, und da hatten wir schon Probleme: ab wieviel Prozent gibt’s ein Genügend, Befriedigend, Gut, Sehr Gut. Es gibt Schulen, da bekommen die einen mit 50% ein Genügend, bei der anderen erst ab 55%, was ja unfair ist. [...] Ein Kompromiss ist fast nicht möglich, und die Frage ist immer noch offen. Das wäre ein erster, kleiner Schritt, möchte man meinen, aber das hat sich schon so gespießt, dass wir nach einer Stunde gesagt haben, wir kommen auf keinen grünen Zweig.” (T2, A2)

6.6.3. Standards

“Yes, of course one has to fulfil those requirements as part of one’s official duties. However, they are relatively vague. Partly they sound very altruistic, education for what’s good and beautiful and such things, so they are framework curricula, that luckily leave a lot of room for inspiration on the part of the teacher. Just to meet standards [...] the more there is a connection to my career, the more I would deviate from my aims, and decidedly only go for what’s required, just from a sense of self-preservation. But I wouldn’t be happy about that.”

“Ja, die Vorgaben sind natürlich im Rahmen der Dienstpflichten zu erfüllen. Diese Vorgaben sind allerdings relativ vage. Die sind zum Teil auch sehr altruistisch verfasst, Erziehung zum Guten und Schönen und dergleichen, also Rahmenlehrpläne, die auch der Inspiration des Lehrers zum Glück viel Raum lassen. Rein das Erzielen von Standards [...] je mehr die Verknüpfung mit der Karriere gegeben ist, umso mehr würde ich meine Ziele zurückstecken, und ganz klar nur die Vorgaben erreichen wollen, allein aus Selbsterhaltungstrieb heraus; das würde mich aber nicht freuen.” (T2, A3)

“What’s happening with those standards is that teachers are being curtailed. [...] The
liberty of teaching is much reduced, and that hurts me a lot, because I think there are strengths in individual teachers that they can pass on, that another might not have, and students can benefit from that; those standards take that away completely. ”

“Was man jetzt mit diesen Bildungsstandards macht, ist, dass man den Lehrer auch sehr einschränkt [...] Diese Freiheit der Lehre wird sehr stark genommen, das tut mir sehr weh, weil ich denke dass es auch Stärken des Lehrers gibt, die er weitergeben kann, die z.B. ein anderer nicht hat, und die Schüler können davon auch profitieren; das wird bei uns jetzt total genommen durch die Bildungsstandards.” (T2, A4)”

“That is a decidedly questionable approach. [...] Three inspectors came in, with a hostile facial expression, being very uncommunicative. The came into lessons, stayed for ten minutes, and left. They did 80 visits in classrooms, sometimes repeatedly in classes by the same colleagues, and when they had 80 times ten minutes, they made a detailed report that you can see on our website. They concluded that we approached students in the wrong way, which lead to howls of indignation from colleagues. In fact, we believe – and many colleagues support this view – that we have a particularly good rapport with students. [...] So once again this is an attempt to measure teaching, and I am of the opinion that that’s impossible.”

“Ein ausgesprochen fragwürdiges Instrument. [...] Da kamen drei Inspektoren hier rein, mit einem unangenehmen Gesichtsausdruck, sehr unkommunikativ. Die kamen in den Unterricht rein, sahen sich das 10 Minuten an, und gingen dann wieder. Sie waren dann bei ca 80 Besuchen im Unterricht, bei manchen Kollegen mehrmals, und nachdem sie dann 80 mal 10 Minuten hatten, haben sie einen detaillierten Bericht gemacht, der auch auf unserer Internetseite herunterzuladen ist, und da kam man zu dem Schluss, dass wir hier an der Schule die Schüler falsch ansprechen, was hier unter Kollegen zu einem Aufschrei der Empörung geführt hat. Wir schreiben uns nämlich auf die Fahnen – und viele Kollegen unterstützen das – dass wir eine ausgesprochen gute Ansprache an die Schüler haben. [...] Auch hier wird wieder versucht, Schule zu messen, und ich der Auffassung: das kann man nicht.” (T3, G3)
“Yes, if we had students in chains.”

“Ja, wenn die Schüler angekettet wären!” (T3, G3)
C. Appendix C – Example of Coding Hierarchies
D. References


“Innovation” (n.d.) *Duden Online*. Bibliographisches Institut Gmbh.


