

WHAT IS THE IMPACT OF COLLABORATIVE WORKING BETWEEN TEACHERS ON THEIR CLASSROOM PRACTICE?

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What is the impact of collaborative working between teachers on their classroom practice?

Abstract:

Socio-cultural theorists and empirical studies suggest teachers increase their expertise through collaborative learning in environments with specific *modi operandi* and ways of thinking. However, few of these studies examine the classroom impact of this collaboration. In this inquiry, the factors which enable and constrain collaborative task design between teachers in a large modern languages faculty are explored. The classroom impact of this collaboration and the reasons for differences between colleagues are then examined. Classroom impact appeared most significant when colleagues had the autonomy to choose their area for development, based on an immediate gap identified in their pupils' knowledge and when a menu of research-informed classroom tasks to bridge that gap was provided. Factors such as trust between participants, teacher agency and beliefs, the extent to which managers relinquished their power and competing demands on teachers' time also explained differences in classroom outcomes. An additional finding, often neglected in the write-ups of action research, are the challenges faced in data-collection and interpretation, when the researcher and the participants' line manager are one and the same person.

Introduction:

Collaborative working between teachers, in particular when it occurs with the express purpose of practitioners learning from one another, is a watchword in UK schools, greeted by leaders and policy makers alike. Evidence suggests it improves teaching practice (Cordingley et al., 2015), teachers' efficacy (Lakshmanan et al., 2011; Voelkel and Chrispeels, 2017) and well-being (Aelterman et al., 2007; Webb et al., 2009), as well as bringing other benefits.

When I joined my school in 2016 as Head of Modern Languages, high-stakes testing was making the learning process instrumental, at times. This was surprising as I work at a well-resourced, semi-selective, girls' independent school in a prosperous university city in South-East England. Over the past three years, 69.3% of pupils taking GCSEs in French, German and Spanish achieved a grade A or above (assuming a 7 in 2018 equals an A under the old currency), compared to the UK average amongst girls of 28.5% (Joint Council of Qualifications, 2018). Similarly fortunate are the high levels of staffing, with 15 highly qualified teachers and three assistants responsible for the delivery of French, German, Spanish, Italian and Chinese to 670 pupils in a school of 830.

However, parents make a considerable financial investment to send their children to us, a challenge in a city with high living costs. Besides the range of extra-curricular activities, pleasant environment and strong pastoral care, excellent examination results are, therefore, a key expectation. Hence, whilst we are privileged, this context perhaps explains in part why pupils, parents and teachers sometimes feel the pressure and why, at times, instrumental teaching methods dominate over more educational forms.

Nevertheless, instrumental methods conflict with my own and colleagues' values. Furthermore, given the national context of diminishing numbers of pupils learning languages (Malpass, 2014), a trend from which the school is not immune, I recognised the need to create an environment in which colleagues and I consider weaknesses in our practice and develop together innovative ways to tackle them, without fear of reprisal if mistakes are made. In addition, variations in contextualised value-added scores between colleagues from 2014 to 2017 suggested a greater consistency of teaching quality was required, although caution should be exercised when using such measures to compare teachers' performance (van de Grift, 2009). The question was, therefore, how to create the desired environment.

Experience had taught me that top-down management would be ineffective. During Part II of this MSc programme, I was taken by Ryan and Deci's research on motivation, in particular self-determination theory (Ryan and Deci, 2000), an element of which focuses on autonomy as a key psychological need. They claim that if goals are set by colleagues themselves, motivation becomes intrinsic and productivity improves. Researchers such as Hobson and Maxwell (2017) have studied this in the context of schools and Lomos, Hofman and Bosker (2011) and Ronfeldt et al. (2015) provide evidence that collaborative goal setting and planning between colleagues leads to gains in pupil progress. Compelled by the evidence, I wanted to adopt the sort of distributed leadership required for this collaboration to occur, buoyed along by a number of colleagues who were clearly relishing their teaching. However, I was unsure of how to go about it.

Moreover, I was aware that collaborative working is not a panacea for all ills. In the UK, collaborative learning between teachers does not occur often (Pedder and Darleen

Opfer, 2011) and when it does, there are frequent challenges. Furthermore, the policy set by government for continued professional development (CPD) is ambitious. Practitioners should 'feel deeply involved in their own professional development' (Ofsted, 2018: 47) and the *Standard for teachers' professional development* (Great Britain, Department for Education, 2016) states that CPD should be collaborative, 'underpinned by robust evidence [...] and expert challenge' (2016: 6), sustained and prioritised by leaders.

It is often assumed that lessons learnt from traditional forms of CPD (all types, not necessarily collaborative) are readily transferred to classroom practice, both in the short and long term. Researchers have found, however, that this is rarely the case (Pedder and Darleen Opfer, 2011; Cordingley et al, 2005; Day and Leitch, 2007 and Ermeling, 2010) and many of them advocate collaborative versions instead. So I wanted to find out how collaborative working projects between teachers could be designed to have an impact in the classroom. In particular, I was keen to understand what encourages and prevents collaboration and also discover what I could do to enable it as Head of Languages.

I formed research questions to broach via a literature review:

1. What is the point of collaborative CPD between teachers? What types lead to gains in pupils' attainment?
2. How does collaborative CPD impact positively and negatively on the achievement of other aims?
3. What mechanisms enable and constrain collaborative CPD between teachers?

4. How do we ascertain whether collaborative CPD has a positive impact on teachers' classroom practice? Which practical constraints need to be overcome for transfer to occur?

Colleagues and I then designed a piece of action research into languages pedagogy which we implemented collaboratively. However, the focus of this MSc project, whilst reliant on the implementation of this intervention, is nonetheless separate from it, as I adopted a case study approach to explore the effect of collaborative working. In other words, this study does not concentrate on the outcomes of the languages pedagogy intervention in terms of student learning but rather on the nature and impact of the tangential collaborative CPD. This distinction will be explained in greater detail later (see figure 2, p.33).

When discussing the impact of collaborative CPD on teachers' classroom practice, this study is not trying to definitively determine whether there is an impact or not. Rather I wish to explore what the nature of this impact may be and what enables and hinders it. By 'impact,' I mean an observable change in teachers' practice which aims to improve it. It could include a new pedagogical technique (preferably informed by empirical research (Cordingley et al., 2005)), a method of classroom inquiry whereby colleagues discover what their pupils are thinking, e.g., to ascertain the reasons behind their misconceptions (Cordingley et al., 2015), or new forms of assessment.

Literature Review:

Part 1: What is the point of collaborative CPD between teachers? What types lead to gains in pupils' attainment?

The literature uses the terms 'collaborative continued professional development (collaborative CPD),' 'professional learning communities' and 'teacher leadership' to refer to structured and semi-structured situations where teachers learn from one another and work together to bring about improvements in practice. These include colleagues sharing resources, observing each other in the classroom, exchanging ideas in social networks, scrutinizing pupils' work together, discussing instructional strategies, planning lessons collaboratively, engaging in action research, or more broadly, the team work which occurs in departments.

At times the advocacy by policy makers for collaborative CPD appears uncritical. The *Standard for teachers' professional development* (Great Britain, Department for Education, 2016) expects that CPD will match the individual needs of different teachers and yet at the same time fit their employer's school development plan. Most empirical research informing the *Standard* (Great Britain, Department for Education, 2016) was conducted in schools outside the UK and as the authors state, only one study was considered 'fully consistent and rigorous' (2016: 12). We should, therefore, question whether collaborative CPD is effective. To determine effectiveness, we need to ask ourselves 'to what ends,' 'in which situation,' 'for whom' (Wrigley, 2018: 362) what type, for how long and how frequently.

At one level, the aims of collaborative CPD seem straightforward enough: to advance teachers' practice, to improve how pupils learn (Cordingley et al., 2015), increase their

achievement (Lomos, Hofman and Bosker, 2011; Ronfeldt et al., 2015) and raise teachers' efficacy (Chong and Kong, 2012). It potentially responds to society's changing expectations of education, in a manner that suits a particular context, and in a way that traditional CPD in the UK rarely adopts. From a survey of over 1000 teachers in 151 UK schools, Pedder and Darleen Opfer (2011) found that 67% of respondents said they participate most often in passive forms of CPD such as watching a presentation. Such cognitivist styles of CPD assume that knowledge of practice is readily transferred into the classroom (Kelly, 2006), yet socio-culturalists indicate that this is seldom the case (Desforges, 1995). Instead, Lave and Wenger (1991), Wenger (1998) and Kelly (2006) advocate continued reflection by teachers through dialogue with one another to ensure they respond effectively to change in their specific settings.

However, there is debate as to what types of collaborative CPD would best achieve these broad goals and what the content should be. Should collaborative CPD address the interpretation of data, approaches to learning, approaches to teaching, immediate school needs (e.g., a change in school culture), the understanding of curriculum requirements, to name a few (Pedder and Darleen Opfer, 2011)? Such a breadth of aims and types of collaborative CPD can make it difficult to generalise whether it is effective.

Nevertheless, links have been made by empirical researchers between collaborative CPD and increased pupil achievement. In the Netherlands, Lomos, Hofman and Bosker (2011) took TIMSS 2003 test results in mathematics from 2706 pupils taught by 117 teachers (each from a different school) and compared them with the frequency and type of collaborative CPD activities which each of the 117 participating maths

departments reportedly conducted. An overall effect size of $<.20$ was found which means that the average pupil taught by a department with reportedly higher frequencies of collaboration achieved greater than 0.20 standard deviations above the TIMSS score of the average pupil taught by a department with reportedly lower frequencies of collaboration, and hence surpassed the scores of 20% of the pupils in the latter. This does not appear particularly high. However, the study determined a variance of 7% among schools after controlling for variables at student and school levels which, given the small effect size, is significant. The authors found that this is due to collaborative CPD but only that which focuses on student learning.

One of the particular features of the Lomos, Hofman and Bosker (2011) study is that it did not just measure overall effect size but clustered schools after data collection on the basis of different combinations of types/frequencies of collaborative CPD. 40 of the 117 schools were classified as having teachers who reportedly met frequently to discuss how to teach mathematical concepts and to prepare teaching materials but rarely observed colleagues' lessons. The pupils at these schools had on average the highest TIMSS scores and were in fact the only types of schools where there was 'a positive significant relationship with student achievement' (Lomos, Hofman and Bosker, 2011: 729). In 13 schools, teachers reportedly frequently observed each other and sometimes prepared materials together. Surprisingly these schools had the lowest student achievement levels, even lower than schools classified as having no or negligible collaborative practice.

The results suggest that for collaborative CPD to have a significant effect on pupils' achievement, it needs to occur frequently and focus on how to teach specific concepts and the preparation of teaching materials. This conclusion is supported in part by that

of Supovitz (2002) who found that pupil achievement in Cincinnati was not on average influenced by collaborative CPD. However, collaborating teams which engaged in a high level of instructional planning and team teaching did achieve higher levels of pupil attainment.

Nevertheless, such links between collaborative CPD and pupil attainment are not necessarily causal and caution is needed when interpreting studies which have calculated effect sizes. In Lomos, Hofman and Bosker's research (2011), the use of TIMMS data adds to the reliability and representativeness of the findings, although technical issues exist with international testing (Hopfenbeck and Baird, 2014). The former researchers mention that their findings would be more reliable if they had examined pupil test scores at two different points in time. This is an important point because school communities are not closed systems (Pawson, 2006), and levels of attainment and collaborative CPD vary with time. Although the authors do not mention this, one could argue that TIMMS 2003 pupil test scores measure the outcome of many years of maths instruction, yet the TIMMS questionnaire only asks for the frequency of collaborative CPD over the course of the previous year. In addition, the frequency and type of collaborative CPD is that which is reported and not necessarily what actually took place. Hence it is subject to psychological bias and the effects of memory. Furthermore, the researchers took the pupils' scores linked to one teacher from each of the 117 departments and there is a risk that those teachers are not representative of their departments. In other words, differences within schools are not taken into consideration and may lead to misrepresentative comparisons between schools.

In Florida, Ronfeldt et al. (2015) matched individual teachers' responses to a questionnaire (recording not just the type and frequency but also the content,

extensiveness and perceived helpfulness of collaborative CPD) with their classes' value-added scores (value-added is a measure comparing the scores their pupils were statistically predicted to achieve in tests with what they actually achieved). In this way, the researchers could analyse differences within and between schools and hence distinguish between the impact of working in a more collaborative culture on pupils' attainment and the impact of being a more collaborative teacher on that attainment.

The researchers took a sample of 6682 teachers across 336 schools in Miami-Dade County. They found that pupils taught by teachers who reported that collaborative CPD was helpful and extensive, had higher value-added scores in maths (about 9% of a standard deviation, when collaborative CPD was rated 1 standard deviation more helpful and extensive) than those taught by teachers reporting low levels of helpfulness and extensiveness, 'even after controlling for the effects of school level collaboration' (Ronfeldt et al., 2015: 502). Teachers who worked in schools where on the whole collaborative CPD was rated 1 standard deviation more helpful and extensive, had pupils achieving 15% of a standard deviation higher value-added in maths.

The authors conclude, therefore, that pupils performed better when their teachers reported extensive and helpful collaborative CPD, but that their scores were even higher when they were in a school where overall extensiveness and helpfulness of collaborative CPD were reported to be high. In contrast to Lomos, Hofman and Bosker (2011) and Supovitz (2002), Ronfeldt et al. (2015) also found a positive effect on pupils' attainment when taught by moderately collaborative teachers in a school where the reported extensiveness and helpfulness of collaboration is low.

Regarding types of collaborative CPD, the researchers reported that 'developing instructional strategies' (Ronfeldt et al., 2015: 494) was the most helpful of all forms of collaborative CPD and was significantly more so than reflecting on pupils' formative assessments or their classwork or classroom management. This finding contrasts with Popp and Goldman (2016) who found that meetings where assessment systems rather than instructional practices were discussed lead to greater amounts of knowledge gained. Whilst no causality could be ascertained, Ronfeldt et al. (2015) tested three threats to validity and found that average teacher characteristics, average school characteristics and teachers' satisfaction with their work did not explain the relationships found. However, it is worth recognising here that reverse causality cannot be ruled out, in that schools with high levels of pupil attainment may have a culture which is more conducive to teacher collaboration than those with lower attainment levels.

To my knowledge, no studies comparing types, helpfulness and extensiveness of collaborative CPD with levels of pupil achievement have been conducted in the UK. However, in their review of collaborative CPD, ten of the 11 studies considered in depth by Cordingley et al. (2005) found some indications of improvement in pupils' learning and in six studies, these were accompanied by a change in beliefs and behaviours. Nevertheless, most of these studies date from the 1990s, are not UK-based and encompassed a very wide range of collaborative ventures, including between schools and universities. Hence their applicableness to specific scenarios is weak.

The final point to note is that effect sizes in the studies examined so far are small (Lomos, Hofman and Bosker, 2011; Supovitz, 2002 and Ronfeldt et al., 2015)

compared with those for other interventions, e.g., those on the *Teaching and Learning Toolkit* website (EEF, 2018) or in Hattie's *Visible Learning* (2009). As a result, policy makers may consider it worthwhile to devote resources to them instead. However, there are many more potential positive impacts beyond just measures of pupil attainment which arise from collaborative CPD and arguably, collaboration is the way to ensure that interventions such as those on the EEF website are implemented successfully.

Part 2: How does collaborative CPD impact positively and negatively on the achievement of other aims?

Teacher retention in the UK is diminishing with the number of teachers leaving the profession each year for grounds other than retirement going up from 6% (n = 25,260) of the total in 2011 to 8.1% (n = 34,910) in 2016 (Great Britain, Parliament, House of Commons Committee of Public Accounts, 2018: 5). The reasons for this include concerns over workload, pupil behaviour (Great Britain, Department of Education, 2018) and teacher well-being (Hobson and Maxwell, 2017 and Day and Kington, 2008), amongst others. Whilst well-being is determined by a wide range of individual and environmental factors, amongst them is the extent to which teachers have autonomy (Bricheno, Brown and Lubansky, 2009) as well as the level of collegiality and support received from colleagues and leaders (Day and Kington, 2008).

Collaborative CPD is one way in which this autonomy and collegiality can, at least in theory, be encouraged, as it is a form of distributed leadership, i.e., a bottom-up approach with collective decision making and fewer hierarchical differences (Muijs and Harris, 2006, Gates and Robinson, 2009 and Marks and Louis, 1999), as opposed to top-down performance-driven agenda. There is some empirical research which back

up these theories. Aelterman et al. (2007) conclude that collaborative CPD, along with mutual trust and a supportive culture from colleagues and principals, resulted in teachers in Flanders feeling better because they were better prepared to cope with environmental pressures. Webb et al. (2009) compared collaborative CPD in Finland and England and identified the potential for it to improve teachers' well-being. Day and Kington (2008) report that when staff start to work collaboratively under the auspices of a supportive leader, their motivation improves and Muijs and Harris (2006) found that teachers at UK schools were more likely to remain in the profession if CPD was collaborative in nature. However, these are small-scale qualitative studies, and in each case, the potential of collaborative CPD is only tapped if accompanied by supportive school climates. Importantly, Webb et al. (2009) found that if it focuses on externally imposed performance targets or government standards agenda rather than on teachers' priorities, it has the opposite effect on well-being and can prevent teachers from genuinely engaging with it. Another risk is that initiatives arising out of collaborative CPD increase teacher workload, something which Smithers and Robinson (2003) allude to.

Nevertheless, collaborative CPD is also thought to play an important role in teacher efficacy. Bandura (1997) theorises that vicarious experience (e.g., in the case of teaching, discussing practice with peers), affective states and persuasion (by supportive colleagues) improve self-efficacy. Lakshmanan et al. (2011) found significant increases in science teachers' efficacy after three years of collaborative CPD, balancing summer courses with collaborative tasks during term time. The study is significant in that it examined between 69 and 76 teachers in North Carolina over a comparatively long term, mixing classroom observation with participant surveys. Similarly, in a study of 310 teachers from 19 K-12 schools, Voelkel and Chrispeels (2017) found that higher levels of collaborative CPD (in this case, collective goal

setting, analysis of pupils' results and collective action) lead to greater collective teacher efficacy. However, in both these studies, all participants were part of US districts where directed time is set aside for regular collaborative CPD. Given the lack of directed time for sustained collaborative CPD in the UK (e.g., in Pedder and Darleen Opfer's study (2011), only 45% said that CPD was extended for over a month and 46% for a week or less), the impact on efficacy could be considerably less. Warwas and Helm (2018) also raise questions of causality, suggesting that teachers with high degrees of efficacy are more inclined to collaborative work. Causality may indeed be in both directions, or cyclical.

There are comparatively few studies which examine the impact of collaborative CPD on classroom practice and teaching quality, although the relationship is thought to be positive. From a sample of 47 departments in German vocational schools, Warwas and Helm (2018) found that groups of collaborating teachers who held common values and who were highly cooperative and self-regulating, had their students apply their knowledge and solve real-world simulated problems more frequently and in greater depth than collaborating groups of teachers with lower levels of cooperation. This suggests that the desired classroom impact will only occur if teachers significantly buy into collaborative CPD, are self-regulating and are strong collaborators, a finding which aligns with that of Lomos, Hofman and Bosker (2011). The strength of Warwas and Helm's study (2018) is that it investigated collaborating groups of teachers that had arisen organically rather than being a top-down initiative. However, the criteria against which the lessons of the 47 different collaborating groups of teachers were rated against to determine if a change in practice occurred, may not have aligned with the stated aims of these groups and hence the capacity of collaborative CPD to improve teaching quality may be misrepresented. Another limitation is that no lessons were observed; the study relies on student reports. With only 61 out of the 395 teachers

who took part consenting to a student survey, the data on teaching quality may be biased.

Finally, Ermeling (2010), raises important issues which do not emerge from the broader research cited so far. She took an in-depth look at four collaborating science teachers who changed their practice by implementing tasks which were intentionally designed so that pupils initially struggled to solve problems, without the aid of tools such as textbooks. The aim was to bring pupils' misconceptions to the fore which, after thinking time, teachers later addressed through dialogue and scaffolded activities. Whilst the findings are highly context-specific, as this is a small-scale study at a private Californian high school, the research had a very clear method of determining changes in practice to avoid misrepresentation. The project took 14 months and initially two of the teachers provided too much scaffolding so that the pupils did not really struggle and hence no change in beliefs or practice occurred. It was only after self-evaluation and following modelling by others that they succeeded in overcoming their fears and changing their practice to include genuine struggle activities in the second research cycle. Ermeling (2010) shows how highly adaptive changes in classroom practice can occur following collaborative CPD but that such changes do not happen overnight. In total 28.5 hours were spent on a tightly planned set of collaborative activities which focused on analysing students' misconceptions, developing a series of steps which underpin the design of a struggle task and then evaluating their lessons together. One can question whether this is realistic in large schools with competing priorities and Ermeling (2010) points out that her success was due to having a 'stable setting' (2010: 387), highly motivated colleagues with common values, as well as directed time to develop materials. It is also worth noting that for pupils, teachers, schools and parents who are used to instant gratification and teaching to the test, indirect instruction poses challenges. Lower test results in the short- to medium term might need to be

swallowed for longer term gains (Clark, 1982). Nevertheless, Ermeling (2010) demonstrates how much can be achieved if high levels of teacher efficacy, a stable, well-resourced environment and carefully planned collaborative tasks co-exist; factors which we shall explore in depth in the next section.

Part 3: What mechanisms enable and constrain collaborative working between teachers?

Friend and Cook (2000) define collaboration as the “direct interaction between at least two coequal parties voluntarily engaged in shared decision making as they work towards a common goal” (2000: 6). Bound up within this statement are notions of equality, i.e., the breaking down of hierarchical differences and power, of collaboration as something voluntary and not an obligation or demand, and the understanding that goals and decisions are taken by a collective. However, one major constraint to collaborative CPD which makes Friend and Cook’s statement (2000) seem like an ideal, is the tradition of individualism that operates in schools (Gajda and Koliba, 2008 and Hargreaves, 2000). In the UK, this can be seen in accountability measures such as the expectation to exceed target grades which in turn can promote competition rather than collaboration. Hobson and McIntyre (2013) argue that such measures cause teachers to cover up perceived deficiencies in their practice and this potentially prevents them from learning from collaborative opportunities. Similarly, Ball (1997) found that the collection of performance data and measurement against criteria diverts time and attention away from improving the teaching they purport to measure. A clear understanding of constraints and how they may be overcome, therefore, must be taken

into account in the design of any intervention which aims to re-focus teachers' attention on their professional development.

Theoretically, what inhibits and encourages participation in collaborative CPD? Bolam et al. (2005) point to the importance of establishing a shared vision, collective responsibility, reflective professional enquiry and the promotion of group and individual learning. Similarly, cognitive psychologists state that teachers should have the opportunity to take ownership of their learning (Putnam and Borko, 2000). Dialogue with colleagues should allow for feedback, new knowledge and ideas to emerge (Hargreaves, 1997). It should be informed by the reading of empirical research (Cordingley et al., 2005) and accompanied by experimentation, reflection and the unlearning of routines (Kwakman 2003). Attention has also been drawn to the importance of structured collaborative tasks (Levine and Marcus, 2008) with Hinden et al. (2007) suggesting the model of 'planning, enacting and reflecting' (2007: 353). Further to this, Ermeling (2010), Visscher and Witziers (2004) and Muijs and Harris (2006) argue that collaborative groups should collectively identify pressing needs by analysing pupils' work, for example, to inform decisions about what is working well and what needs improving.

Added to the insights of cognitivists, are those of the socio-culturalists who understand that receptiveness to collaborative CPD is influenced by differences in teacher efficacy and teachers' evolving identities, both in their professional and private lives (Day and Gu, 2007). Whilst Ronfeldt et al. (2015) found that levels of experience had no effect on the extent to which teachers participated in collaborative CPD, Day and Gu (2007) have pointed to the importance of differing kinds of professional support at different career stages.

Collaboration may have the power to challenge personal beliefs about learning and teaching but practitioners respond in different ways to the compromises required (Pareja Roblin and Margalef, 2013). For example, Park, Henkin and Egley (2005) allude to some collaborating groups of teachers lacking a critical eye and making assumptions. This could be due to participants wishing to follow their group's 'shared language' (Pareja Roblin and Margalef, 2013: 26) and unquestioningly following a biased path of thought. Gates and Robinson (2009) found that achieving a change in beliefs in organisations is often difficult because individuals can avoid critical reflection in pressurised environments, reluctant to add to workload.

Past experiences also affect what participating teachers think, say and do and hence they may not readily adopt new identities (Kelly, 2006.) Muijs and Harris (2006), in one of the few studies into teacher leadership in the UK, found that the lack of changes in belief were not due to apathy (often cited by headteachers) but rather reticence to change and lack of experience. The manner in which a teacher explains their past successes and failures at implementing a new form of pedagogy may have an impact on the way they approach collaborative CPD in the present (i.e., Weiner's (1972) Attribution Theory), as do beliefs in whether the CPD task is worth the effort (Atkinson and Raynor, 1974). The modelling of new techniques is thought to assist with overcoming the former (Ermeling, 2010). Similarly, Levine and Marcus (2008) and Chong and Kong (2012) suggest introducing protocols which structure collaborative dialogue and may lead to the questioning of assumptions, informed debate, increased trust amongst participants and, thus, provide an impetus to improve teaching.

Have theoretical models of factors encouraging and inhibiting collaborative CPD been empirically tested?

Kwakman (2003) developed a model (figure 1) of three main factors which influence participation in collaborative CPD: personal, task-related and work-environment factors. In a survey of 542 teachers in ten Dutch secondary schools, she discovered that personal factors predicted participation in collaborative CPD, more than task-related and environmental ones.

The figure originally presented here cannot be made freely available via ORA because of copyright. The figure was sourced at Kwakman, K. (2003) Factors affecting teachers' participation in professional learning activities. *Teaching and Teacher Education*, 19, 149–170

Figure 1: Model of professional learning activity (Kwakman, 2003: 158)

Her finding goes against some of the theoretical perspectives explored earlier (Putnam and Borko, 2000; Levine and Marcus, 2008). However, as the author points out, the attitudinal instruments used to gather the data may not be refined enough to distinguish between personal and environmental factors. Moreover, her model does not take into account potential changes in participation and engagement with

collaborative CPD over time, as suggested earlier (Kelly 2006; Weiner, 1972). A variation on her model (see appendix 1) would see the relative influence of factors which determine engagement in collaborative CPD vary with time, in a cyclical fashion. In other words, past experiences may affect the relative impact of individual, task-related and environmental factors on receptiveness to CPD in the present and, in turn, its impact on classroom practice.

Pedder and Darleen Opfer (2011) state that the mismatch between how much teachers say they value collaborative CPD in the UK and the amount that they report actually occurs, suggests a lack of 'systematic school support' (2011: 746) for it (i.e., an environmental factor). However, their own figures from a survey of over 1000 teachers in 151 schools could point to individual differences causing constraints too (although they do not explore this). Advanced skills teachers (ASTs) reported that they practised collaborative CPD more than others and the level of their belief in its value and the reported amount of participation were reasonably aligned. However, classroom teachers with no leadership responsibilities valued collaborative CPD less and reported far lower levels of participation in it. The reasons for these discrepancies are unclear and it is important to remember that Pedder and Darleen Opfer's findings (2011) are based on reports by teachers in a survey (a 39% response rate) and hence may not be representative of reality. Perhaps ASTs have greater ambition than other teachers and are more disposed towards experimentation. Or perhaps CPD opportunities are not well aligned with individual teachers' needs and wishes. Whatever the balance between individual and environmental influences on receptiveness to CPD, figure 1 (Kwakman, 2003) raises awareness that the introduction of collaborative tasks in individualist school cultures is likely to come into tension with individuals' desires/needs. As a result, this tension should be factored into the design of collaborative CPD programmes. How might this occur?

Research into human resources has recently suggested that in order for organisations to achieve their goals, they need to understand that *individual* employees rather than employers 'increasingly set the rules of their engagement with their work' (Rigby and Ryan, 2018: 134). The latter researchers argue that if organisations 'tap into the worker's internal frame of reference' (2018: 135) and harness her or his intrinsic motivation, the chances of success are greater than using rewards such as performance-related pay, top-down targets or sanctions which can lead to the pursuit of the path of least resistance, to the detriment of long-term investment of effort, loyalty and quality of outcomes. In order to harness this intrinsic motivation, some education researchers (Hobson and Maxwell, 2017) have argued that self-determination theory (SDT) (Ryan and Deci, 2000) merits attention. SDT highlights some of the psychological needs of individuals which may be pre-requisites for, but which perhaps are also further satisfied by, genuinely collaborative CPD.

Self-determination theory (SDT) consists of five sub-theories (Ryan and Deci, 2000). The first highlights three basic needs which are to some extent dependent on each other: competence, autonomy and relatedness (Ryan and Deci, 2000) although there may be more. Competence refers to the extent to which an individual feels able to do particular tasks (i.e., efficacy). Autonomy refers to the extent one's actions align with one's volition, as opposed to being controlled by other people. Relatedness is the extent one has a sense of belonging. Whilst I am unaware of specific research into collaborative CPD which has tested SDT as its theoretical model, researchers have empirically investigated its constituent elements in isolation.

Mitchell and Sackney (2011) theorise that improvements in classroom practice are related to competence, whereby an individual not only has a high degree of efficacy

but she/he believes in the competence of her/his colleagues to bring about positive change collaboratively. Muijs and Harris (2006) found this to be true and that it was enhanced when teachers had training on action inquiry methods.

Linked to competence is the amount of autonomy teachers have to take decisions in collaborative groups and hence leadership theoretically needs to be distributed (i.e., hierarchical boundaries are semi-forgotten about). However, Muijs and Harris (2006) found that unclear hierarchies were not necessarily welcomed by collaborating teachers, reportedly preventing them from taking on roles, out of fear of treading on others' toes. Nevertheless, at the same time, they reported that barriers occurred when leaders were not prepared to relinquish control and when they did not take active steps to encourage teachers to step up to the mark. Muijs and Harris (2006) also highlighted the risk that autonomy sometimes resulted in individuals working within one department introducing strategies and teaching ideas which go in different directions and lack coherence. In this way, they touch on the key tension alluded to earlier; how to create collaborative groups where individuals have autonomy but that this autonomy does not result in them working against, rather than towards a shared vision.

Practically-speaking, autonomy means that teachers, rather than school leaders choose the collaborative CPD activities they engage in, as well as determine the pace, method, order of tasks and other decisions (Kwakman, 2003). However, this is contrary to current practice (Hustler et al., 2003) and others declare that collaborative CPD is more effective when it focuses on a specific area linked to a department's or school's performance management aims (Leaton Gray, 2005; Pedder and Darleen Opfer, 2011). Furthermore, austerity measures and the large number of teachers

working in many UK schools mean it is not always practical to enable individual teachers to decide on their CPD activities.

The importance of the third element of SDT (relatedness) suggests mutual trust cannot be underestimated. The competition and accountability systems so prevalent within UK schools (Hobson and McIntyre, 2013; Ball, 1997) create a lack of mutual trust between colleagues and hence researchers (Lambert, 1998; Muijs and Harris, 2006) advocate a profound shift in culture. Although four out of the ten UK schools Muijs and Harris (2006) studied were heavily involved in externally funded collaborative CPD projects and hence are not representative of the national picture, they found that those leaders and governors who trusted colleagues to engage in distributed leadership, observed that better initiatives, grounded in everyday practice were more likely to arise and that the implementation of policy more readily occurred when colleagues had contributed to it. Muijs and Harris (2006) also argue that it needs to be clear that aspersions and blame for mistakes will not be cast. This seems particularly important if collaborative CPD activities which are often used as forms of performance appraisal (e.g., scrutiny of pupils' work or peer lesson observation) are to be viewed as opportunities for learning, rather than an occasion where teachers will be judged. However, as Muijs and Harris (2006) found, trust needs to be mutual and it was more prevalent in schools where staff felt they knew each other better.

As we can see, therefore, SDT (Ryan and Deci, 2000) does not adequately sum up the factors which encourage collaborative CPD and, if certain aspects such as autonomy are taken to extremes, it inhibits it. Nor does SDT explain all the factors which need to be taken into account for genuinely collaborative CPD to occur. However, as we shall see, SDT and the work of other researchers such as Kwakman (2003) provide theories

which have proven useful in designing the intervention which follows and in evaluating it. Before we come onto the intervention design, however, I wish to touch on which criteria one might use to measure collaboration and its impact on classroom practice.

Part 4: How do we ascertain whether collaborative CPD has a positive impact on teachers' classroom practice? Which practical constraints need to be overcome for transfer to occur?

A change in teachers' beliefs is thought to lead to changes in practice in the long term and changes may come about in a cyclical manner through dialogue, experimentation, inquiry and reflection (Bruner, 1996; Pareja Roblin and Margalef, 2013; Ermeling, 2010). However, I am hypothesising that there are likely to be variations on this, for example, a change in belief resulting from collaborative dialogue may be confirmed by classroom experimentation. Alternatively, experimentation in the classroom may lead to the reconsidering of a belief and then to a change in practice. Or a short-term change in belief stemming from dialogue may be annulled by the findings from classroom experimentation. The likelihood of these scenarios occurring may depend to some extent on the depth of the dialogue between colleagues. Therefore, when evaluating classroom impact, depth of discussion could be a measure of engagement in collaboration and hence criteria are needed which describe it. The same criteria could be used to describe the depth of the additional work involved in changing classroom practice (as observed in the classroom). Both could then be compared for each teacher to give an indication of the extent of transfer of ideas from CWG dialogue to their classroom practice.

Heifetz's typology of technical and adaptive work (1994) has been adapted by Gates and Robinson (2009) as a way of describing changes in organisations resulting from collaboration, with three main ways of classifying collaborative work highlighted:

1. *Technical*: An immediate issue is identified by the collaborating group of workers to which solutions are reasonably straightforward (no change in beliefs). In other words, a tweak to or variation on current practice may follow.
2. *Adaptive*: A loosely-defined, 'less-agreeable and difficult issue' (Gates and Robinson, 2009: 153) is identified, requiring the individual or collaborative working group to change beliefs and go beyond solutions already known. A clear change to current practice may follow.
3. *Technical and adaptive*: A clearly-defined issue but one which is difficult and where the solutions are not already known is discussed. Or solutions are known but the issue is open to debate. A change in beliefs and a change in practice may follow.

The criteria above may help us describe the depth of changes in belief and classroom practice brought about by collaboration. It may be the case (and this is conjecture) that adaptive work is more likely to lead to a long-term change in practice than the technical variety.

Whatever the case, the literature states that for changes to occur, not just I, the researcher, but also my colleagues, as teachers, should make time for regular opportunities to 'inquire into their impact on pupil learning' (Cordingley et al., 2015: 8). For example, pupil voice through think-aloud protocols and interviews can reveal 'unwelcome truths' (Charteris and Thomas, 2017: 162) which can inspire a change in beliefs. Yet the latter researchers point to the challenges of encouraging pupils to self-

assess and voice how they are learning. They conclude that pupils need training in meta-cognitive awareness for useful truths to emerge. Indeed, feedback approaches which encourage this have been shown to be effective (Graham, Harris and Mason, 2005.) There is a risk, however, that when training students in the use of meta-cognitive strategies, you deter their attention from subject-specifics. Nevertheless, research on the effectiveness of teacher inquiry on practice show early indications of a long-term change in their beliefs (Hardy, 2016) but these are very context-specific.

Whilst CPD which is collaborative in nature increases the chances of transfer of lessons learnt to classroom practice (Cordingley et al, 2005 and Day and Leitch, 2007), this is not a given (Ermeling, 2010) and as we have already discussed, individual, task and environmental factors continue to play a role. Those mentioned so far probably play an overriding role in determining whether positive changes occur in teachers' practice. What follows are some additional practical considerations.

Time is a key hindrance and facilitator to the transfer of lessons learnt through collaborative CPD to teachers' classroom practice. Where funds are limited, leaders may be asking teachers to volunteer time for the CPD, not to mention the extra work involved in implementing changes decided. Fielding et al. (2005) argue that it is not just necessary for school leaders to provide time but that the predication of this time influences the probability of learning occurring and the depth of what is learnt. They point to a nuanced conception of time which involves planning in thinking space for teachers to understand new concepts and re-conceptualise their practice 'like 'wait time' in classroom pedagogy' (Fielding et al., 2005: 35). Collaborative CPD projects which successfully bring about change take time, for example, 28.5 hours over 14 months (Ermeling, 2010) and at least two terms are recommended (Cordingley et al.,

2015). Careful attention has to be paid as to when collaborative CPD occurs, with Lakshmanan et al. (2011), for example, balancing sessions during term time with a summer course, with the benefits of the thinking space provided by the latter.

Time devoted to task design can also affect the eventual success of the intervention in the classroom. Task design may occur collaboratively but given that the needs of pupils will vary from class to class, it may require additional preparation from teachers at home and hence the importance of 'discretionary effort' (Rigby and Ryan, 2018: 135) in determining the eventual classroom impact. I suspect the effect of discretionary effort may be quite influential and yet few authors in the field of collaborative CPD allude to it. Discretionary effort may influence how well teachers tailor their intervention to their learners' needs (Fielding et al., 2005), as well as refining it and foreseeing problems. Ultimately the success of the intervention is likely to determine whether a change in beliefs occur.

In conclusion, collaborative CPD is likely to improve pupils' attainment, as well as teachers' efficacy, well-being and classroom practice when the environment respects practitioners' autonomy and is trusting, supportive and collegial. Collaborative learning is more likely to have a positive classroom impact if the groups of cooperating teachers arise organically, if the design of the task takes pupils' misconceptions as its starting point, if changes to practice are informed by empirical research and evaluated through inquiry, and if attention is paid not just to the quantity but also the predication of the time set aside for it. Receptiveness to collaboration will be dependent to some degree on individual participants' intrinsic motivation and their beliefs in their own and others' competence. The dismantling of hierarchies and levels of competition between

colleagues, other work and personal demands, as well as the appeal and relevance of the task to their immediate priorities are all likely to have an effect.

The educational innovation and overarching research question:

Having discussed the literature, let us now consider the educational innovation from which emerge answers to the question: 'What is the impact of collaborative working between teachers on their classroom practice?' In posing this question, I am not attempting to prove definitively that a change has occurred because of the innovation. Instead I will examine the nature of the impact on teachers' practice resulting from the parts of the intervention which involved collaborative working between colleagues, as well as considering what enabled and constrained this collaboration.

I hypothesized that one impact would be the introduction of new teaching methods, the catalyst for which would be rich dialogue between collaborating teachers bringing about a change in beliefs. Such dialogue would be characterised by in-depth consideration of pupils' learning, the identification of a key weakness in pupils' approaches to tasks and the formulation of solutions which would go beyond what was already known, i.e., adaptive work (Heifetz, 1994). Rich dialogue between colleagues would probably be influenced by favourable personal and environmental factors such as high degrees of discretionary effort (Rigby and Ryan, 2018), mutual trust, collegiality and collective efficacy, as well as by the design of collaborative CPD sessions which appealed and aligned with participants' priorities. Where some of these factors were lacking or when other stressors such as competing work or personal demands intervened, one would expect the dialogue to deal with a technical issue (Heifetz, 1994) and the impact on classroom practice to be partial or non-existent.

Detailed sub-research questions will be discussed later, along with further hypotheses. Before doing so, let us examine the methodology.

Methodology:

Participants:

The participants (n=13) were teachers of modern foreign languages in the faculty I lead. 13 out of 18 members of the department participated. Of the remaining five, three are language assistants and one colleague teaches in the evenings; they were excluded for practical reasons. My own participation comprised mostly of the design and leadership of the CPD sessions and the collection of data. Four participants are White British, eight were born in other EU countries and speak English as a second language and one is Arab Moroccan.

Overarching design:

As an activity from which answers to the question: 'What is the impact of collaborative working between teachers on their classroom practice?' could emerge, colleagues and I designed a piece of action research into languages pedagogy that was implemented collectively. However, the focus of my MSc project, whilst reliant on the implementation of this pedagogical intervention, is nonetheless separate from it, as I adopted a case study approach to explore the effect of collaborative working. In other words, this study does not concentrate on the outcomes of the languages pedagogy intervention in terms of student learning but rather on the impact of the tangential collaborative CPD sessions on teachers' practice. Figure 2 below illustrates the relationship between the strands:

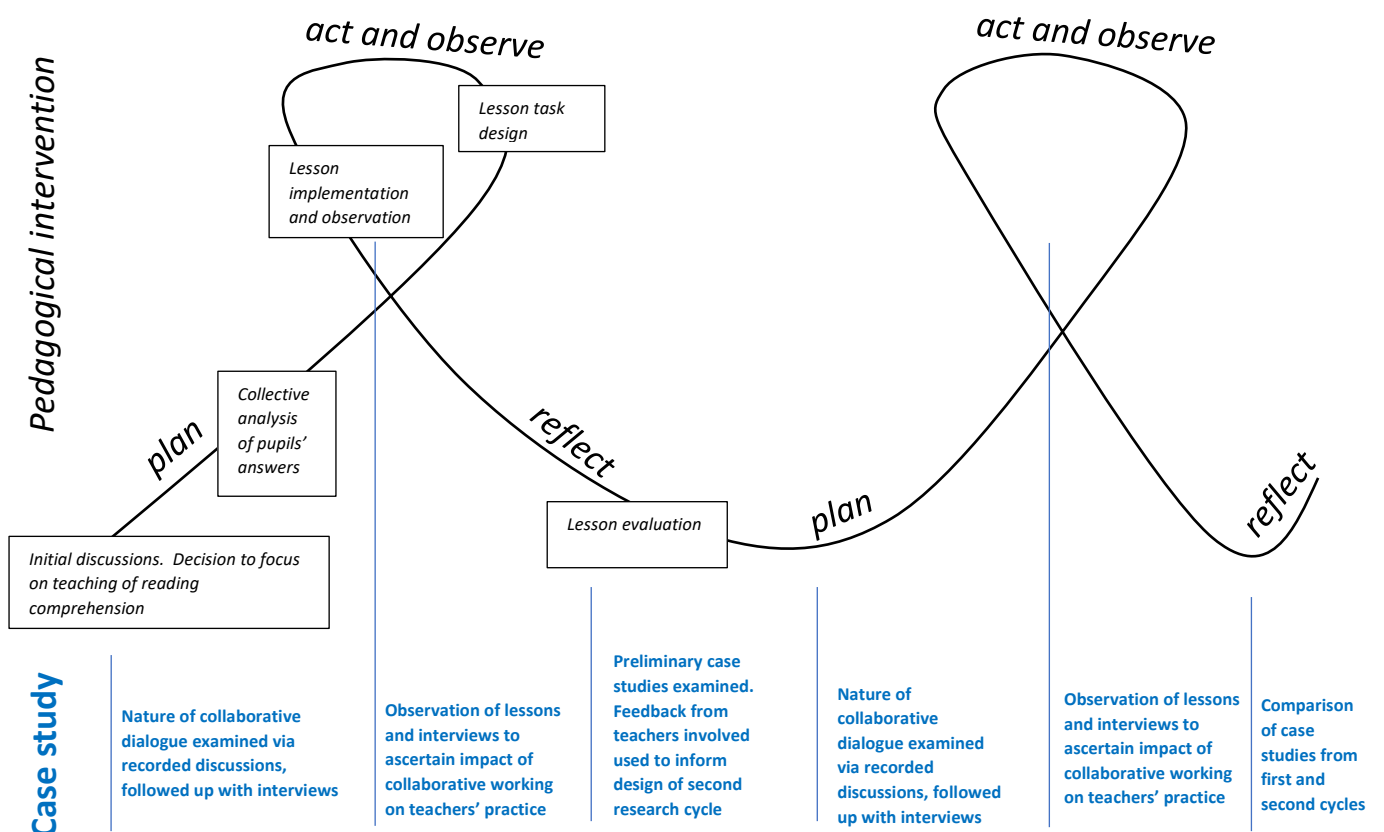


Figure 2: The relationship between the pedagogical intervention (in black italics) and my own research into collaborative working (in blue bold).

Design of the collaborative CPD sessions:

The collaborative CPD sessions, whilst evaluated using case studies, were similarly designed by adopting the 'plan, act and review' model that characterises action research (Edwards and Talbot, 1999: 63). Based on experience of working with my colleagues and informed by the reading of the literature, I identified an issue, planned and implemented the first stage, collected the data and reflected on the outcomes with colleagues, before initiating a second cycle, as figure 3 illustrates.

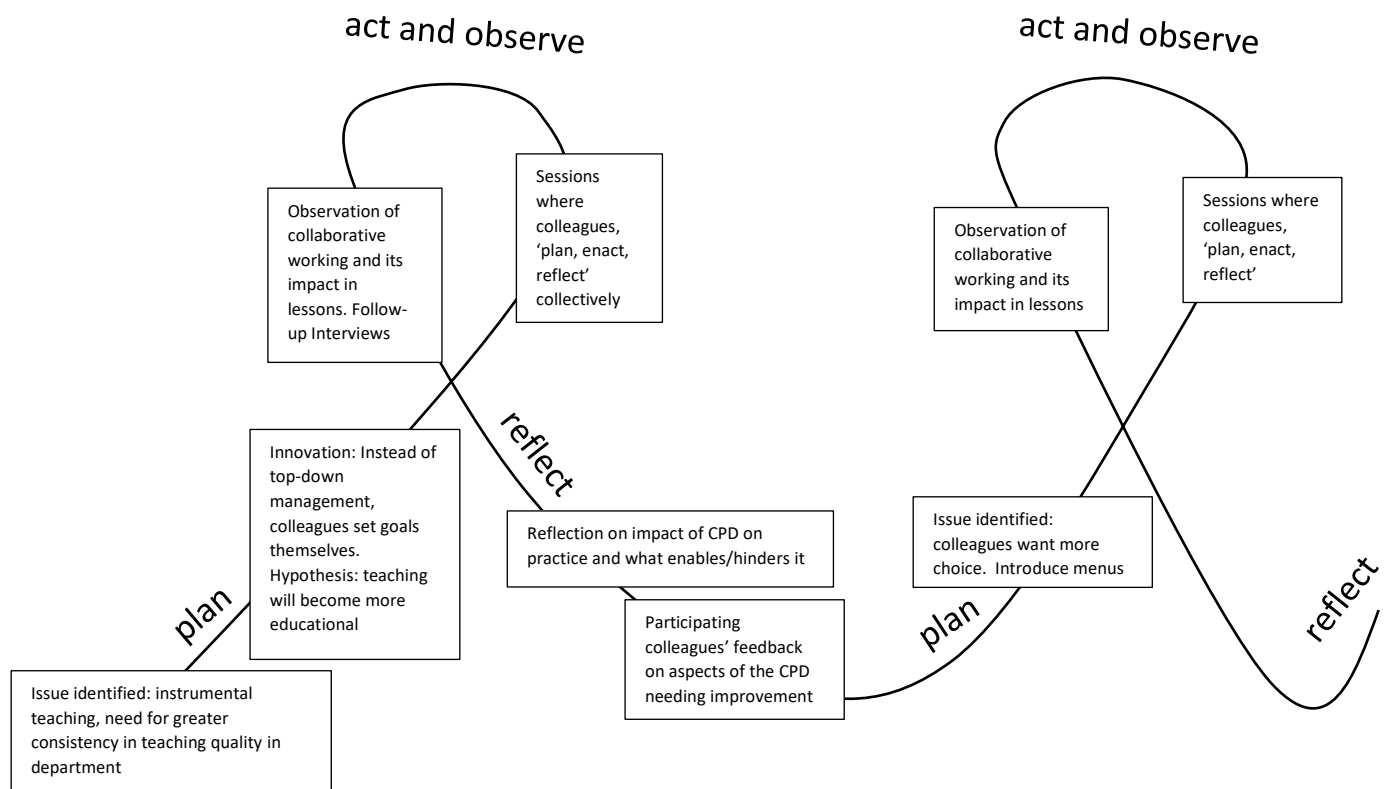


Figure 3: Action research cycles undertaken to design the collaborative CPD sessions

Action research was chosen because of its power to bring about change, both individual and collective (Cohen, Manion and Morrison, 2007). This change is likely to endure thanks to action research's approach of learning from the consequences of

change, through continuous systematic enquiry. Programmes such as 'lesson study' (explored by Dudley, 2013) were considered but as Cajkler and Wood (2013) point out, economic, timetabling and time constraints meant they would have been impractical.

In the literature review, we saw that collaborative CPD which focuses on how to teach specific concepts and the preparation of teaching materials lead to greater gains in pupil achievement than other types (Lomos, Hofman and Bosker, 2011; Ronfeldt et al., 2015), a finding which informs the design of the collaborative CPD in this project, described in greater detail later. Ermeling (2010), Visscher and Witziers (2004) and Muijs and Harris (2006) argue that collaborative working groups of teachers (CWGs) should analyse pupils' work to identify their learning needs and use this to inform changes in practice. Such analysis was hence the starting point from which the design of the pedagogical intervention developed.

Design of the pedagogical intervention:

The pedagogical intervention (as distinct from the design of the collaborative CPD sessions) emerged from us analysing pupils' answers to reading comprehension questions, before adopting the Sadler (1989) theory of closing the gap 'between an individual learner's current status and (their) aspirations' (1989: 130). Year 10 internal examinations in May 2017 revealed that pupils were having difficulties with inferring meaning from the context of texts. They were also neglecting to use and/or had deficiencies in their knowledge of vocabulary, morphology, syntax and tenses. A review of the literature proposed reasons for their difficulties and solutions. These

informed the design of the materials which were later used as a stimulus by collaborative working groups of teachers (CWGs) to change their practice.

A key question was whether our teaching reflects current understanding of how the skill of reading comprehension is acquired. Hersch and Andrews (2012) have found that highly proficient readers tend to recognise individual words and retrieve their meaning from their long-term memories (bottom-up processing) before turning to context to predict unknown ones (top-down processing). In the case of low proficiency readers, Stanovich (1980) theorises that they compensate for poor bottom-up processing by using top down approaches. Hence, one option we considered is the development of bottom-up approaches through 'narrow reading' (Krashen, 2004) where pupils read several texts on the same topic, within which similar vocabulary and structures are recycled. There is some empirical evidence of its effectiveness (Kang, 2015). Yet, bottom-up processes rely on pupils being able to spell well (Smith and Conti, 2016) and on phonological processing (Woore, 2009), so we thought fine attention to task design is required. Perhaps, as Erler and Macaro (2011) and the Teaching Schools Council (2016) have identified, like other UK schools we had not been developing pupils' capacity to link letter combinations on the page (graphemes) with their sounds (phonemes), in order to retrieve the meaning of words. However, pupils need to do this not just for whole words but also for smaller letter combinations (Woore, 2018), e.g., the phonemes and graphemes of common prefixes, roots and suffixes. Pupils require opportunities to identify the same prefix/suffix in different words and as Woore (2018) argues, complex texts and not just narrow reading are required to develop this decoding proficiency. Hence, in putting together the stimulus materials for this intervention, types of task which tackled phonological processing difficulties were included. Pupils' use of meta-cognitive strategies also seemed inefficient and, although research in this domain goes back over some 40 years, we sensed we hadn't

spent sufficient time teaching pupils to use them. ‘Modelling, combining and applying strategies’ (Macaro, 2001: 187) were selected to try (appendix 4), and have been proven to have some effect on pupils’ learning, particularly if taught in a manner whereby they successfully know when to use top-down strategies, as opposed to bottom-up ones and vice-versa (Macaro, 2003).

Detailed plan:

Having decided on the pedagogical focus, attention turned to the detailed design of the CPD sessions and the separate pedagogical intervention. CUREC approval was received in December, before implementation in January 2018. During the first research cycle, there were three sessions in which collaborating working groups of teachers (CWGs) participated. What we did in these sessions is outlined in Table 1 below.

Session:	Task:	When:	Time spent:	Who:	Data collection:
1	Analysis of pupils' work Teachers (individually and then in CWGs) forensically examined omissions/errors in answers written by three Y11 pupils in their mock GCSE reading comprehension exams. I selected the three pupils on the basis of their scores (high, middle and low) and took questions (two for each language) which caused the most difficulty for these different groups of pupils. CWGs drew hypotheses regarding the pupils' reasoning/misconceptions and considered why the pupils had taken a mistaken approach. Finally, teachers selected a pressing concern which was to become the objective for a lesson task, planned in the subsequent session.	Faculty meeting, 17 th Jan	40 minutes	Groups of 2-3 colleagues from the same language discipline	Scribe for each group filled out pro-forma with group's reasoning and ideas (appendix 2). Discussion recorded on dictophone.
2	Planning of a classroom task: Colleagues recapped the pupils' difficulties they had identified in the previous session. They were then given cards (appendices 3 and 4), each of which had a classroom task design feature or a task type which could be used to tackle the specific pupil difficulties identified. The ideas were taken from empirical research into second language reading comprehension. The CWGs read the cards and discussed the relevance and feasibility of the ideas. They then started to plan an appropriate lesson task, the detailed design of which was completed by individual teachers at home.	Faculty meeting, 24 th Jan	45 minutes	Same as session 1	Scribe for each group fills out pro-forma with group's plan (appendix 5). Discussion recorded on dictophone. Select teachers interviewed afterwards (appendix 6).
Enactment: Task tried out with Y11 classes		Any time between session 2 meeting and faculty meeting two weeks later	25-40 min activity in class (and time at home planning)	Individually	Segment observed in situ and/or recorded on video (appendix 7). Select pupils interviewed and samples of their work consulted. Teacher interviewed after lesson (appendix 8).
3	Evaluation of classroom task: CWGs reviewed their lessons together according to protocol (appendix 9)	Faculty meeting, 7 th Feb	30 minutes	Groups of 2-3 made up of teachers from different language specialisms	Discussion recorded on dictophone, notes on pro-forma

Table 1: Structure of intervention during the first research cycle

The composition of the groups for sessions 1 and 2 was dependent on their language specialism (French, German or Spanish) and mixed colleagues of different levels of experience. For session 3, they were changed to allow cross-pollination of ideas between different specialisms.

Session 3 not only asked colleagues to reflect on the implementation of their lesson task and what pupils learnt but also requested feedback on the design of the collaborative project so far. Their thoughts and ideas were then used to inform the design of the second research cycle, the detailed reasoning for which is explored in the later section on findings. In short, individual teachers requested greater autonomy to choose the area of focus for their professional development and hence collaborative working was no longer going to mean that everybody focuses on improving their teaching of the same skill (e.g., reading) but that individual colleagues would choose the skill that suits them (one from listening, speaking or writing) whilst still contributing to the wider collective vision. In other words, self-determination theory (Ryan and Deci, 2000) took on greater significance in the design of the second research cycle. Table 2 illustrates its structure.

Session:	Task:	When:	Time spent:	Who:	Data collection:
1	Planning: Prior to the session, teachers were asked to consider any area of their teaching related to writing, speaking and listening which they wished to improve, based on a recent issue they had encountered in class. At the start, three menus with ideas for writing, speaking and listening (all based on empirical research) were distributed (see appendix 10). Teachers were asked to read the menus individually and choose a skill. Five minutes later they found a colleague with whom they share the same language, same chosen skill and same year group (e.g., two teachers of Year 9 French paired together). For 10 minutes, they discussed the difficulties their pupils in one of their KS3 classes have in the chosen skill and the merits and disadvantages of the task design features on the cards, before sharing others they had come across. Next they took a topic they were going to cover with one of their KS3 classes and had 50 minutes to produce together a resource on their chosen skill that they could use in class over the following three weeks.	Faculty meeting 18 th April	65 minutes	Groups of 2 colleagues from the same language discipline	Discussion recorded on dictophone.
Enactment: Task tried out with Year 8 or Year 9 classes		Any time between session 1 meeting and faculty meeting three weeks later	25-40 min activity in class	Individually	Segment observed in situ and/or recorded on video. Select pupils interviewed and samples of their work consulted. Teacher interviewed after lesson.
2	Same as session 3 in table 2.	Faculty meeting 8 th May			

Table 2: Structure of intervention during the second research cycle

In the second cycle, it is important to note that groups of collaborating colleagues arose more organically than in the first, as colleagues chose them once they had decided their areas of focus (i.e., they were based more on common interests and mutual trust). Space does not permit me to go into the empirical research which underpin the ideas on each of the three menus, however, references and details are provided in appendix 10.

Hypotheses and research sub-questions:

In answer to the overarching question: 'What is the impact of collaborative working between teachers on their classroom practice?' the quadrant in figure 4, states my hypotheses. The term 'CWGs' refers to collaborative working groups of teachers and I took group dialogue to be representative of the nature of collaborative working.

		Nature of group dialogue	
		Rich in exploration	Lacking rich exploration
Classroom solution implemented according to the CWGs' objectives...	Fully	Teachers' practice is clearly influenced by the rich nature of group dialogue	The impact of group dialogue on teachers' practice is overridden in significance by other contributing factors, such as individuals' self-efficacy and ambitions
	In part	Shared knowledge of practice is not readily transferred into practice due to factors other than the nature of the group dialogue, such as competing priorities and time constraints	Teachers' practice is barely influenced by the nature of group dialogue

Figure 4: Quadrant showing hypotheses in answer to the question 'what is the impact of collaborative working between teachers on their classroom practice?'

To evaluate the intervention, my research questions asked:

- What is the nature (interaction and content) of the dialogue in CWGs?
- What influences the nature of dialogue (i.e., what encourages and constrains collaborative working)?
- In what ways did group dialogue have an observed impact on teachers' classroom practice?
- What prevented group dialogue from having an influence on practice?

I, therefore, measured:

- teachers' beliefs regarding the value of CWGs and how they perceived their individual professional identities;
- teachers' engagement in group dialogue and their reasons for engaging/not engaging;
- the depth of the content of their dialogue, whether they tackled difficult problems and volunteered solutions (as a second measure of engagement);
- what they transferred (if anything) to their classroom practice;
- the apparent 'discretionary effort' (Rigby and Ryan, 2018: 135) they put into transferring what is learnt to their classroom practice;
- what pupils gained from collaboratively designed tasks;
- the extent to which teachers felt collaborative working influenced the design of the tasks they used in their classrooms (and reasons why/why not);
- features of collaboration which helped and hindered the design of their task;
- the extent to which the task differed from what they normally do.

Data collection:

To determine the nature of the dialogue from which teachers' engagement could be measured, CWG sessions were audio recorded and transcribed. Whilst missing the non-verbal features of interaction (Mishler, 1986) audio recording was judged less intrusive than video recording such sessions. To measure teachers' beliefs, their reasons for engaging in dialogue (or not), the extent to which it helped or hindered the design of their classroom task, as well as more general views on the project, I interviewed six colleagues after the second CWG session and then again after their lesson in the first cycle. This was then repeated with the same colleagues following their lessons in the second cycle. Colleagues were selected for interview following critical incidents identified from the recordings of the second CWG session of the first cycle.

Interviews were chosen in preference to questionnaires because responses could be probed and both verbal and non-verbal cues explored (Cohen, Manion and Morrison, 2007). Moreover, interviews could be steered by both the interviewer and interviewee which meant findings which went against or arose in addition to one's hypotheses could emerge (Tuckman, 1972). Nevertheless, issues of mutual trust and bias had to be borne in mind (Walford, 2001) and the validity of the sample was contingent on the effective identification of critical incidents from the CWG recordings. Reliability also depended on the design of the instrument with Tuckman (1972) stating that indirect, non-specific questions would assist with the honesty of respondents' answers, nonetheless arrived at somewhat circuitously. Nevertheless, espoused theories did not necessarily match with what interviewees actually did and hence findings from interviews were triangulated against recordings of CWG sessions and lesson observations.

To measure what colleagues transferred from their CWG dialogue to their classroom practice, I chose to use mostly unstructured, qualitative lesson observation as this allows one to generate hypotheses, rather than simply test them (Cohen, Manion and Morrison, 2007). Before each observation, I noted on the schedule the key aims of classroom tasks and their design features, as stated during the relevant CWG. This was to ascertain whether the task fitted the aims expressed in the CWG. Each participating teacher had at least one lesson observed (most of which were video-recorded as well) in either the first or second cycle (except for one who had not planned anything) and eight out of the 13 teachers were observed twice. Where possible, I was also present in person and at points removed pupils from the classroom for a few minutes to interview them on aspects observed. Rating scales and event sampling were judged inappropriate, namely because they are used for hypothesis testing. However, at various points, a judgement was made regarding whether pupils were fully engaged, engaged or disengaged and a tally kept. This was used as a checking mechanism because whilst deciding which pupils to interview and then focusing my entire attention on them as individuals, there was the risk of losing sight of the impact on the whole class.

The claim made for observation is that it is considered 'non-interventionist' (Cohen, Manion and Morrison, 2007: 410). However, whilst pupils at times forgot that they were being recorded, this was not the case for colleagues (who were frequently facing the camera). At times, pupils and teachers perhaps worked harder than normal and my attention as an observer was of course, selective and perhaps biased by what I expected to find. Therefore, interviews with teachers and pupils were an important tool in assisting me with interpreting what was observed. In the case of pupils, interviews enabled me to gather their thoughts on the collaboratively designed tasks, to probe their understanding, to discover whether they were thinking in the manner in which the

tasks intended and to ascertain if and how the learning differed from what they normally do. For each lesson, I tried to interview at least one pupil who appeared to be having difficulties and another who seemed to be taking the task in their stride. One issue encountered was that of pupil agency; some are aware of how they learn, others lack this awareness. Added to this, one's reputation as a teacher precedes you and this affects how much information pupils are prepared to reveal! Frequently pupils will tell you what they think you want to hear but by asking the same question in different ways, the veracity of claims could be checked.

Data analysis:

A case study approach which triangulated various forms of qualitative data was selected. Case studies report 'participants' lived experiences of, thoughts about and feelings for a situation' (Cohen, Manion and Morrison, 2007: 254), for example, during a CWG dialogue or a lesson and hence they permitted critical incidents to emerge. These were comparatively infrequent and, therefore, would have been lost in approaches which count 'frequencies of occurrence' (Cohen, Manion and Morrison, 2007: 257). In other words, they separated 'the *significant few* from the *insignificant many*' (Cohen, Manion and Morrison, 2007: 258).

As a measure of an individual's engagement in collaboration over time, I started by counting the frequency of the use of the pronouns 'we' and 'us' by each participant from the audio-recordings of the CWG task planning sessions of the first and second cycles. The same was done for instances of the words 'I' and 'me' to see if the ratios between pronouns suggesting collaboration ('we'/'us') and those implying individualism ('I') changed. Totals were then divided by the number of minutes which each session

lasted. Whilst this gave a numerical figure, frequency did not necessarily reflect engagement in collaboration. For example, the exercise involved planning a classroom activity and hence one would expect the use of first person plural pronouns. However, if teachers were anticipating how pupils would react to the task (which they frequently do when planning), the pronoun 'they' came more naturally. Some groups of colleagues who were adaptive in their changes, used expressions such as 'you could have...' or 'the pupils could...' to express the same sentiments as one would through 'we could...', for example. A few participants were observed pausing for thought for long periods, whereas at other moments these same individuals would voice ideas in quick succession. If engagement in collaboration constitutes words and thought, the number of words uttered alone is not a valid measure of it. After analysing 3 CWGs for two sessions each, the approach was, therefore, abandoned. However, it acted as a mechanism which potentially could call into question or affirm qualitative judgements, particularly if evidence from other forms of data collection was weak.

Hence, to gauge the *nature* of the engagement in the dialogue, alongside the interviews already discussed, I identified critical incidents. Critical incidents were points when conversation altered its course, when participants' behaviour changed from its normal pattern or when they said something which contradicted or confirmed an insight gained from other forms of data. However, I needed to be careful to avoid the 'halo effect' (Cohen, Manion and Morrison, 2007: 145) where my knowledge of the participants (as line manager or their teacher) could cloud judgements. Transcriptions were, therefore, coded to avoid misrepresentation and to assist with the drawing of more general findings. Codes included reference to participants' actions, types of talk and content. Their formation was more of an iterative process as one of the risks of applying codes linked to pre-determined typologies is tunnel vision, i.e., you miss identifying new categories (see appendix 11 for the codes used). Nevertheless care

was needed to ensure a balance between focusing too little on the whole, and too much 'on the sum of the parts' (Cohen, Manion and Morrison, 2007: 368).

Nevertheless, another measure of engagement in collaborative working is the depth of the content of dialogue. When listening to recordings of the CWG session, I, therefore, used Heifetz's typology of technical and adaptive work (Heifetz, 1994 after Gates and Robinson, 2009). Whilst the typology served as a useful means to categorize the depth in which pupil issues were discussed, it had the downside of not rating the importance of these issues. For example, an important issue might require adaptive rather than technical work. However, a more important one might require technical rather than adaptive work. One could argue that an effective CWG will tackle the most important issue first.

Ethical considerations:

In line with BERA guidelines (BERA, 2011), voluntary informed consent was sought from teachers and pupils beforehand. They were given an information sheet and were asked to sign a form detailing the purpose of the research, who would see the data, how it would be used, to whom it would be reported, and how it would be stored and destroyed. Signed consent was sought before every CWG session, subsequent interviews and lesson observations, and participants were reminded that they could withdraw at any point without prejudice (articles 10, 11 and 15, BERA, 2011).

However, one colleague consistently never started the recording device at all three of the five CWG sessions attended and instead recorded a presentation afterwards with

her group's findings. The principle of voluntary informed consent meant I judged it inappropriate to inquire as to the reasons. Whilst what follows is conjecture, the incident demonstrates perhaps how peer pressure may cause participants to sign a consent form, when in fact this consent is not genuinely volunteered. To try to avoid this, a briefing was held at the start of the research giving a full explanation of it and colleagues were given five days to consider their participation, rather than being asked to sign up on the spot. One may argue that the lack of trust (admittedly assumed in this instance) is a hindrance to collaboration and, therefore, merits exploring for the sake of academic freedom (article 6, BERA, 2011). However, the participant's right to not be impinged upon (article 12, BERA, 2011) and her right to privacy (article 25, BERA, 2011) are paramount, and hence I decided not to ask for her participation in interviews and lesson observations. Her recorded presentations were used, however, to help ascertain engagement in collaboration.

A characteristic of practitioner and action research is the challenge posed by hierarchical differences when the project leader has the dual role of being the researcher and the participants' line manager or teacher. Ethical issues concerning confidentiality (article 12, BERA, 2011) meant that I needed to be clear that findings for this research would not prejudice participants but that there were occasions, e.g., if child protection concerns had emerged, when this confidentiality would not have been guaranteed. If serious deficiencies in colleagues' practice had emerged, careful consideration would have been needed to establish whether fiduciary trust (Mitchell, 1993) overrode my responsibilities to pupils to address the issue, and my responsibility as a researcher to uphold academic honesty. In spite of participants receiving clear information regarding the level of confidentiality I could afford them when they gave consent (explored in detail later), a couple of teachers did try to cover up what they perceived to be deficiencies in their practice (Hobson and McIntyre, 2013). However,

by focusing their minds on specific instances and by asking the same interview question in a different way, at times I was able to ascertain inconsistencies. Social events and a sense of humour have proven very important ways of establishing colleagues' trust. I have been careful to omit specifics from interview findings which could identify participants to ensure anonymity (article 25, BERA, 2011).

Once data were gathered and interpreted, the write-up of the case studies were then passed by the relevant colleagues to check that the interpretation of the data was an accurate reflection of reality as they perceived it (Taylor and Bogdan, 1998). This was subject to confidentiality and hence sections with references to others were omitted. In this report, to ensure anonymity, I have made up names for each of the teachers (article 25, BERA, 2011).

Findings and discussion:

Before considering detailed case studies, some general findings are of note. Taking the audio recordings from the CWG sessions and applying the variation of Heifetz's typology (1994) in figure 5 as a measure of engagement in collaborative working, 11 of the participating teachers (n=13) were engaged in the CWGs during the first research cycle. The two who recorded a presentation stated what pupils did wrong, rather than why, and suggested vague stock tasks as solutions. Therefore, they were classed as avoiding the task. All 13 were engaged in the second cycle. No general patterns of engagement were discerned by counting the frequencies of use of 'I,' 'we' and 'us.'

Seven colleagues (n=13) were observed implementing the collaboratively designed task in their classrooms during the first cycle, compared with ten in the second.

Hence, hindrances to transferring what was discussed in CWGs to teachers' classroom practice were overcome, in part, during the second cycle. A closer look at tables 3 and 4 overleaf, however, reveal subtle differences.

Technical: an immediate issue is identified by the CWG to which solutions are reasonably straightforward (no change in beliefs). In other words, a tweak to or variation on current practice may follow.

Adaptive: loosely-defined, 'less-agreeable and difficult issue' (Gates and Robinson, 2009: 153) identified, requiring the individual or CWG to change beliefs and go beyond solutions already known.

Technical and adaptive: clearly-defined issue but one which is difficult and where the solutions are not already known. Or solutions are known but the issue is open to debate. May cause a change in beliefs.

Avoidance: A difficult problem is avoided by the CWG.

Off task: Colleagues discussed things that were unrelated to the CWG task.

No class task designed/implemented: refers to colleagues who admitted that they had not designed or implemented the task.

Consent for lesson observation withheld/not asked: no lesson task/design was observed but it cannot be ruled out that the CWG dialogue may have had some impact on practice, unlikely though this may be.

Figure 5: Heifetz's typology of collaborative work (1994) after Gates and Robinson (2009) with some additional categories to suit this intervention

Table 3: The nature of the work of the CWGs (as ascertained through recorded dialogue), according to Heifetz's typology (1994) after Gates and Robinson (2009). Note that categorisation is noted for each participant (rather than for each CWG as a whole) to enable comparison with Table 4.

	First Cycle				
Teacher	Technical	Adaptive	Technical and adaptive	Avoidance	Off task
Olivia	X				
Lily		X			
Emma		X			
Alice		X			
Sarah		X			
Marge	X				
Karen				X	
Mike	X				
Sophie		X			
Simon		X			
Mary	X				
Val				X	
Jill	X				
Total:	5	6	0	2	0

Second Cycle				
Technical	Adaptive	Technical and adaptive	Avoidance	Off task
		X		
X				
X				
X				
X				
X				
	X			
X				
	X			
	X			
X				
X				
X				
9	3	1	0	0

Table 4: The nature of the work involved in the design of the classroom task and its implementation (as gauged by classroom observation), according to Heifetz's typology (1994) after Gates and Robinson (2009).

	First cycle				
Teacher	Technical	Adaptive	Technical and adaptive	No class task designed/implemented	Consent for lesson observation withheld/not asked
Olivia		X			
Lily		X			
Emma		X			
Alice				X	
Sarah				X	
Marge				X	
Karen					X
Mike	X				
Sophie		X			
Simon	X				
Mary				X	
Val					X
Jill	X				
Total:	3	4	0	4	2

Second Cycle				
Technical	Adaptive	Technical and adaptive	No class task designed/implemented	Consent for lesson observation withheld/not asked
		X*		
X				
			X	
			X	
X				
X				
	X			
X				
	X			
X				
X				
				X
X				
7	2	1	2	1

*(cue cards = technical, think aloud protocol = adaptive)

Judging by the recordings of the CWGs, five colleagues worked technically together during the first cycle, whereas nine worked technically during the second (see table 3). On the surface, therefore, the second cycle seems to have brought about greater engagement in collaboration. However, six colleagues worked adaptively in their CWGs during the first cycle, whereas only three (plus one who was technical/adaptive) did so in the second. In other words, although fewer participants were engaged in the CWG dialogues of the first research cycle, the depth of engagement by those colleagues who were engaged, was greater. Hence potentially the likelihood for a change in beliefs was greater during the first cycle, compared to the second.

Similarly, in table 4, although more colleagues implemented a lesson during the second research cycle than the first, for four of the seven who made a change to their practice in the first, this change was adaptive, compared with just two of the ten in the second cycle (plus one which was technical/adaptive). One could argue, therefore, that the first cycle brought about more frequent incidences of deep adaptive change which, one could hypothesize, is more likely to be sustained in the long term than the mostly technical changes from the second cycle. The examination of pupils' work in advance of designing lesson tasks seems to be responsible for instances of change which were adaptive, as the second research cycle did not involve analysis of pupils' answers before the task design stage.

It is important to note that the above findings constitute a qualitative comparison with a degree of subjectivity and hence are not statistically significant.

Case studies:

What follows is a number of case studies involving ten colleagues out of the 13 who participated. They are exploratory in nature and are not intended to test models or hypotheses. Instead the aim is to elicit the complexity of factors which affect individuals' engagement in professional collaborative learning and how the impact of it on their teaching varies on the specifics of them, their collaboration and their classrooms. The case studies also compare how this engagement and its classroom impact varies from the start of the first to the end of the second research cycle. However, be aware that we are not comparing like with like here – the instruments remain the same, but in second cycle the populations were re-distributed (i.e., individuals were grouped differently in the CWGs), and the intervention was significantly different.

Case study 1:

An early career teacher: CWGs as a catalyst to improved classroom practice

Olivia has high expectations of her pupils (as evidenced, for example, by the depth of feedback she writes on pupils' work) and fits broadly into what Day and Gu (2007) have termed 'professional life phase 0-3 years' (2007: 434), the key characteristic of which can be developing self-efficacy. During interviews she stated that she enjoys the intellectual challenge of trying out new pedagogical techniques and felt that collaborative learning was an opportunity "to get to the bottom of an issue." However, she also exhibits traits of later career teachers, stating that teaching comes into conflict with a healthy family life. At times, she becomes "burnt out" and hence is reconciling her pedagogical ideals and wider life philosophy with the realities of teaching.

One might expect this tension to cause a reduction in Olivia's receptiveness to collaborative learning. However, if we consider the lesson observation during the first cycle, this was not apparent. Following analysis of pupil answers to a reading comprehension task with two colleagues, Olivia hypothesized that whilst pupils might normally identify parts of speech correctly when in isolation, a high cognitive load due to a lack of knowledge of "clincher words" resulted in the students paying scant attention to the former. As a result, she designed a task where pupils had a series of three sentences (containing similar looking verb forms and parts of speech) and had to match up the two which meant the same thing. This was followed by a text where, for each paragraph, students chose from four subtly different sentences, the one which best summarized the paragraph.

The task led to lively debate amongst 12 of the 16 Year 10 pupils present and demanded from them subtle sentence discrimination, rarely found in UK textbook-based reading tasks. One pupil explained how she thought "j'aimerais" meant "I liked" because it came after "n'était pas juste" but then the nature of the multiple-choice task made her look at the verb endings again. She hypothesized that the ending 'erais' is future and that 'ais' without 'er' in front refers to a past event. Even though this is not strictly-speaking correct, she probably would not have deduced her own rules if the task had been designed differently. Other pupils reported at the end of the lesson that it made them aware of just how much attention they need to pay to verb endings when reading, not just when writing. Olivia concluded: "I tended to believe reading was mainly about vocab. But since we have had these [CWG] sessions, I think the importance of [pupils] recognising grammar in context strikes us more."

It would be incorrect, however, to assume that her change in beliefs was thanks to the *formal* CWG analysis session. Olivia's hypothesis was not expressed during the session because, as she stated during the subsequent interview, the conversation moved on too quickly. Due to hierarchical differences, she did not request that she and her colleagues consider in depth the reasons behind the pupils' approach. Her observation points to the importance of the constitution of collaborative groups, perhaps on the basis of mutual trust, as Lambert (1998) states and on shared beliefs and ideals, as Jao and McDougall (2016) suggest. Muijs and Harris (2016) indicate that managers need to make an effort to make it clear to colleagues that they are relinquishing their power and are happy to be challenged for collaboration to succeed.

Instead, Olivia stated that *informal* professional discussion lead to a change in her beliefs and that it was during a conversation with a colleague the day after the CWG session when the "penny really dropped" for her. Hence the potential for collaboration to lead to a change in beliefs does not necessarily occur during formally engineered sessions. However, in this case, the formal session provided a catalyst for a later informal conversation during which the desired professional development took place. The change in her beliefs and the resultant classroom impact (although I cannot confirm if this is long term) have required adaptive thinking (Heifetz, 1994), as the problems have not always been clearly defined, nor easy to solve. At the end of the project, she liked the fact that the starting point was analysis of pupil answers, stating: "for me I am a bit more aware of the types of difficulties students face, and I now break them down at a micro level and plan accordingly."

In the second research cycle, Olivia planned a lesson with Lily (a less experienced early career teacher) and with whom she shares the same year group, as well as common key beliefs, as she states to Lily during a CWG evaluation session:

Lily: I would say about 50% of the time we are about the same but you let your sixth form lead more than I do and I rely on PowerPoint.

Olivia: Yes, but fundamentally we have the same teaching style in that we want to have a clear idea of how students are going to progress in the lesson... we always see eye to eye when we discuss that.

In the second cycle, they created together prompts for Year 9s to translate which they could then employ when speaking. A speed dating task followed, during which the cues were gradually removed. Olivia stated that she rarely provides cues for students and it was an entirely new approach for Lily. However, during the lesson they realised that they had made a school boy error. The cue cards were unnecessary because the task occurred about a week before the class' end of year speaking test and pupils' revision was already under way! Whether the error here could be attributed to the relative inexperience of the collaborating colleagues is unclear but it raises another consideration as a leader of collaborative CPD: to what extent do you pair colleagues of greater and lesser levels of experience? Would the two more experienced colleagues alluded to earlier have realised and said that the cue card idea was inappropriate for the time of year? Or would hierarchical differences have prevented the idea from being explored collaboratively?

Answers to these questions are beyond the scope of this study. However, in spite of the unsuccessful classroom impact, there appeared to be greater levels of collegiality and trust between Olivia and Lily, than between Olivia and her collaborating colleagues in the first cycle.

Case study 2:

An experienced teacher's perspective: Collaborative working has a positive impact on her pupils' learning but it is contingent on task and environmental specifics

Emma is in professional life stage 24-30 years (Day and Gu, 2007). Unlike 24 of the 52 such teachers in Day and Gu's research (2007) who were losing motivation and commitment at this life phase, she stated she enjoys the craft of teaching.

Unsurprisingly, her response to the CWGs was positive and along with her two collaborators, she often adopted a role where she listened and offered additional hypotheses. In the extract below from the analysis section of the first research cycle, colleagues are discussing whether they need to place greater emphasis on encouraging pupils to use meta-cognitive strategies, or to rote learn commonly occurring vocabulary or whether they should teach them to pay closer attention to the constituent parts of individual words (e.g., prefixes and suffixes). The latter idea bears some resemblance to research by Woore (2009) on the phoneme-grapheme link and the importance of phonological decoding when reading:

Emma: So really then the main things we're saying is that students aren't looking back at their English, then they're not using their logic and what they know about English to help them get correct answers.

Sophie: And then the grammatical clues...

Emma: And then the grammatical clues from Spanish.

Lily: 'Cause you have to, [use grammar to help you work out meaning] you can't study every single word in the dictionary [...]

Emma: Absolutely and being prepared to change something you have written down if it just doesn't sound like any sense in your own language.

Lily: Because it's better.

Emma: Mmh.

- Lily: I think it's strategy mainly, especially with the first [pupil], I think she could have done better if she had just spent the time to apply that logical part [...]
- Emma: I suppose we have also seen that, both candidates, have..., there are specific words they have both found difficult and that maybe we need to push [the learning of vocabulary] even more in class, so that they recognise it and that 'peleas,' it comes up in the textbook actually... um, but...
- Lily: Yeah, but I think it's also telling them to just be prepared to use logic in the exam as well.
- Emma: In that particular context, yep.
- Lily: So things like 'actuación' and knowing that 'ión' can be an ending for a noun and then seeing a word that you don't know but you know that that ending might be a noun and then just applying logic that 'actuar' sounds like 'act.' Okay can I find any noun in English that might be like 'to act'? And that's it, you don't need to know that word.
- [...]
- Sophie: So you could have a list of words that have... I don't know how to explain it... Where you've got endings that can tell you, and so they have to say okay this is a noun, and 'ción' always ends, it's always feminine because that's... So recognising like patterns and...
- Emma: So, then you could give them the verb, couldn't you, tell them what the verb means and they have to then work out the [noun].

As one reads this transcript, the collegial and enthusiastic nature with which the three colleagues approach this task emerges. Whilst Lily (a teacher in her first year) stated that she learnt from Emma, Emma felt she gained from less-experienced colleagues too. At the end of the lesson during the first cycle, when I asked: "To what extent are the pupils familiar with the noun-verb task you tried?", Emma replied: "Not at all, it's just after Sophie and Lily stated that we should get them to see noun-verb links as part of their wider armoury that I thought of trying it." Indeed, the transcript above backs up this comment, as the teaching of a strategy does not really seem to dawn on Emma until Lily explains it.

Emma designed a task which encouraged pupils to see similarities between suffixes and prefixes in English and Spanish, as well as links between similar nouns and verbs (see appendix 12). A fun, yet challenging reading comprehension entitled 'The Search for the Perfect Partner' followed. The pupils were fully engaged and, as the dialogue below shows, there appears to be a clear transfer of what had been discussed during the CWG diagnosis session to classroom practice. For example, the pupils were thinking about the link between the noun 'ama' (lover) and verb 'amar' (to love) in the manner desired:

- Pupil 1: 'Tu media naranja' = 'half of the orange'... oh, 'your other half,' ...oh my god, I love that phrase! [...]
- Pupil 2: What am I getting confused with? 'Quieren', I have seen that before, or maybe was it,... was it a thing [synonym]...
- Pupil 1: ...like 'amar,' you mean?
- Pupil 2: Amy, what's 'amar'?
- Pupil 1: What's 'amar'?... 'to love'... Is it 'for her to love the house?' That's a bit weird though...
- Pupil 2: Does it mean 'to put effort into the house?'
- Pupil 1: Ah, 'ama de casa'... 'house lover'...
- Pupil 2: Yes! It's a 'housewife!'
- Pupil 1: Is that true here that 'the ideal woman for men is a house wife?' What!

One pupil stated: "We normally just read the text and we kind of know most of the words. Whereas this was different, we had to relate the words more to prefixes, whereas in the past I would just look at English similarities." Another: "We normally go through it bit by bit and sometimes you are able to use the translators but we didn't here. [Instead] we split it up sometimes, the false friends like then we could guess... and apply that to questions." In other words, an inquiry-based mode of instruction has

been adopted, whereas the pupils are suggesting that teaching was more direct in the past.

It should be noted that Emma's 'discretionary effort' (Rigby and Ryan, 2018: 135) played a clear role in this adaptive change to her classroom practice (Heifetz, 1994), both in the task design but also in the fact she chose a reading comprehension which is inherently appealing to teenagers. As a result, it is not possible to isolate collaboration as *the* mechanism which impacts positively on pupils' learning (but it is more than just a catalyst in this instance), as the teacher's effort amongst other factors clearly plays a role. The motivation for this additional effort was confirmed when Emma later stated that she preferred the 'analysis, planning, enactment' model of the first research cycle, compared with the revision game (for pupils) which she planned with colleagues during the second:

Weirdly the [task] that I did last time took more time [to plan]. I spent a lot of time planning it but I found it very useful because it was very much focused on an exam skill, whereas this one felt more fun...

Examination success was hence a significant source of motivation for Emma to modify her classroom practice. However, examinations also proved a constraint in the second cycle. Practicalities raised by the imminent internal summer exams meant she did not have the time to implement the game which was planned. Yet it would be wrong to suggest that this alone was the cause. Emma alluded to games as "not her style" and noted: "whether I am just reluctant to try things [...] I would more likely change things if I came in and watched you [referring to Sarah]." This points to a common hindrance of transferring collaborative learning to classroom practice, as alluded to by Veenman et al. (2001); that of working outside one's comfort zone. Note that if somebody modelled

the task, Emma stated that she would be more likely to try it, a finding which aligns with those of Darleen Opfer and Pedder (2010) and Cordingley (2005).

Case study 3:

A teacher in her first year: CWGs as an opportunity to learn but also to contribute to a professional community

The rich nature of the collaborative dialogue in case study 2 emerges perhaps thanks to the trust between colleagues and their enthusiasm for their vocation. Lily, with whom Emma collaborated in the first research cycle, is in her first year of teaching and talks about mutual trust giving her the confidence to exchange ideas. Indeed, it is arguable that Lily suggested the approach carried out by Emma in the first research cycle (see dialogue above).

After the CWG session, Lily planned a similar task to MF, drawing pupils' attention to the links between Spanish verbs, nouns and adjectives with similar meanings (e.g., 'ambicioso,' 'ambición,' 'abarcarse'), as well as raising awareness of false friends and synonyms. It was well-instigated and 17 of the 20 Year 10s present were fully engaged for the majority of the lesson. One pupil stated during an interview with me:

I guess like, [in the past] you kind of just looked at [the Spanish word] and thought of a similar word, like, in English. But then now you kind of think: 'is it actually the same word in English or something else?' Hmm... but then it's also like you can relate back to English and other languages cause sometimes before you would think 'oh, it's too obvious to be the same as English.'

This was not a task which Lily had tried before and hence could be classed as an adaptive change in her practice (Heifetz, 1994), although the long-term impact has not

been examined. Lily felt that small tips provided by Emma and Sophie (such as students using highlighters to identify parts of speech) were also useful as were opportunities for contingent collaboration. However, it has not always been an easy ride, as the second research cycle's lesson pointed to the professional perils of underestimating what pupils already know. At times of the year when there has been less collaborative working, for example, during exams, Lily has mentioned the frustration of not knowing what to do and comparing herself with colleagues who seem to be able to deal with the pressures better.

This study is not able to ascertain whether there are links between agency and collaborative working and whether collaboration and trust can help alleviate the troubles experienced by early career teachers. Yet as the literature points out that, if the environmental and individual circumstances so conspire, early career teachers call it quits, particularly if there is a competitive rather than a collaborative culture in the school (Hobson and Maxwell, 2017 and Day and Gu, 2007).

Case study 4:

The impact of teacher agency on receptiveness to collaboration

Sophie, whom we met in the dialogue in case study two, is nearing 10 years of teaching. She was the only colleague who brought adaptive change to her practice in both research cycles, using pupil work in both cases to decide her focus. Space does not permit me to go into detail but she summed up the venture:

It helped because we voiced more explicitly how to help students. I realised that perhaps in our teaching we take things for granted, e.g., we believe that

they [the pupils] can spot patterns and, I don't know, detail... when in fact we need to break things down more for them.

Family commitments and the pressure for pupils to perform in tests does not appear to prevent Sophie from taking risks. For example, she stated: "I feel that at KS3 I want to experiment more because there is less freedom to do so at KS4." Similar to Emma, she appears to imagine alternative possibilities, to change habits and to work around practical constraints (Priestley et al., 2012: 197).

At the other extreme, another colleague, Mary, gave an insight into some of the reasons why colleagues demonstrate a reluctance to experiment. She mentioned that it is a habit to assess frequently and "easy" to teach to the test, even at KS3, a set of years which do not involve high-stakes assessment. Her comment points to one of the key hindrances to transferring lessons learnt during CPD to the classroom and one which, comparing Sophie with some of the other colleagues which follow, is the result not just of environmental differences, but also different levels of ambition and efficacy.

A second issue is mentioned by Mary: "we are competing against [language X] to get students for GCSE" and hence "we assess a lot so that they do well." She explained that there is pressure to attain the highest scores in the summer exams in Year 9, so that they will take that subject in Year 10. The challenge I face, therefore, is to question this notion in my colleagues and to demonstrate through collaborative ventures that one can teach educationally without having a detrimental effect on pupils' results.

Case study 5:

Severe constraints

Olivia, Sophie, Lily, and Emma have reacted positively to CWGs and have made efforts to translate what they discussed into their classroom practice, even if this has not always gone to plan. The next case study points to constraints beyond individual differences in efficacy which halted transfer of knowledge to classroom practice, particularly during the first research cycle. However, as we shall see, they were overcome in part during the second.

Discussions in the Autumn Term prior to this project lead to a general consensus within the faculty to select reading comprehension as a focus for improvement. Come January, however, in the case of Alice and Sarah, the chosen area conflicted with the aspects which they, as individuals, wished to develop. In Alice's case, reticence emerged in a simple question: "remind us again, why we have chosen reading and not listening comprehension?" Similarly, Sarah stated during the first cycle evaluation session:

I think, partly it's because,... so... we're doing this [the reading task with pupils] for this [points at evaluation protocol], so it's not like you plan it in the lesson, like, I really want to focus on this with my students. Almost like, I have to do this, so then you don't plan enough time for it to happen.

These statements call into question those of Jao and McDougall (2016) and Timperley et al. (2007), who say that by focusing on common school or department goals, one can remove the effect of competing individual priorities. It also questions whether CPD closely linked to specific department or whole school aims, advocated by Leaton Gray (2005) and Pedder and Darleen Opfer (2011), is effective. In contrast, Day and Gu (2007), Hobson and McIntyre (2013) and Ryan and Deci (2017) advocate

individualised CPD opportunities. The latter, although not speaking in the context of schools, state that employees ‘increasingly set the rules of their engagement with their work’ (Ryan and Rigby (2018: 134)) and in the case of the two teachers above, I had not taken self-determination theory (Ryan and Deci, 2000) into consideration sufficiently. In addition, there may have been an element of risk avoidance here, as other studies such as those of March (2006) and Gates and Robinson (2009) allude to. As a result, during the second research cycle, I increased choice by designing menus from which teachers could select tasks, based on their most immediate priority to do with their KS3 classes (see appendix 10). Giving colleagues options did not necessarily come into opposition with the formation of, and work towards, a common goal, however. The menus had tasks which, when enacted, are fulfilling a wider department vision which we formulated in 2017. Through menus, I could also ensure that the ideas shared were informed by empirical research, in order to avoid harmful practices (Hargreaves and Fink, 2005), parochialism and group think (Day, 1999).

The menus seem to have had a positive impact on colleagues’ practice and the number who did not implement a lesson task reduced from six in the first research cycle, to two in the second. However, note that this is a small study and hence statistically insignificant, and any change cannot be attributed definitively to the introduction of menus, as discussed later. Sarah chose, along with a colleague, to design a checklist, an adaptation of the metacognitive strategy grid (Macaro, 2001) on the menu for writing. It had four simple points which her Year 9s were asked to follow to improve their accuracy when translating. The resultant translation was, according to Sarah, more accurate than normal but without a detailed study involving a control group and before and after testing, this would be difficult to ascertain. However, an examination of five of her pupils’ books shows that they have since used the checklist

on a second occasion, and they appear to have greater awareness of the issues it aims to address.

Why the change in Sarah's case? In part, she mentioned that she could focus on improving pupil's awareness of common mistakes which mattered to her. This finding backs up the importance of autonomy, as suggested by self-determination theory (Ryan and Deci, 2000). It is possible, of course, that Sarah would have introduced the checklist regardless of whether the collaborative planning session had taken place or not. Nevertheless, the importance of giving sufficient time for collaborative planning emerged, as she stated: "I think because last time we discussed our lesson ideas conceptually, we planned something quick or didn't, whereas this time we had a whole hour just for planning a specific activity, so we planned something more in depth..." It may also be true that MFL teachers did not find the notion of analysing pupils work particularly inspiring in the first cycle with four out of six stating at the final interview that they preferred the second research cycle for reasons such as the task being "more immediate" and "less conceptual."

In contrast to the colleagues discussed so far, adaptations brought to Sarah's practice are technical rather than adaptive in nature (Heifetz, 1994), as they have been straightforward and non-time-consuming to implement. Sarah and Alice are effective teachers, thanks to their pragmatic approach and they have a very clear sense of their own goals. They are within professional life phase 4-7 years (Day and Gu, 2007) and have both been promoted in the last two years. Therefore, perhaps 'the [perceived] need for classroom knowledge' (Day and Gu, 2007: 435) is less and along with personal characteristics, the effect of collaborative ventures focused on teaching practice, can only go so far.

Case study 6:

Collaboration to counter world-weariness?

The second research cycle seemed to engage Sarah more than the first and a similar pattern emerges in this next case study. Karen has been teaching for about 20 years and after the second CWG session (of the first research cycle) she talked of how she shares similar beliefs with her colleagues, particularly regarding the desire to make pupils more independent. She particularly likes the International Baccalaureat because “you are not teaching to the test.” However, listening to the interview again, one has the impression that instead of embracing pedagogies which attempt to counter instrumental approaches, Karen is world-weary and uninspired by new initiatives: “I’ve been here so long and then I see us go full circle and back to the start.” This was backed up by recordings of her CWG’s dialogue as they analysed pupils’ answers to reading comprehension questions. Her remarks tended to focus on what the pupils did wrong, rather than considering why they got it wrong. Consent was not given for a lesson observation during the first cycle and hence I am unable to tell whether there was any classroom impact of collaboration.

In the second cycle, however, Karen was more engaged. In the planning session, she contributed considerably to the design of a speaking task, proffering ideas and demonstrating flexibility of thinking. For example, when her interlocutor questioned whether they wanted to teach Year 8 how to ask questions when they are only required to answer them in exams, she replied that it is useful for them to formulate questions, as doing so helps with understanding. When the context of the task on the menu wasn’t suitable, she exclaimed: “we could adapt it” (translated from the French; see appendix 13 for original script). Furthermore, she used the pronouns ‘we/us’ four times a minute in this planning session [use of ‘I’ was once a minute], compared with 0.8

times per minute in the equivalent session of the first research cycle [where the use of 'I' was seven times per minute]. By the end of the session, Karen and Mike's information gap task was nearly ready for the pupils and this time I observed the activity with her class.

The change in Karen's apparent engagement in collaboration occurred for a number of reasons. After the lesson, she explained that she preferred the "quick grab ideas" and the practical nature of the second research cycle, as the first was "more conceptual." Secondly, she explained that the timing was more convenient for her as she had gained time with sixth-formers going on study leave. This reinforces Fielding et al.'s findings (2005) that the scheduling and predication of time spent on CPD influences receptiveness to it. Thirdly, Karen described her interlocutor, Mike as "fun" and "easy to work with." Opportunities for fun perhaps stand out as an additional psychological need that individuals have which is not identified by self-determination theory (Ryan and Deci, 2000), as alluded to by Hobson and Maxwell (2017). Perhaps elements of fun warrant greater attention in the delivery of CPD.

These considerations aside, an analysis of the dialogue shows that Mike's role was important. A skilled manager in another area of school, Mike rarely has contact with Karen. His mother tongue is English and Karen's is French. Although we frequently converse with one another in foreign languages within the faculty, it is unusual for us to start a conversation in French when discussing pedagogy (regardless of whom you are talking to) and yet this is what Mike did. Both addressed each other using the 'tu' (informal) forms of the indicative and the imperative, and perhaps as French is not Mike's mother tongue, it has assisted with establishing a rapport, as Karen normally addresses colleagues using 'vous.' In other words, there are indications that trust

between Karen and Mike is high, although choices in our use of language do not necessarily reveal trust. Note that my interpretation here is conjecture, i.e., it has not been confirmed by either party during interviews. Nevertheless, if correct, it adds an interesting dimension to the literature on trust in that small gestures make a difference, particularly in departments where there is a diverse cultural mix.

Mike tended to move the conversation on but also listened to Karen's suggestions. It appears that both parties learnt something. Mike introduced Karen to peer assessment as a means of increasing pupils' meta-cognitive awareness and as a motivational tool. Karen suggested ways of making the French more authentic and simpler question forms which would make communication easier and more immediate. In Karen's lesson, the pupils were fully engaged in the information gap activity which involved pupils discussing what they were going to do at the weekend and when. One pupil stated she felt she was having "a proper conversation" as normally opportunities to speak are limited to a couple of exchanges. Another felt that thanks to the peer assessment grids, she had a better idea of what her teacher was looking for and: "not always to worry about mistakes...just use genuine phrases to say what you want to."

It is not possible to tell whether a long-term change in Karen's practice is likely to occur as a result of collaborative working. However, Karen said she felt the use of peer assessment was useful and the planning of the information gap task did not take as long as she had anticipated. The case of Karen demonstrates perhaps that if, as a head of department or a school leader, you wish to introduce collaborative working as a way to re-engage world weary colleagues, making the task immediate, giving a choice (e.g., a menu of tasks to select from and freedom to choose the composition of their CWG) and stripping away elements of teacher inquiry (such as the analysis

session of the first research cycle) may hook them in. However, this is unlikely to be effective in the long term. For others, the teacher inquiry elements are more likely to sustain them, as the next case study demonstrates.

Case study 7:

Collaboration as a means of introducing inquiry-based practice

The literature states that during the implementation of new pedagogical methods in their classrooms, teachers should have the opportunity to 'inquire into their impact on pupil learning' (Cordingley et al., 2015: 8). As a method of inquiry, Simon who has been teaching for about 25 years, tried a variation on a think aloud protocol whilst the pupils worked in pairs to translate sentences into English. The translation task had two parts. Firstly, pupils were encouraged to identify parts of speech and label them using codes before translating. The codes had the purpose of encouraging them to question their assumptions when they did not understand a word in English. Let's examine the following dialogue between pupils:

[The pupils are stuck on the underlined section of this sentence: 'Dann werde ich eine hellblaue Jeans und einen dunkelblauen Pulli tragen, um in die Stadt zu gehen,' which in English is: 'Then I will wear my blue jeans and a dark blue jumper in order to go into the city.']

- Pupil 1: ...so 'werde' is 'will.' 'Then I will my light blue jeans and dark blue something...' 'Then I will wear my light blue jeans and dark blue jumper.' What's 'um'?
- Pupil 2: 'Um'?
- Pupil 1: That's 'something in the city'
- Pupil 2: And I guess 'und um' equals 'and later'
- Pupil 1: Maybe it's just 'then, I will go to the city'
- Pupil 2: 'Then in the city to go'

Pupil 1: That's an F4 thing, 'city'.

Pupil 2: 'Then I will go to the city'

As you can see the pupils did not manage to translate 'um in die Stadt zu gehen' correctly (but they were very close) and ended up inserting the words 'I will' which are not in the underlined section of the German text. Simon said that when he listened back to the recordings, it made him think that he needs to simplify the task. Instead of asking pupils to identify every part of speech, he concluded that he should advise them to read back what they have written and ask themselves 'have I inserted words which are not there?' and perhaps just identify verbs/subjects. He also confessed that he hadn't quite understood what a think aloud protocol is and that if he had asked the pupils to explain their answers, they may have had more success at the task. With a reflective practitioner such as Simon, therefore, inquiry methods have the potential to change beliefs. I have been unable to discover, however, in which direction his thinking has gone since then.

Returning to Olivia who we saw in case study 1, initially she had difficulties interviewing pupils following a listening comprehension as they tended to repeat what they had been told to improve, rather than thinking for themselves:

Pupil A: I found I was just listening out for the words in the question but I think I need to work on negative and positive sentence structures more.

Pupil B: I often found myself behind what they were saying. I think I need to word on negative and positives and sentence structures.

This is in line with what Charteris and Thomas (2017) discovered. However, by referring pupils to the specifics of the task in hand and some patience, they gradually became better at expressing themselves and hypothesising:

Pupil A: I found it hard to know what to pick here because you had to think of synonyms for the word and also figuring out how to work out which word it is. I suppose I could try writing the word I hear down and seeing if that triggers something?

Olivia stated that pupils appreciated being asked for their thoughts, not just because they were being listened to but by voicing what they are doing, they are required to engage in evaluating the strategies they use for listening comprehension.

Olivia and Simon aside, time was a large constraint to encouraging colleagues to engage in inquiry. Careful modelling of research techniques is perhaps required to persuade colleagues that they are worthwhile.

Conclusions:

Conclusions from the data:

A wide range of individual and environmental factors were reported and observed encouraging and hindering collaboration, including teacher identity and the ways colleagues deal with pressures, whether personal or performance related. Technical and adaptive work (Heifetz, 1994) was observed in the CWG dialogues and the subsequent classroom activities devised by teachers, regardless of their career stage.

The most apparent impact of collaborative working in the classroom was technical in nature, rather than adaptive. Practitioners who were adaptive in their work, talked of the importance of spending time analysing pupils' answers together. However, in a school with only a few hours available to devote to CPD per term, expecting classroom impact of an adaptive nature is a tall order and a fine balance needed to be struck between creating time for this analysis and pragmatism.

Judging by the number of collaboratively designed tasks implemented in lessons, classroom impact, in particular of the technical variety, was greater in the second cycle than the first. The following were recorded as explanations for this:

- Instead of discussing the implementation of ideas in general terms, colleagues had an hour to plan a specific activity in pairs;
- Menus of tasks for each skill permitted colleagues to choose one which matched their individual priorities, rather than being slave to a whole department focus on one area;

- Menus meant that once colleagues had chosen their focus, they formed their CWGs based on a common interest (and perhaps mutual trust), rather than joining groups engineered by me;
- the immediacy/appeal of the activities was reported to be greater.

However, there was no measure to determine the relative impact of these factors and this is an area which merits future research. Nevertheless, the finding contrasts with some researchers who claim that CPD has more impact when it focuses on an area linked to a department's or school's performance management aims (Leaton Gray, 2005 and Pedder and Darleen Opfer, 2010) and much professional development in UK schools follow the latter model (Hustler et al., 2003). CPD based on such premises downplays the importance of individuals being able to exercise a high degree of self-determination (Ryan and Deci, 2017).

Limitations:

This study cannot say definitively that the classroom practice observed constituted a change to the norm, as it relied on verbal reports by pupils and teachers to ascertain whether lesson activities were out of the ordinary. Nor can it confirm that changes were the result of collaboration (i.e., they may have occurred anyway, if change-making is part of colleagues' normal routine of reflective practice). However, this is unlikely, as there were clear links between the content of CWG discussions and lesson activities observed. Later informal contingent opportunities for dialogue that arose out of the formal sessions were reported to be influential on classroom practice, in a couple of cases. The study was small-scale and focused on isolated lessons and long-term impact has not been examined.

The impact of trust, and the lack thereof, when collaborating cannot be underestimated, in line with findings from McIntyre, Hobson and Mitchell (2009) and Li et al. (2017). Colleagues who trusted each other, explored issues in depth or exchanged ideas seemingly more readily than less congruent groups.

Linked to trust, the tension between my role as researcher and head of faculty meant gaining consent for classroom observation was not always possible, neither, at times, was eliciting honest answers at interview. In line with Hobson and McIntyre (2013) and Ball (1997), certain colleagues constructed fabrications and avoided taking risks, perhaps out of fear of being judged and/or out of reluctance to add to an already heavy workload.

The challenge posed by hierarchical differences is rarely discussed in practitioner research and yet it threatens both the preparedness of colleagues to develop themselves professionally and the reliability of findings. However, trust gaining measures helped, particularly as colleagues got to know me better through participation in the project.

Recommendations and implications for practice:

Heads of department, supported by senior leaders, should reduce high stakes assessment at KS3, and, where possible, remove or reduce the frequency of performativity measures, in order to afford teachers the freedom to take risks. This

may reduce the avoidance behaviour observed in some cases, particularly when it comes to tackling important, yet unclear and less-agreeable issues.

The study has reminded me of the department's wider vision, of our sense of purpose and of the importance of developing one's practice, in a manner that is informed by empirical research and classroom inquiry. The collaborative analysis of data (e.g., through asking colleagues for comments on lesson observations, pupil interviews and the write-up of case studies) has enabled me and others to see the power of action research to question assumptions about our everyday practice, as well as reinvigorate our interest in how pupils learn.

The project has given me the tools to convene meetings where the department's direction and priorities are decided collectively. For example, we will be introducing a new form of internet-based comment-only feedback log this term, to increase students' ability to self-regulate. Whereas, in the past, this would have been an intervention imposed by the head of department, it has arisen out of requests from colleagues and its design has been a team effort that has undergone re-drafting, critical discussion informed by empirical research and a pilot with a small group of students. Perhaps colleagues, therefore, see how collaboration leads to ideas that are innovative whilst also giving voice to those who are pragmatic, thereby ensuring ideas have the best chances of success.

I have shared my results with the senior leadership team at my school and have been asked to run training for heads of department on how to embed collaborative CPD into fortnightly meetings. This year, I will also be assisting with a project bringing together heads of English, Languages and Latin from independent and state schools. The aim

is to develop a course which enables pupils to draw links between what they are learning in these three subjects and generate higher levels of literacy and linguistic understanding. The commissioner wishes to adopt the concept of using menus of tasks, as employed in this MSc project, to provide teachers with a bank of ready-made and research-informed activities.

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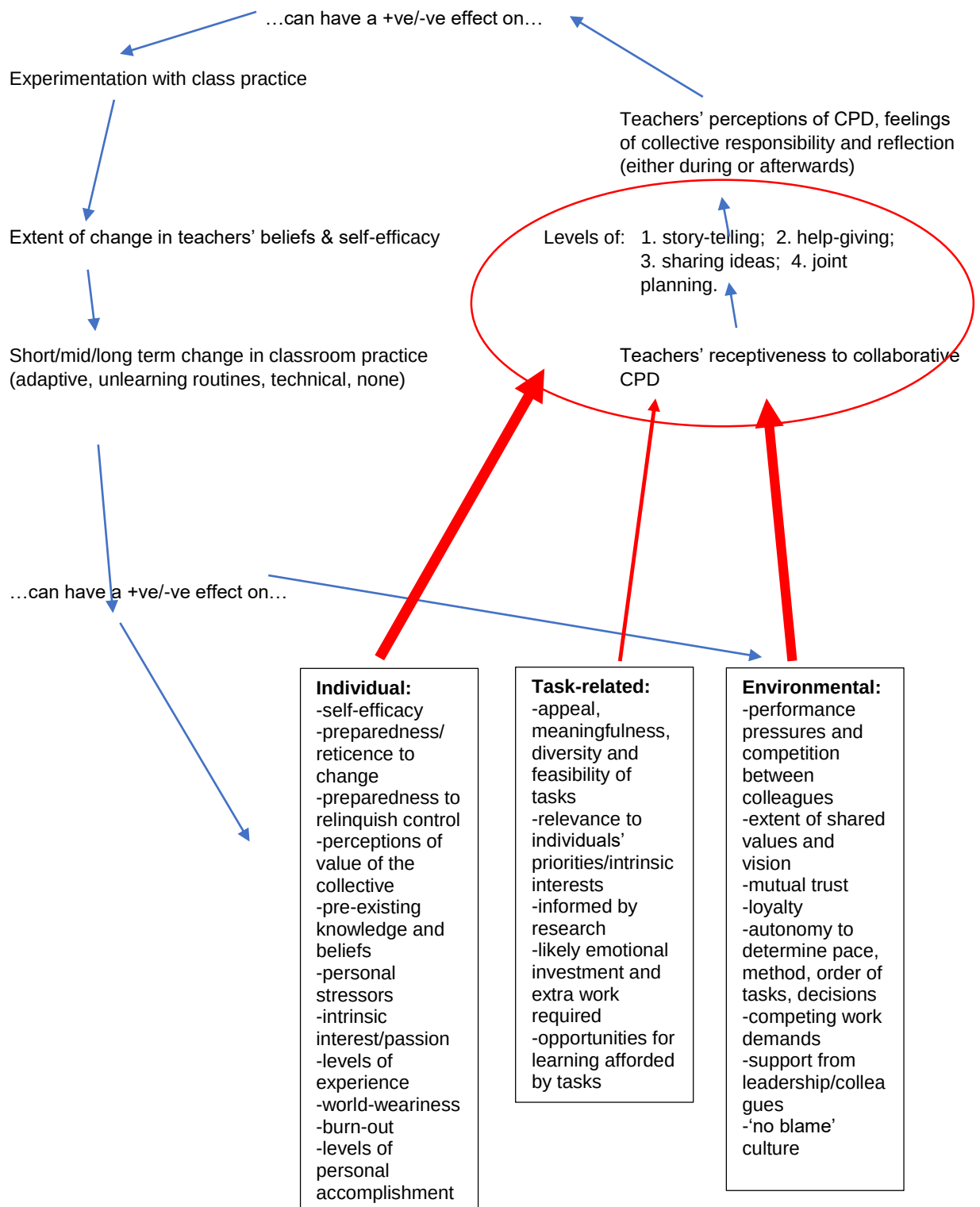
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Appendices

Appendix 1: Model showing the factors influencing engagement in collaborative CPD activities and their relationship with classroom practice (after Kwakman, 2003)



The thickness of the arrows in red represent the possible relative impact of factors, based in part on Kwakman's research (2003) and that of Pedder and Darleen Opfer (2011).

Appendix 2: Protocol for session 1 of the first research cycle.

Session 1: Diagnosis – Analysing pupils' answers from this week's mocks

Task 1: Individually (for 12-15 minutes) forensically examine each student's errors/omissions and try to get into the mind of the student. For each student's script, fill out the table.

Student	What has the pupil specifically failed to do or misunderstood? (List specific words/phrases/ grammatical points)	What do you think was going through the pupil's mind whilst coming to this answer?	Which strategies has the pupil failed to employ? Any underlying causes for her approach?
Example	Pupil has read: 'je trouve que les films d'horreur sont toujours la même chose.' Asked to write a negative aspect of horror films and wrote: 'wouldn't allways choose it.' Pupil thinks 'chose' is a cognate 'choose'.	I know 'toujours' = 'always'. 'Chose' looks like 'choose' to me. How about 'wouldn't always choose it'...? Unsure but need to move onto next question...	She does not think to parse sentences (i.e., recognise that 'chose' is a noun, not a verb.) Does not think to consider the tense of the sentence. Lack of knowledge of small words such as 'même' means she skims on
A	Translation:		
	TV viewing habits:		
B	Health:		
	A charity for the homeless:		

Student	What has the pupil specifically failed to do or misunderstood? (List specific words/phrases/ grammatical points)	What do you think was going through the pupil's mind whilst coming to this answer?	Which strategies has the pupil failed to employ? Any underlying causes for her approach?
C	Translation:		
	Health:		

Task 2:

In your groups, share and discuss your findings using the questions below to guide you. Please record your discussion using an mp3 dictaphone.

1. Do you agree with one another about the causes for the pupils' errors and/or strategies they failed to employ? What differences of opinion are there (if any)?
2. Given your analysis, what would be the key objective(s) of a future task which pupils could complete to tackle one/a couple of the misconceptions you have identified?

For next time... think of some activities which could tackle pupils' difficulties in reading

If you get the chance, it would be worth asking a good reader and a not-so-good reader what they were thinking whilst doing a specific task

Appendix 3: Set of cards with example classroom tasks for session 2 of the first research cycle.

Each of the words below you have not come across before are made up of suffixes and prefixes. Break the words down into prefixes, roots and suffixes, sound them out and then try and work out the meaning.

Find the synonyms then read the text and match up sentence halves

Collaborative translation: Working in groups of up to 4, students translate different parts of the same text into English and pass them on. Each member of the group then proofreads each translated section using a checklist (e.g., tenses, words left out, misreadings etc.)

Kahoot (One sentence in English with four very similar translations in the TL)

Spice up the text with some 'bluffs' – i.e., a text composed of brief news items. The stories should be reports of unusual events that have actually happened but include a few pieces of factually incorrect information. Pupils identify which pieces of information are factually incorrect

Two very similar texts – spot and describe the differences (include words and phrases which commonly cause problems)

Appendix 4: Set of cards with suggested design features for session 2 of the first research cycle:

Ask the pupils to sub-vocally question their assumptions ('it can't be that because . . .')

Model the parsing of a few sentences in the first paragraph of the text (as a whole class) before pupils do an individual or paired reading activity

With a partner take it in turns to read each sentence of the text aloud

Highlight the words with similar sounds. What do they mean?

To improve retention of new vocab encountered, pupils create mnemonics for some key words

Appendix 5: Protocol for session 2 of the first research cycle.

Session 2: Ways of Tackling Pupils' Misunderstandings/Difficulties with Reading

Task 1: Think back to Thursday's session. In your groups, recap together for 5 minutes your answers to the following questions (please record your conversation on the Dictaphone).

Which specific misunderstanding/difficulty with reading comprehension did you decide needed tackling in our first session? (A photocopy of the pro-forma you filled-out is provided.)

What is the cause/are the causes of this difficulty?

e.g., does not think to parse sentences because she does not know how to do this

Which strategies would you like the pupils to employ to tackle this difficulty?

e.g., Questioning assumptions (getting pupils to say to themselves 'it can't be that because . . .')

Are there any items of vocabulary/grammatical point which need to be taught/revised to tackle this difficulty?
(List specific words)

e.g., si, comme, personal pronouns

Task 2:

In your pack of cards are some tasks (blue) and some design features (green). Read and then in your groups brainstorm and write some ideas on the white cards for a few other tasks and/or design features which could be used to tackle the specific difficulties you've identified.

Task 3: Start planning together an activity which you would try out with your U5 or L5 to address the difficulties identified

Which activity would you try out in the classroom to address your chosen difficulty?

What needs to be done in the run up to the task?

What are the key design features?

Now critique the task/sequence of tasks you are planning:

Are the pupils likely to enjoy the task?

Are any aspects too different from what they normally do that they may not respond well? Can it be modified to improve their response?

Appendix 6: Questions posed at interview following session 2 of the first research cycle.

Post Session 2 – Interview with Teachers:

Strictly confidential and the report would be anonymised.

Referring to yesterday's session and last Thursday's CPD:

1. How did you feel about the task you were asked to undertake with colleagues?
2. Would you have preferred to do this task alone? Why (not)?
3. To what extent did you feel colleagues listened to each other?
4. How happy were you to share your ideas? Why were you happy/not so happy?
5. Do you think you share similar beliefs about teaching, learning and assessment as the colleagues in your group?
Have you an example of a similar belief you share?
6. Personally were you always in agreement with what your colleagues were saying?
Was there any point when you sensed a difference of opinion on a matter?
7. Did you express disagreement?
Can you give an example?
8. Have your beliefs about the teaching of reading comprehension stayed the same, as a result of the group task?
Why (not)?
9. Did you all decide to plan the same task?

10. Do you think the task will make a difference in the classroom?
11. Have you any further thoughts on collaboration between teachers in the department?
12. What do you think about the idea of doing Session 1 and 2 again at some relatively quiet point before July?
13. Would you be happy if I watched a lesson segment?
14. One final question – thinking about your wider professional development... How do you think you have changed as a teacher as time has gone on? (Professional knowledge, promotion, levels of satisfaction, status of teachers in society etc.)

Appendix 7: Observation schedule for lessons (both first and second research cycles)

Effect of collaborative working in the classroom – lesson segment observation schedule

Date: Period: Teacher: Language: Class: No. of pupils:

Teacher's aim behind the task she has designed:

- Specific strategies she wishes the students to use

- Specific vocab items/grammatical points that she wants them to recognise

Pupils' Written Answers (to be followed up with task recall interviews where possible)

Pupil-pupil interactions (if pairs/group work is involved)

Teacher-pupil interactions

- Examples of pupils using strategies which **the teacher has asked/taught them to use**. For example:
 - Identifying key sections of text
 - Recognising small words which have a significant influence on the meaning of a phrase
 - Writing something that kind of makes sense with words they do know
 - Questioning assumptions ('it can't be that because . . .')
 - Using knowledge of the world and common sense
 - Evidence of mnemonics used to learn vocabulary/taking

- Pupils recalling/recognising specific vocab **the teacher aimed at getting them to recall/recognise**. E.g.,:
 - ne...jamais...
 - ressembler (cognates)
 - si / même si
 - comme

- Evidence of pupils tackling misunderstandings which the teacher aimed at getting them to tackle. E.g.,:
 - Recognising personal pronouns (lui, le, la, y, en)
 - Not ignoring unknown words
 - Faux amis (recognising 'la cave' = cellar, 'bald' means 'soon' not 'bald' in German)

- Critical incidents (verbal and non-verbal cues)

- Are pupils enjoying the lesson?

Tally: Time 1: not engaged semi-engaged fully-engaged
 Time 2:
 Time 3:

Possible questions during pupil task recall interviews:

1. How did you find the reading passages?
2. If faced with a similar passage in future, on a scale of 1 – 10 how well do you think you would understand the gist? (1 = not at all, 10 = the entire gist)
3. And the details (1-10)? (1 = none, 10 = everything)
4. Which details were you pleased to have understood?
5. What helped you understand these details?
6. What difficulties did you face? How did you deal with them?
7. How was this lesson different from how you are normally taught reading? Would it be worth doing it again?

Appendix 8: Interview questions with teachers following lessons during first and second research cycles.

Follow-up interview with teachers following the lessons:

1. Did you feel that the CWG dialogue influenced the design of your task?
2. Which features of group dialogue/matters discussed helped and hindered the design of your task?
3. What other things influenced the design of the task?
4. In what ways did the task differ from what you normally do?
5. Did the students respond as you expected? In what ways?
6. Are you likely to try the task you designed again?

Appendix 9: Protocol guiding lesson evaluation during Session 3 of the first research cycle.

Session 3: Evaluation

You have about 15 minutes for this task.

- a) Think back to the reading task you did with your pupils
- b) Share with each other how you think the task went. Base your conversation initially around the questions below. Feel free to pose any questions which help the group to evaluate key moments of the implementation in depth:
 - 1. What did the pupils learn?
 - 2. Were there any exchanges between you and the students which were interesting or significant for you?
 - 3. Any 'aha' moments (i.e., when the penny dropped for you or a student or when you understood something you hadn't before)?
 - 4. What specifically caused these 'aha' moments?
 - 5. If you were to do the task again, what would you change (if anything)?
- c) Consider as a group the CPD project we have done since Christmas, from 'diagnosis' through to evaluation. Which elements have been useful? Which aspects are not worth repeating? What could be improved?

Listening:

Common pupil problems when listening:

- Difficulties attending to phonemes, intonation patterns, recognising known words in connected speech
- Difficulty gaining global understanding and inferring meaning
- Poor use of contextual clues

Suggestions:

- **Minimal pair discrimination between spoken words (A/B):**
 - Given a choice in writing, listener decides if she has heard A or B
chose/choix, il vient de/ils viennent de, ferme/fermé
- **Transcribe one member of a minimal pair (A or B?)**
 - Listener hears a word that is readily confused with another and transcribes it
j'achète, j'achèterai, je préfère, je préfèrerai, jamais, j'aimais
- **Phoneme discrimination:**
 - 'You will hear two words. Then you will hear one of them again. Write A if it was the first word and B if it was the second'
trop – beau trop
- **Segmentation:**
 - Give learners a transcript, in which groups of words (not just single words) have been omitted. Fill in the blanks.
 - Listen to the words I say. Then listen again and write down any syllable that occurs twice
gouvernement, ils préparent, le bonheur, la passion, l'espoir, l'aveuglement
- **Parsing:**
 - Gating: teacher gives the first word of a sentence and asks the class to write down what they think will come next. Teacher gives the first two words; class predict again. Teacher gives first three words, and so on.
- **Prediction of what might be heard:**
 - You are going to hear a recording about X. Brainstorm what you know about X (in L1 or L2). What words do you expect to hear which are associated with X? Give words in L1 when you do not know them in L2.
 - The speakers are people who do W, people who do Y and people who do Z. How do you expect their attitudes to differ towards X?
 - Now listen and check your prediction. If it gets really hard, write down words you hear in the margin and then in the time between 1st and 2nd listening, re-predict answer

Field, J. (2008) *Listening in the Language Classroom*. Cambridge: Cambridge University Press.

Graham, S. (2017) Research into practice: Listening strategies in an instructed classroom setting. *Language Teaching*, **50** (1), 107-119.

Vandergrift, L. and Tafaghodtari, M. H. (2010) Teaching L2 learners how to listen does make a difference: An empirical study. *Language Learning*, **60** (2), 470-497.

Speaking:

Common issues:

- Some pupils are reluctant to speak TL (fear of making mistakes? /of looking silly?)
- Pupils' use of TL is controlled by tightly-structured nature of some of our tasks? Few opportunities to use TL actively, to construct meaning freely rather than just practising a specific form?
- Pupils may not speak TL as part of normal classroom routine

Suggestions:

- **Students plan a set of weekend activities 'over the phone'.** Each partner has a list of their likes and dislikes and question formation would need to be revised in advance.

Student A	Student B
Likes: shopping, going to the cinema, listening to music, swimming	Likes: meeting up with friends, listening to music, swimming, going for walks
Dislikes: computer games, sport, going to cafés, going hiking, playing tennis	Dislikes: going to the cinema, computer games

Gehen wir ins Kino?

Nein, ich gehe nicht gern ins Kino. Spielen wir Tennis?

Nein, ich spiele nicht gern Tennis. Gehen wir einkaufen?

Ja, ich gehe lieber einkaufen. Um 10 Uhr?

Ja, wir sehen uns um 10 Uhr. Und am Nachmittag? ...

- **Guess Where:** Produce two versions of a picture of a house with family members distributed in different rooms. Pupils play in pairs. Each pupil keeps their version of the picture hidden and the objective is to be the first player to figure out where each family is in her opponent's house by taking turns to ask yes/no questions:

Is the dad upstairs?

Is the dad under the table in the living room?

Is the mum in the bathroom?

- Produce short video on **iPads** along the lines of 'a description of my room' or 'tell us about your favourite restaurant'
- **Human Bingo:** see overleaf
- Play '**Kaboom**' to practise any language, followed by rewards in subsequent lessons for spontaneous use

Est-ce que je peux (aller aux toilettes ?), Ce n'est pas correct ?, Comment dit-on... ?,

1. In pairs – one pile of cards (about 16 per pair), face down
2. Pupils take it in turns to select a card and give the correct response to a question or the question for the given answer
3. If their utterance is correct (determined by either a reference sheet or their peer) they get to keep the card. If they answer it incorrectly, the card must go to the bottom of the heap.
4. If they pull a KABOOM! card, they have to place all of the cards they have accumulated back into the pile, leaving them with zero. When you call a stop to the game, the person with the most cards remaining wins.

Christie, C. (2016) Speaking spontaneously in the modern foreign languages classroom: Tools for supporting successful target language conversation. *The Language Learning Journal*, **44** (1), 74-89.

Schenker, T. and Kraemer, A. (2017) Maximizing L2 Speaking Practice through iPads. *Languages*, **2** (2), 6-17.

¿Qué hiciste durante el fin de semana?

Nombre _____

Rules:

1. Ask your classmates the questions in Spanish.
 - a. If they say no – ask them another question, or move on to someone else.
 - b. If they say yes –
 - i. They sign on the dotted line.
 - ii. You ask the follow up question in Spanish and you write down their response.
2. If you are questioned in English, don't sign!
3. Each person can only sign your paper once.

¿Fuiste a una fiesta? x _____ ¿Con quién?	¿Viste una película? x _____ ¿Qué película?	¿Hiciste tarea? x _____ ¿Para qué clase?	¿Caminaste tu perro? x _____ ¿Adónde fuiste?
¿Visitaste a familia? x _____ ¿A quién?	¿Pasaste tiempo con amigos? x _____ ¿Con quién?	¿Trabajaste? x _____ ¿Dónde?	¿Fuiste al partido de fútbol americano? x _____ ¿Te divertiste?
¿Miraste la tele? x _____ ¿Qué programa?	¿Te quedaste en casa? x _____ ¿Estabas aburrido?	¿Fuiste a la iglesia? x _____ ¿A cuál iglesia?	¿Practicaste un deporte? x _____ ¿Qué deporte?
¿Comiste algo delicioso? x _____ ¿Qué comiste?	¿Jugaste videojuegos? x _____ ¿Qué juego?	¿Te levantaste temprano? x _____ ¿A qué hora?	¿Te levantaste tarde? x _____ ¿A qué hora?

How much time did you spend speaking Spanish? Rate yourself: 90% 80% 70% 60% 50%

¿Qué hiciste durante tu fin de semana pasado? Escribe unas frases sobre tu fin de semana:

Writing:

Common issues:

- Pupils' fear of the blank page – reluctance to consult their notes, resorting to Google?
- Lack of complexity
- Lack of monitoring of their work (or too much monitoring, so that focus is purely on accuracy, rather than fluency)

Suggested tasks:

- **Student scopes out in English what she wants to write before drafting in the TL – controversial!**
 1. Pupils brainstorm vocab in TL which matches the task requirements
 2. Write 100 words in English in response to the task (teacher circulates and discusses with individuals how realistic their response is – tells them to write a simpler version in L1)
 3. Pupils tear up their English response and then use their brainstorm & notes to write an answer in TL
- **Signalled sentence combining:** give some phrases and instructions on constructing a more complex sentence
Ich esse gern Pommes
Ich finde sie lecker [use 'weil']
- **Decombining:** Take complex sentences and break them down into small chunks (the opposite of the above). Theory is that by taking texts and breaking them down, students become more aware of the writing process
- **Social media 'slow chat' (using Padlet?):** students 'chat' (type messages) to each other about a given topic. Give out red cards to the task initiators and blue ones to the responders. Initiators pose questions. Every 7-10 minutes the initiators and responders swap cards. Set a time limit to answer, which varies from group to group. This could be followed up with a speaking task, along similar lines.
- **Metacognitive strategy grids:** develop a brain jogger along these lines:

In the course of your writing today, you may have noticed things which you are unsure about or which doesn't fit the pattern you've been building up. Make a note of how you dealt with your uncertainty				
I noticed that with a friend	I asked the teacher later	I consulted my grammar notes	I asked a friend	I think the new pattern is this:
In French, the ending changes to 'ent' sometimes		Yes		When saying 'Mark and Mary', verb must end 'ent'

- **A framework for self and peer assessment of written work:** develop a checklist or framework which pupils could use to check their own and others' work

Macaro, E., Graham, S. and Woore, R. (2015) *Improving foreign language teaching: Towards a research-based curriculum and pedagogy*. London: Routledge.

Macaro, E. (2001) *Learning strategies in foreign and second language classrooms*. London: Continuum.

Phillips, S. E. (1996) Sentence Combining: a literature review. Institute of Education Sciences (ERIC) <http://eric.ed.gov/?id=ED398589>

Appendix 11: Codes used to analyse dialogue during CWG sessions.

- Actions:
 - LISTEN: Adopting a listening role
 - REPHRASE: Rephrasing others' ideas
 - CLAR: Seeking clarification
 - ACTIVE: Actively leading the discussion on, e.g., by posing questions
 - ACTIVELY PASSIVE: when not saying something could be judged to be as important as saying something
 - NEW: Suggesting new ideas/diagnoses/solutions
- Talk type:
 - DEBATING (disagreeing)
 - BUILDING on previous utterances (i.e., agreeing)
 - EXPLORING ideas or analyses in more detail
- Content:
 - PROB TECH: Problem identified for resolution is immediate and feasible – technical work (after Heifetz, 1994)
 - PROB ADAPTIVE: Problem identified is not easily defined, less-agreeable and difficult to resolve – adaptive work, cognitive strain
 - SOL TECH: Commonly known solution put forward – technical work (after Heifetz, 2009)
 - SOL ADAPTIVE: Solutions not easy to find, require change in beliefs and time devoted to gain new understanding – highly adaptive work required
 - AVOID PROB: Problem avoidance
 - RISK AVOID: Possible risk avoiding behaviour
- Feelings:
 - AGREEABLE
 - OPPOSITIONAL



Reading Strategies in Spanish

Remember that it is unlikely you will ever have a text to read in which you understand every word!

That means it is crucial to build up your ability to work out the probable meaning of words you don't know and to deduce meaning from context.

There are a few tricks that you can adopt:

- Notice patterns that can help you work out what a word must be in English. Here are a few examples:

la prioridad, la obscuridad, la humanidad	'dad' at the end of a Spanish noun is the equivalent of 'ty' in English <i>- all feminine</i>
lentamente, cuidadosamente	'mente' at the end of a Spanish word means it's an adverb. It is likely to end in 'ly' in English
construcción, invitación, prohibición	Nouns ending in 'ción' often equate to a word ending in 'tion' in English
espacio, estilo, estación, espía, especie	Words starting with 'esp' or 'est' generally won't have the 'e' at the start in English. Remove the 'e' and it could help you spot the English meaning.

- Spot cognates (words that look similar to English words, or perhaps to French words that you might already know). What do you think these words could mean?

el protagonista	
la anestesia	
la galaxia	
el insecticida	
la pionera	
la imagen	
satisfecho	
la ingeniería	

- Another important strategy that can help you to decipher a sentence is recognising the function of the word. Is it a noun, an adjective, a verb, an adverb, a preposition? Sometimes you can work out the meaning of a word because you know another word that is related to it.

Try working out the meanings of the following words. In each pair you will probably know the meaning of one of them and this should help you work out the meaning of the word related to it:

Sustantivos (nouns)	English meaning	verbos	English meaning
la respuesta		responder	
la búsqueda		buscar	Search behind
el encuentro		encontrar	
el valor		valorar	
la pérdida	loss / lost	perder	— French
la influencia		influir	
el viaje		viajar	
el cambio		cambiar	
el mejoramiento		mejorar	

girls are close

NB However, we also have to be aware of ‘falsos amigos’ – words that look like English words but mean something very different. The six words underlined in the text on marriage problems below often crop up and can throw you off track. Do you already know what any of these really mean?

Actualmente hay personas que viven juntas cuando no están contentas en su matrimonio. Esto puede ser porque la pareja tiene niños por ejemplo, y no quiere separarse o quizás porque la mujer está embarazada. Alguna gente es muy sensible con respecto a las relaciones que tiene con su pareja y no quieren asistir a sesiones con un consejero matrimonial para buscar ayuda. Esto puede llevar a una relación triste durante muchos años. Algunas personas en una mala relación hablan con parientes y esto puede ser muy útil. Lo bueno es que muchas parejas que buscan ayuda tienen éxito en resolver los problemas que tienen.

En búsqueda de la pareja perfecta

You are now going to tackle a challenging reading text on relationships. Try to remember the various strategies we have looked at and don't be put off by words you don't know.

Work with a partner on the True/False exercise then tackle the 10 comprehension questions when you are ready, answering in Spanish.

¿Verdad o mentira?

- 1) Internet.Match.com es una empresa que te ayuda a encontrar tu media naranja*.
- 2) Las españolas no quieren hacer todas las tareas domésticas.
- 3) Las mujeres españolas prefieren los hombres rubios. *5/and men*
- 4) A los españoles no les gusta ayudar en casa. *helping at home*
- 5) La mujer ideal para los españoles es ama de casa.
- 6) Los franceses suelen ayudar menos en casa que los españoles.
- 7) El aspecto físico es lo más importante para las chicas de 12-14 años.
- 8) A largo plazo, lo más importante en un novio/una novia es la personalidad.

*tu media naranja= your other half (spouse/partner)

Lee el artículo que sigue y contesta a las preguntas en español.

EN BÚSQUEDA DE LA PAREJA PERFECTA

La película *'Las Mujeres Perfectas'*, con Nicole Kidman, ha planteado la cuestión de si existen el hombre y la mujer perfectos. La empresa InternetMatch.com, dedicada a las relaciones de pareja, ha hecho un sondeo a través de Internet para saber la opinión del público español. Según esta empresa, a las mujeres españolas les gustan los hombres con personalidad, morenos, amantes de viajar y preparados a compartir la educación de los hijos y el trabajo en la casa.

Según otro sondeo, también en España, a los hombres, les gustan las mujeres con estilo, seguras de sí mismas, económicamente independientes y con éxito profesional. Al igual que las mujeres, los hombres quieren tener hijos, pero el 58% de los hombres no quiere compartir el trabajo de la familia y la casa.

Según InternetMatch.com: *'se trata de machismo – muchos hombres siguen pensando que son superiores a las mujeres'*.

Los españoles son más machistas que los franceses. En Francia el 78% de los hombres prefiere dividir las faenas domésticas con la pareja. Otra diferencia es que los franceses prefieren a una mujer comprensiva y dulce y no una mujer con carácter fuerte.

Cuando se pregunta a los jóvenes ¿cómo es tu amor o pareja ideal?, la respuesta depende del sexo y de las edades. De los doce a los catorce años los chicos valoran más el físico mientras que las chicas buscan la sinceridad y que las escuchen. Sin embargo cambian las preferencias con los años y las experiencias en las relaciones de pareja. El físico sigue siendo importante en el momento del primer encuentro pero luego ya pierde esa importancia e influye más el carácter de la persona.

- 32 Según el artículo ¿por qué hablan en este momento del tema de la pareja ideal? [1]
.....
- 33 ¿Cómo obtuvo InternetMatch.com las respuestas a su sondeo? [1]
.....
- 34 ¿En qué están de acuerdo los hombres y las mujeres? [1]
.....
- 35 ¿Por qué ciertos hombres pueden tener dificultad en encontrar la felicidad doméstica?
(i) [1]
(ii) [1]
- 36 ¿Dónde parece que los hombres hacen más trabajo en la casa? [1]
.....
- 37 ¿Qué tipo de mujer les gusta menos a los franceses que a los españoles? [1]
.....
- 38 ¿A qué sección de la población le importa más que la pareja sea guapa o fea? [1]
.....
- 39 ¿Cómo es el chico perfecto para las jóvenes de 12 a 14 años? [1]
.....
- 40 Con el paso del tiempo ¿qué termina siendo lo más importante al elegir pareja? [1]
.....

[Total : 10]

Appendix 13: Example of codes being applied to an extract from a CWG dialogue.

- Session 1 of the second research cycle (planning a lesson task together on a skill of the participants' choice)
- CWG: Karen and Mike
- Focus: speaking

[The recording begins just after the participants have started choosing a speaking task from the menu (see second menu of appendix 9) to plan. They go straight to item 2 ('Guess where')]

Mike: Bon, alors...

Karen: Parce que moi, de toute façon... OPPOSITIONAL

Mike: Quelle activité te convient le mieux, alors... ? LISTEN

Karen: Ça dépendra, ça dépend...si on... si on... euh...ça dépend sur la photo... EXPLORE

Mike: Sur la photo...ah bon BUILDING

Karen: Ça BUILDING

Mike: Ça c'est mieux AGREEABLE

Karen: Mais le problème c'est que... attend, attend, oui, ça, c'était quoi... [reads aloud from menu] produce two versions of a picture of a... CLAR

Mike: Ça c'est pour pratiquer les salles de la maison et les membres de la famille et... CLAR

Karen: Mais on pourrait l'adapter, on pourrait l'adapter et, en faite, ce qu'on pourrait avoir, c'est ça, c'est pour les faire...euh...c'est pour qu'elles s'entraînent... parce que normalement, c'est elles qui choisissent la photo. Tandis que nous...on doit prouver...euh...on fait ça ou ça ? PROB TECH

Mike: Pour la photo, alors, au lieu de la maison, qu'est-ce qu'on fait comme contexte ?... Un centre sportif ? PROB TECH

Karen: Eh ben ouai, par exemple. Ou un stade... [reads aloud from the menu] EXPLORE

Mike: Ouai, Ou quelque chose des Jeux Olympiques... EXPLORE

Karen: Ici, attend, attend [reads aloud description of Guess Where] CLAR

Mike: En faite, je ne sais pas si ça convient bien parce que ça c'est pour formuler des questions et pour l'examen il faut pas formuler des questions... DEBATING

Karen: Non, elles n'ont pas le devoir de faire des questions... BUILDING

Mike: Ça c'est plutôt pour les questions BUILDING

Pause

Karen: Eh ben, pourquoi pas ça dans ce cas... ? DEBATING

Mike: Ou ça ? Les loisirs, les activités pour le week-end ? BUILDING

Karen: Ouai AGREE

Mike: Ouai AGREE

Karen: Ouai AGREE

[Pair moves back to Item 1 on menu and reads it]

Karen: Ben, ça aussi, c'est un peu aussi pour poser les questions... Mais, d'un autre côté, c'est pratique pour les réviser parce qu'il faut qu'elles comprennent les questions aussi PROB TECH

Mike: Oui, et alors, il faut commencer avec... tout d'abord avec les activités, pour réviser les activités et le temps aussi, peut-être et pas forcément le temps ? PROB TECH, NEW

Karen: Le temps, la météo, tu veux dire ? REPHRASE, CLAR

Mike: Non, non, pas le temps, le passé, à dix heures, cet après-midi... REPHRASE

Karen: Au oui, d'accord, les horaires ? CLAR

Mike: Ouai, les horaires... he he CLAR

Karen: Oui, il faut qu'on fasse des petites étapes... BUILDING

Mike: Est-ce qu'il faut, alors planifier tout le week-end ? Samedi matin, samedi après-midi, samedi soir ? PROB TECH

Karen: Ben, oui, donc, il leur faudrait...il faut qu'on produise une grille pour les étudiantes 'A' et 'B' avec... mais plus précise que ça...il faut qu'on ait... sais pas... samedi matin, après-midi, soir BUILDING

Mike: Qu'est-ce qu'elles vont utiliser, d'ailleurs... ? Les opinions, les horaires, les questions... Et le but serait de produire un plan pour le week-end entier, c'est ça ? PROB TECH

Karen: Oui, dans un certain... euhh... en faite... euh... ouï... Pour nous, tu veux dire ? CLAR

Mike: Pour elles CLAR

Karen: Pour elles, je pense que ça serait d'avoir une conversation... CLAR

Mike: Oui CLAR

Karen: Oui, mais pour tout le week-end. Mais d'un autre côté, c'est pas un peu dispositif ? Je ne sais pas si c'est pour Year 8. Parce que...je ne sais pas... comment on peut les aider à répondre d'une façon différente aux questions, tu vois ? PROB TECH

Mike: Est-ce qu'on va au cinéma ? Est-ce qu'on joue au tennis ? Non, je ne veux pas aller au cinéma...PROB TECH

Karen: Je ne sais pas comment on peut les aider à répondre différemment à toutes ces questions là... ? PROB ADAPTIVE

Mike: Mais en faite c'est la répétition, qui est utile peut-être... la répétition des activités et des opinions... BUILDING NEW

Karen: Et les activités, on peut les mettre en anglais CLAR

Mike: Ou bien avec des images... comme ça elles les traduisent pas EXPLAIN

Karen: Oui, ça c'est une meilleure idée CHANGE IN BELIEFS ? PROB ADAPTIVE

Mike: Alors le but c'est d'avoir une conversation REPHRASE

Karen: et d'arriver à planifier un week-end REPHRASE

Mike: Donc pour la « differentiation » on pourrait dire pour les meilleures, il faut dire six choses pour le matin, l'après-midi et le soir. Et pour le niveau moins élevé, peut-être quatre activités ou même trois ? PROB TECH

Karen: Et on pourrait avoir un système de points parce qu'il faudrait qu'elles utilisent des différentes opinions... je ne voudrais pas... ça ne me plaît pas...

Mike: La conversation va durer combien de temps ? 5 minutes ? PROB TECH

Karen: Jusqu'à cinq minutes, pas trop longue quoi... Pas moins de 2 minutes. BUILD DEBATING

Mike: Et pour évaluer la conversation un peu après ? ACTIVE PROB TECH

Karen: Ça dépend de la taille de la classe. Parce que moi, je ne vais pas certainement avoir le temps de les écouter ! DEBATING PROB TECH

Mike: Mais ils peuvent s'enregistrer et les échanger et après on peut faire du peer assessment...PROB TECH

Karen: Ah oui, comment faire ça? PROB ADAPTIVE
[I get the impression this is new for LL, so perhaps evidence here of her learning a new technique from AL]

Mike: S'enregistrer et après se réécouter et avoir un petit mark scheme ou elles peuvent envoyer les conversations entr'elles et on a une espèce de grille... NEW PROB ADAPTIVE

Pause – whilst they take notes