"Alone we can do so little; together we can do so much": can cooperative learning help raise achievement for students in secondary RE?

Elizabeth Clark

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"Alone we can do so little; together we can do so much":

Can cooperative learning help raise achievement for students in secondary RE?

ABSTRACT

Young people from low-income backgrounds are less likely to succeed than their more affluent peers (Andrews *et al*, 2017). Educational performance has been identified as one of the main obstacles preventing people from escaping poverty, nevertheless children from low-income backgrounds still fail to achieve their potential (ESRC, 2012). This has created an 'attainment gap' between pupils from low-income backgrounds and their peers. Whilst it is emphasised that there is no one solution to raising the achievement of disadvantaged learners, various factors are highlighted in helping achieving these aims, including: a focus on achievement for all pupils (not just disadvantaged pupils); high expectations for all; an emphasis on a 'keep up' not 'catch up' culture; targeted intervention where there is a knowledge or skills gap; and pupils sitting on mixed tables for access to good role models for behaviour, self-esteem, organisation, independence and vocabulary. An intervention was formulated centred on Robert Slavin's Student Teams-Achievement Divisions (STAD) cooperative learning technique. The intervention focused on preparing Year 8 pupils for starting the new Religious Studies GCSE course in Year 9, by mastering the skills and questions required. This process was completed over two learning cycles, throughout a 12-week time period. The findings of this study provided mixed results. An initial period of adjustment hindered STAD pupils' progress. During the last cycle of the intervention, pupils completing STAD were seen to achieve more highly than their control class counterparts. However, overall the control classes achieved more successfully than those completing STAD. Progress for disadvantaged pupils was also variable. Overall, the findings indicated that there was no 'one size fits all' approach between classes, and a variety of pedagogical methods has been recommended in order to respond to the needs of all pupils. No previous research appears to have been done regarding the use of STAD within Religious Education; this research aims to contribute to this gap in literature.

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1.0 INTRODUCTION

1.1 Rationale

As the Fair Education Alliance (FEA) identifies: 'Education in the UK is not fair' (2014). Young people from low-income backgrounds are less likely to succeed than their more affluent peers, and these inequalities transmit into a young person's life outcomes, impacting their health, happiness and career aspirations (FEA, 2014; Andrews *et al*, 2017). They are less likely to attend post-compulsory education, and are more likely to have lower average earnings, poorer health and a greater predisposition to involvement with crime, taking this concern into a wider social and community context (Andrews *et al*, 2017). This educational inequality impacts the economy of the UK: young people failing to reach their educational and economic potential wastes human capital, 'resulting in lower economic growth and increased costs to the tax-payer' (Andrews *et al*, 2017: 8). If educational outcomes for poorer children were raised, the FEA claims, by 2030 the GDP of the UK would increase by £6 billion a year, and by 2050 it would increase by £56 billion a year (2014).

The Joseph Rowntree Foundation (JRF) highlighted that, by December 2017, there were 14 million people living in poverty in the UK, which stands at over one in five of the population; four million of these are children (Barnard, 2017). The JRF (2014) defines poverty as a person having insufficient resources to meet their minimum needs, yet it must be noted that this is a relative definition: individuals are different and have different needs, and putting a financial income level on this is difficult and varies across the country. This is further reflected in that, in a society where absolute equality is impossible, there could always be seen to be an element of 'disadvantage': even if levels rise, the goalposts change. However, strong

correlations between socio-economic status and a pupil's educational attainment have been noted: educational outcomes for students from low-income backgrounds fall behind those of their peers across all key stages nationally, which has created an 'attainment gap' (Marcus, 2016; Rowland, 2017).

Educational performance has been identified as one of the main obstacles preventing people from escaping poverty, nevertheless children from low-income backgrounds still fail to achieve their potential: they are less likely to succeed educationally and professionally (ESRC, 2012; Sharples *et al*, 2011; Allen, 2013; Marcus, 2016; Rowland, 2017). Moreover, children from disadvantaged backgrounds are more likely to become 'NEET' (not in education, employment or training), highlighting further the impact of this problem not only on outcomes for the pupils themselves, but also in the wider social and economic context (Sharples *et al*, 2011).

The link between socio-economic disadvantage, and academic and life outcomes is not just a UK concern but a global issue, apparent in many varied and complex contexts (Marcus, 2016; OECD 2014). No one school, community or country is the same; consequently, 'disadvantage and challenge are not the same' (Lupton, 2004: 14). There is no one 'gap' or 'solution' (Marcus, 2016; Florian, 2016). The relationship between attainment and a family's socio-economic position remains particularly strong in England, however, in comparison to many other OECD countries (Jerrim *et al*, 2018; Crenna-Jennings, 2018). Not only can the gap be seen to have a negative impact on young people personally, but it can be seen to have an impact socially, in the local, national and global perspective. This educational inequality not only impacts the young people involved, but it can be seen to indirectly affect other members of society (for example, economically). Working to try and improve outcomes for

disadvantaged children benefits more than just the learners. For over 20 years, governments have therefore sought to lessen the gap (Andrews *et al,* 2017).

The lengthy focus of the government and educational research and practice on closing the gap naturally extends to educational institutions and the school in which this study takes place. The Senior Leadership Team (SLT) was keen to implement further efforts in order to improve educational (and thus life) outcomes for disadvantaged pupils – a matter of importance for the school considering it's slightly higher than average number of free school meals (FSM) pupils (30.9% of the school population, in comparison to the national average of 29.1%). Progress for disadvantaged students, as well as for the student body overall, was closely examined during the school's 2017 Ofsted inspection. The school was commended for its efforts and willingness to implement new strategies, however Ofsted declared that more needed to be done, making the issue a matter of priority.

The school was keen for me, as the Subject Lead for Religious Education (RE), to help contribute to these efforts (as one of a number of strategies being trialled throughout various departments), with a view to collaborating with and cascading any findings and successful strategies to the Head of Humanities, department staff, SLT and other departments. The intervention borne from my research was to further SLT's own aims of increasing independent learning and group work, and reducing teacher talk. These aims framed my research and intervention design, leading me into the direction of cooperative learning. This will be explored further in the literature review.

I also had personal and professional motives in carrying out this research. I feel it is my ethical duty to provide my students with the best opportunities to learn, develop and achieve their potential: to thrive and succeed. The recent introduction of the new RE GCSE generated new

challenges for my students; at the point of research my first cohort had just completed their first year of this course. Recognising the areas this cohort struggled with in regard to skills and exam questions, I wanted to ensure that I better prepared my future cohorts for success.

As a teacher, I am also bound by the Teacher's Standards; the Standards denote that it is a duty of all teachers to be accountable for pupils' progress, attainment and outcomes (DfE, 2011). It therefore follows that working to raise achievement for disadvantaged and for all pupils is crucial and an issue for all teachers to address. As the Department for Children, Schools and Families informed (DCSF, 2009: 25), children that are disadvantaged by low familial income are 'found just about everywhere [and as such the issue is] one for every head and every school'. Research identified that 'more successful schools saw raising the attainment of disadvantaged pupils as part of their commitment to help all pupils achieve their full potential' (Macleod *et al*, 2015: 4). Consequently, it was important that my intervention should focus on promoting higher achievement for all pupils, without isolating either those who are disadvantaged, or those who are deemed not to be. Effects of the intervention can then be analysed, on both the overall pupil body and disadvantaged pupils.

1.2 Context

The school in this study is a mainstream mixed secondary school in Southampton, with nearly 700 pupils between the ages of 11 and 16. The majority of pupils can be described as white British, however pupils come from a variety of social, racial and religious backgrounds. 30.9% of the pupil population have been identified as eligible for FSM, 1.8% of the pupil population have English as an additional language, and 1.3% have a statement of special educational needs or an education, health and care plan. There are five staff within the Humanities

department; all teach RE, in addition to myself as the specialist teacher. Pupils have one RE lesson per week in Years 7 and 8, and this progresses to three lessons over two weeks in Years 9 and 10. Pupils complete the Short Course RE GCSE in Year 10.

1.3 Aims

In addition to improving the achievement of the general pupil body, raising achievement for disadvantaged pupils (and thus life outcomes) is a particular focus of my school. Increasing independent learning and group work, and reducing teacher talk, were also specific aims of SLT. Because of the new GCSE RE, I wanted the intervention to be focused on better preparing Key Stage Three pupils for starting the GCSE course in Year 9. The aim of this was to embed some of the knowledge and skills required for the GCSE so that they could 'keep up' rather than 'catch up'. Because the Year 8 cohort were already more established at the school than the new Year 7, and because they were shortly to start the GCSE, Year 8 were chosen as the focus for this study. I aimed to form an intervention that could fulfil the criteria above.

Research led me to strategies focused around cooperative learning and the positive steps this could have in achieving these outcomes. The recognition of teamwork and cooperation as essential skills in contexts beyond the classroom, for example in the workplace, provides further impetus of hoping to better prepare pupils as future professionals and members of a cooperative society. I therefore wanted to research whether incorporating a specific cooperative learning strategy could help improve pupils' achievement. Achievement of all pupils will be measured, however the specific impact of the strategy on disadvantaged pupils

will also be analysed. Any findings or successful strategies will be disseminated with the hope of further raising achievement in the whole-school setting.

From a personal perspective, this study will give me a deeper professional understanding of teaching and learning strategies and practice, a better understanding of how my students learn best, and of the issues surrounding raising achievement for disadvantaged and all pupils.

No research appears to have been done regarding the use of cooperative learning within RE, or the use of the cooperative learning technique employed in this study in RE (Robert Slavin's Student Teams-Achievement Divisions), despite there being a large body of literature on this method. This study aims to contribute to this gap in the literature, as well as to the literature on disadvantage and educational inequality.

1.4 Research Questions

The following research questions were vital in providing me with an understanding of some of the issues that hinder the achievement of disadvantaged pupils, as well as an understanding of strategies that could support their achievement within the classroom context, and within my context in particular. This research was necessary in order to help inform and construct the intervention that takes place in this study.

RQ1. What is the achievement gap?

RQ2. What are some of the barriers to learning for disadvantaged pupils?

RQ3. What strategies help support achievement for disadvantaged pupils within the classroom setting?

RQ4. Could a cooperative learning strategy support achievement for disadvantaged pupils in RE?

2.0 BACKGROUND

2.1 Literature Review

The purpose of this literature review was to answer the following research questions:

- What is the achievement gap?
- What are some of the barriers to learning for disadvantaged pupils?
- What strategies support achievement for disadvantaged pupils within the classroom setting?
- Could a cooperative learning strategy support achievement for disadvantaged pupils in RE?

2.1.1 RQ1. What is the achievement gap?

The main proxy indicator for school children disadvantaged by low-income is eligibility for free school meals (FSM). FSM indicates families receiving certain benefits or earning less than £16,000 a year. There are certain weaknesses with this measure: not all children that are eligible for FSM have registered for them (either for administrative reasons, or parental reluctance to claim); and some children may also be equally poor yet ineligible to claim (DCSF, 2009; Sharples *et al*, 2011). Furthermore, regional variance with encouraging parental applications, or registering and recording eligibility has been identified (DCSF, 2009). However, the FSM proxy has value because it is the main source of data that schools hold regarding a child's familial income. It is a consistent and longstanding measure, focusing on approximately the lowest 15% by family income (DCSF, 2009; Sharples *et al*, 2011). Despite the weaknesses of using FSM as a measure, for these reasons FSM is seen to have a fairly

high degree of credibility, 'so long as it is remembered that FSM is a proxy for deprivation and not a definition of it' (DCSF, 2009: 39).

The link between socio-economic disadvantage and attainment is clear. The subsequent attainment gap between children from less-affluent and more-affluent backgrounds is longstanding; among OECD countries, the gap in England is one of the largest (Macleod *et al*, 2015). This attainment gap can be detected from as early as 22 months of age, pre-school, and it widens as pupils progress through the education system (Sharples *et al*, 2011). Much interest in confronting this gap has ensued, with numerous government initiatives for schools (e.g. Breaking the Link and the Pupil Premium) and communities (e.g. Skills for Life and New Opportunities) (Sharples *et al,* 2011). Despite this focus, and successive governments seeking to improve social mobility, progress has been slow (Andrews *et al,* 2017; Sharples *et al*, 2011).

However, as Strand (2014a: 242; 2014b) points out, 'complex social issues such as differential educational achievement are rarely amenable to simple (single) explanations'. A number of variables interact in affecting achievement and creating different 'gaps' (such as gender, ethnicity and social class). Strand (2014a: 224) identifies that, by the age of 14, the social class gap in England is reportedly '6 times larger than the gender gap, and 3 times larger than the ethnicity gap', however, little research has been conducted to analyse the interaction between these factors. Relating directly to the context within this study, Strand (2014a; 2014b) and Demie and Lewis (2011) identify that one of the groups with the lowest levels of educational progress are white British pupils of low socio-economic status (SES): only 39% of white British FSM girls, and 30% of boys, gain 5+ A*-C GCSEs. Whilst Demie and Lewis (2011) argue that the main reasons for this are factors such as low parental aspirations, low expectations, poor housing and economic deprivation, limitations in analysing this issue arise

from the lack of data identifying 'white working-class pupils' as opposed to 'white British'. They highlight the need for the government to identify and focus on raising achievement for white working-class pupils.

Between 2007 and 2016, the gap for those completing primary school had narrowed by just 2.8 months, standing at 9.5 months in total. The gap between disadvantaged 16-year olds and their peers had narrowed by only 3 months of learning, standing at 19.2 months (Andrews *et al*, 2017). Since 2007, the gap for pupils who were identified as persistently disadvantaged (those eligible for FSM for 80% or more of their school lives) had actually widened by 0.3 months by the end of secondary school. This stood at 24.3 months, or the equivalent of more than 2 years of learning (Andrews *et al*, 2017).

The *Education in England: Annual Report 2018* has identified little change. The gap between those from a low-income background and their peers on the completion of primary school stands at 9.4 months, a decrease of 0.1 months (Hutchinson *et al*, 2018). On completion of secondary school, it appears to close faster than in prior years, narrowing by 0.8 months to an 18.4 month gap in total. However, their research indicated that this could be attributed to government reforms rather than improvements in pupil performance (the English Baccalaureate and Progress 8 measures). More disadvantaged students had entered more 'academic' subjects – subjects with historically smaller disadvantage gaps (Hutchinson *et al*, 2018). By the end of secondary school, for the most persistently disadvantaged pupils there had been no closure at all. Because the English Language and Maths GCSEs had been less affected by the reforms, researchers could use these to provide a more accurate picture of the state of the gap. Using English Language and Maths GCSE data as their basis, the report predicted that, if current rates of progress persisted, the gap would take until the year 2155 to close (Hutchinson *et al*, 2018).

The complexity of the gap is evident by the fact that disadvantaged children do not fall into one homogenous group; there is no 'quick fix' (Crenna-Jennings, 2018; Kennedy, 2014). Many factors interact to support achievement or act as barriers. This includes gender, first language, ethnicity, special educational needs and disabilities (SEND), geography, and family history of disadvantage (Crenna-Jennings, 2018; Kennedy, 2014). Research further suggests that personal and social factors have an 80% influence over achievement compared to 20% for schools, emphasising the complexity and variety of factors at play, not all of which can be addressed by education (Lecky, 2017). There is not scope in this study to explore all of these areas, however I would like to address some factors here.

2.1.2. RQ2. What are some of the barriers to learning for disadvantaged pupils?

Since school achievement essentially signifies academic ability, it can be of little surprise that policy-makers focus on 'where disadvantaged children and families fall short in the school context – the gap in cognitive and 'non-cognitive' skills, attitudes and aspirations' (Crenna-Jennings, 2018: 4-5). But it is important to consider the broader context of disadvantage. How children and families function within the school system only tells part of the story; various familial and community factors mean that children do not start school on an equal footing (Crenna-Jennings, 2018). The skills a child needs to succeed at school are primarily the product of parental investment and cultivation, facilitated by the resources available to those families (Crenna-Jennings, 2018).

Family-level factors

From conception, factors connected to disadvantage begin to effect a child's development, wellbeing and health (Crenna-Jennings, 2018; Strand, 2014b). Risk factors from before birth

(including the health of the mother) can have a life-long effect. Whilst pinpointing contributory effects of exposures during pregnancy is difficult, a number of perinatal risk factors caused by disadvantage are highlighted (Crenna-Jennings, 2018). Those living in challenging socio-economic conditions are more likely to have chronic stress, which can cause poor foetal development (Beydoun and Saftlas, 2008, Crenna-Jennings, 2018; Ban *et al*, 2012). Pregnant women living in deprived areas are also more likely to smoke, linked to stress caused by poverty and a lack of access to support to enable them to stop. This increases the risk of having a premature or low birth weight baby, which heightens the probability that the child will experience cognitive problems, including behavioural issues (Crenna-Jennings, 2018; Aarnoudse-Moens *et al*, 2009).

The home environments disadvantaged children are born into also, Crenna-Jennings (2018: 7) argues, tend to be 'less conducive to healthy family functioning and child development,… school readiness and performance'. She espoused that there are four main pathways to consider:

- The impact of material deprivation
- The home learning environment
- Family stress and functioning
- Child-rearing strategies

Insufficient money impacts the resources with which a family can support their child's development and learning. This includes books and toys to stimulate their child intellectually, and items like nutritious food, which is vital for healthy brain development and supporting a healthy body and mind (Crenna-Jennings, 2018; Strand, 2014b). This extends to families

lacking home access to computers and the internet, hindering a child's ability to complete schoolwork and communicate with others (Crenna-Jennings, 2018).

Strong home learning environments (including the learning of numbers and the alphabet, playing games and going on educational visits) and caregiver-child interactions are vital in leading to the development of reading, spelling and verbal skills, positive behaviour, good wellbeing and an enjoyment of school (Crenna-Jennings, 2018). Disadvantaged families may be less able to provide resources or educational visits financially, but studies in the UK and US show that disadvantaged parents are also 'more likely to underestimate the impact they have on their child's cognitive development and learning – and therefore may be less likely to engage [in these] practices' (Crenna-Jennings, 2018: 8). There is also a greater likelihood that disadvantaged families are living in poor or overcrowded housing, which can negatively affect a child's physical and mental health (Crenna-Jennings, 2018).

Child development is a result of the interactions between a child and their caregiver; disadvantage can result in family stress, which can disrupt relationships and lead to poorer outcomes for children (Crenna-Jennings, 2018). There is no solitary factor that causes a caregiver to mistreat their child, however certain forms of abuse and early life neglect are more frequently associated with challenging socio-economic settings. Parental support has been shown to partially cushion the negative effects of adverse childhood experiences, however this support is less likely because disadvantage disrupts healthy family interactions (Crenna-Jennings, 2018). Adverse childhood experiences can become a barrier to learning: children are likely to lose concentration, withdraw or become aggressive (Bethell *et al,* 2014; Crenna-Jennings, 2018).

Economic hardship has also been seen to lead to inter-parental conflict: hardship disrupts parental relationships and worsens parent-child relations. Negative parenting (parenting that is harsh, inconsistent or uninvolved) results in poor outcomes for children, and is a predictor of child mental health problems as well as low academic performance (Harold and Sellers, 2018; Crenna-Jennings, 2018). Furthermore, evidence suggests that there are socio-economic differences in approaches to parenting, which advantage children from affluent backgrounds (Crenna-Jennings, 2018).

A study conducted by Lareau in the US identified that middle-class families tended to promote 'concerted cultivation', wherein parents were more likely to encourage their child's interactions with institutions, authority figures and enrichment activities from an early age (Lareau, 2003; Crenna-Jennings, 2018). Disadvantaged families, contrastingly, tended to be less invasive, less likely to structure their children's daily activities, and less likely to involve their child in enrichment activities (Lareau, 2003; Crenna-Jennings, 2018). Although not in all cases. Further UK and US evidence supports this (e.g. Wheeler, 2018; Vincent and Maxwell, 2016; Chanfreau *et al*, 2016).

Whilst Chanfreau *et al*'s (2016) study identified that participation in clubs and enrichment activities was associated with higher levels of academic attainment, disadvantaged children were less likely to participate. This was likely to be caused by the direct or indirect costs involved (for example, the cost of kit, materials or travel). However, although Chanfreau *et al*'s (2016) study noted that enrichment could lead to positive achievement, their data did not identify what children were specifically doing during these activities; it was not clear what conditions were most beneficial for children. More affluent parents are also more able to provide additional academic support, such as private tuition; 11-16 year olds from

wealthier backgrounds are 15% more likely to receive tuition than disadvantaged pupils (Crenna-Jennings, 2018).

Low levels of parental education can also impact on parents' own levels of interest in education, they and their child's levels of motivation and aspirations, and the extent to which they can assist with school work, which can hinder their child's development (Hills and Stewart, 2005; DCSF, 2009).

The community context

The networks, norms, institutions and resources that shape a child's community are also important in understanding educational outcomes. There are few studies that account fully for the relationship between an individual and place. Whilst area deprivation has been linked to emotional and behavioural issues in children within the UK, it is less clear whether it is this that has a specific impact on educational attainment, or family-level factors (Crenna-Jennnings, 2018). A study by Chetty *et al* (2015) in the US lends support to the link between community context and child development. During the 1990s 4,600 randomly-selected families were relocated from high-poverty housing developments to lower-poverty neighbourhoods; nearly twenty years later, researchers found that those who moved before the age of 13 were more likely to attend university and earned 30% more than those who remained in the higher-poverty areas. There were also lower rates of single parenthood. Relocation as an adolescent had fewer positive effects, perhaps due to disruption; the decline in positive gains shown with increasing child age implied that the length of time a child was exposed to better environments was an important determinant of their long-term outcomes (Chetty *et al*, 2015). Other studies support this (e.g. Chetty and Hendren, 2018; Sharkey and Elwert, 2011).

Hills and Stewart (2005) explain that deprived areas can impact on attainment by nurturing a culture of negative peer influence and low achievement, having issues with recruiting and retaining teachers, lack extracurricular and learning opportunities, and lack local employment opportunities, impacting on aspirations and motivation. Lack of parental choice over housing can limit school choice: affluent parents have more choice over where they live, their catchment area, and thus school choice (Mongon and Chapman, 2008). Disadvantaged children are less likely to attend 'good' schools or selective grammars, and more likely to attend less effective schools with high numbers of disadvantaged pupils and low GCSE results (Mongon and Chapman, 2008; Allen, 2013).

Although Macleod *et al*'s (2015) study appeared to find that schools with higher numbers of disadvantaged pupils were associated with higher achievement among their disadvantaged pupils, Crenna-Jennings (2018: 13) supports the former stance, arguing that schools that have higher intakes of disadvantaged pupils 'have been shown to employ worse classroom practices'. The teachers have less experience, and do not have formal teaching qualifications or degrees in the relevant subject. The schools they go to tend to have a higher teacher turnover rate (Crenna-Jennings, 2018), which impacts on teaching and learning consistency, and relationships between teachers and pupils.

The factors associated with socio-economic disadvantage are complex and broad; the areas explored have illustrated that any number of factors can intertwine to impact on a child's life and educational outcomes from the moment they are conceived. That is not to say that coming from a low-income background automatically equates to low educational achievement, it does not, and it should not be forgotten that disadvantage is not homogenous: children bring varying experiences into the mix, that go beyond the control of education. Further factors have not been explored here, for instance pupil and teacher

attitudes, and peer influence. Education is only one aspect of the efforts being made across various organisations, practices and policies to close the gap (Marcus, 2016). However, it has been recognised that schools have potential in levelling this playing field (Kennedy, 2014).

2.1.3. RQ3. What strategies help support achievement for disadvantaged pupils within the classroom setting?

Because the focus of my study is in the classroom context, I will not discuss strategies such as school funding, teacher recruitment or school structures. I will focus on a variety of strategies put forward by literature that can be implemented within the secondary school classroom context – the context within which I, and my intervention, will have the most direct influence. One of the most reiterated of these is the Department for Education's (DfE) 'seven building blocks of success' (Macleod *et al*, 2015). By comparing schools that had been more or less successful in closing the gap, Macleod *et al* identified that schools that were most successful:

> 'promoted an ethos of attainment for all pupils, rather than stereotyping disadvantaged pupils as a group with less potential to succeed[;] have an individualised approach to addressing barriers to learning and emotional support, at an early stage…[;] focus on high quality teaching first[;] focus on outcomes for individual pupils[;] deploy the best staff to support disadvantaged pupils[;] make decisions based on data and respond to evidence [and] have clear, responsive leadership: setting ever higher aspirations and devolving responsibility for raising attainment to all staff' (2015).

High-quality teaching and high expectations

Macleod *et al* (2015) identified that successful schools were likely to be using metacognitive learning (learning to learn), independent learning and peer learning strategies – strategies

that support pupils thinking about their own learning. Further evidence supports this (e.g. the Educational Endowment Foundation (EEF), 2018a). The EEF argues that methods such as metacognitive learning can achieve pupils an additional seven months of progress on average, stressing that it is most effective when pupils are working in collaborative groups, so learners can support and discuss their own learning – a core aspect also of peer learning (2018a). Whilst most of the evidence to support these levels of progress focus on subjects such as English and Maths, rather than RE (so perhaps would not transfer perfectly), there is further issue in that the potential of these strategies can be difficult to achieve because they require pupils to take responsibility for their own learning (EEF, 2018). However, when pupils do take responsibility, research suggests that progress can be enhanced.

Whilst attendance, behaviour and emotional support were seen as necessary factors for academic success, high-quality teaching was posited as the priority of the most successful schools; where teachers made efforts to understand pupils as individuals, monitored pupils' attainment and personalised their teaching (Macleod *et al*, 2015). Although the most successful schools already had basics in place, such as attendance, behaviour and high expectations (Macleod *et al*, 2015), which would imply the importance of strategies working as part of an all-encompassing whole-school programme, the focus on high-quality teaching is reflected by many (e.g. Marcus, 2016; Sharples *et al*, 2011; Rowland, 2017; Abbott *et al*, 2016; Mongon and Chapman, 2008; Allen, 2013; Crenna-Jennings, 2018). Crenna-Jennings (2018: 13) stresses that teacher effectiveness is the most important school-level influence for pupil achievement, and this is further supported by the Sutton Trust (2011: 2) who define that, for disadvantaged pupils, the 'difference between a good teacher and a bad teacher is a whole year's learning'.

Although effective school leadership is important in laying the foundation and ethos of a school as a high-quality teaching and learning setting, Allen (2013) argues that this comes second to classroom teaching as a school influence on attainment and learning. Allen underscores the importance of a teacher 'seeing learning though the eyes of the learner' in order to understand their learning needs, linking back to the DfE's point about an individualised approach (Macleod *et al,* 2013: 10). Allen (2013) and Hattie (2009) argue that pupils must become engaged learners, taking an active role in learning and regarding themselves as their own teachers. Learning activities must provide challenge and be ambitious, in order to motivate pupils and extend their higher order thinking skills (Allen, 2013; Hattie, 2009).

Allen (2013) notes variation *within* schools as well as between different schools when it comes to high-quality teaching and learning, and achievement. Marcus (2016) echoes that effectiveness within schools and departments fluctuates. Allen (2013) suggests that consistency can be achieved through collaboration: teachers sharing effective strategies within and between schools, in a way that emphasises professional dialogue and accountability. I would also argue that middle and senior leaders can help to enhance consistency and accountability by conducting learning walks, lesson observations and work scrutinies, in addition to enhancing opportunities for teachers to access educational research.

Although referencing the Scottish context, Marcus' (2016) briefing for Scottish Parliament emphasised that successful schools, both in the UK and internationally, provided: 'high quality teachers and teaching[;] strong school leadership[;] reflective practice and research[;] a network of support and collaboration[;] effective assessment and evaluation [and] early intervention' (2016: 3). Marcus emphasised the need for a pupil-centred approach that

addressed individual needs, built respect and trust, and stressed an ethos of high attainment for all. This, she argues, means that teachers and schools strive to meet the needs of every child, understanding their challenges, and supporting them to achieve their best; expectations are not lowered for any pupil – children are expected to achieve (2016). Rowland (2018; 2017: 4) emphasises that the highest expectations and a 'collective understanding and belief that every pupil can attain well is fundamental'; Abbott *et al* (2016) encourage a 'no excuses' ethos: no matter the barrier, there is no excuse for all children not to achieve to their maximum capability.

Rowland (2017) also emphasised that strategies needed to benefit and focus on the needs of all pupils, rather than on low-attaining pupils or 'catch up' strategies. A focus on improving outcomes for all will inevitably raise outcomes for disadvantaged pupils (Masters, 2017). Rowland (2017) stressed the importance of disadvantaged pupils having access to a broad and knowledge-rich curriculum (with any intervention as extra and additional to this), and sitting the same number of GCSE exams as their peers. He further noted the risk that some pupils cannot access the curriculum due to behaviour policies: pupils are spending time out of the classroom and out of learning, which limits progress.

Rowland (2017, 2018) argues that pupils need to be provided with targeted feedback and intervention where there is a knowledge or skills gap. Furthermore, that too often, disadvantaged pupils tended to be put into low or middle-attainment groups, without access to role models for vocabulary, behaviour, self-esteem, organisation and independence. Rowland (2017) recommended mixed-ability groupings as important in cultivating these high expectations. Ball (2003) and Crenna-Jennings (2018) echo that whilst pupils in low-ability groups tended to be the most vulnerable, they also tended to receive a less challenging curriculum. Evidence collated by the EEF (2018b) over the past 30 years has shown that

whilst setting appears to benefit those in higher attaining groups, it is detrimental to the learning of pupils in low or middle-range groups, so does not benefit all pupils.

Developing resilience: making pupils feel valued

Although resilience is a contested concept (e.g. Little *et al*, 2004), Marcus (2016) emphasises the importance of promoting pupils' resilience. The PISA report (OECD 2011: 4) identified three factors of 'resilient' disadvantaged pupils who 'beat the odds stacked against them': confidence in their academic ability, spending more time in class, and motivation and drive to succeed. Whilst it could be argued that pupils with resilience are less likely to give up and therefore should do better, or that more time in class increases achievement, Huang's (2015) US-based study contradicted these findings, concluding that these factors could not independently make a difference in narrowing the gap. However, this does not discount the effect that promoting resilience could perhaps have when combined with other strategies.

Marcus (2016) argues that resilience could be enhanced by identifying and building on pupils' strengths, and making sure that pupils feel valued. I would also argue here the importance of lowering pupils' fear of failure; providing pupils with a safe and respectful classroom environment where they feel able to offer and develop their ideas, without being judged. Abbott *et al* (2016) build on this, stressing the importance that children feel as though they matter. They suggest that using pupil voice is invaluable in this, as well as making sure that children's success and achievement are recognised and celebrated, with an emphasis placed on effort. This was important considering the higher likelihood of disadvantaged children to rarely or never receive recognition or praise (Abbott *et al*, 2016). Teachers sending good news to parents about their child, such as success cards, can enhance recognition of pupil

success, in addition to strengthening positive parental engagement with school life and their child's learning (Rowland, 2017; Slavin *et al*, 2009).

Marcus (2016) argues that, although over-assessment can be ineffective and onerous on teacher workloads, assessments used purposefully, that allow pupils to assess their own learning progress, promote pupil confidence and learning – aiding resilience and achievement. This includes using peer assessment to involve learners in understanding and assessing their own learning, and that of others. Marcus (2016) argues that children need to be consulted in their learning and encouraged to be active learners in order to be motivated. She suggests collaborative learning strategies, and pupils acting as both learners and teachers, as having positive effects on motivating pupils and increasing achievement. The use of cooperative and collaborative strategies are also encouraged by Abbott *et al,* 2016, Kennedy, 2014 and Slavin *et al*, 2009.

Literacy and language poverty

Literacy and language poverty have been noted as specific risk factors for disadvantaged children: a good grasp of language and literacy skills are crucial for pupils being able to access the curriculum and therefore make progress (Sharples *et al*, 2011). Slavin *et al* (2009) explain that initial poor progress can lead to pupils having ever-poorer motivation and self-expectations, which can then exacerbate poor achievement. Secondary schools increasingly find themselves with children who are 'working below' expected levels of reading by the end of Key Stage Two; this is certainly the case at the school in which this study takes place (Rossiter, 2017).

Rossiter (2017) and Atkins (2017) argue that it is vital to expose pupils to language-rich environments by increasing their word knowledge and topic-specific vocabulary, and by

checking pupils' understanding of words. Purposeful talk is central in this; teachers should talk and converse with disadvantaged pupils in order to widen their grasp of language (Kieran, 2017). Language and communication skills necessitate cooperation; it can be of no surprise that Sharples *et al* (2011) and Slavin *et al* (2009) recommend using cooperative learning strategies to develop these.

Key findings from the literature

The literature has highlighted various key classroom strategies for improving outcomes for disadvantaged (and all) learners. High-quality teaching and learning are stressed as paramount. Effective strategies include:

- A focus on outcomes for all pupils (not just disadvantaged)
- An ethos of high expectations: all children are expected to achieve
- Engaging pupils as active learners
- Provision of challenging and ambitious learning activities
- Using assessments and peer assessments to promote confidence and learning; allowing pupils to assess their own and others' learning
- Personalising teaching to pupils' learning needs
- Targeting intervention where pupils have a skills or knowledge gap
- Developing language and literacy skills
- Monitoring (and accountability) of pupil progress
- A 'keep up' not 'catch up' culture
- Making pupils feel valued: consulting pupils in their learning, using pupil voice, recognising and celebrating success
- Mixed groupings for children, for access to role models

- Professional collaboration: teachers sharing strategies
- Cooperative/collaborative learning

Many factors here should already be taking place in the classroom of all teachers. However, the literature provided me with a solid base from which to frame my intervention. The literature also heavily emphasised the use of cooperative learning strategies as an effective means of engaging and motivating pupils as active learners.

2.1.4 RQ4. Could a cooperative learning strategy support achievement for disadvantaged pupils in RE?

"Alone we can do so little; together we can do so much"

HELEN KELLER

Cooperative learning can be defined as a method of learning in which pupils work in heterogeneous groups to help one another learn; each learner should be actively involved in supporting each other to achieve a common goal (Slavin, 2014; Marcus, 2016). There are five basic principles to cooperative learning: positive interdependence, individual accountability, promotive interaction, collaborative skills and group processing (Johnson, Johnson and Holubec, 1987). The effort of each group member is required for group success (positive interdependence). All group members therefore have individual accountability: they are accountable for contributing to the group. Although work may be conducted individually, members must work together: helping and teaching each other in order to achieve the

group's goals (promotive interaction). Pupils are encouraged to use and develop collaborative skills, such as leadership, decision-making, communication and conflict management. Group members periodically assess what they are doing and what they may need to change (Johnson and Johnson, 1998; Vaughan, 2002).

Cooperative learning has been used and researched for over 30 years, providing a large body of evidence. It has been argued to improve pupils' retention of information, their higher-level thinking skills, interpersonal skills, and self-confidence, as well as achievement (Gilbert, 2007), though my main focus will be on achievement. Through cooperative learning, Bick Har (2013) argues, students can become 'learning-independent' by 'learning how to learn' – a strategy identified by Macleod *et al* (2015) as important in raising achievement. Levels of effectiveness can be seen to vary, however. For instance, Gilbert's (2007) study of cooperative learning in maths lessons, over a duration of 6 weeks and involving 462 students, found no significant improvement of achievement (although it could be argued that a more longitudinal study was needed). However, evidence predominantly supports that cooperative learning promotes positive achievement (e.g. Vaughan, 2002; Slavin, 1994, 2009, 2014; Alijanian, 2012).

There are various theories as to why and how cooperative learning strategies support achievement; whilst some posit the prominence of one theory over the other, Slavin (2014) argues that each can be seen as complementary. There are four main theoretical perspectives:

- The motivational perspective
- The social cohesion perspective
- The developmental perspective

- Cognitive elaboration

The benefits of cooperative learning on achievement: the theoretical perspectives

The motivational theory posits that task motivation is the most significant factor impacting the learning process (Slavin, 2014). Unlike competitive grading systems (where the success of one pupil necessarily decreases the chances of success for another), in cooperative learning individuals can only achieve their own goals is if the group succeeds. If pupils value the success of their group, they must help and encourage their groupmates so that they can benefit individually (Slavin, 2014). Whilst Meloth and Deering (1992) argue that cooperative learning can be effective without rewards, Slavin (2014, 1994) posits rewards as essential for reinforcing motivation and thus enhancing achievement. Although he warns that rewards must be based on the sum of individual performances in order to keep this motivation; all individuals must feel accountable for their group's success.

Although the social cohesion theory is similar in that it has essentially motivational qualities, it differs in that it suggests that the achievement effects of cooperative learning rely primarily on the cohesiveness of the group. In contrast to the motivational theory, pupils help each other learn because they care about the group (Slavin, 2014). Effects on achievement therefore depend on the quality of group interactions (Battisch *et al*, 1993). For this reason, Cohen argues against grading individual performances, stating that pupils should 'experience the process of groupwork itself as highly rewarding' (1994: 82-3). However, Hathorn and Hathorn (2012) argue that this can lead to 'social loafing', whereby some do little work and raise their grades with little effort, and others do more work and gain less satisfaction. This can lead to resentment for those working hard, impacting negatively on motivation and achievement.

Cognitive elaboration theories hold that information must be cognitively restructured if it is to be learned; cooperative learning is said to aid this (Slavin, 2014; Schunk, 2012). Slavin (2014) and Thurston *et al* (2012) corroborate that peer learning, pupils acting as tutors and tutees, is an effective way of doing this. Although O'Donnell (2006) noted that the tutor learned more than the tutee, so balance is needed.

Social interaction has also been argued to help develop cognition, skills and strategies, which then impact positively on achievement, known as the developmental perspective (Vygotsky, 1978; Slavin, 2014; McLeod, 2007). Vygotsky (1978) posits that a learner can develop their own knowledge and skills by turning to or imitating the facilitator or other learners – a 'more knowledgeable other' who has a better understanding of a task or concept, which then enables the learner to make sense of the new information or task, and increases their ability to achieve (McLeod, 2007). This, Vygotsky (1978) called the zone of proximal development, which is the distance between someone independently problem solving, and someone problem solving in collaboration with an adult or more capable peers. Clapper (2015) extends that when pupils see others' different approaches to activities it increases their capacity to learn and achieve.

Whilst Slavin (2014) argues that little evidence supports purely social interaction methods in yielding higher achievement, he does contend that they are important in helping to explain the positive results of cooperative learning. Certainly, there are ways in which the social aspect of cooperative learning could negate achievement. For instance, Hancock (2004) argues that sometimes pupils in cooperative learning environments reinforce misunderstandings and misconceptions, which could hinder pupils' achievement. Whilst I understand that this might be the case if a misunderstanding or misconception was not

picked up on, I would also argue that an environment where people share misconceptions could also be seen as an opportunity for these misconceptions to be corrected.

From an RE perspective (which is essentially a subject that explores different views and social 'ways of knowing'), being able to hear and share a multitude of views is vital in being able to 'achieve well' in the subject. Exploring, challenging and understanding different 'ways of knowing' is an inbuilt aspect of RE as a subject, and has been noted by PISA (2018: 5) as a necessity for preparing pupils for global participation; furthermore, 'global competence can boost employability'. RE necessitates pupils being able to discuss, debate and evaluate different views and controversial issues, and being able to do this well links directly to achievement at GCSE. Therefore, the cognitive and social interaction benefits posited by the literature, it could be argued, should essentially lead to improved achievement in RE.

Possible issues

Luna (2015: 14) notes that pupils' diversity of skills and characteristics can be problematic in cooperative learning. She provides the example of a 'gifted' child, already confident that he has 'learned how to learn' and refusing to give up his perfected method of learning. Despite a reward system, there was 'everything to lose' for this child in working cooperatively. Luna's (2015) study found that the pupils in her primary school context struggled to accept cooperative learning because of conflicts from pupils' 'ways of knowing'. This could be associated with a 'lack of practice', but she also highlighted their lack of motivation in wanting to help others, with pupils considering it a waste of time, and a threat to their individual merit (2015). Although some, such as Luna (2015), have communicated concerns that cooperative learning could hinder the progress of gifted pupils, Slavin (1994) argues that

this is not the case. However, Luna's findings showed the difficulties there can be in achieving successful cooperation among all pupils even with the use of rewards as motivation.

Luna (2015), Hancock (2004) and Clapper (2015) also highlight the issue of more confident pupils dominating what should be cooperative interactions, leaving those who are less extroverted to assume a passive role. Hancock's (2004) study also found that pupils who had high peer orientation (pupils who liked working with their peers) were significantly more motivated to learn in cooperative settings than those with low peer orientation (who preferred to work independently). Whereas those with high peer orientation were more likely to thrive, those with low peer orientation became less motivated and longed to work on their own (Hancock, 2004). He also warns that some pupils appeared to value the process as an opportunity to socialise instead of learn, with pupils commenting about liking the chance to "catch up" with their friends (Hancock, 2004: 163).

Types of cooperative learning

Cooperative learning methods generally fall into two categories: formal (characterised by individual accountability and team rewards) and informal (where temporary groups are used to complete a learning activity) (Bick Har, 2013). Although there are various whole-school initiatives, such as Success For All, which centres on developing pupils' literacy, a whole-school initiative is inappropriate for the purposes of this RE-based study.

Informal methods, such as think-pair-share and peer-assisted reading, are already incorporated into lessons within this school on an ad-hoc basis. Discussions with department staff confirmed that a more robust and long-term programme would be appropriate to trial, with the aim of embedding an ethos of pupils regarding themselves as learners and teachers. Some of these methods are introduced below:

- Jigsaw I
- Jigsaw II
- Group Investigation
- Student Teams-Achievement Division (STAD)

Aronson's Jigsaw I separates pupils into groups. Each member is allocated part of a topic, which they have to learn and then share with the group, acting as 'jigsaw pieces' (Slavin and Kagan, 1985). Although Jigsaw has been promoted as successful in increasing achievement (e.g. Aronson and Bridgeman, 1979), some argue otherwise (e.g. Slavin, 2014; Moskowitz *et al*, 1985). Slavin (2014) posits a major issue as pupils having limited exposure to learning materials other than their own; one pupil's gains can be hindered by their groupmates' losses. Moskowitz *et al* (1985) suggested a lack of group rewards as hindering individual accountability. Slavin's adaption on this, Jigsaw II, incorporates these; he argues that this addition results in positive outcomes (2009), supported by Mattingly and Van Sickle (1991).

Group Investigation (GI) entails pupils identifying a topic to study, deciding how to research it, and dividing up the workload. Pupils then come together to present their findings (Sharan and Sharan, 1990). Sharan and Sharan (1989) argue the benefits of GI in giving pupils control of their learning, and achievement benefits are noted by Slavin (2014). However, the student-led means of this method would not be appropriate for the demonstrating and development of specific GCSE skills, questions and knowledge required for this study.

In STAD, pupils are split into teams mixed on levels of performance, sex and ethnicity (Slavin, 1994). The teacher presents the required skill or knowledge, and teams then help each other master this material. Pupils are then individually quizzed, and awarded with scores based on

how much they have improved in relation to their prior academic performance. Individual scores then combine to provide teams with an overall score, and they are rewarded accordingly. This creates individual accountability, because group rewards rely on individual improvement, which also provides equal opportunities for success (Slavin, 1994). Slavin (2014) argues that this makes STAD successful in increasing motivation, and thus achievement. Whilst Slavin could be argued to have bias in promoting his method, some studies (e.g. Gilbert, 2007) do not lend support to STAD increasing achievement. However, the achievement benefits of STAD are largely supported elsewhere (e.g. Slavin 1994, 2014; Alijanian, 2012; Van Wyk, 2012; Vaughan, 2002; Khun-Inkeeree, 2018).

Of the methods posited here, collaboration with department staff determined that STAD would be the most appropriate strategy to trial in our context. As per the findings from literature, it was important that any intervention focused on outcomes for all pupils, not just for disadvantaged learners (Marcus, 2016; Macleod *et al*, 2015; Masters, 2017). As a whole-class strategy, with a focus on providing pupils with equal opportunities for success, STAD was appropriate in meeting this criterion: STAD emphasised 'success for all', rather than 'who has the highest mark in the class', making achievement and rewards widely accessible.

As per the aims of this study, an intervention was to be focused on better preparing pupils for GCSE RE, providing a 'keep up' not 'catch up' culture that targeted a skills or knowledge gap (Rowland 2017, 2018), incorporated purposeful assessments and peer assessment (e.g. Marcus, 2016), and had mixed groupings for access to role models (e.g. Rowland, 2017; Ball, 2013; Crenna-Jennings, 2018). Using pupil data to guide instruction was also highlighted by literature (e.g. Macleod *et al*, 2015), as well as rewards to celebrate success and make pupils feel valued (Slavin *et al*, 2009; Rowland, 2017; Marcus, 2016; Abbott *et al*, 2016). Overall, the structure of STAD could be seen to meet all of these criteria, and the assessment points of

STAD would also provide measurable data for monitoring pupils' achievement. An intervention was therefore formulated using this method. The literature also, however, provided an extra element to this study: given concerns, it would be important to measure the impact of STAD on 'gifted' pupils.

3.0 METHODOLOGY

3.1 Overview

Literature on improving achievement for disadvantaged learners highlighted the importance of engaging pupils as active learners (Allen, 2013; Hattie, 2009). Cooperative learning was emphasised for this purpose, having a large body of evidence in support (EEF, 2018a; Macleod *et al*, 2015; Abbott *et al*, 2016; Kennedy, 2014; Slavin *et al*, 2009; Sharples *et al*, 2011). My research highlighted STAD as (arguably) one of the most consistently successful formal cooperative learning techniques for improving achievement (Slavin 1994, 2014; Alijanian, 2012; Van Wyk, 2012; Vaughan, 2002; Khun-Inkeeree, 2018), and it was thus chosen for this intervention. This intervention was to focus on Islam, with the intention of embedding some of the skills and knowledge that Year 8 would need for starting the GCSE in Year 9.

All Year 8 pupils were provided with an initial questionnaire to gather pupil voice on working with others. The intervention then took place over 12 weeks. Pupils learnt about Islamic beliefs in two cycles, each cycle with a different exam question and skill focus: explaining beliefs and influences, and evaluating beliefs. These were identified as gaps in pupils' skillsets, with the introduction of the new GCSE and the different techniques required to answer these questions. Pupils had limited experience of these GCSE questions prior to the intervention, encountering their first experience of explaining beliefs and influences questions at the end of the previous unit. Pupils were more familiar with evaluation-style answers. However, they had no prior experience of writing an answer specific to this GCSE.

All four classes followed the same programme, using the same resources. Two of the classes were taught using STAD (they were put into teams, and followed the structure of STAD: class presentation–team study–test–rewards), and two classes were taught as control groups. These pupils were not put onto tables dependent on factors such as prior assessment marks, gender, race or ethnicity; they also did not work in teams and did not have the motivation of rewards. Pupils could work independently or in pairs, when offered the choice, however peer cooperation was not an explicit aspect of their lessons.

All pupils completed assessments at the 6 and 12-week stages. This provided me with measurable quantitative data. Pupils from the STAD groups were provided with final questionnaires in order to gauge their opinions on their cooperative learning experiences on a qualitative level.

3.2 Action Research

Educational action research is defined by Ebbutt (1985) as 'the systematic study of attempts to improve educational practice by groups of participants by means of their own practical actions and by means of their own reflections upon the effects of those actions'. Ultimately, action research endeavours to improve educational practice by finding solutions for problems (Koshy 2010; Ferrance, 2000). In this case, to help raise achievement of pupils in RE, including disadvantaged pupils, within my school setting. Action research is seen as crucial for developing professional knowledge and enabling teachers to be reflexive about their practice (Kelly, 1985). It follows a cycle whereby the teacher asks questions on the problem, gathers research and data, reflects, implements a course of action, and then evaluates this action (Koshy, 2010; Ferrance, 2000). Koshy (2010) warns that the stages of

the process are not rigid and may overlap; that the action research process is often fluid and responsive. Reason and Bradbury (2001: 2) explain that action research is important in 'creating new forms of understanding[;] action without reflection and understanding is blind [and] theory without action is meaningless'. Action research therefore enables teachers to more meaningfully engage with and understand their practice, so that they can refine its effectiveness within their context. Action research is 'usually thought of as a qualitative approach', however it 'uses quantitative data whenever they are appropriate and available' (Punch, 2014: 137). A mixed methods approach was adopted for the purposes of this research. Quantitative data, gathered by way of pupils' assessments, enabled analysis of effects on pupils' achievement; and qualitative data, by way of questionnaires, enabled analysis of pupils' experiences.

3.3 Ethical Considerations

I attained ethical approval from the university research ethics committee (CUREC), having provided an outline of my research intentions. These were also shared and agreed with department staff and the Senior Leadership Team; informed consent was obtained from the Headteacher in order to conduct this study and intervention.

Because no child throughout this research would be subject to any experience beyond the scope of regular professional classroom practice, there was no need to obtain informed consent from pupils or parents; the content of pupils' lessons is already my responsibility, as are identifying barriers to learning and increasing achievement. However, because my research would be exploring an area of sensitivity – measuring the impact of the intervention on disadvantaged pupils' achievement (as well as all pupils) – in accordance with the

stipulated ethical guidelines for educational research (BERA, 2018), I ensured that my research remained mindful and sensitive at all stages, so that all individuals were treated fairly and with respect. It was important that my research methods (questionnaires, data collection and intervention design) were considerate of this and were not discriminatory (Koshy, 2010).

As recommended by Koshy (2010) and Cohen *et al* (2011), all of the pupils involved in this study were made aware of the research and my intentions to monitor pupil achievement. Pupil participation beyond the scope of the lesson content was not enforced; pupils were provided with the opportunity to opt out of questionnaire participation. Steps were taken to ensure that this research did not encroach on the workload of pupils or colleagues (BERA, 2018); formal assessment points were designed to adhere to the school policy of every six weeks.

Pupils' right to privacy was emphasised at all times: questionnaires and pupil data were kept confidential, and anonymity of the school and participants was ensured (Cohen *et al*, 2011). Because I am aware of pupils' identities, as their teacher, I also have to be aware of the issues that this could cause with keeping confidentiality; therefore, anonymous questionnaires were posited as the most appropriate method of gaining pupil voice. Issues surrounding the use of questionnaires will be explored in section 3.0.5. All information related to this study has been kept securely using a password-protected computer, in compliance with the Data Protection Act (Cohen *et al*, 2011). No information related to this study will be shared beyond the scope of the permission granted.

3.4 Collaboration

This study focused on the Year 8 cohort, of which I am the only RE teacher; my reasons for this have been made clear. However, collaboration with both colleagues and pupils was necessary. I collaborated with SLT through both a staff focus group discussion and various personal discussions, and this was necessary for: choosing disadvantaged pupils and raising achievement as a focus of this study (as a whole school, not just department, issue); for framing my research and intervention around the aims of SLT; and for achieving the relevant permissions for the study activities to take place. SLT were keen for departments to initiate interventions so that we could work together to ensure collective policy on overcoming disadvantage through learning and teaching best practice.

Ideas regarding curriculum design, data collection and selection of classes were collaborated on with the Head of Humanities. It was intended for the department's Curriculum Support Assistant, a specialist in special educational needs and other issues surrounding pupil learning, to collaborate on this project. However, this was made impossible due to unexpected long-term absence. This made my collaboration with the Head of Humanities for support even more valuable. The Head of Humanities' preference for teacher-led learning as opposed to cooperative or group work environments made the research of further specific interest for the Head of Humanities' own teaching practice.

The collaboration of pupils was vital, both for participating in the intervention, and for the gaining of pupil voice. A pupil focus group was also fundamental in deciding what rewards pupils would receive, in order to make the rewards as appealing as possible. Collaboration with the Year 8 Progress Leader ensured that some rewards would be presented in assemblies.

3.5 Questionnaires

Questionnaires were used at two points within this study in order to gain pupil voice on working with others. All Year 8 pupils were provided with an initial questionnaire (**Appendix A**). However, because pupils in the two control groups did not participate in the cooperative learning strategy, only those in the STAD classes were provided with final questionnaires (**Appendix B**) in order to gain pupils' opinions on cooperative learning.

Questionnaires provided an advantage in that they enabled me to gain a large number of responses, whilst being easy and quick to administer. Whereas interviews could provide the potential for pupils to feel peer-pressured into assimilating their answers with their peers, or pupils may feel uneasy about expressing their genuine opinion in front of myself as a teacher researcher, or their peers, anonymous individual questionnaires could lessen this potential (Cohen *et al*, 2011). However, my relationship with the pupils as their teacher still offered the potential of influencing their response: pupils' answers may reflect what they think I want to hear, or they may respond more negatively (Koshy, 2010).

A pilot questionnaire was trialled with a Year 9 class. This allowed me to check the accessibility and clarity of the questions, and to make sure that any ambiguities or difficulties were identified (Cohen *et al*, 2011). Because pupils had not been introduced to the term 'cooperative learning', I used the phrases 'working together' or 'group work' in order to maximise pupil understanding and the likelihood that pupils would provide a more accurate response to the questions. Pupils' reading ability was also taken into consideration, and care was taken to ensure that questions were not emotionally-loaded, misleading or could cause offence (Koshy, 2010; Cohen *et al*, 2011).

A combination of open and closed questions was used to garner both qualitative and quantitative data on pupils' opinions. Lougher's (2016) questionnaire on cooperative learning was useful in helping to frame my questions. Closed questions were used to gauge pupils' attitudes to areas surrounding 'working together': whether they enjoy it, how they think they learn whilst working with others, and whether they think they had enough opportunities to work with others. Pupils were provided with statements and a Likert scale from which to choose an answer, ranging from 'strongly disagree' to 'strongly agree'. This format provides advantages in that answers are easier to compare and quicker to analyse (Cohen *et al*, 2011). It should be noted, however, that pupils may have different interpretations of not only the statements themselves, but also of what equates a 'strongly agree' (or otherwise) response. Furthermore, closed questions provide limitations in that a pupil cannot elaborate on their answer (Cohen *et al*, 2011). Consideration was given to minimise the assumption of respondent knowledge (Cohen *et al*, 2011): pupils were provided with the opportunity to indicate a neutral opinion.

In order to more easily compare and analyse my findings between the closed questions, I also assigned each aspect of the Likert scale with a numerical value, so that I could calculate the mean response of pupils and give an effect size: strongly disagree, 1; disagree, 2; neither agree nor disagree 3; agree, 4; strongly agree, 5 (Hattie, 2012). Whilst this provided limitations in that it did not allow for nuances, it was useful in providing a simple and clear image for straightforward comparison of the data and any changes in pupils' attitudes. Similar questions were included in both the initial and final questionnaires to further aid this.

Open questions were used so that pupils could explain their views, in their own words rather than in a limited tick-box capacity. Although these answers would be more problematic to measure because of the variety of response, it meant that pupils could offer their own

reasons without the influence of my limited categories. The amount of qualitative responses, however, necessitated my having to generalise pupils' answers so that they could be sorted into similar categories for analysis (Menter *et al*, 2011). This illustrated a weakness of my methodology; however, the responses were vital in gaining a deeper insight into pupils' views.

Questionnaires were distributed during lesson time directly before starting the intervention, and directly on completion of it; this meant that pupils were more likely to remember their experiences and answer more accurately. However, absence of pupils was an issue. Whilst responses still provided an effective general representation of Year 8 views, these absences will have impacted not only on questionnaire responses and completion, but also on pupils' experiences of (and levels of learning throughout) the intervention.

Before completing the questionnaires, I explained to pupils what the research and questionnaires were about, and all contained a brief note to respondents, so that pupils were aware of what was happening. Anonymity was emphasised throughout. Pupils were given the option to opt out of the questionnaires; they were not coerced into participation (Cohen *et al*, 2011). They were also encouraged to answer questions honestly; I emphasised that there were no correct answers in order to minimise pupils' concern or likelihood of trying to give the 'right answer' (Burton *et al*, 2011). Although my intention here was to lessen the potential for inaccuracy, it must be noted that there remained the possibility that pupils may not have been willing to share their views or commit themselves to the research, that they may have answered carelessly or given consistently neutral answers, or that they may have given answers that they deemed 'socially desirable' (Hartas, 2010).

3.6 STAD Lesson Design

Despite a broad range of research surrounding the use of STAD, and claims that it is 'practical… applicable to a broad range of curriculum…' and can be used 'to help students learn any objective' (Slavin, 1994: v-1), the literature provided me with little guidance as to how STAD could be applied to the subject of RE. This was problematic in that I could reference no specific examples of how STAD had been used within the RE classroom; I had no prior examples of 'what worked' or what did not. However, having known that STAD had been applied to other similar subjects, such as Social Studies, I consulted a small number of example lesson plans, which aided me in formulating how STAD could be used in my lessons (e.g. Johnson, n.d.).

I designed a 12-week program of STAD using Slavin's (1994) *A Practical Guide to Cooperative Learning*. Year 8 were chosen for this intervention, primarily for the reasons already explained. However, running the intervention with Key Stage Three pupils was also useful in allowing the flexibility with curriculum content and time that a Key Stage Four intervention would not permit. The four classes were ranked on the number of disadvantaged pupils in each group (class 1 having the highest proportion, and class 4 having the lowest). Upon collaboration with the Head of Humanities, it was decided that classes 1 and 3 would participate in STAD, and classes 2 and 4 would be the control groups, in order to provide a more comparable level of analysis.

Pupils' data was then used to work out their 'base score' (the average score of previous assessments combined). Pupils in each class were ranked in order of scores (highest to lowest) and were allocated a letter of the alphabet that corresponded with the number of teams required (**Appendix C**). This allowed for an even mix of performance levels between

teams, and teams were then balanced based on gender, race and ethnicity. It was important to keep team sizes to 4 or 5 members; as Clapper (2015) warns, larger groups can hinder individual participation and contribution.

The program lessons (**Appendix D**) focused on Islamic beliefs and incorporated two cycles of STAD: the first cycle focused on 4 and 5-mark GCSE questions (explaining beliefs and influences); the second on 12-mark GCSE questions (evaluating beliefs). Both cycles (**Figure 1)** followed the structure recommendations given by Slavin (1994). Each started with a class presentation (**Figure 2**), including an explanation and demonstration of the required skills and concepts, and guided practice, whereby pupils could practice the given skill.

Figure 1: Overview of STAD Cycles

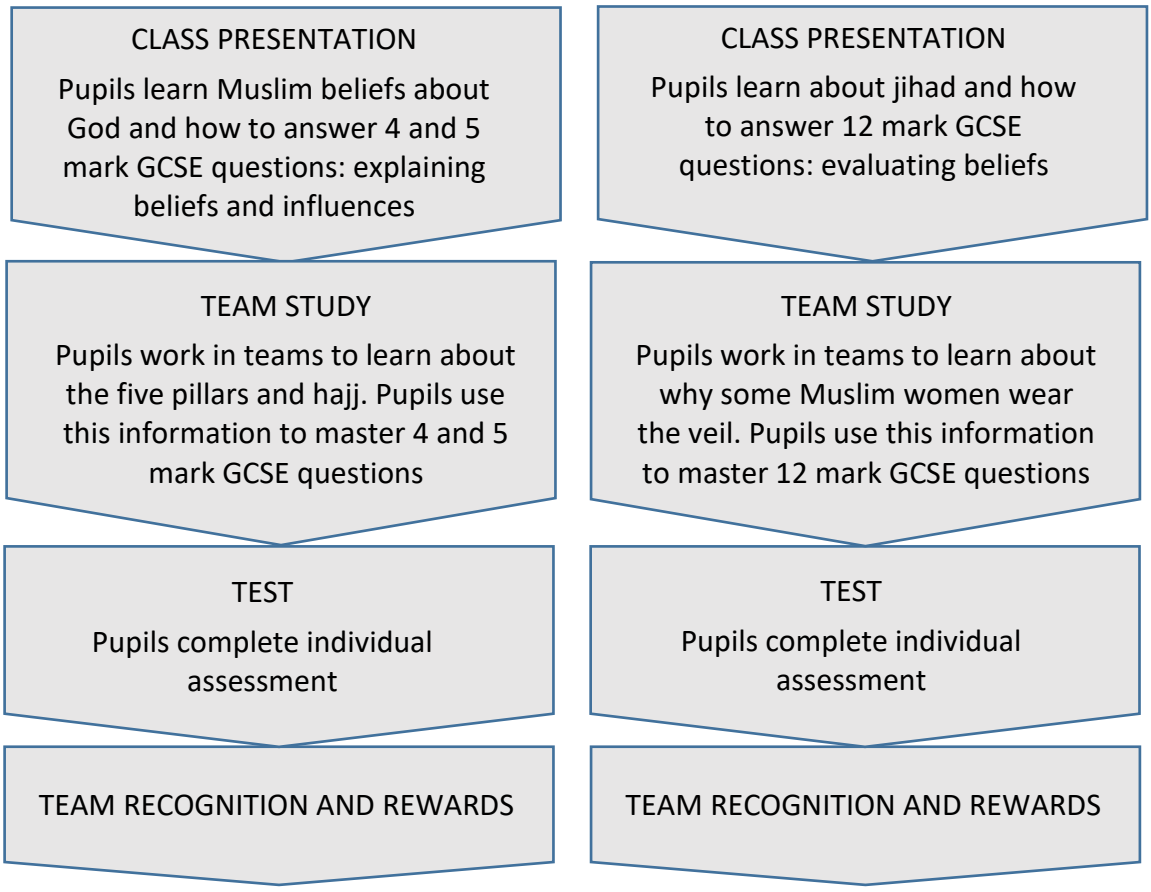
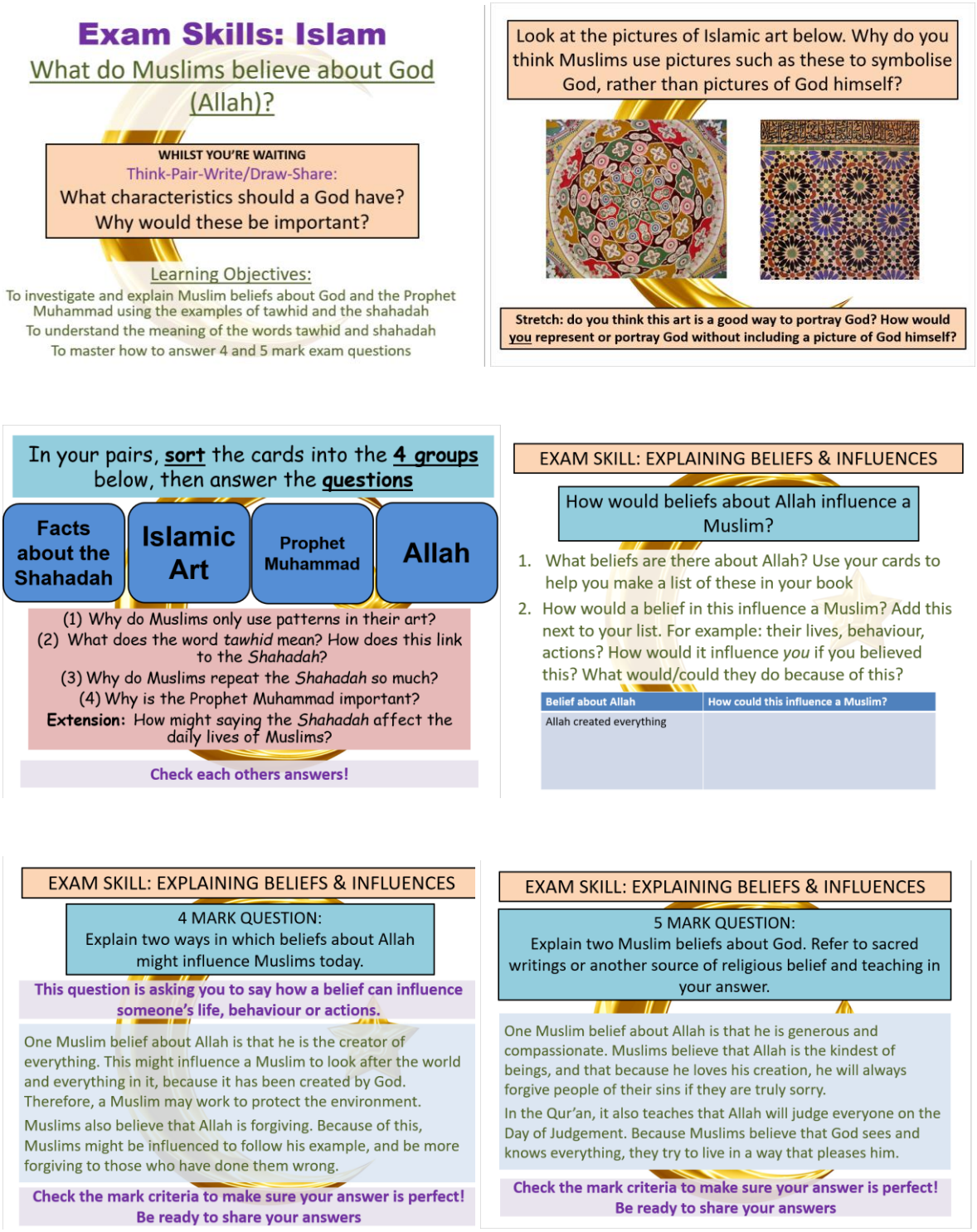


Figure 2: Class Presentation Cycle 1



Pupils then had team study time (**Figure 3**), working together to master the skill they had learned. Pupils practised the same types of exam question, but using new knowledge

discovered through group research (**Appendix E**). Pupils were tasked with writing an exam answer that they believed would achieve full marks; to aid this, they were provided with the exam perfect answers examined during the class presentation period. They were also issued with peer marking sheets so they could assess their own and others' work (Marcus, 2016). An emphasis on working as a team was stressed throughout to encourage positive cooperation, reflecting Marcus' (2016: 15) concern that pupils need 'support and practice to work together, as this does not happen automatically'.

Figure 3: Team Study Cycle 1



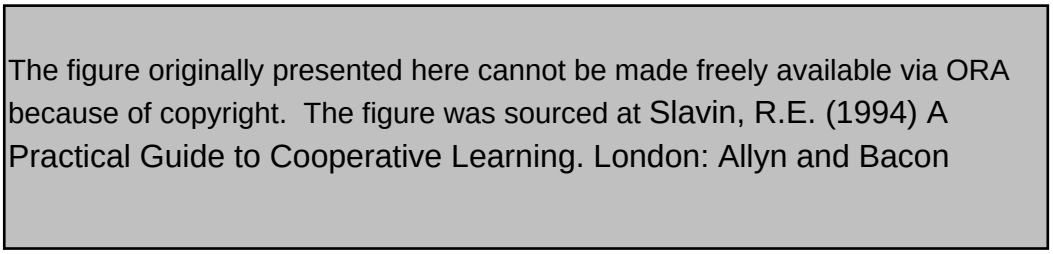
Whilst success was reliant on all pupils engaging as committed team members, which could be problematic (e.g. Marcus, 2016), a further issue can be raised in that teams were to be

allowed an unlimited amount of time in order to work on their answers. It was important here to consider the time constraints of the lesson during the planning process, and, that some teams may finish earlier than others. In order to further embed literacy skills, as recommended by the literature (Rossiter, 2017; Atkins, 2017; Slavin *et al*, 2009; Sharples *et al*, 2011), key word quizzes were provided as extension activities to enhance subject-specific literacy. Challenge activities were incorporated throughout the lesson design to provide ambitious learning (Allen, 2013; Hattie, 2009).

Opportunities for enhancing language and literacy were embedded. For example, lessons incorporated key terms that they needed to know for GCSE RE (such as omnipotent and omniscient), key word checks, quizzes, debates, discussion and justification (**Figure 3**).

Individual assessments (**Appendix F**) were conducted at the 6 and 12-week stage, generating measurable data and providing pupils with the opportunity to practise their experience of the RE GCSE exams. Pupils were then provided with 'improvement points' (**Figure 4)**, based on what they achieved on this assessment in comparison with their 'base score'; any pupil could bring maximum points to their team because their score is compared to their own past performance. All team members' scores were then combined to provide an overall score, emphasising the notion of group goals and individual accountability; that the success of the group depends on the learning of individual group members (Slavin, 1994).

Figure 4: Improvement Scores



Slavin (1994)

Teams were issued with rewards based on their overall score. During the initial planning stages, a voluntary focus group of 6 pupils decided on the rewards. Although Slavin (1994) stressed that teacher excitement about pupils' accomplishments was more important than large rewards, pupil consultation was necessary in order to make the rewards as appealing as possible, so that pupils were motivated to work in teams and to improve their achievement.

Pupils that achieved 'super team' status received a large certificate (handed to them in assembly by their Progress Leader), a postcard home to celebrate their success (Slavin *et al*, 2009), and the choice of either a 'jump the canteen queue ticket' or some sweets (**Figure 5).** 'Great' teams received a smaller certificate handed out in class, and 'good' teams received a congratulations in class. It was necessary to adapt Slavin's (1994) reward criteria where it was apparent that pupils initially struggled with this new method of learning. I used my own judgement in allocating 'super team' status to the highest-scoring team and any others with similar scores. Pupils were given time to improve their assessments, before their 'base scores' were recalculated and they were placed into new teams.

Figure 5: Super Team Rewards (Postcard, 'Jump the Canteen Queue Ticket', Certificate)





3.7 Data Collection

It was necessary to collect pupils' assessment data to measure progress. The intervention assessments and week 0 assessment were formatted to mirror the GCSE RE exam paper. However, prior assessments were not. Although I was able to accurately monitor pupils' achievement throughout the intervention, there were limitations in that I could not provide an entirely accurate portrayal of the bigger picture of pupils' achievement. Pupil absences also provided an issue in that a number of pupils were absent for lessons either throughout the intervention, or during the assessment stages; this would affect the collection (and therefore measurement) of data, as well as the effectiveness of the intervention on pupils' learning. All pupil data has been anonymised.

4.0 FINDINGS

4.1 Initial Questionnaire

Of the 106 possible respondents, 97 pupils completed the initial questionnaire (**Appendix A**) – the equivalent of 92% of the Year 8 cohort. Although given the choice to opt out, all present pupils decided to participate in this activity; those who did not were absent from class. This provides a limitation to these results; nevertheless, the large quantity of respondent feedback provides a good overall picture of Year 8 views.

Results from the closed questions illustrated that the vast majority of Year 8 pupils enjoy working with others (77% selected agree or strongly agree, as opposed to 8% disagreeing or strongly disagreeing with the statement). However, only 52% of the cohort said that they preferred working with others to working on their own. Whilst just 12% of the cohort said that disagreed or strongly disagreed with this, a significant proportion of pupils (35%) answered neutrally (neither agree nor disagree), suggesting perhaps an attitude of indifference. Fewer pupils agreed or strongly agreed that they learned a lot when working with others (47% as opposed to 14% disagree or strongly disagree), and lower numbers still decreed that they learned more when working with other pupils than when they worked on their own (39%). Although a large number of respondents gave neutral answers here (41%), a significantly higher number of pupils answered that they did not learn more with others (21%).

The majority of pupils stated that they enjoyed learning from other pupils (59%, as opposed to 16%) and enjoyed helping others to learn (52%, as opposed to 11%). Pupils also indicated

that they more often saw other pupils as people they could learn from (56%) rather than as competition, however 15% of pupils conceded that they did view others as their opponents.

In RE specifically, just 56% of respondents said that they enjoyed working with other pupils, with 21% saying that they disagreed or strongly disagreed; less than half (49%) said they preferred working with others than working on their own, however a high proportion stayed neutral (31%), with 17% disagreeing. Even fewer pupils said they learned a lot when working with others in RE (39%, a difference of 8% in comparison with the statement applied to learning generally) with a strong number (19%) saying they did not. A higher number of pupils said that they learned more with others than on their own in RE (44% as opposed to 17%) – 5% more than in the 'general' category. Similar numbers of pupils agreed (26%) and disagreed (27%) that they were given a lot of opportunities to work with others in RE, with most positing neutrally (45%). Whilst 34% of pupils neither agreed nor disagreed that they wanted more opportunities to work with others in RE, a significantly high proportion said that they did (53%, with just 11% disagreeing).

The volume of responses to the open questions provided limitations by entailing categorisation. However, pupils' answers provided a depth of opinion. When asked what helped group work to be successful, 36% of pupils responded that team work was essential, with one pupil explaining that 'all people have to commit to the group. Everyone has to work hard, it doesn't work if people are lazy'. Six expanded on this, discussing the importance of helping others (6%). 22% stated that all members of the team had to contribute fairly to the work, with a further 7% discussing the need for pupils to share ideas. One pupil in particular discussed the importance of pupils 'putting their knowledge together' in order to develop their own ideas and learning. Listening was stressed as vital by 18% of respondents; 11% noted the need for pupils to have sensible behaviour; 12% that concentration was needed

to keep on task. 22% of pupils noted that success could be determined by who they were working with; whilst 1 pupil stated that they deemed a more successful group to be a combination of 'people you don't normally work with, so you don't talk off topic too much', by contrast two other pupils stated that 'knowing each other' and 'working with people you are comfortable with' were important elements of success. Three discussed the need for members of the group to not 'hate each other'.

Discussing what prevented success in group work, 43% of pupils identified poor behaviour as a factor. Arguments were identified by 13%, talking off task by 22%, and lack of listening by 13%. 19% of respondents stated that the formulation of the group could hinder success. Three pupils noted that 'some pupils do not work well together', with another elaborating that 'if two people don't get along, then they may refuse to work together'. 29% of pupils stated the importance of pupils working together as a team. 18% specifically noted the need for all team members to contribute fairly.

When asked what they liked about working with others, 32% said that they liked helping each other. One pupil elaborated that 'if I'm struggling, then they will help me. If I'm confused, then they will explain it to me'. Two others noted that 'you can put your ideas together to get a group solution or an answer', and 'if someone has got something wrong, then they can learn it from the group'. 18% of respondents felt like they could learn more, with two pupils explaining that they liked working with others because they could 'learn from real people and not just a textbook', and that 'you can learn from each other rather than doing everything on your own… things you haven't picked up from the teacher'. One pupil warned that, depending on who they were working with, 'you could learn a lot or have a laugh'. Liking being able to hear and share ideas was stated by 21% of pupils. One pupil noted that 'when I talk to other pupils about ideas, the ideas get stuck in my head'. 10% of

respondents said they got more work done than working alone and 9% of pupils said group work was fun.

37% stated that they disliked it when others 'messed around' during group work; the impact of this is explained by one pupil, who said that 'sometimes there is conflict and messing around, which disturbs my overall learning and less work is done'. 12% did not like pupils not contributing fairly to group work, 11% noted arguments, and 15% disliked people talking over each other. Noise getting too loud was discussed by 4% of pupils. In contrast to those who liked being able to hear and share views, one pupil recorded that they sometimes struggled to share their view in group work. Three noted that they did not like others 'copying my work'. Three pupils noted feelings of discomfort, identifying that they sometimes felt 'left out' of groups; one said that group work made them 'feel anxious'.

4.2 STAD Intervention

A number of unforeseen practical limitations affected the execution of the STAD intervention over its 12-week duration. Predominantly, this related to the absence of pupils. During lessons, pupils were frequently taken out for literacy interventions at different stages of the cycles. This impacted on class 1, which had the highest number of disadvantaged pupils. Pupils within this class were the weakest academically and had the highest proportion of pupils with low reading ages and educational needs. A total of five pupils (19% of the class population) were absent for two lessons for this reason. Because of timetabling restrictions, which allocated Key Stage Three pupils with just one lesson of RE a week (meaning that the STAD programme entailed just 12 lessons), these absences would have had a significant

impact on the learning of these pupils. The lessons that pupils were absent from fell within the class presentation and team study stages of the cycles, where pupils were having the specific skills explained and demonstrated to them, and were given time to practise and embed their understanding. Pupils also missed out on learning the subject-specific knowledge and vocabulary required for their assessments. Although it could be argued that an enhancement of general literacy skills would increase their overall likelihood of achievement, the removal of pupils from lessons would have caused a subject-specific skills and knowledge gap, hindering their progress in RE. This emphasised the importance of introducing any intervention as extra and additional to the curriculum, as posited by Rowland (2017); a pupil cannot be expected to make maximum progress when they are out of the classroom and out of learning.

A number of pupils were also absent for other reasons: for illness, sports or events. Within class 1, five pupils were absent for one lesson each, and one pupil was absent for two lessons. This included four disadvantaged pupils. One disadvantaged pupil was also absent for two lessons because of sanctions for behaviour (Pupil 1P in **Appendix G**). The negative impact that such absences can have on pupil progress was also stressed by Rowland (2017), and the assessment data of this study could perhaps be seen to support this. For example, the achievement of Pupil 1P could be seen to rise overall (his week 12 assessment achieved 17% in comparison to his week 0 and 6 assessments, where both scored 0 marks). However, Pupil 1P was absent for two lessons during the class presentation and team study phases of cycle one (which only totalled five lessons), the culmination of which was the week 6 assessment. Whilst a continual lack of effort was also observed of Pupil 1P, which would have certainly contributed to his lack of progress, Pupil 1P's chances of being able to achieve would have been dramatically hindered by the fact that he had not been present when the skills and

knowledge needed for success were being learnt. It can therefore be of little surprise that his week 6 assessment achieved more poorly than his week 12 assessment. Although a definitive reason cannot be provided to explain this, where these findings do not take into account other factors that could have impacted on this pupil's achievement (for example, peer relationships or issues outside of the classroom), it can be assured that Pupil 1P's absences would not have had a positive influence on his progress. It should also be noted that Pupil 1P was again absent for a number of lessons before his week 0 assessment. The higher numbers of pupil absences from class 1 in particular need consideration when reviewing the levels of achievement within that class.

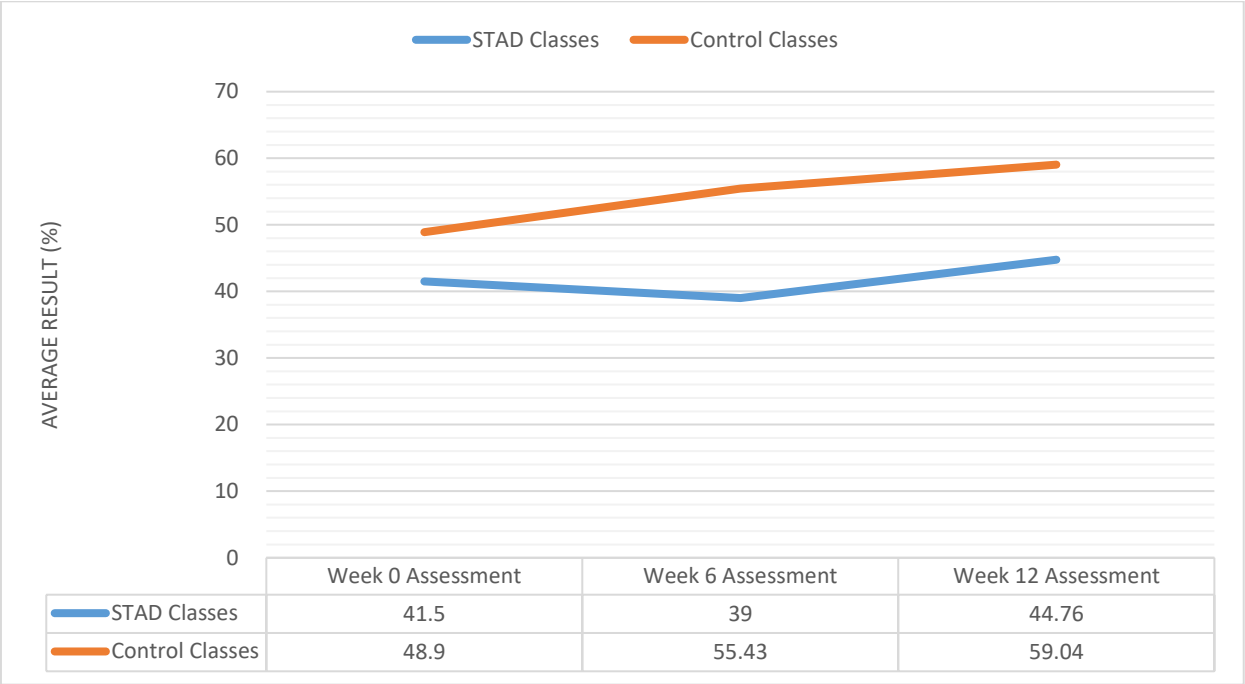
Likewise in class 3, although only three pupils were absent for a total of four lessons throughout the 12 weeks (with one missing the final assessment, which could not be caught up due to coming to the end of term), five pupils (19% of the class population) were absent for the week 0 assessment because they had been issued with the morning off school to recuperate from participating in the school's theatrical production, having already missed two lessons prior to this for rehearsals. Because my 12-week programme was held to certain time constraints (needing to be completed before the end of term), pupils were unable to catch up on this at another time, essentially narrowing the progress data available to me, and their first initial experience of the exam style questions.

In comparison, both control classes had less absences. In class 2, two pupils missed one lesson each (both disadvantaged pupils), and two pupils missed two lessons each (one disadvantaged). In class 4, two pupils were absent for one lesson, and another was absent for three. Whilst none of these pupils were disadvantaged, the pupil who missed three lessons (Pupil 4X) is noted as 'gifted'. Although her week 0 assessment achieved 80%, her

week 6 and 12 assessments both achieved 79%, and her absences could be interpreted as having had a detrimental effect on her progress.

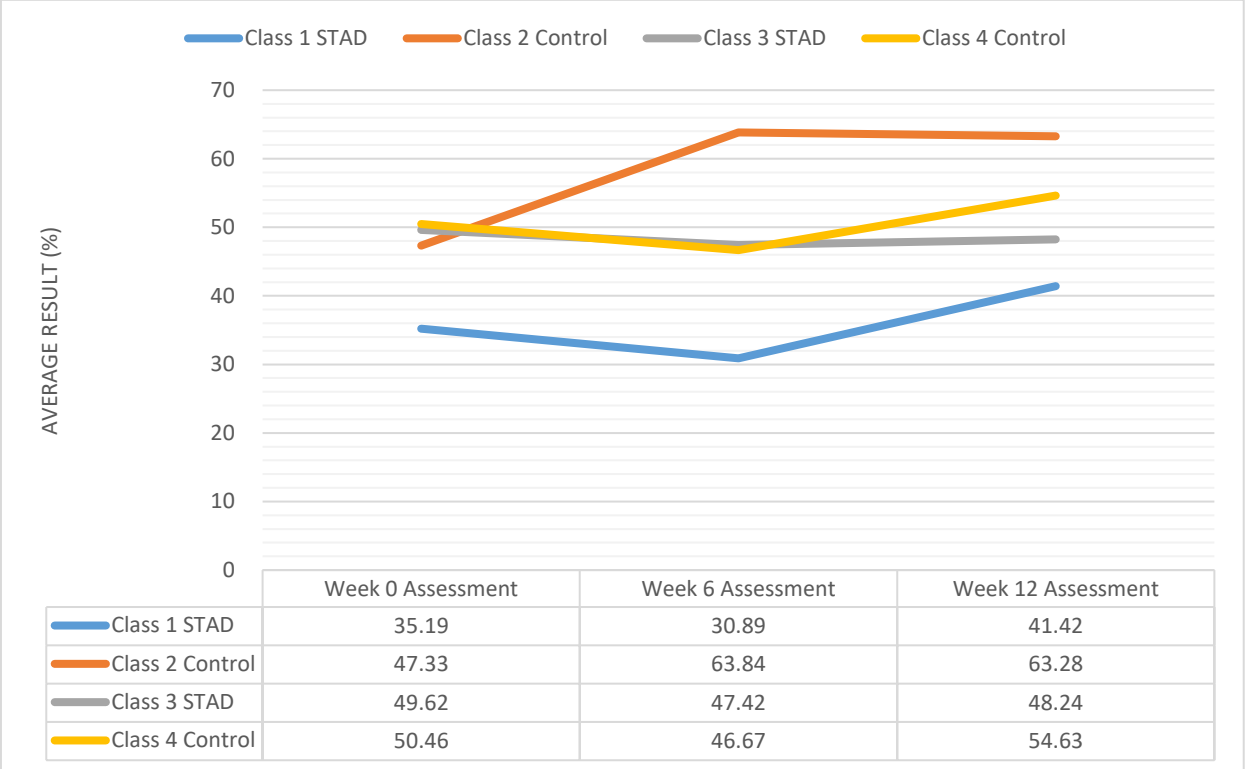
Using pupils' individual assessment data (**Appendix G**), class and overall assessment averages were calculated in order to provide a clear comparison of findings between the groups. The overall average assessment results of pupils in the STAD and control groups showed a positive trajectory (**Figure 6)**. As a whole, both sets of groups made positive progress. However, whilst the control classes made steadily positive progress, with gains at each stage of the process and an overall average improvement of 10.14%, this was not the case for the STAD groups. Overall, the STAD groups made a positive improvement of just 3.26%, considerably lower than those in the control groups. Furthermore, whilst there were positive gains between the week 6 assessment and the week 12 assessment, and the week 12 assessment achieved higher on average than the week 0 assessment, the considerable dip in progress for the STAD groups during the week 6 assessment suggests that pupils initially struggled with the new process, which impacted negatively on their achievement. When analysing the levels of progress between the week 6 and week 12 assessments, after this initial struggle, the STAD groups made slightly better progress on average than the control groups, though this was marginal at a 2.15% difference overall.

Figure 6: Average Assessment Results (All Pupils)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
STAD Classes	41.5	39	44.76
Control Classes	48.9	55.43	59.04

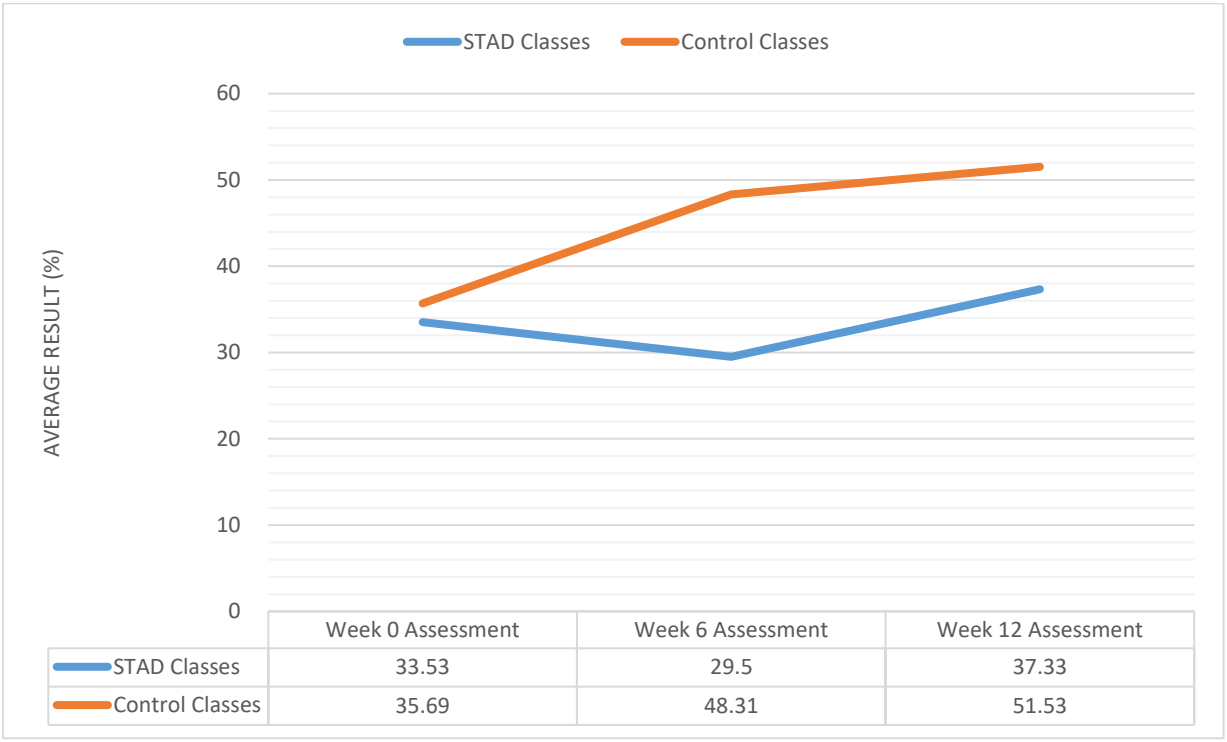
Figure 7: Average Assessment Results of Classes (All Pupils)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
Class 1 STAD	35.19	30.89	41.42
Class 2 Control	47.33	63.84	63.28
Class 3 STAD	49.62	47.42	48.24
Class 4 Control	50.46	46.67	54.63

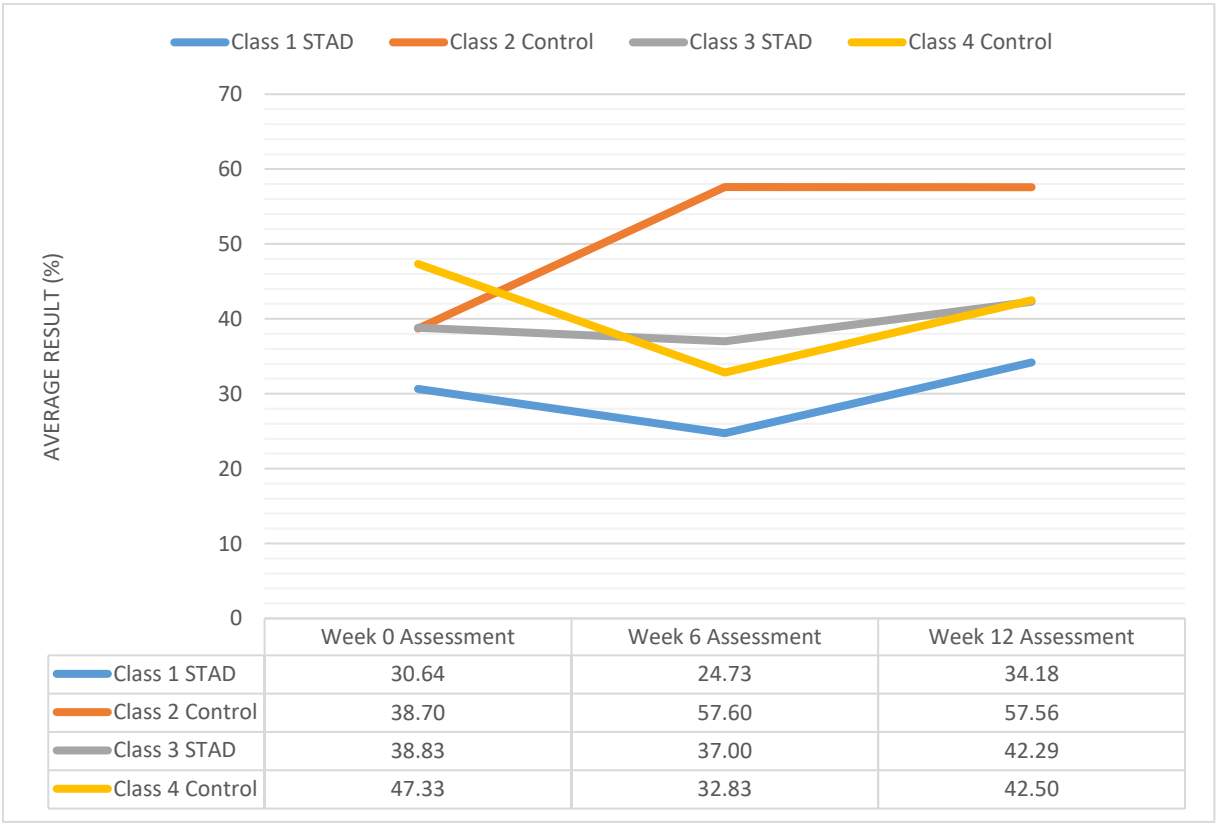
A comparison of the individual classes (**Figure 7**) paints a more complex picture. No one single class gained consistently positively throughout each stage of the process. Class 2 made the most gains overall, improving by 15.95%, which was considerably higher than both the STAD groups and class 4, the other control group. However, the majority of this improvement was seen in the initial stages of the study, between the week 0 and week 6 assessments; pupils' average progress plateaued beyond this point, with a slight drop in achievement of -0.56%. All other classes had a reduction in achievement between the week 0 and week 6 assessments (yet interestingly, these classes made gains between the week 6 and 12 assessments, where class 2 did not). Whilst on the whole these discrepancies were minimal, ranging from -2.2 to -4.3%, the fact that this was experienced by a control group as well as the STAD groups perhaps indicates an element of adjustment to the new style of assessment that pupils had been introduced to, as well as perhaps an adjustment to the cooperative learning requirements of those participating in STAD. Although both control classes made positive improvement gains overall, this was not the case for the STAD groups: overall achievement for class 1 increased by 6.23%, however class 3's progress remained mostly stagnant, making an overall improvement loss of -1.38.

Figure 8: Average Assessment Results (Disadvantaged Pupils)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
STAD Classes	33.53	29.5	37.33
Control Classes	35.69	48.31	51.53

Figure 9: Average Assessment Results of Classes (Disadvantaged Pupils)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
Class 1 STAD	30.64	24.73	34.18
Class 2 Control	38.70	57.60	57.56
Class 3 STAD	38.83	37.00	42.29
Class 4 Control	47.33	32.83	42.50

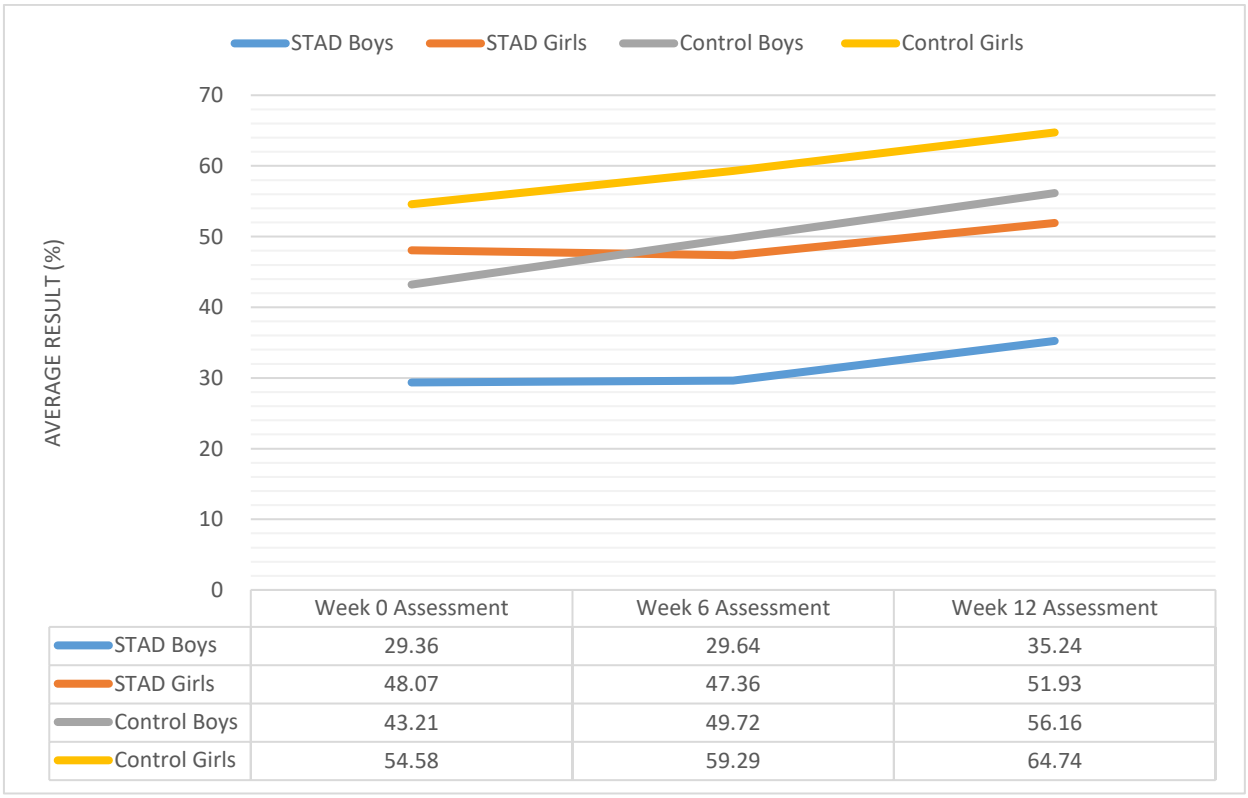
The findings suggest that, generally, disadvantaged pupils in both the STAD and control classes made positive gains in achievement (**Figure 8**). However, whilst those in the STAD classes initially made a loss of -4.03%, the progress of disadvantaged pupils in the control classes made consistently positive gains – totalling 15.84% in contrast to the overall gains of 3.8% for disadvantaged pupils in the STAD groups. The breakdown of separate classes (**Figure 9**) reveals that the most significant improvement gains came from control class 2 (18.86%), where disadvantaged pupils actually made better overall progress than the class on average, by 2.91%. Overall progress for disadvantaged pupils in STAD class 3 was also more positive than the class average, by 4.84%. However, those in STAD class 1 achieved 2.69% less than the class average at 3.54% overall. Whilst control class 2 had the most significantly positive gains, by contrast, control class 4 had the worst impact on disadvantaged pupils in comparison to all four groups – with an overall loss of -4.83%. Disadvantaged pupils in this class made an overall loss of 9% in comparison to their class average levels of progress.

When analysing pupils' progress between the week 6 and week 12 assessments, to account for the initial struggle some classes appeared to have, on average the STAD classes actually achieved higher levels of progress than their control class counterparts (7.83% as opposed to 3.22%), which is also reflected in the results for all pupils (**Figure 9**). When looking at the breakdown of the separate classes, both STAD groups made positive gains (class 1 by 9.45%, and class 3 by 5.29%); only control class 4 made positive gains (of 9.67%), whereas class 2 actually made a slight loss of -0.04.

Comparison of data by gender (**Figure 10**) identified that, overall, boys made the most positive gains in achievement, though their achievement was considerably higher in the

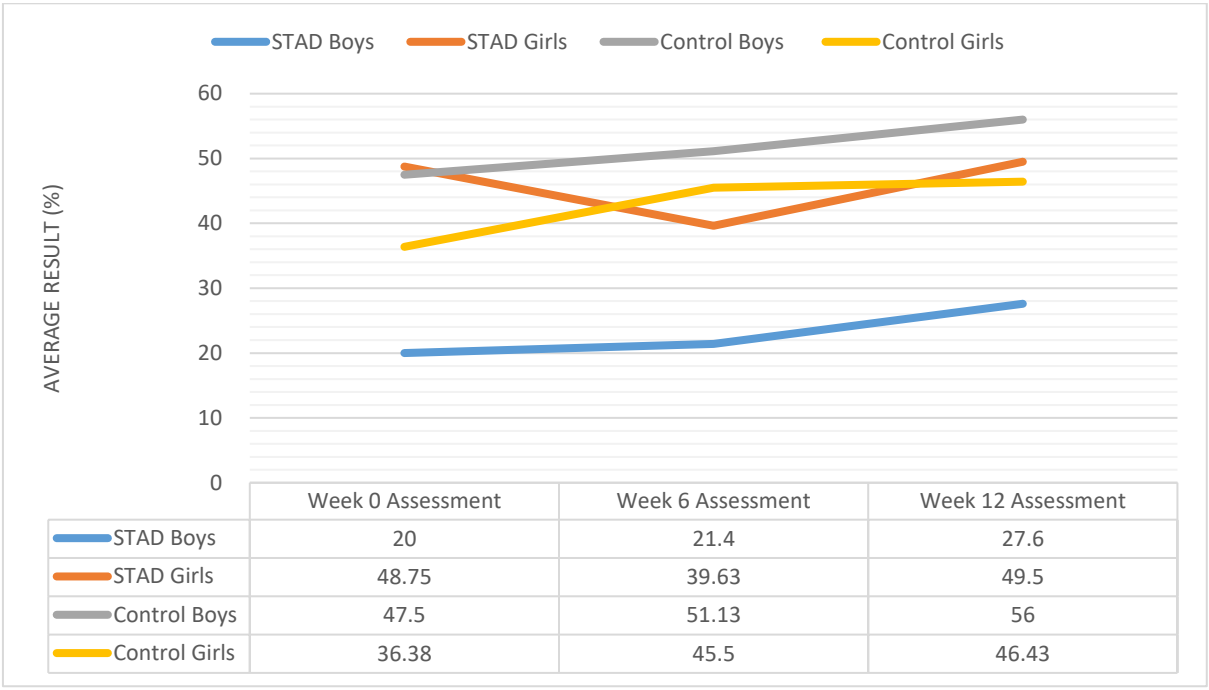
control classes than those participating in STAD. Boys in the control classes made positive gains of 12.95% overall, in comparison with 5.88% in the STAD classes. Girls also made positive gains (10.16% in the control classes, and 3.86% in the STAD classes), however both results were lower than the boys. Analysis of the data revealed a mixed picture when both gender and disadvantage were considered (**Figure 11**). Disadvantaged boys made similar levels of progress in both the STAD groups (7.6%) and control groups (8.5%), however disadvantaged girls made significantly better progress in the control groups (10.05%) as opposed to the STAD (0.75%).

Figure 10: Average Assessment Results by Gender (All Pupils)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
STAD Boys	29.36	29.64	35.24
STAD Girls	48.07	47.36	51.93
Control Boys	43.21	49.72	56.16
Control Girls	54.58	59.29	64.74

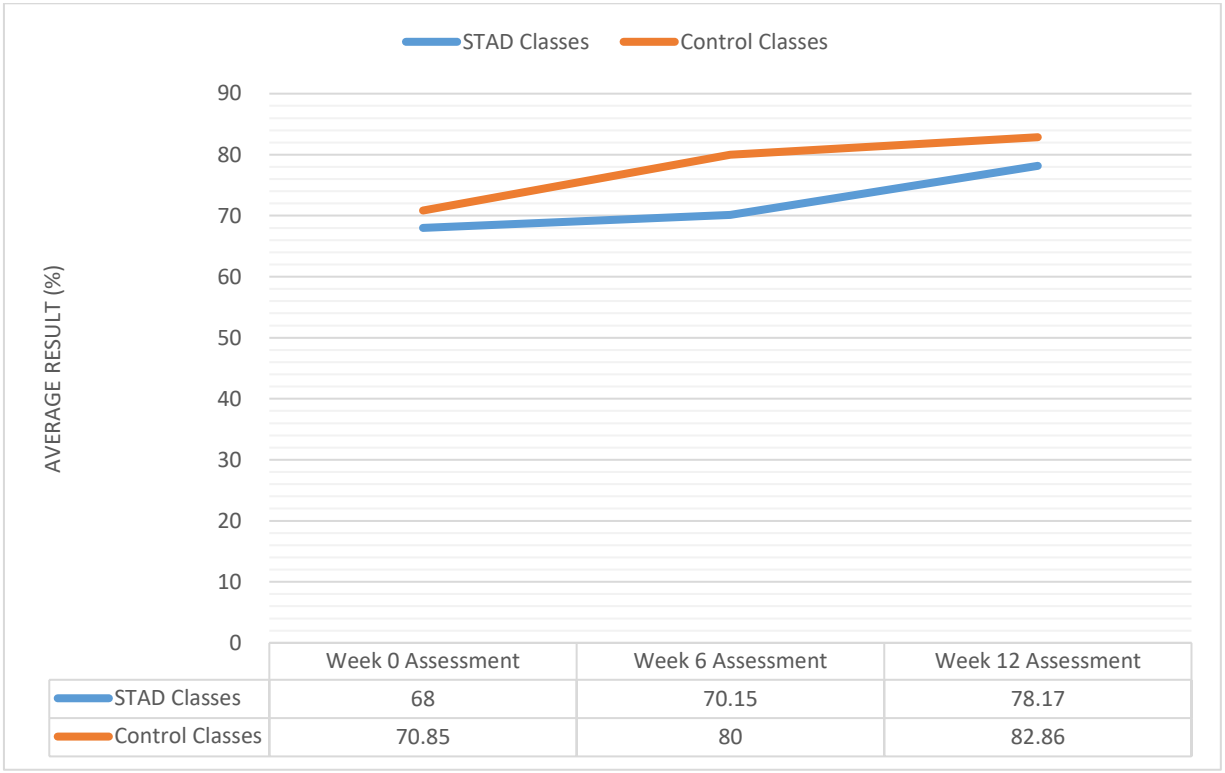
Figure 11: Average Assessment Results of Classes by Gender (Disadvantaged Pupils)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
STAD Boys	20	21.4	27.6
STAD Girls	48.75	39.63	49.5
Control Boys	47.5	51.13	56
Control Girls	36.38	45.5	46.43

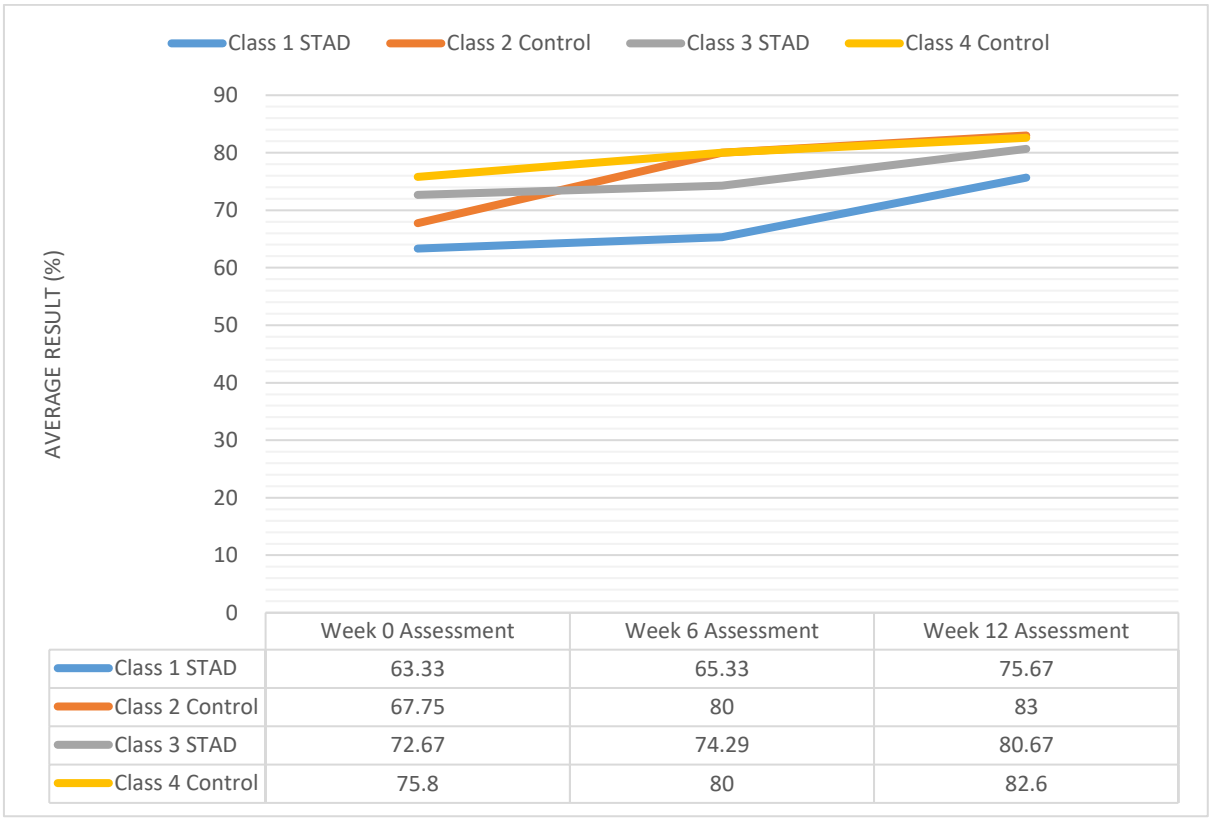
In contradiction to some concerns expressed in the literature (e.g. Luna, 2015), STAD was not found to impact negatively on progress for gifted pupils generally within my classroom context (**Figure 12**). Gifted pupils in all four classes made gains in achievement (**Figure 13**). Whilst those in control class 2 made the most improvement (15.25%), those in STAD class 1 were not far behind (12.34%); those in STAD class 3 improved by 8%, and those in control class 4 by 6.8%. The levels of progress made by gifted pupils in the STAD classes were still marginally less than those in the control classes on average, however at 1.84% the difference was minimal. Comparison of data for both disadvantaged and gifted pupils (**Appendix G**) revealed that those in the control groups improved by 29% on average, and those in the STAD groups by 10.67% Although this suggested that those in the control groups did better, the data for comparison was extremely limited (3 pupils in STAD, and 2 in the control groups). The small sample of data, totalling 5 pupils, could not be relied upon for meaningful comparison.

Figure 12: Average Assessment Results (Gifted)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
STAD Classes	68	70.15	78.17
Control Classes	70.85	80	82.86

Figure 13: Average Assessment Results of Classes (Gifted)



	Week 0 Assessment	Week 6 Assessment	Week 12 Assessment
Class 1 STAD	63.33	65.33	75.67
Class 2 Control	67.75	80	83
Class 3 STAD	72.67	74.29	80.67
Class 4 Control	75.8	80	82.6

4.3 Final Questionnaire

The final questionnaire was issued to both STAD classes during the lesson following their week 12 assessment. Of the 53 possible respondents, 47 pupils (89%) completed the final questionnaire (**Appendix B**). Those who did not complete the questionnaire were absent due to end of term activities. Again, this provided a limitation to these results, however the sample provided an adequate representation of pupil voice. Overall, from this questionnaire, 62% of pupils posited that they enjoyed working with other pupils in their teams, which was an increase of 6% in comparison to the statement regarding pupils' enjoyment of working with others in RE in the initial questionnaire. However, 26% disagreed, which was an increase of 5% from the initial questionnaire.

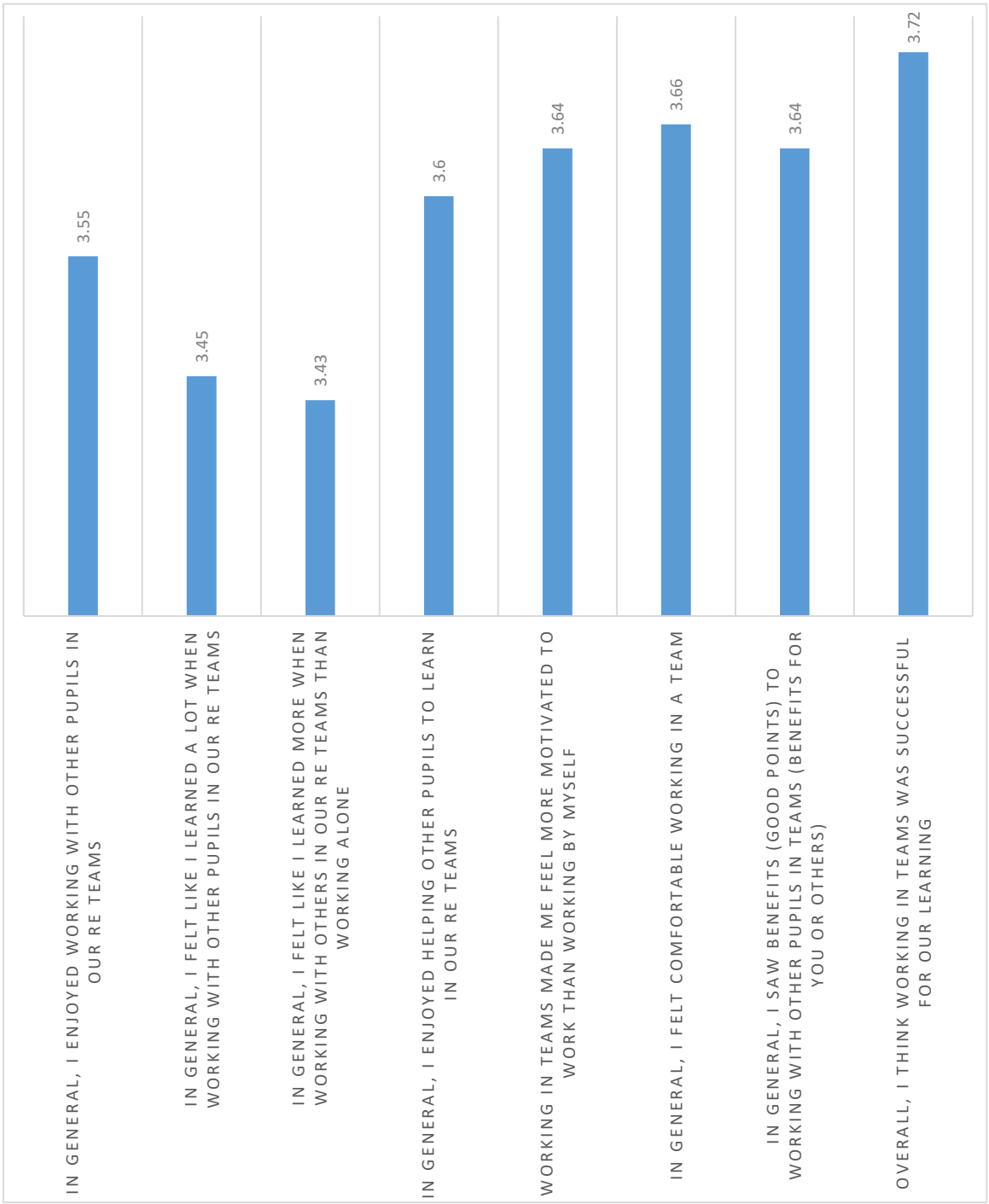
47% of respondents said that they felt like they learned a lot when they were working with others in their teams (as opposed to 17%, who said they did not), which was 8% more than the RE specific statement in the initial questionnaire. 45% of pupils responded that they felt like they learned more from working with others in their teams, than on their own, which was 1% higher than the initial questionnaire response to the RE context specifically. However, a significantly higher proportion of pupils also disagreed (26%), which was a 9% increase.

The vast majority of respondents (60%) said that they liked helping pupils to learn in their teams, with just 9% disagreeing; 58% said that they felt more motivated to work when they were in teams, to when they worked by themselves. 60% of pupils said that they felt comfortable working in teams, with just 17% saying they did not. In general, 66% of pupils noted that they saw benefits for themselves and others by working in teams (as opposed to 17% who did not), and this was reflected by 64% of respondents stating that they thought

that working in teams was successful for their learning, with just 15% saying that they did not.

From the answers given in the closed questions, **Table 1** below shows the mean responses generated for the two STAD classes. Each response on the Likert scale was attributed with a numerical value (strongly disagree, 1; disagree, 2; neither agree nor disagree, 3; agree, 4; strongly agree, 5) and these were used to obtain the average values of the responses. So, if 100% of the cohort said that they strongly agreed with a statement, the value would be at maximum 5. Overall, **Table 1** illustrates that the average mean responses to the STAD classes to cooperative learning were positive; on average, pupils said they were motivated and comfortable working in teams, and saw the benefits of doing so.

Table 1: Average Mean Responses of STAD Classes to Closed Questions (Final Questionnaire)



Conversely, the mean responses given by the two separate classes (**Table 2**) illustrate stark differences in opinion. On the whole, class 3 gave significantly more positive answers than class 1. Interestingly, some attitudes had seemed to reverse in comparison to responses given in the initial questionnaire (**Table 3**). The average mean results for pupils enjoying working with others in general and in RE were given by class 1 as 3.84 and 3.64 respectively in the initial questionnaire. However, this had decreased to 3.36 in relation to the comparative statement given in the final questionnaire. For the same questions, class 3 had initially posited enjoying working with others as 3.54 (in general) and 3.58 (in RE); this had increased to 3.72. The mean results for class 1 for feeling that they learned a lot with others in general and in RE were given as 3.44 and 3.56 respectively, which had decreased in the final questionnaire to 3.23. Class 3's lower figures provided for the same questions had increased from 3.5 (in general) and 3.21 (for RE), to 3.64. The mean result for class 1 in response to feeling like they learned more with others was given as 3.4 (in general) and 3.64 (in RE), which had decreased to 3.27 in the final questionnaire. Similarly, the lower figures given by class 3 (3.21 and 3.25 respectively) had increased to 3.56. Overall, from these findings it can be suggested that class 3 seemed to have had a more positive experience of, and more positive attitudes towards, cooperative learning than their peers in class 1.

Table 2: Mean Responses of Individual STAD Classes to Closed Questions (Final Questionnaire)

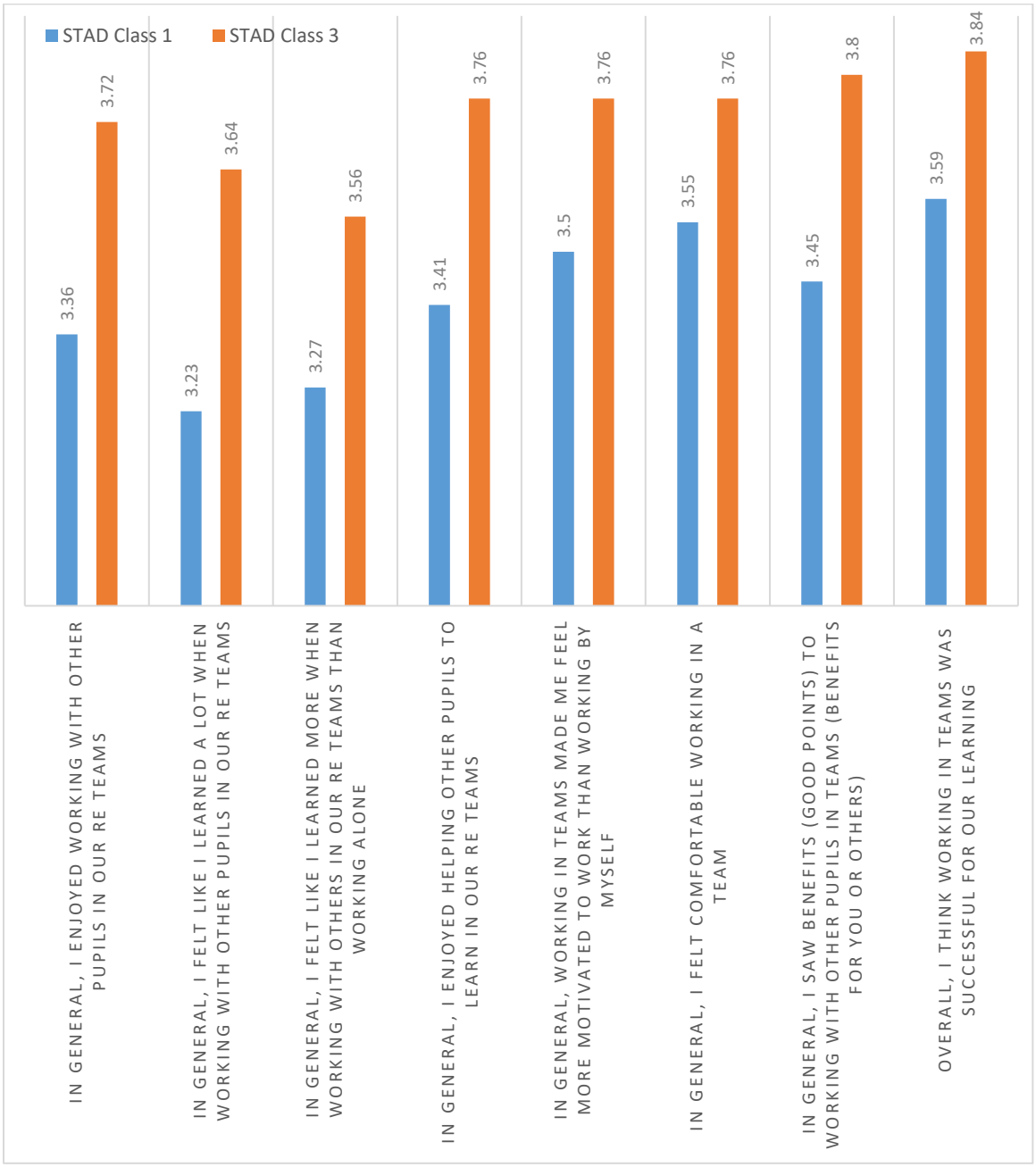
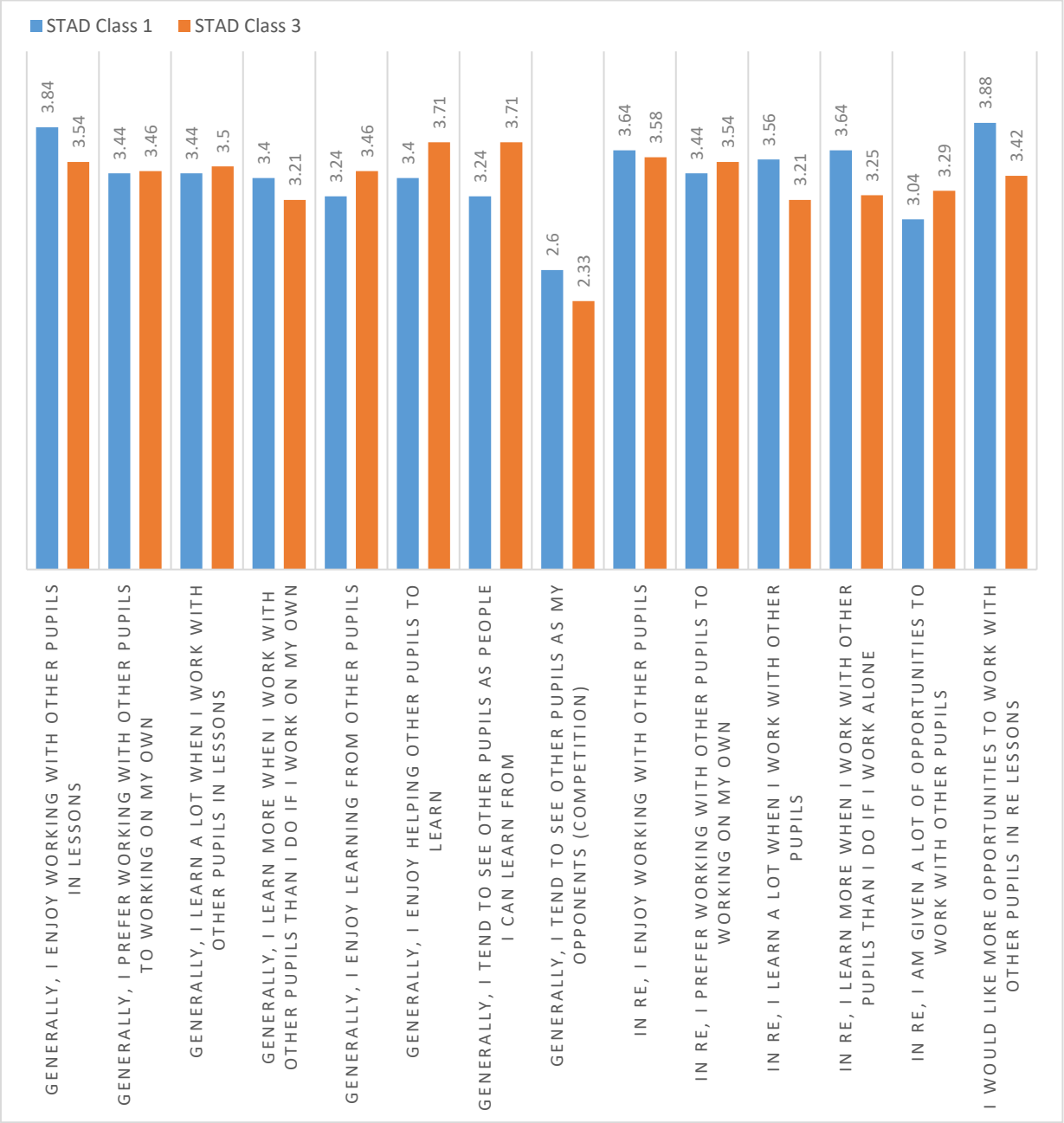


Table 3: Mean Responses of Individual STAD Classes to Closed Questions (Initial Questionnaire)



Pupils were asked what they thought were the positive and negative aspects of working with others in their RE teams. Again, the format of open questions necessitated my needing to somewhat generalise pupils' responses, however their comments helped to further elucidate

pupils' opinions. The responses given by class 3 were overwhelmingly more positive: 56% of pupils stated that they liked the fact that they could help each other, 20% that they liked the opportunity to work with others rather than independently, and 24% said that felt like it gave them an opportunity to learn more. 12% found the experience fun. Class 1 also said that they liked being able to help each other (50%), 14% that they liked the opportunity to work with others instead of being alone, and 9% that it was fun. Only 9% of this class noted being able to learn more when working in their teams. Whilst one member of class 3 noted that they 'liked helping others get better grades', a pupil in class 1 explained that they had liked the opportunity 'to see how others approach their learning, so I can improve my own learning'.

Issues surrounding team members' interplay were noted as the most significant negative, by 48% of class 3 pupils, and 37% of class 1. Two pupils from class 3 especially shared their frustrations; one stated that other members in their team 'lagged behind', and the other that 'some people don't work as hard, which drags the team down even though you've worked hard'. One member of class 1 shared that 'some people don't get on and it affects learning'. Pupils also highlighted their frustrations with people talking too much (9% in class 1 and 12% in class 3), distractions (9% and 12% respectively) and people arguing (14% of class 1).

4.4 Discussion

The findings from this study provide mixed results. The data shows significant disparities between the levels of progress made by the STAD and control groups. Positive gains were identified for both the STAD and control classes overall. However, those in the control classes made significantly more progress on average than those in the STAD classes, improving by

10.14% overall as opposed to 3.26%. This study could therefore be seen to lend support to Gilbert's (2007) findings of STAD not necessarily leading to significant improvement of achievement, contradicting the findings of Slavin (1994, 2014), Alijanian (2012) and Vaughan (2002). However, the findings of this study are not straightforward.

Pupils' average assessment results for the week 6 assessment identified an overall drop in results for pupils within 3 classes: both STAD classes and one control class. This could suggest that pupils in the STAD classes initially struggled with the new process of cooperative learning (lending support to Marcus's (2016) warnings that pupils do not automatically know how to work together), which impacted negatively on their achievement initially. Yet, the fact that control class 4 also suffered a loss of gains could suggest here that there was also an element of adjustment to the new style of assessment that pupils had been introduced to.

Certainly, after this initial adjustment period, the data from the week 6 and week 12 assessments shows that the STAD classes actually made slightly better progress on average than the control classes (5.76% as opposed to 3.61%). This being said, it can be argued that the difference between the two sets of groups here was marginal, and essentially did not make amends for pupils' poor initial progress.

Furthermore, no one class made consistently positive gains throughout each stage of this study. Even though the control classes were seen to make better progress overall than the STAD, this was largely due to the success of one class (class 2). But even though class 2 made the most positive gains overall in comparison to the others (15.95%), this progress peaked and plateaued at the week 6 assessment. The second control class was not so successful overall, improving by just 4.17%. Whilst STAD class 1 made average improvements of 6.23% overall, STAD class 3 remained relatively stagnant, the only class to make an overall loss (-

1.38%). So, overall, it could be argued that there was no definitive method that consistently improved achievement for all classes. However, it is important to remember here that no class is rigid, fixed or the same – no one class is identical to another, or the same within itself. Not only are class populations different between classes, but they do not always remain consistent within classes. What works for one may not work for another, and methods may not always work as successfully when repeated for the same group. Likewise, each of the two cycles entailed pupils learning new and different information and skills. Although the assessments contained the same kind of exam questions and followed the same format, providing a consistent measure, the learning taking place during the cycles was not identical, and therefore progress may not necessarily rise reliably between assessments – some students may be more successful with some types of question or knowledge than others.

It must also be noted that data can only show so much: although some pupils may not have been seen to improve from one assessment to the next by their overall score, this does not mean that they did not improve between specific questions. For instance, whilst Pupil 3M (in STAD class 3, **Appendix G**) achieved 90% in their week 0 assessment, 83% in their week 6 assessment and 88% in their week 12 assessment, analysis of individual questions reveals that their 5 mark questions in the latter two assessments actually improved in comparison to the first (achieving the full five marks for both). Similar anomalies can be seen with other pupils.

Similarly, pupils occasionally wrote a skilful response that for all intents and purposes met the exam answer criteria they had been learning, however they had mistaken the key word used in the question. This nullified their answer where it would otherwise have had the potential to earn full marks, bringing down their overall assessment score and seeming levels of progress – even though they had illustrated a successful grasp and improvement of how

to answer the exam question itself. Pupil 3H's progress data (in STAD class 3) suffered in this regard; their incorrect interpretation of the key word in the week 6 assessment 5 mark question meant that they scored 0 marks for it, even though their overall grasp of how to answer the question had improved from the week 0 assessment.

Likewise, the data cannot fully communicate other variables that affect pupils' achievement beyond the control of the teacher. For instance: pupils' characteristics and attitudes, changing relationship dynamics and other issues beyond the classroom context (e.g. Crenna-Jennings, 2018; Van der Zee *et al*, 2008). For example, although Pupil 3N made steady improvements in progress when looking at the assessment data, they had actually refused to complete any questions on the week 0 assessment because of upset over issues at home, and this influence continued into later lessons. The potential impact of pupils' absences has already been discussed. The absence of pupils from lessons would have caused significant subject-specific skills and knowledge gaps, and this would also have impacted on pupils' progress and data. However, in itself absence could not be seen as self-explanatory for pupils' lack of progress, because some pupils made steady progress between assessments even with absences (**Appendix G**).

Progress for disadvantaged pupils was also variable. Data comparisons for the two sets of classes identified that disadvantaged pupils achieved better overall in the control classes as opposed to the STAD classes (15.84% and 3.8% respectively). However, the individual class breakdown painted a more complex picture. Overall, disadvantaged pupils in control class 2 and STAD class 3 achieved higher than their class average for progress. The most significant gains were achieved by control class 2, who showed an improvement of 18.86% (nearly 3% higher than their class average). Both STAD classes achieved similar levels of progress for disadvantaged pupils (3.54% in class 1, where the class average was 6.23%, and 3.46% in

class 3, where the class average was -1.38%). Whilst average class progress for class 3 had remained stagnant throughout the study, interestingly this was not the case for the disadvantaged pupils within that class, who gained positively. The worst levels of progress for disadvantaged pupils came from control class 4 (-4.83% as opposed to the class average of 4.17%). Therefore, whilst the most positive progress for disadvantaged pupils came from a control group, the least positive progress did too. Interestingly, when looking at the week 6 and 12 assessment cycle, the STAD classes achieved better progress than the control groups (both for all pupils and for disadvantaged), whereas control class 2 was the only class to achieve positively within the week 0 and 6 assessment cycle.

Analysing the data by gender provided further insights. Boys and girls both made positive gains within the STAD and control classes. However, those in the control groups not only gained more on average overall than those participating in STAD (boys and girls in the STAD groups improved by 5.88% and 3.86% respectively, and those in the control groups by 12.95% and 10.16% respectively), but they also made consistently positive gains at each stage of the process, whereby those in the STAD groups did not. In both the STAD and control classes, boys made more positive gains than the girls, although this was marginal (a difference of 2.02% in STAD, and 2.79% in the control groups).

Comparison of data by both gender and disadvantage highlighted that disadvantaged girls in the control groups made significantly better progress than those participating in STAD (10.05% as opposed to 0.75%). However, progress for disadvantaged boys in both groups was similar (7.6% in the STAD classes, as opposed to 8.5% in the control classes). The higher levels of progress for both disadvantaged girls and boys in the control groups, when compared to the STAD groups, suggest that disadvantaged boys' and girls' achievement was better supported within the control group contexts. The progress of both disadvantaged

boys and girls was more consistently positive throughout each stage of the control class assessments. Though, whilst STAD was initially less successful between the week 0 and week 6 assessments, they actually made better progress than the control groups between the week 6 and 12 assessment points (boys by 1.33% and girls by 8.94%).

Literature posited conflicting concerns about the effect of STAD and cooperative learning on gifted pupils (Luna, 2015; Slavin, 1994). On the whole, this study supported Slavin's stance, that gifted pupils do not suffer negatively from cooperative learning. Although those in the control classes made slightly higher gains in achievement, the difference of 1.84% was minimal. Control class 2 made the most initial gains (12.25% during the week 0 to week 6 cycle), with just 2% and 1.62% for STAD classes 1 and 3 respectively, and 4.2% for control class 4. When comparing progress in the week 6 to week 12 cycle, however, gifted pupils in the STAD groups made the best progress: 10.34% in class 1 and 6.38% in class 3 (as opposed to gains of just 3% in class 2 and 2.6% in class 4). Comparison of data for both disadvantaged and gifted pupils revealed that those in the control classes made 18.33% better progress on average. However, the small sample size of just 5 pupils could not be relied upon for truly meaningful comparison.

The lesser overall progress of the STAD groups, despite having the motivation of rewards, did not seem to support Slavin's (2014, 1994) assertions that group rewards are essential for reinforcing motivation and enhancing achievement, even when rewards were based on individual performance. This could be further supported by the success of control class 2, who achieved highly without rewards. However, limitations are provided in that this study did not explicitly analyse rewards, and pupils were not asked to comment on them in their final questionnaires. Furthermore, although pupils tried to encourage and help their teammates, with the intention of maximising their team's success, some resistance of pupils

was observed in accepting this (for instance, with Pupil 3N); some pupils clearly did not value the success of their team, which provided an obstacle to their team's success.

Moreover, a form of 'social loafing' (Hathorn and Hathorn, 2012) was observed. On two occasions, teams had won rewards despite not all members being fully committed or working hard. Team success had been achieved because of the majority, but not all, of the team members. This provided a personal dilemma in whether to provide rewards to all members of the team, despite knowing that not all had contributed to its success, and how this could be executed without lessening motivation. Discussion with the Head of Humanities concluded that pupils could not be rewarded for their teammates' hard work.

This perhaps highlighted issues related to social cohesion (Slavin, 2014; Battisch *et al*, 1993); that a lack of cohesion (members working well together and caring about the team) leads to a lack of motivation, and thus a lack of achievement. This was reflected in the final questionnaires; STAD class 3 in particular emphasised issues with team relations (48%, as opposed to 23% in STAD class 1), which perhaps could partially explain their lack of achievement. Class 3 pupils' comments about people not working as hard and dragging the team down appear to confirm this. Some responses also appeared to confirm Hancock's (2004) warnings about pupils' seeing cooperative learning as a chance to socialise: one final questionnaire response noted that it provided a 'good opportunity to see friends'.

The findings of this study do not lend support to Hancock's (2004) argument that pupils with high peer orientation do better in cooperative learning environments than those with low peer orientation. Surprisingly, whilst STAD class 3's final questionnaire responses were overwhelmingly positive about cooperative learning, increasingly so in comparison to their initial questionnaire, class 3's progress (at -1.38% overall) was considerably worse than STAD

class 1's (and those in the control groups). Contrastingly, STAD class 1's attitudes to cooperative learning were overwhelmingly more negative (increasingly so in comparison to their initial questionnaire), despite having the highest levels of achievement in comparison (6.23%).

4.5 Limitations

Limitations of the methods engaged in this study were identified and have been discussed. The lack of literature on the use of cooperative learning or STAD within the RE classroom offered little guidance on how STAD could be effectively applied to the subject of RE. This provided issues in that I had to formulate a programme without specific examples to reference 'what worked' in RE or what did not. The short-term nature of this study meant that achievement data and findings were limited, which became more problematic when considering the limited timetabling of RE (of just one hour a week) within this context. Overall, this provided just 12 hours of lesson time for the intervention to take place. This meant that discrepancies due to pupils' absences would be more profound, and there was less time over which to develop and monitor effects on achievement. Although achievement on the whole followed a positive trajectory (to varying degrees), the short-term nature of this study also meant that the full benefits of an intervention designed to better prepare pupils for starting their GCSE course could not be fully witnessed. A more longitudinal study would have been beneficial here in continuing to monitor the impact of the development of pupils' GCSE skills and knowledge once they had begun participating in the GCSE. It would also have been useful to distinctly measure the significance of rewards as providing an impact on achievement, considering the suggestion of this study that they did not necessarily

support pupils' motivation to achieve. Furthermore, there were other influential factors on achievement that were not analysed in this study, for instance pupils' SEND status, race and ethnicity.

5.0 CONCLUSION

The findings of this study provided mixed results. On the one hand, those in the control classes were seen to have achieved more successfully than those participating in STAD, across all points of analysis, when considering their overall achievement gains. However, the control groups' high standing relied largely on the initial overarching success of just one class (class 2), which raised the profile of its weaker partner.

Initial reductions in achievement on the completion of the first assessment cycle (for the two STAD groups and second control group) indicated that there was an element of adjustment to the new style of assessment, and perhaps also with the new process of cooperative learning. Following these initial struggles, it must be noted that those in the STAD groups largely made more progress than those in the control groups on completion of the second cycle. This can be identified in the data where for all pupils the STAD groups out-performed the control groups by 2.15%, for disadvantaged pupils by 4.61%, and for gifted pupils by 5.16%. This was also the case when considering both gender and disadvantage (boys by 1.33% and girls by 8.94%). The only measure where this was not the case was when considering boys' and girls' achievement overall, yet there was minimal difference (the control groups out-performed the STAD groups by 0.84% and 0.88%). This being said, the positive gains made by the STAD groups during the second cycle did not make amends for pupils' initial poor progress in the case of a short-term intervention such as this. However, this does not discount the gains STAD may have been able to provide had this been a more longitudinal study.

Progress for disadvantaged pupils was variable, and despite the more positive gains during the second cycle, the difference between the two sets of groups was significant. Overall, the

achievement of those in the control classes was 12.04% higher than the STAD. This would suggest that disadvantaged pupils were better supported in the control class context. However, whilst the overall progress of disadvantaged pupils in the STAD groups was comparable and relatively low (3.54% in class 1 and 3.46% in class 2), the control groups provided both the best and the worst levels of progress for disadvantaged pupils (18.86% in class 2 and -4.83% in class 4), illustrating that the results were not straightforwardly positive.

Analysis of the data by gender revealed that, whilst both boys and girls gained positively, those in the control groups made significantly better progress than those in STAD (boys by 7.07%, and girls by 6.3%). Whilst the progress of disadvantaged girls was significantly better in the control groups (by 9.35%), there was little difference between the disadvantaged boys in both types of group (0.9%).

Gifted pupils were not seen to suffer negatively from cooperative learning overall. Although those in the control groups achieved better than the STAD groups in cycle one, the STAD groups achieved better than the control groups in cycle two, and this created an overall difference of just 1.84%. Although analysis of disadvantaged and gifted pupils highlighted that those in the control classes made 18.33% better progress than those participating in STAD, the small sample size here of just 5 pupils could not be relied upon for meaningful comparison.

The inclusion of rewards as motivation for achievement in STAD was not overtly supported by this study, a point further supported by the success of control class 2, who achieved highly without rewards, although more explicit analysis of the link between rewards and achievement would have been useful here.

Issues related to social cohesion were also highlighted, and could perhaps be seen as a contribution to the lesser achievement of STAD class 3. Interestingly, however, findings from this study did not support arguments that pupils who enjoyed working with other pupils would achieve more highly in cooperative learning situations. Rather, the class with the most negative evaluation of cooperative learning achieved the most highly.

This study was enriching for myself as a teacher; not only in expanding my professional knowledge and understanding about some of the issues that face the students within my classroom, but also in allowing me to experiment with and evaluate a pedagogical strategy that was of interest to my department and to my school as a whole in helping to address the issue of raising achievement, especially for disadvantaged learners. What was most highlighted from this study was that there was no 'one size fits all' approach, even within the same school and between different classes.

Benefits of cooperative learning on pupils (both all, and disadvantaged) were observed, and I will continue to incorporate cooperative learning strategies into my teaching practice. However, pupils within this setting could also be seen to be successful in a more traditional learning environment. This highlighted to me the need for a variety of pedagogical strategies to be employed, to allow teaching to be responsive to the varying needs of pupils. However, the need for a more longitudinal study was highlighted. The findings of this study were shared with other departments and with SLT, and an interest in researching the use of cooperative learning further was posited by the Head of Science, who wanted to expand the findings of this study into the Science classroom context. The results of this study were also shared with other teachers at an RE networking meeting, to inform other teachers' practice within Hampshire.

This study primarily contributes to the considerable literature gap on the use of cooperative learning and STAD within the RE classroom (for which the need for future research is recommended), as well as on raising achievement for both all and for disadvantaged learners. These findings can also be seen to expand on literature surrounding cooperative learning and gifted pupils, the use of rewards, and on the social cohesion theory.

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7.0 APPENDICES

Appendix A:
Initial Questionnaire

Dear pupil,

I would like to find out what Year 8 pupils think about working with other pupils in lessons, and I would really appreciate it if you would share your opinions with me. Please answer the questions as honestly as possible. Your answers will remain anonymous.

Thank you,

TEACHER NAME

1. Generally, I enjoy working with other pupils in lessons

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

2. Generally, I prefer working with other pupils to working on my own

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

3. Generally, I learn a lot when I work with other pupils in lessons

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

4. Generally, I learn more when I work with other pupils than I do if I work on my own

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

5. Generally, I enjoy learning from other pupils

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

6. Generally, I enjoy helping other pupils to learn

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

7. Generally, I tend to see other pupils as people I can learn from

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

8. Generally, I tend to see other pupils as my opponents (competition)

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

9. In RE, I enjoy working with other pupils

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

10. In RE, I prefer working with other pupils to working on my own

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

11. In RE, I learn a lot when I work with other pupils

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

12. In RE, I learn more when I work with other pupils than I do if I work alone

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

13. In RE, I am given a lot of opportunities to work with other pupils

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

14. I would like more opportunities to work with other pupils in RE lessons

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

15. In your opinion, what <u>helps</u> group work to be successful?

……

……

16. In your opinion, what <u>prevents</u> group work from being successful?

……

……

17. What do you <u>like</u> about working with other pupils in RE lessons?

……

……

18. What do you <u>dislike</u> about working with other pupils in RE lessons?

……

……

19. If you would like to comment on anything further, please do so here:

……

……

Thank you for your feedback

Appendix B:
Final Questionnaire

Dear pupil,

I would like to find out what you thought about working with other pupils your RE teams; I would really appreciate it if you would share your opinions with me. Please answer the questions as honestly as possible. Your answers will remain anonymous.

Thank you,

TEACHER NAME

1. In general, I enjoyed working with other pupils in our RE teams

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

2. In general, I felt like I learned a lot when working with other pupils in our RE teams

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

3. In general, I felt like I learned more when working with others in our RE teams than working alone

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

4. In general, I enjoyed helping other pupils to learn in our RE teams

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

5. In general, working in teams made me feel more motivated to work than working by myself

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

6. In general, I felt comfortable working in a team

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

7. In general, I saw benefits (good points) to working with other pupils in teams (benefits for you or others)

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

8. Overall, I think working in a team was successful for our learning

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

9. In your opinion, what were the positive (good) things of working with others in your RE team?

……

……

10. In your opinion, what were the negative (bad) things of working with others in your RE team?

……

……

11. If you would like to comment on anything further, please do so here:

……

……

Thank you for your feedback

Appendix C:
Class Ranking Sheet

PUPIL	BASE SCORE	TEAM	ABILITY
[redacted]	76.25	A	MORE ABLE
	69.25	B	
	68	C	
	60.5	D	
	59.66	E	
	57.25	F	
	55.33	G	
	49.25	G	MIDDLE ABILITY
	49	F	
	38.5	E	
	35.66	D	
	31	C	
	30	B	
	29.25	A	
	28.66	A	
	28.25	B	
	28	C	
	25.75	D	
	25.33	E	
	21.5	F	
	21.25	G	
	21	G	LESS ABLE
	19.5	F	
	19.33	E	
	18	D	
	17.25	C	
	14	B	
	7.25	A	

Appendix D:
Lesson Programme

<table>
<tr><td colspan="3">Key Skills/Focus: What do Muslims believe about God? 4 and 5 mark questions: explaining beliefs and influences (taught)</td><td>Lesson: 1-2</td></tr>
<tr><td>Learning Objectives</td><td>Suggested Teaching and Learning Activities</td><td>Resources</td><td>Skills (including RWCM)</td></tr>
<tr><td rowspan="2">To investigate and explain Muslim beliefs about God and the Prophet Muhammad using the examples of tawhid and the shahadah

To understand the meaning of the words tawhid and shahadah

To master how to answer 4 and 5 mark exam questions</td><td rowspan="2">Starter 1:
• Think-Pair-Write/Draw-Share: what characteristics should a God have? Why would these be important? Feedback
• Title and objectives on PPT slide 1

Main 1:
• Students to look at the pictures of Islamic art on PPT slide 2. Why do you think Muslims use pictures such as these to symbolise God, rather than pictures of God himself? E.g. no words can explain what God is like, God is beyond human understanding therefore making an image of him would be idolatry/disrespectful, God has many characteristic (colours, shapes)
• In pairs, students to sort 'beliefs about Allah' cards into 4 groups: facts about the shahadah, Islamic art, Prophet Muhammad, Allah
• Students to answer questions on PPT slide. Writing frame available
• Tell students what we are going to learn and why it's important: how to explain beliefs and influences, which is needed for their GCSEs. Key words and definitions also important
• PPT slide 4: working together, students to use cards to make a list of beliefs about Allah. How would a belief in this influence a Muslim? Do first belief as an example on the board (Allah created everything)

Plenary 1:
• Feedback students' ideas

Starter 2:
• Quick recap on students' ideas from previous lesson

Main 2:
• PPT slide 5: introduce 4 mark question and read through top of students' '4 mark question beliefs about Allah' sheet
• Show my example answer on PPT slide 5 to explain; relate these to the mark criteria (also on 'example answers about nature of God' hand out). How many marks would this answer achieve and why?
• Students to use their ideas to write their own answers in pairs, using example answer and mark criteria to help them (but they need to include</td><td>PPT
Beliefs about Allah cards
Example answers about nature of God (for tables)
4 mark question beliefs about Allah
5 mark question beliefs about Allah
Beliefs about Allah question frame
Muhammad cartoons row homework</td><td>R – cards, answers, sheets
W – questions
C – starter, feedback, plenary
Assessment Opportunities
W – questions</td></tr>
<tr><td>Keywords
Qur'an, Allah, shahadah, tawhid

Homework Opportunities
Lesson 1. Muhammad cartoons row
Lesson 2. Research Ramadan – what is it and why/how do Muslims celebrate it?</td><td>Personalisation
Grouping of teams
Frames
Stretch activities
SEN/DSB/less-able could highlight photocopy of textbook

Notes</td></tr>
<tr><td></td><td>different points to the example answer)
• Get students to feedback and explain whether it achieves full marks or not and why/why not
• Introduce 5 mark question on PPT slide 6 – explain that the structure is very similar to the 4 mark question, but what is the extra thing they need for the 5th mark? Reference to scripture or another source of religious belief. What might this mean? Could be the Qur'an, shahadah, Prophet Muhammad
• Read through top of students' '5 mark question' sheet on how to answer a 5 mark question
• Get students to provide examples of beliefs about God (e.g. from card activity). How could this belief be developed into 2 sentences?
• Click to reveal example 5 mark answer to illustrate the point. How is the reference to scripture/source shown in the example answer? ('In the Qur'an it teaches...')
• Students to use information from cards activity to write their own 5 mark answer in pairs, using example answer and mark criteria to help them (they need to include different points to the example answer)

Plenary 2:
• Feedback students' answers. How many marks would they get? Are there 2 beliefs? Are they developed? Does it explain the belief? Refer to scripture/source? Correct answers if need be.
• Extension: key word quiz on PPT slide 7</td><td></td><td></td></tr>
</table>

Key Skills/Focus: The 5 Pillars: what 5 practices are central to Muslim life? 4 and 5 mark questions **(teams)**			**Lesson:** 3-4
Learning Objectives	**Suggested Teaching and Learning Activities**	**Resources**	**Skills (including RWCM)**
To investigate the 5 Pillars in Islam, their importance and how they influence Muslims To master how to answer 4 and 5 mark exam questions	**Starter:** • Title and objectives on PPT slide 1 • In pairs/teams, students to read article on Muslim prayer. Teams to discuss: what difficulties are there with praying 5 times a day? Would it be more or less difficult praying 5 times a day in the UK as opposed to a Muslim-majority country? Why, how? Is prayer important in Islam? How do we know? **Main:** • Using the 'Five Pillars' textbook photocopy sheet, teams are to complete their booklet on the Five Pillars • Working together, students to use the information they've collected to EACH write a perfect 4 and 5 mark answer (on final page of booklet). Students to have example answers and mark criteria on tables to help them • Explain that no-one on their team is finished until all of them can write the perfect answers/know that their teammate will achieve 100% on these styles of question on the test. They must ask all teammates before asking the teacher (4 Bs) • Students can WWW/EBI each other, then perfect their answers • Extension: students to quiz each other on key words and definitions. Must provide ONE sheet only of key words and definitions per pair so they can take it in turns to quiz each other (could put post it notes on foreheads) • Feedback students' perfect answers – how do we know they're perfect? **Plenary:** • 'it is easy for a Muslim to follow the 5 Pillars'. In teams, students to come up with at least 3 arguments for and 3 arguments against. Overall, what do they think? Is it easy for a Muslim to follow the 5 Pillars? Why, why not? • Extension: key word quiz on PPT slide 4	PPT Prayer article starter 5 Pillars booklet Photocopy of Collins KS3 Islam textbook p.28-29 Example answers about the nature of God (for tables) Extension key word quiz/post it notes	R – article, textbook W – booklet, answers C – starter, feedback **Assessment Opportunities** W – booklet, answers
		Keywords	**Personalisation**
		Five Pillars, shahadah, salah, zakah, sawm, hajj, tawhid, ummah	Grouping of teams Stretch activities SEN/DSB/less-able could highlight photocopy of textbook
		Homework Opportunities	**Notes**
		Plenary activity (needed for test) Research a Muslim charity and what they do to help Key word revision	

Key Skills/Focus: What happens on hajj? 4 and 5 mark questions **(teams)**			**Lesson:** 5
Learning Objectives	**Suggested Teaching and Learning Activities**	**Resources**	**Skills (including RWCM)**
To investigate the Five Pillars in Islam, their importance and how they influence Muslims – looking specifically at hajj To master how to answer 4 and 5 mark exam questions	**Starter:** • Think-Pair-Write/Draw-Share: imagine that you wanted to go to a festival such as Glastonbury for the weekend with friends. Make a list of all of the things you would have to organise and plan for. Feedback. *E.g. money, tickets, transport, food, accommodation…* • Title and objectives on PPT slide 1 **Main:** • PPT slide 2: using the 'what happens on hajj?' photocopy, students to work together to complete their guide to hajj • Working together, students to use this information to each write a perfect 4 and 5 mark answer to the questions at the end of the guide to hajj. Students to use the example answers and mark criteria to help them • Remind students that no-one on their team is finished until everyone in it can write the perfect 4 and 5 mark answer **Plenary:** • Feedback students' answers. How do we know they achieve full marks? • Extension: key word quiz on PPT slide 3	PPT Guide to hajj Photocopies of Collins KS3 Islam textbook on hajj pp.34-5 Example answers about the nature of God (for tables) Extension key word quiz/post it notes	R – textbook photocopy W – answers C – starter **Assessment Opportunities** C – answers, starter
		Keywords	**Personalisation**
		Hajj, Five Pillars, Qur'an, Kaaba, pilgrimage	Grouping of teams SEN/DSB/less-able could highlight photocopy of textbook
		Homework Opportunities	**Notes**
		Students to revise for test next lesson. Will cover the areas looked at in class: beliefs about God, 5 Pillars, hajj	

Key Skills/Focus: Mid Topic Test (4 and 5 mark questions) **(individual)**			**Lesson:** 6
Learning	**Suggested Teaching and Learning Activities**	**Resources**	**Skills (including RWCM)**
To assess student knowledge and improvement	**Starter:** • Students to move away from each other; tests handed out **Main:** • Students to work silently and individually to complete mid topic test – approx. 35/40 mins • Students of different groups to use mark criteria sheet to peer mark each other **Plenary:** • Collect tests	Islam Mid Topic Test Islam Test Peer Mark Criteria	R – test W – test
			Assessment Opportunities
			W – test
		Keywords	**Personalisation**
			Could provide answer writing frames
		Homework Opportunities	**Notes**
			Tests need to be marked and students sorted into new teams dependent on improvement points for next lesson

Key Skills/Focus: Test Feedback and Fix It/New Groups			**Lesson:** 7
Learning	**Suggested Teaching and Learning Activities**	**Resources**	**Skills (including RWCM)**
	Starter: • Return students' tests; students to read through written feedback **Main:** • Teacher to give students' verbal feedback on their tests; class to hear some of the students' answers • Students to 'fix' their tests, sticking tests into their book and adding their marks to the mark sheet at the front of their books • Teacher to give teams their overall STAD improvement points/results • Give students' their rewards **Plenary:** • Sort students into their new teams	Tests Mark Criteria Example answers	R – tests, mark criteria, feedback W – fix its C – answers
			Assessment Opportunities
			W – fix its
		Keywords	**Personalisation**
		Homework Opportunities	**Notes**

Key Skills/Focus: What is jihad? 12 mark exam questions **(taught)**			**Lesson:** 8-9
Learning Objectives	**Suggested Teaching and Learning Activities**	**Resources**	**Skills (including RWCM)**
To investigate and evaluate the meaning of jihad To master how to answer 12 mark evaluation exam questions	**Starter:** • Students have 5 minutes to connect all of the dots on the starter sheet using only 4 lines • Feedback: who gave up? Why, why not? Do you like tasks that are challenging? Can you think of any other examples of things that are challenging? • Reveal title and objectives on PPT slide 2: this task links directly to the meaning of the word jihad. How? (struggle) **Main:** • Read through and explain lesser and greater jihad on PPT slide 3. Students to have copy of this to stick into their books • How do people struggle? Teams to look at 'struggles' cards; as teams, put them into order hardest to easiest. Extension/challenge on slide • Feedback – what have they chosen and why? • Watch video on PPT slide 5. Students to write down any examples of 'struggle' they see or think a Muslim would experience. Extension/challenge on slide • Feedback • In pairs/teams, students to read 'example 12 mark answer' and complete activities at the bottom of the sheet • Feedback. From these activities, what do we therefore know we need to include in a 12 mark answer? Arguments for and against, justified conclusion, examples, quotes, key words… • As a team, students to use information from the example answer and class work (checked against the mark criteria) to fill 'blank cards' boxes with points they would use to answer the statement: 'Jihad exists each and every day for a Muslim' • Students to then fully write out answer to this statement **Plenary:** • Feedback students' answers or students to peer mark • Extension on PPT slide 7: students to turn to their neighbour and explain the meaning of lesser and greater jihad with examples	PPT Join the dots starter Example 12 mark answer Highlighters/colouring pencils 12 mark question peer mark criteria Blank cards sheets Struggles cards (made up – one pack per team) Video: **Keywords** Jihad, greater jihad, lesser jihad, struggle, Allah **Homework Opportunities** Students could write a story about their own jihad	R – example answer W – question C – starter, struggles, feedback **Assessment Opportunities** W – question **Personalisation** Grouping of teams Stretch activities **Notes**

Key Skills/Focus: Why do many Muslim women wear the veil? 12 mark exam questions **(teams)**			**Lesson:** 10-11
Learning Objectives	**Suggested Teaching and Learning Activities**	**Resources**	**Skills (including RWCM)**
To investigate and evaluate why some Muslim women wear the veil To master how to answer 12 mark evaluation exam questions	**Starter 1:** • Title and objectives on PPT slide 1 • In pairs/teams, students to read the poem and answer the questions in their books • Feedback **Main 1:** • Does anyone know the person in the picture? (Nadiya Hussain, Great British Bake Off winner 2015). Whilst the wearing of hijab had already gained negative attention in the press, Nadiya brought it to the public forefront in a more positive fashion. Watch video linked on PPT slide 1 from approx. 0.29-1 min • What positives could there be from wearing the hijab? What negatives/why might hijabs garner negative attention? • Read PPT slide 2 and show different types: going to find out more about this • Jack Straw activity on PPT slide 3: students to sort evidence **Plenary 1:** • Debate: 'the veil should be banned in the UK'. First, students to discuss in teams, then as a class if time. Ext/Stretch on PPT slide **Starter 2:** • Debate as a class (from plenary 1); if students have already got to this point, then quick recap **Main 2:** • Working together, students are to write their own 12 mark answer to the statement: 'the veil should be banned in the UK'. Example answer (about jihad) and mark criteria on tables to help • Students to check each other's/their own answers against the mark criteria to make sure they can tick off everything in the '9-12 marks' box • Remind students that no-one on their team is finished until everyone can write the perfect 12 mark evaluation answer	PPT Veil poem Jack Straw activity evidence (on PPT slides 7-9) French schools'' homework 12 mark question peer mark criteria Example 12 mark answer **Keywords** Hijab, burqa, niqab, Islamophobia **Homework Opportunities** French schools' homework Revision for test next lesson	R – evidence W – questions C – starter, debate **Assessment Opportunities** W – questions **Personalisation** Stretch activities Highlight poem Differentiated resources **Notes**
	• Extension: students to swap their answer with someone else in the room and peer mark, WWW/EBI. Then improve their answer **Plenary 2:** • Feedback students' answers. • Extension on PPT slide 6: which is which?		

<table>
<tr><td colspan="3">Key Skills/Focus: End of Topic Test (12 mark questions) (individual)</td><td>Lesson: 12</td></tr>
<tr><td>Learning</td><td>Suggested Teaching and Learning Activities</td><td>Resources</td><td>Skills (including RWCM)</td></tr>
<tr><td rowspan="6">To assess student knowledge and improvement</td><td rowspan="6">Starter:
• Students to move away from each other; tests handed out

Main:
• Students to work silently and individually to complete end of topic test – approx. 35/40 mins
• Students of different groups to use mark criteria sheet to peer mark each other

Plenary:
• Collect tests</td><td rowspan="2">Islam End of Topic Test

Islam Test Peer Mark Criteria</td><td>R – test
W – test</td></tr>
<tr><td>Assessment Opportunities</td></tr>
<tr><td>W – test</td></tr>
<tr><td>Keywords</td><td>Personalisation</td></tr>
<tr><td></td><td>Could provide answer writing frames</td></tr>
<tr><td>Homework Opportunities</td><td>Notes</td></tr>
<tr><td></td><td></td></tr>
</table>

Appendix E:
Team Study Activity (Cycle 1: Hajj)

HAJJ! An extensive travel guide for pilgrims





A **pilgrim** is someone who travels to a **holy place** for religious devotions. The most important **place of pilgrimage** for Muslims is _____, and every Muslim tries to undertake this journey at least _____ time during their **life**, if they are able to. This is because _____ was **born** and **lived** here, and because this is where Prophet Muhammad received the words of the **Qur'an**. Pilgrimage here is also commanded in the _____ which says: 'Perform the pilgrimage and the visit (to Mecca) for Allah' *(Qur'an 2:196)*. Approximately _____ **million** pilgrims go to Mecca during hajj, however not all Muslims are **required** to go on hajj. This includes: _____. Hajj lasts _____ **days**.

In order for their pilgrimage to have spiritual value, **before** going on hajj, a Muslim must...

1. 
2. 

Before arriving in Mecca, many pilgrims visit the **Prophet's Mosque** in Medina to...

When **approaching** Mecca, pilgrims must enter into a spiritual state of holiness or purity known as **ihram**. Whilst in this state, Muslims are **not allowed to**...

This is **because**...

All pilgrims wear the same **simple white cotton clothing**. This is worn to **show**...

It also **reminds** them of...

Using as **few words** as possible, complete this **flow chart** to **briefly** explain what **happens** on hajj. The first one has been done for you as an example:

What happens?

Pilgrims walk around the Ka'aba 7 times. Some touch or kiss it

They do this because...

The Ka'aba is special because it is the first place ever built to worship Allah

What happens?

They do this because...

What happens?

They do this because...

What happens?

They do this because...

What happens?

They do this because...

*Using the information in your guide, **complete these questions in your book**. Remember, no-one in the group is finished until ALL members of the team can write the perfect answers. Use the example answers and mark criteria to help you*

- Explain **two ways** in which hajj might **influence** Muslims today (4 marks)
- Explain **two Muslim beliefs** about hajj. Refer to **sacred writings** or another **source** of religious belief and teaching in your answer (5 marks)

Appendix F:
Week 6 Assessment Paper

Name:

Islam Test



1. Which one of the following expresses the Muslim belief that there is only one God? (1)

Select the correct option

[ ] Salah [ ] Tawhid [ ] Hajj [ ] Qur'an

2. Give <u>two</u> Muslim beliefs about God (Allah) (2)

Just give 2 simple points

.....

.....

3. <u>Explain</u> <u>two</u> ways in which a belief in the Five Pillars might influence Muslims today (4)

*This question is asking you to say **how a belief can influence someone's life, behaviour or actions**. What are the 5 Pillars? Are they important to Muslims? Do Muslims have to do anything because of the 5 Pillars? What? Is this easy/hard to do? You need to include **2 different points**, and about **4/5 sentences***

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4. <u>Explain</u> <u>two</u> Muslim beliefs about hajj. Refer to sacred writings or another source of religious belief and teaching in your answer (5)

*This question is asking you to explain **two different beliefs** about hajj. What is hajj? Is it important to Muslims? Why? What happens on hajj? You need to include **2 different points**, about **4/5 sentences** AND reference to **scripture** or a **religious source** (e.g. the Qur'an)*

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Continues on the next side...

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5. **'It is easy for a Muslim to follow the Five Pillars'** **(12)**

*What are the 5 Pillars and are they important? How do Muslims follow them? What are the difficulties with following them? In what ways is it not so difficult to follow them? Include **BOTH sides** of the argument and a **conclusion**:*

*Some would **agree** with this, because...* *Some would **disagree**, because...* *__Overall__, I agree/disagree with the statement, because...*

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Appendix G:
Individual Class Assessment Data

GROUP 1: STAD	Gifted & Talented	No. of Absences	Week 0 Assessment										Week 6 Assessment								Week 12 Assessment							
			1 mark	2 mark	2 mark	4 mark	4 mark	5 mark	12 mark	Marks/30	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage
1A	G	1	1	2	2	3	3	2	2	15	50	D=	1	2	4	5	3	15	63	S-	1	2	4	5	6	18	75	S=
1B		2	0	2	0	3	0	1	1	7	23	E-	0	2	1	1	1	5	21	E-	0	1	3	3	3	10	42	D-
1C			0	2	0	1	1	1	0	5	17	P+	0	0	1	2	1	4	17	P+	1	0	1	2	1	5	21	E-
1D		2	0	2	0	0	0	0	0	2	7	P=	0	0	0	0	0	0	0	U	0	2	2	0	2	6	25	E-
1E		2	1	2	2	2	1	1	0	9	30	E=	0	1	2	3	1	7	29	E=	1	2	3	2	2	10	42	D-
1F			0	0	1	2	0	1	0	4	13	P=	0	1	1	0	0	2	8	P=	0	0	2	2	1	5	21	E-
1G		3	0	2	0	0	0	3	0	5	17	P+	0	0	0	2	1	3	13	P=	0	2	0	0	0	2	8	P=
1H			1	2	0	2	2	3	4	14	47	D-	0	2	2	3	2	9	38	E+	1	2	2	2	4	11	46	D-
1I			1	2	2	0	0	2	0	7	23	E-	0	2	0	0	0	2	8	P=	1	2	2	0	0	5	21	E-
1J			1	2	2	2	3	2	6	18	60	D+	0	2	2	5	5	14	58	D+	1	2	2	4	6	15	63	S-
1K		1	1	2	2	4	4	3	6	22	73	S=	0	1	2	0	4	7	29	E=	1	0	4	3	5	13	54	D=
1L			1	1	0	1	0	0	2	5	17	P+	0	0	0	2	2	4	17	P+	0	1	1	2	2	6	25	E-
1M	G		1	2	2	4	3	4	0	16	53	D=	0	2	3	4	8	17	71	S=	1	2	4	4	6	17	71	S=
1N			0	2	1	2	0	2	0	7	33	E-	0	2	2	2	0	6	25	E-	0	1	2	0	4	7	29	E=
1O			1	2	0	0	1	0	3	8	27	E-	1	1	0	0	0	2	8	P=	0	0	3	0	4	7	29	E=
1P		3	0	0	0	0	0	0	0	0	0	U	0	0	0	0	0	0	0	U	1	2	1	0	0	4	17	P+
1Q	G		1	2	2	4	3	4	6	22	73	S=	0	2	4	5	8	19	79	S+	1	2	4	5	8	20	83	S+
1R			1	2	2	2	0	0	1	8	27	E-	0	0	2	1	2	5	21	E-	0	2	3	3	2	10	42	D-
1S		1	1	2	1	1	0	2	0	7	23	E-	0	2	0	2	2	6	25	E-	1	0	2	1	0	4	17	P+
1T			1	2	0	0	0	1	0	4	13	P=	0	1	1	0	0	2	8	P=								
1U	G		1	2	2	3	4	3	5	20	67	S-	0	2	4	5	6	17	71	S=	1	2	4	5	5	17	71	S=
1V	G		1	2	2	4	4	2	6	21	70	S=	1	2	2	4	4	13	54	D=	1	2	3	5	8	19	79	S+
1W	G		1	2	0	3	3	5	6	20	67	S-	0	2	4	3	4	13	54	D=	1	2	4	5	6	18	75	S=
1X		1	1	2	2	1	3	3	4	16	53	D=	0	1	2	4	6	13	54	D=	1	1	3	3	2	10	42	D-
1Y			0	2	0	3	4	2	2	13	43	D-	0	0	0	3	2	5	21	E-	1	0	2	2	1	6	25	E-
1Z		2	0	0	2	0	0	0	0	2	7	P=	0	1	2	0	2	5	21	E-	0	0	1	1	3	5	21	E-
1ZZ			1	2	0	1	1	0	0	5	17	P+	0	2	1	0	2	5	21	E-	1	2	0	2	3	8	33	E-

GROUP 2: CONTROL	Gifted & Talented	No. of Absences	Week 0 Assessment										Week 6 Assessment								Week 12 Assessment							
			1 mark	2 mark	2 mark	4 mark	4 mark	5 mark	12 mark	Marks/30	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage
2A			0	2	0	4	0	2	1	9	30	E=	0	1	2	2	7	12	50	D=	1	2	3	1	5	12	50	D=
2B			1	2	0	2	3	3	1	12	40	E+	0	2	4	4	4	14	58	D+	0	2	1	3	4	10	42	D-
2C			1	2	1	4	2	4	4	18	60	D+	1	2	4	5	4	16	67	S-	1	2	4	4	4	15	63	S-
2D	G		1	2	2	2	3	4	6	20	67	S-	1	2	4	5	9	21	88	M-	1	2	4	5	8	20	83	S+
2E		1	1	2	1	2	2	0	3	12	40	E+	0	2	2	3	2	9	38	E=	1	1	3	4	2	11	46	D-
2F	G		1	2	1	3	2	5	6	19	63	S-	0	2	4	5	9	20	83	S+	1	2	4	5	8	20	83	S+
2G			1	2	0	3	3	0	3	11	37	E+	0	2	4	4	3	13	54	D=	1	1	4	3	5	14	58	D+
2H			1	1	0	3	3	0	3	11	37	E+	1	2	3	4	4	14	58	D+	1	2	4	4	6	17	71	S=
2I	G		1	2	2	3	3	4	7	22	73	S=	0	2	3	2	7	14	58	D+	1	2	3	4	7	17	71	S=
2J	G		1	2	2	4	3	5	8	25	83	S+	1	2	4	5	7	19	79	S+	1	2	4	4	7	18	75	S=
2K			1	2	1	2	3	0	4	13	43	D-	1	2	2	2	7	14	58	D+	1	2	2	3	7	15	63	S-
2L			1	1	1	1	3	2	2	11	37	E+	1	2	3	3	3	12	50	D=	1	2	2	4	4	13	54	D=
2M		2	1	2	1	2	2	2	4	14	47	D-	0	1	3	3	5	12	50	D=								
2N			1	2	1	2	2	1	3	12	40	E+	1	1	3	4	6	15	63	S-	1	2	3	5	8	19	79	S+
2O			1	2	0	2	2	1	2	10	33	E=	0	2	2	3	5	12	50	D=	1	2	3	3	4	13	54	D=
2P	G		1	2	2	4	4	3	6	22	73	S=	1	2	4	5	6	18	75	S=	1	2	4	5	9	21	88	M-
2Q	G		1	2	1	3	3	0	5	15	50	D=	1	2	4	5	8	20	83	S+	1	2	4	5	9	21	88	M-
2R			1	2	2	2	2	3	3	15	50	D=	0	2	4	5	4	15	63	S-	1	2	3	4	6	16	67	S-
2S			0	2	2	1	1	0	3	9	30	E=	1	2	3	2	3	11	46	D-	1	2	2	1	3	9	38	E+
2T			1	2	0	0	1	0	1	5	17	P+	0	2	3	4	6	15	63	S-	1	2	3	4	3	13	54	D=
2U		1	1	2	0	0	1	0	3	7	23	E-	0	1	3	3	5	12	50	D=	1	2	2	1	3	9	38	E+
2V			1	2	0	2	0	0	2	9	30	E=	1	2	2	3	6	14	58	D+	1	2	4	3	4	14	58	D+
2W	G		1	0	2	2	4	3	4	16	53	D=	1	2	4	5	9	21	88	M-	1	2	4	5	9	21	88	M-
2X	G		1	2	2	4	4	5	6	24	80	S+	1	2	4	5	8	20	83	S+	1	2	4	5	8	20	83	S+
2Y	G	2											1	1	4	5	9	20	83	S+	1	2	4	5	9	21	88	M-

FSM PUPIL

GROUP 3: STAD

	Gifted & Talent	No. of Absences	Week 0 Assessment										Week 6 Assessment								Week 12 Assessment							
			1 mark	2 mark	2 mark	4 mark	4 mark	5 mark	12 mark	Marks/30	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage
3A		1											0	0	2	0	4	6	25	E-	1	0	3	1	0	5	21	E-
3B			1	2	0	2	2	0	3	10	33	E=	0	2	1	3	3	9	38	E+	0	0	2	2	3	7	29	E=
3C			1	2	0	2	2	4	3	14	47	D-	0	2	1	0	3	6	25	E-	1	2	4	4	4	15	63	S-
3D			1	2	2	1	0	2	1	9	30	E=	0	2	3	0	2	7	30	E=	1	2	2	0	3	8	33	E=
3E			1	0	0	1	1	0	0	3	10	P=	1	1	2	0	1	5	21	E-	0	1	0	0	1	2	8	P=
3F	G		1	2	2	4	4	4	7	24	80	S+	1	2	3	5	9	20	83	S+	1	2	4	5	9	21	88	M-
3G	G	2	1	2	1	4	4	4	8	24	80	S+	1	2	4	5	7	19	79	S+								
3H	G		1	2	1	4	3	2	6	19	63	S-	1	1	3	0	5	10	42	D-	1	2	3	4	9	19	79	S+
3I		1	1	2	0	3	4	2	4	16	53	D=	0	0	3	4	3	10	42	D-	0	1	3	4	2	10	42	D-
3J			1	2	0	4	2	2	4	15	50	D=	0	2	2	4	4	12	50	D=	0	0	2	3	2	7	29	E=
3K			0	2	1	3	4	4	6	20	67	S-	0	2	2	5	6	15	63	S-	1	2	3	2	5	13	54	D=
3L	G		1	2	0	3	3	1	3	13	43	D-	0	2	3	4	8	17	71	S=	1	2	4	5	6	18	75	S=
3M	G		1	2	2	4	4	4	10	27	90	M-	1	2	2	5	10	20	83	S+	1	2	4	5	9	21	88	M-
3N			0	0	0	0	0	0	0	0	0	U	1	0	0	0	0	1	4	P-	1	2	1	1	1	6	25	E-
3O			1	2	1	1	2	2	0	9	30	E=	1	2	4	4	4	15	63	S-	1	1	2	2	3	9	38	E+
3P													0	2	2	2	3	9	38	E+	0	2	0	2	2	6	25	E-
3Q			1	2	2	2	1	1	0	9	30	E=	0	2	1	1	3	7	30	E=	1	1	1	2	1	6	25	E-
3R													0	1	2	2	3	8	33	E=	1	2	2	3	4	12	50	D=
3S													0	2	3	0	2	7	30	E=	0	0	2	2	1	5	21	E-
3T			1	2	1	3	4	2	6	19	63	S-	0	2	4	3	4	13	54	D=	1	2	4	3	5	15	63	S-
3U	G												1	2	4	4	8	19	79	S+	1	2	4	4	9	20	83	S+
3V			1	2	1	4	4	4	0	16	53	D=	1	2	2	4	3	12	50	D=	0	2	3	4	7	16	67	S-
3W													1	2	0	4	5	12	50	D=	1	2	2	2	5	12	50	D=
3X	G		1	2	2	4	4	5	6	24	80	S+	1	2	4	5	8	20	83	S+	1	2	3	5	6	17	71	S=
3Y			1	2	0	2	2	4	4	15	50	D=	0	2	3	2	6	13	54	D=	1	1	2	3	5	12	50	D=
3Z			1	2	0	2	1	2	6	14	47	D-	0	2	1	0	0	3	13	P=	1	2	2	1	1	7	29	E=

GROUP 4: CONTROL

	Gifted & Talented	No. of Absences	Week 0 Assessment										Week 6 Assessment								Week 12 Assessment							
			1 mark	2 mark	2 mark	4 mark	4 mark	5 mark	12 mark	Marks/30	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage	1 mark	2 mark	4 mark	5 mark	12 mark	Marks/24	%	Stage
4A			1	2	2	2	3	4	4	18	60	D+	0	1	1	0	4	6	25	E-	1	2	2	4	6	15	63	S-
4B			1	2	0	1	1	2	1	8	27	E-	1	0	1	0	5	7	29	E=	1	2	0	0	1	4	17	P+
4C	G		1	2	2	4	4	4	7	20	80	S+	1	2	4	4	7	18	75	S=	1	2	4	5	7	19	79	S+
4D	G		1	2	1	4	4	4	6	22	73	S=	1	2	4	4	10	21	88	M-	1	2	4	5	9	21	88	M-
4E			1	2	2	1	1	3	2	12	40	E+	1	2	**2**	3	0	8	33	E=	1	2	4	2	1	10	42	D-
4F	G		1	2	2	3	4	4	9	25	83	S+	1	2	4	5	7	19	79	S+	1	2	4	5	11	23	96	M+
4G			1	2	2	2	3	4	6	20	67	S-	1	2	3	1	5	12	50	D=	1	2	3	3	4	13	54	D=
4H			1	2	2	2	2	4	8	21	70	S=	1	2	3	0	3	9	38	E+	1	2	4	4	5	16	67	S-
4I			1	2	0	2	2	2	3	12	40	E+	0	2	0	2	2	6	25	E-	1	1	0	3	5	10	42	D-
4J		1	1	2	0	2	1	2	2	10	33	E=	0	2	2	2	4	10	42	D-	1	2	4	4	2	13	54	D=
4K			1	2	2	3	0	4	5	17	57	D+	1	2	0	2	4	9	38	E+	1	2	3	2	2	10	42	D-
4L			1	2	0	2	0	0	3	8	27	E-	0	2	2	0	2	6	25	E-	1	0	1	2	2	6	25	E-
4M			1	2	2	2	2	1	3	13	43	D-	1	1	3	0	4	9	38	E+	1	1	1	3	2	8	33	E=
4N			1	2	1	2	2	4	4	16	53	D=	1	2	3	4	6	16	67	S-	1	2	4	5	3	15	63	S-
4O		1	1	2	2	4	3	2	6	20	67	S-	1	2	2	4	5	14	59	D+	1	2	4	4	5	16	67	S-
4P			1	2	1	2	1	2	4	13	43	D-	0	2	4	5	4	15	63	S-	1	2	3	4	4	14	58	D+
4Q			0	2	1	3	0	4	2	12	40	E+	1	2	1	2	0	13	54	D=	1	2	1	5	3	12	50	D=
4R			1	2	1	2	0	0	4	10	33	E=	1	0	2	0	0	3	13	P=	1	2	4	5	4	16	67	S-
4S			1	2	2	2	3	4	0	14	47	D-	0	1	2	2	3	8	33	E=	1	2	3	1	4	11	46	D-
4T	G		1	2	2	2	4	4	4	19	63	S-	1	2	4	5	7	19	79	S+	1	2	4	5	5	17	71	S=
4U			0	2	0	1	0	3	0	6	20	P+	1	2	2	1	0	6	25	E-	1	2	2	1	1	7	29	E=
4V			1	2	0	1	0	4	0	4	13	P=	0	2	2	0	0	4	17	P+	1	2	2	3	0	8	33	E=
4W			1	2	1	4	3	2	3	16	53	D=	1	2	3	0	5	11	46	D-	1	2	3	1	4	11	46	D-
4X	G	3	1	2	2	3	3	3	6	20	80	S+	1	1	4	5	8	19	79	S+	1	2	4	5	7	19	79	S+

FSM PUPIL

ASSESSMENT STAGE	PERCENTAGE
Master +	96-100
Master =	91-95
Master -	84-90
Secure +	77-83
Secure =	70-76
Secure -	63-69
Developing +	56-62
Developing =	49-55
Developing -	42-48
Emerging +	35-41
Emerging =	28-34
Emerging -	21-27
Pre-Emerging +	14-20
Pre-Emerging =	7-13
Pre-Emerging -	2-6
U	0-1