

ASSIGNMENT DETAILS AND FEEDBACK

SOUTH WEST WALES CENTRE FOR TEACHER EDUCATION

*Sections marked with * should be completed by module lead*

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Referencing:	In the main body of your submission you must give credit to authors on whose research your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have read or quoted in order to complete this assignment (e.g. for books: surname of author and initials, year of publication, <u>title of book</u> , edition, publisher: place of publication).		
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Module lead to tick to indicate if a hard copy version of the assignment must be submitted.*			YES
			NO ☒

Curriculum Development and Enhancement

Does Regular Testing Improve Pupils' Overall Results?

Introduction

I am currently placed in School Y for my second Professional Teaching Experience (PTE2). School Y is a combination of two schools and moved into a new building in 2016. School Y is an English-Welsh bilingual speaking, mixed secondary school for pupils aged 11-19, which means they have a sixth form for pupils to continue with their A-Levels. As of 2017, school Y has 1,155 pupils on role, with 197 of these in the sixth form, in addition, 12.1% of the overall pupils are eligible for Free School Meals (FSM) (Welsh Government , 2017; Estyn, 2017). School Y's FSM percentage is just below the British national average of secondary school pupils claiming FSM, which is 12.9% (Department of Education, 2017, p. 6). This shows that this school is not within a deprived area or has pupils from poverty-stricken families. However, it does show that some families earn below the national minimum wage. From a recent inspection, school Y has received an overall "Good" status from Estyn (2017), which shows that there is room for improvement. Despite this they are performing to a high standard. Furthermore, this school is within a "Green" support category (Welsh Government , 2017). Additionally, the percentage of pupils in school Y who achieved the level 2 threshold in 2017 is 76.8%, compare this to the Welsh national average of pupils who attain the level 2 threshold which is 67.0%, we can see that school Y is performing above average (Welsh Government , 2017).

I plan to use my intervention to investigate whether regular testing helps improve pupils' overall results. Although school Y has excellent level 2 threshold results, this investigation will help pupils become more acclimatized to test conditions and test style questions. My mentor agreed that a year 9 class would be the best class to intervene with, due to the fact that the tests will help pupils prepare for key stage 4 style practise tests. My year 9 class (class 1) that I plan to intervene with has 18 pupils, they also have Global

Target Grades as; 2 A's, 5 B's and 11 C's, they also have 3 FSM pupils. Furthermore, I also plan to test another year 9 class (class 2), as my control group. This class has 32 pupils with Global Target Grades as; 12 A's, 9 B's, 8 C's, they also have 5 FSM pupils. Class 1 will receive a formative test at the end of every lesson, on the content learnt in that lesson and will then receive an overall summative test at the end of this investigation. However, class 2 will only receive the overall summative test and will not be tested at the end of every lesson. At the end of this investigation I will compare the two class's results to see if class 1's results will be better than class 2's results.

Literature Review

'Formative assessment should be used during instruction to help students learn material initially and throughout the learning process. Summative assessments can be used at the end of a unit, chapter, quarter, or semester to assess and evaluate how much learning students have gained and retained' (Dixson & Worrell, 2016, p. 157)

There is a wide range of literature that covers the topic of formative and summative assessment. If formative tests are arranged properly and established in a classroom where pupils accept assessments then it can lead to higher test results (Black & Wiliam, 1998). Although planned formative assessments are used to evaluate pupil's progress, the underlying intention of them is to help improve pupil's learning (Harlen, 2009; Dixson & Worrell, 2016). After formative assessment takes place, it is the teacher's duty to analyze the pupils' answers, to understand the reasoning behind them and can implement strategies to overcome the identified misconceptions (Black, 1998; Clinchot, et al., 2017). Not only does formative assessment helps teachers identify pupils' weaknesses, it also helps teachers draw pupils' attention to important subject content and ideas, thus providing further scaffolding for pupils progress (Clinchot, et al., 2017). However, formative assessments can have their drawbacks. If pupils are not involved in the process then they will not experience the full effectiveness of formative assessments (Garrison & Ehringhaus, n.d.).

Pupils will feel that these types of assessment are not useful to them and will not engage with the entire process because they think the results will not matter to them.

'The aim of [formative] assessment is primarily to educate and improve student performance, not merely to audit it' (Dixson & Worrell, 2016, p. 7)

However, if the teacher can take approaches to engage pupils in the assessment process, then pupils will typically take ownership for their own learning and motivate themselves to learn more (Ross, 2006; Garrison & Ehringhaus, n.d.). Another problem with formative testing is that it can cause high-pressure situations for pupils because they associate tests with high-stakes (Lahey, 2014). Testing is destructive for pupils' learning, it impacts pupil and teacher morale, and hinders the opportunities for productive and meaningful teaching (Ibid). What's more, schools spend far too long preparing pupils for tests and how to pass them, rather than just teaching them. Many classroom hours are spent preparing for tests that it deducts from actual teaching time (Lipsett, 2007; Lahey, 2014). However, if teachers are supportive and help pupils understand that formative assessments are designed to track and improve their performance then this will take pressure of the pupils, leading to a more productive exercise (Black, et al., 2002; Ross, 2006). Also, if the teacher uses formative assessments appropriately, to ascertain what pupils do and do not know, then design activities after the test to improve learning, the classroom hours are not wasted (Lahey, 2014). Lahey (2014) expresses that excessive testing detracts from learning and can damage pupils' education. However, Henry L. Roediger III, a cognitive psychologist, states that continuous formative assessment helps the cognitive processes that have been proven to expand pupils' recall of information over a long period of time (Ibid). Pupils with a robust cognitive process are able to make more connections over time and across subjects (Ibid). This demonstrates the benefits of formative assessment and how useful it is to producing more competent, well rounded pupils. Furthermore, when formative assessments are used they should also be assessing not just the pupil's understanding, but the teaching effectiveness as well (Dixson & Worrell, 2016). After I mark the tests from class 1, I will

also be evaluating my teaching and focusing on ways to improve giving instructions and supporting their learning, if this is reflected in their test scores. Formative assessment helps pupils take more responsibility for their own learning, so they are able to take ownership for their education; they become self-regulating learners (Lipsett, 2007; Lahey, 2014; Clinchot, et al., 2017; Solution Tree, 2018). Although there are problems with formative assessment, if used properly then it can be a productive exercise. To ensure that the tests are effective, I will support the pupils throughout the assessment process and will ensure them that the formative assessment results have no impact on their education. Formative assessments are also useful to shape next lesson after they have been marked.

For formative assessment to be effective pupils should be able to self assess or peer asses, with the goal in mind so they know what to do to achieve it (Black & Wiliam, 1998; Black, et al., 2002; Gardner, 2006). Looney (2011) expresses that effective feedback through self or peer assessment actively involves pupils in the learning process. This view is reiterated by Bell and Cowie in their book, *Formative Assessment and Science Education* (2001). However, there is evidence that suggests that self-assessment is not as effective if not implemented properly. For self-assessment to be useful to pupils, they need to be able to accurately judge their own work against the success criteria that has been specified. If pupils do not understand the success criteria for their assignment then they will not be able to learn from their mistakes and correct any changes (Black, et al., 2002; Brown & Harris, 2014). However, if pupils are able to compare their own work to other people's, such as a teacher's or peer's, then they will have more confidence to accurately evaluate their own work and thus self-assessment will be successful (Black & Wiliam, 1998; Ross, 2006; Brown & Harris, 2014). There is also evidence that suggests when pupils assess their own work, if mixed with inaccurate, negative feedback then this will have a unconstructive impact on their work and enthusiasm (Brown & Harris, 2014). Furthermore, there are psychological pressures on pupils for some self-assessment

techniques. If the self-assessment process involves public assessment, such as traffic lights or calling out answers, then this can cause many pupils to feel insecure and can lead to dissembling and dishonesty (Boud, 1995; Bell & Cowie, 2001; Brown & Harris, 2014). For these reasons, it is the teachers responsibility to create a supportive climate in the classroom, where pupils are comfortable giving the wrong answers and to support pupils efforts with constructive feedback (Black, et al., 2002; Ross, 2006). Another problem that faces self-assessment is the trust that we, as teachers, have in the pupils. Pupils are trusted to assess their own work and then using the criteria set out for them, they must critique and evaluate what needs to be improved and what misconceptions need addressing. Many pupils will 'intentionally inflate their achievement, lying about their effort', which ultimately makes the self-assessment exercise futile (Ross, 2006, p. 8). Many pupils, especially those willing to be higher achievers, are concerned about their abilities that they will potentially run the risk of cheating (Ibid).

'People could just take advantage of it and just mark all perfect when it's really not their best' (Ibid, p. 8.)

To address this problem, Ross (2006) suggests some methods to tackle them. Ross (2006) proposes that as pupils age, they will become more sophisticated and will take self-assessment more seriously and use it as an improvement exercise. Furthermore, providing pupils with feedback on their self-assessments, mixed with teacher appraisal causes pupils to actively want to improve their work (Ibid). As previously mentioned, creating a supportive climate allows pupils to feel comfortable to be wrong and not cheat, which means pupils will progress from self-assessing their own work. Despite these issues with self-assessment, many pedagogy researchers agree with the benefits of this exercise. When pupils self-assess their work, with the proper support, then they improve their self-regulation skills and are able to form a success criteria more confidently next time (Brown & Harris, 2014). Also, pupils are required to become more responsible for their own

tracking and learning, which causes their self-monitoring skills to develop (Ibid). Most importantly, the overall echoing advantage of self-assessment is that pupils are constantly involved in the learning enhancement process, which helps them become independent learners (Boud, 1995; Black, 1998; Black & Wiliam, 1998; Bell & Cowie, 2001; Black, et al., 2002; Gardner, 2006). Because of these reasons, pupils will be self-assessing their answers at the end of the test so they understand where they went wrong and can then rectify this and learn from their mistakes.

After using formative tests as an assessment for learning strategy, I will be using an overall test at the end of a scheme of work to evaluate how much information my pupils have retained. Summative tests are used to collect data to check up on what the pupils have learned from a sequence of lessons and judge that data for an evaluation, to keep a record of progress (Nusche, 2008; Harlen, 2009). Summative assessments are given occasionally and are used to record, report and determine what pupils know and do not know at a particular point through a curriculum (Gardner, 2006; Garrison & Ehringhaus, n.d.). Nusche (2008) states that summative assessments assesses what a learner can do as a results of learning and will measure their knowledge as measured in terms of abilities or achievements. Summative assessments are not just used to assess pupils' progress at the end of series of lessons, they can be used as tools to help evaluate the effectiveness of programs, curriculum or student placement in specific programs (Garrison & Ehringhaus, n.d.). Because I will be using the final test results to report whether regular testing improves results, it will be classed as a summative test. This test will be given to class 1 after a series of formative tests, where they will have learned the information needed for the summative test. However, class 2 will receive only the summative test. I will be using the summative assessments to know what pupils know at a particular point, and use those results to determine whether class 1 will achieve better results than class 2 (Gardner, 2006). The purpose of summative assessments is to determine how much pupils can

remember at the end of a course (Gardner, 2006; Nusche, 2008; Harlen, 2009). This type of assessment challenges a pupil's cognitive learning, which involves the remembering, recognition and recall of ideas and information (Nusche, 2008). When pupils cognitive abilities are challenged, it helps develop their intellectual abilities and skills (Ibid). Not only does summative testing demonstrate how much pupils do and do not know, it also provides an opportunity to reflect and recognize the impact that that particular syllabus has had on pupils' learning (Ibid). If a class assessment shows a consistent area of weakness, then changes can be made to future programmes to ensure pupils get the finest learning experience possible and those misconceptions can be addressed next time (Black, et al., 2002). Although summative assessment is useful to understand how much pupils know at the end of a topic and to identify misunderstanding, it does have problems. Gardner (2006) states that any results from test gathered in this way can be inconclusive and contradictory, as some pupils may not perform well in high-stake tests compared to other forms of testing (Lahey, 2014). Other factors that may impact pupils results involve whether the pupil enjoys that particular topic, that particular day and the pupil-teacher relationship. Additionally, because summative tests are usually graded if the teacher assigns a grade to pupils for their assessments, then this can affect how they respond to each other (Harlen, 2009). If a pupils gets a bad grade then they might resent the teacher and the teacher may be disappointed with the pupil for their lack of effort (Ibid). Furthermore, when grades are assigned with feedback, it usually means the feedback is primarily judgmental and discourages pupils and forces them to compare themselves to others (Ibid). To address these problems I will ensure both classes that the summative test is not high-stakes and will not have any effect on their education, to put their mind at ease (Lahey, 2014). By doing this it allows pupils to be less pressured and allow them to learn during the assessment process (Harlen, 2009). Also, I will not be grading pupils tests and nor will I provide them will feedback, as not to diminish our teaching relationship (Ibid). If a pupil asks how well

they performed then I will provide that pupil with their own individual overall mark and what misconceptions there were in their test (Ibid). I will then leave them self-evaluate their results (Black, et al., 2002; Looney, 2011). Another benefit of summative assessments is that as the pupils become older they become more accepting of assessments and see the positivity of them (Harlen, 2009). Which relates back to Ross' (2006) assertion that pupils become more mature as they get older and will take assessments more seriously. If pupils accept the positive effects of assessments then it can lead to more independent and motivated learners, thus leading to better retention of skills and knowledge (Harlen, 2009). Despite the benefits of summative assessment, the overall problem with them is that pupils who achieve low scores are left with constant reminders of their failure to progress in that subject (Harlen, 2009). However, if a teacher plans their lessons around a summative test to ensure that all pupils, especially lower-achieving pupils, have learned the content then it is associated with strong, positive results and engaging teaching and learning (Black, et al., 2002; Gardner, 2006; Harlen, 2009).

'The main overall message is that summative tests should be, and should be seen to be, a positive part of the learning process... pupils can see that they can be beneficiaries, rather than victims, of testing because tests can help them improve their learning' (Black, et al., 2002, p. 14)

The relationship between formative and summative assessments are very analogous, as they go hand in hand with one another and have similar outcomes, however, what matters is how the findings are used (Gardner, 2006). Additionally, when a summative assessment presents a group misunderstanding, then this is an opportunity for more formative work to take place until the misunderstanding has been addressed and solved (Black, et al., 2002). Not only is summative and formative useful to record pupils progress and highlight any curricula misconceptions, but they also help develop a pupil's cognitive skills as well.

Cognitive learning is the name given to how a person processes information and recalls it when the time is needed (Robson, 2006; Willingham, 2009; Gupta, 2017). Cognitive learning influences many factors that preside within human capacity, such as,

problem solving, memory retention, thinking skills and making sense of learned material (Gupta, 2017). Because formative and summative tests force pupils to revise and recall factual information previously learned, then their cognitive ability will develop, thus making them better learners. Willingham (2009) states that factual knowledge helps enhance memory and therefore, improves critical thinking processes such as reasoning and problem solving. When pupils learn new subject specific information and vocabulary, it helps them make sense of content presented to them and also allows them to put it into context (Ibid). Since tests make pupils practice their depth of knowledge, they are also helping to expand their memory as well (Ibid). Without continued practice of topic knowledge then that information will be nearly impossible to recall later in the future (Ibid). This is why tests are important in a classroom setting to practice recall before forgetting and develop long-term memory. Not only does pupils topic knowledge help with cognitive learning, but it also helps improve transfer of skills (Ibid). If pupils can learn new information or skills in one area of learning and practice these, then they are able to transfer those newly learned capabilities to other areas of learning (Robson, 2006; Willingham, 2009). People with longer lasting memory and more capacity to ascertain new information are better learners and can apply themselves to different situations, using skills and knowledge learned from sustained practice (Willingham, 2009). This has influenced me to test my pupils on subject specific content in my lessons to help develop their cognitive abilities and help them become make adept learners. Presenting pupils with subject specific content in a test will force them to recall the information learned and apply it to the test. Practicing these regularly will help enhance their cognitive abilities, demonstrating that they should perform better on the summative tests (Ibid).

School Practice

As previously mentioned, this research project has been agreed by my mentor in school Y because it helps prepare pupils for Key Stage 4 style practice tests. When pupils go to sit their GCSE's in History my mentor prepares them by using multiple choice tests to challenge their knowledge and recall of information. Although this practice is not in school Y's policy, nor does it tie in with any of their schemes of work, it is an accepted classroom practice. My research project ties in closely with my mentors classroom practice and will prepare the pupils for Key Stage 4.

Methodology

A criterion-referenced test informs the researcher about exactly what a pupil has learned, whereas, a norm-referenced test only tells researcher how well one pupil has achieved compared to other pupils (Cohen, et al., 2011). The quantitative data collected from the summative tests provides me with information about what each pupils have learned, this therefore means these test are classed as criterion-referenced tests (Ibid). As previously mentioned, my research project revolves around the enquiry; "Does regular testing help improve pupils' overall results?". Class 1 have 18 pupils with Global Target Grades as; 2 A's, 5 B's and 11 C's and class 2 have 32 pupils with Global Target Grades as; 12 A's, 9 B's, 8 C's. This demonstrates that class 2 have higher ability pupils. Using evidence from researched literature, I will be using formative tests to test class 1 to help them practice and become acclimatized to test conditions. These formative tests will be testing pupils on content learnt in that particular lesson. Pupils from class 1 will then self-assess their answers to their test so they receive the correct answers and can further improve their knowledge. After a series of lessons, both classes will receive an overall summative test to test their knowledge from the prior lessons. The quantitative data collected from these summative assessments will be used to answer this research question.

While testing pupils I will be a supportive model, to ensure that pupils feel no pressure about the tests. Formative tests will also help me evaluate the pupils' learning and adapt my next lesson to ensure they further engage with the content for the next lesson. From the evaluation of the two classes, I would expect to see class 2's summative results to be far better than class 1's summative results. For this reason, class 1 will be receiving formative tests for a series of lessons, so they become acclimatized to test questions and environment. However, class 2 will not be receive any formative tests, so they will not be use to test questions or conditions. When designing my formative and summative tests I have to take in account many aspects that could affect the validity and reliability of the test results. For these tests to be reliable, I have to think about the purpose, objective, content and timing of the tests, as well as, the difficulty of each question (Cohen, et al., 2011; McAteer, 2013). The purpose of the formative tests are to see how much the pupils have learned in that one lesson and to educate them on any misconceptions. Additionally, the summative tests are to evaluate how much the pupils can remember from a series of lessons. Furthermore the objective of these tests and the results is to answer the research question. The content of the formative test will cover the topic learned in that particular lesson. The content of the summative test will cover the subject matter learned over a series of lessons. The time of day that pupils sit their test can affect their scores (Cohen, et al., 2011). This is why pupils will sit the test directly after learning the content of that lesson, this will allow them to have fresh knowledge to apply to the tests. Furthermore, pupils will be allotted 10 minutes to complete the tests and 5 minutes to self-assess then, allowing them to address any misconceptions. It is important to weigh the questions in the test to have easy and difficult questions (Ibid). The marks of pupils may be inflated by answering many easy questions and fewer difficult questions (Ibid). This means I will have both difficult and easy questions in the summative test. When undertaking my research there are ethical principals I have to take into consideration to protect my pupils' identity.

My research will follow University of Wales Trinity Saint David's Research Ethics & Integrity Code of Practice policy (UWTSD, 2017). I have applied for ethical review and approval from UWTSD, which is necessary for me to undertake this research project (Brookes, et al., 2014). For valid data, my research integrity must include, honesty, rigour, transparency and open communications, care and respect (Brookes, et al., 2014; UWTSD, 2017). Because my research will include these features, it will make the tests more valid and reliable. Because my research involves children, I need their consent off them for them to be actively engaged in the research process (Ibid). The British Educational Research Association states that consent should be in writing to ensure there is a physical copy (BERA, 2011). When explaining my research project to my pupils I will give them the right to know what the research is about, have their voice heard for any questions or concerns and to withhold and withdraw consent if they wish to (BERA, 2011; UWTSD, 2017). For pupils to have the right to withdraw at anytime during the research process, I will not use any persuasion tactics or incentives to re-engage them with the work (BERA, 2011). This would be un-ethical and would not provide accurate results, while putting that pupil under unnecessary stress. Pupils who take part in my research project will have the right to access the data of the research (Government, 1998). I will provide them with data when requested, however, only their data will be in detail (Harlen, 2009). Furthermore, my pupils' names and identity must be kept anonymous. When posing my research to my pupils I will assert that their identity will be kept anonymous, so no-one will know their names. Additionally, I will explain that the data from this research will be published, so it cannot be kept confident. However, I will stress that their identify will be kept safe (UWTSD, 2017). I will also treat all participants fairly and with respect, this allows the pupils to perform at their best without any pressure (Cohen, et al., 2011). Pupils who do not take place will also not be treated any differently to those who do take place in my research project. Despite it

being important that I receive data for my research project, the most significant aspect is that the best interests of the pupils is the primary consideration (UNICEF, 1989).

Evaluation

Prior to me teaching in school Y, staff provided me information about my classes such as Global Target Grades, FSM pupils, MAT pupils and performance levels. Before undertaking my intervention (and teaching) I observed my classes to understand their level of abilities and how well they perform in a classroom environment, e.g. behaviour and level of work. This allowed me to better understand my classes even further and cater my teaching to the pupils' needs. Additionally, I discussed with my mentor and class teacher which class would be best suitable for my intervention. Because school Y's key stage 4 and post-16 classes are preparing for their GCSE and A-Level exams, we agreed not to intervene with them and disrupt their routine. All of us agreed that my year 9 classes would be the best class to target. Both classes are one ability set apart, so there is not a wide gap between abilities, however, class 1 has more behavioural problems than class 2, which impedes their ability to achieve their target (Exley, 2014). Furthermore, implementing my intervention with year 9 classes prepares them for key stage 4 style practise tests within school Y. Additionally, they are the most mature key stage 3 class, which means that they will take these types of assessment more seriously and produce more valid and reliable results (Ross, 2006). Because of these factors, we chose these classes. Prior to my intervention, I observed lessons with these year 9 classes. I noticed that there were a hand full of pupils in class 1 who were far more engaged in the plenaries than the rest of the class. This meant that they were constantly volunteering themselves to answer the questions, while other pupils became disengaged. By using formative tests at the end of a lesson, it means everyone will be forced to engage in the plenary, meaning their knowledge will further develop (Department of Education and Skills, 2004). As previously mentioned,

if lessons are planned around summative tests, then this allows all pupils to learn the content, leading to positive results (Harlen, 2009). For this reason, I designed the summative test before I started teaching my year 9 classes (see Appendix 1) and then designed a scheme of work based on the content in the summative test (Ibid). This ensured everyone from both classes had the same information given to them, however, only class 1 was tested to strengthen their knowledge. Because I planned my lessons around the summative test, both classes have an equal opportunity to high scores. Additionally, lower-achieving pupils from class 1 should have positive results and engage them in the assessment process (Ibid). After agreeing with my mentors and designing my lessons around the final summative test, I set about explaining the intervention to my year 9 classes to involve them in the process for active engagement (Gardner, 2006; Brookes, et al., 2014; Garrison & Ehringhaus, n.d.). I explained to my pupils that they would be involved in my research project and that their engagement is important for positive results. After explaining my research project, I offered my pupils the opportunity to ask any questions they had about the intervention (BERA, 2011). This made the pupils feel that their voice was heard and any concerns were answered. I also gave them the opportunity to withhold or withdraw consent at anytime (Ibid). Which made them feel more relaxed around me, thus forming the foundation to our pupil-teacher relationship. Furthermore, I assured the pupils that these tests are not high-stake assessments and I will stress that they will not have any effect on their education, this will help them relax and perform better in a less stressful environment (Black, et al., 2002; Ross, 2006). This is vital that pupils feel relaxed and at ease during this research project, because it will provide more valid and reliable results (Ibid). Additionally, having the welfare of the pupils' is the primary consideration (UNICEF, 1989).

After explaining the intervention to the pupils and teaching them for a series of lessons, I set about implementing the research process. I taught both classes with the same

content, but then used formative assessments to test class 1's knowledge from that class (Harlen, 2009). After each formative test at the end of the lesson I used the results to reflect upon my teaching (Clinchot, et al., 2017). By analyzing the pupils' results at the end of a formative result, it helps inform my teaching for the next lesson. This allows me to change my teaching style and address any misconceptions (Ibid). This research project helps me achieve my Qualified Teacher Standards (QTS) which are need for me to become a qualified teacher. My research project achieves the QTS, S3.2 Monitoring and Assessment (Welsh Government, 2009). More specifically:

'S3.2.6 They record learners' progress and achievements systematically to provide evidence of the range of their work, progress and attainment over time. They use this to help learners review their own progress and to inform planning' (Ibid).

Throughout my teaching I attempted to build a positive pupil-teacher relationship to help pupils feel comfortable around me. As previously mentioned, when pupils feel comfortable in a less stressful environment, they perform better during assessments (Black, et al., 2002; Ross, 2006). By forming a positive pupil-teacher relationship, it enabled me to be a supportive role model during the assessment process. By having a supportive role model, it helps the pupils improve their performance as they feel comfortable to put in the answer they think is correct, even if it is not (Ibid). After using formative assessments to test the pupils' knowledge (Harlen, 2009; Dixson & Worrell, 2016), they then self-assessed their test answers to address their own misconceptions (Looney, 2011; Brown & Harris, 2014). However, during the self-assessment process, I noticed a small percentage of pupils cheating and changing their answers to illustrate they had full marks. As previously mentioned, Ross (2006) states that pupils who self-assess might cheat to inflate their scores. Because of this, the next time we self-assessed I swapped to peer-assessment, because Spiller (2012) states peer assessment is far more effective. Peer-assessment can help pupils work together through collaborative learning by deciding what appropriate answers are (Ibid). Additionally, it stops pupils cheating, so results are valid and reliable

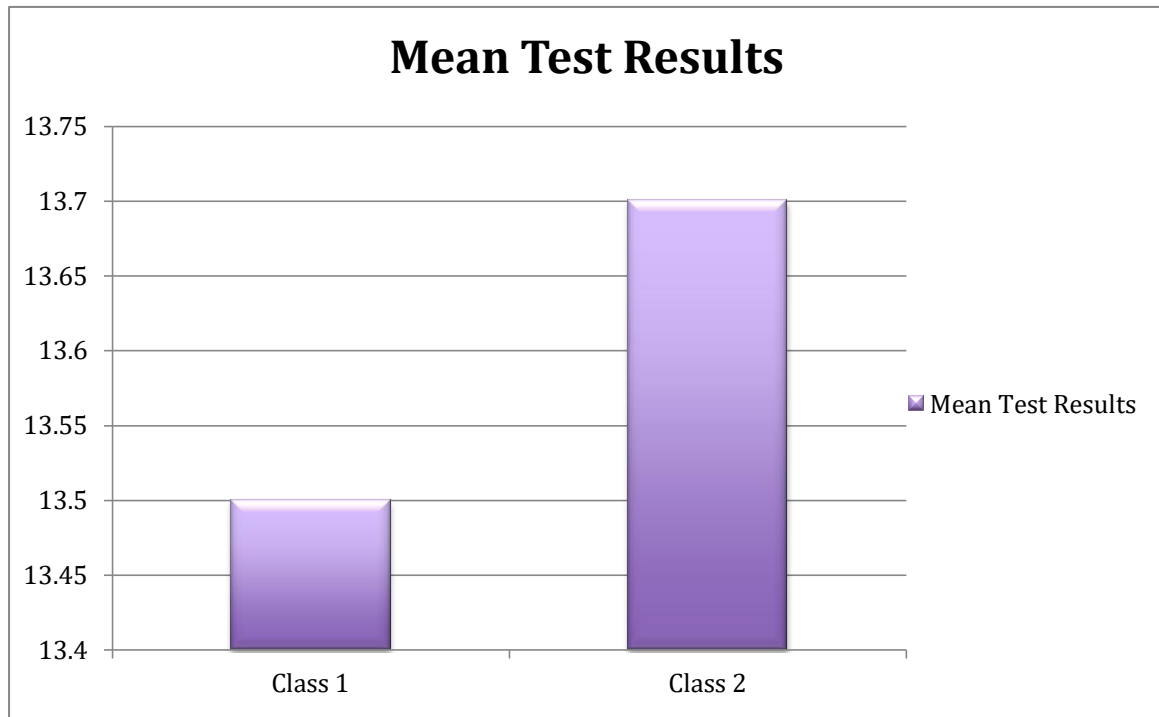
(Ross, 2006; Spiller, 2012). Moreover, during one of my scheduled lessons with class 1, we had to finish ten minutes earlier in the lesson due to school priorities. This meant that during that one lesson we lost imperative time to peer assess a formative test, which meant pupils did not know what the correct answers were and whether they were correct. Thus impacting their learning and impeding this research project (Harrison, 2013). Pupils need a sufficient amount of time to peer assess so they understand any misconceptions within their tests and can change these (Orsmond, 2004). To address this problem, in the next lesson I had with class 1, I started the lesson by peer-assessing the previous test. This ensured that the pupils had the knowledge from last lesson and any misconceptions were corrected. Furthermore, during the first phase in my research project, where class 1 were doing their formative tests, I had some pupils miss the lesson due to illnesses. This meant that those pupils missed vital information from this class, thus impacting their education (Rogers, 2013). If pupils miss too much education it impedes their future ambitions (Ibid). To enable my results to be valid and reliable from these pupils, I insisted that they catch up with missed work, which contained vital information. Pupils were used to doing this with their teacher, before I started teaching, so this was not a new routine for them.

Finally, after class 1 had sat a series of formative tests, both classes were going to sit the summative test (see Appendix 1). I used this summative test to record pupils' knowledge at the end of a series of lessons to see what they have remembered and what they have forgot (Gardner, 2006; Garrison & Ehringhaus, n.d.). The results from these summative tests are used to answer this research question, "Does regular testing improve pupils' overall results?". The results of these tests from both classes are going to be published in this research project and compared to each other, to see if there is a connection between regular testing and improved results. To ensure that the quantitative data collected from the summative assessments is valid and reliable, my final test had both difficult and easy question (Cohen, et al., 2011). As you can see from the test (see

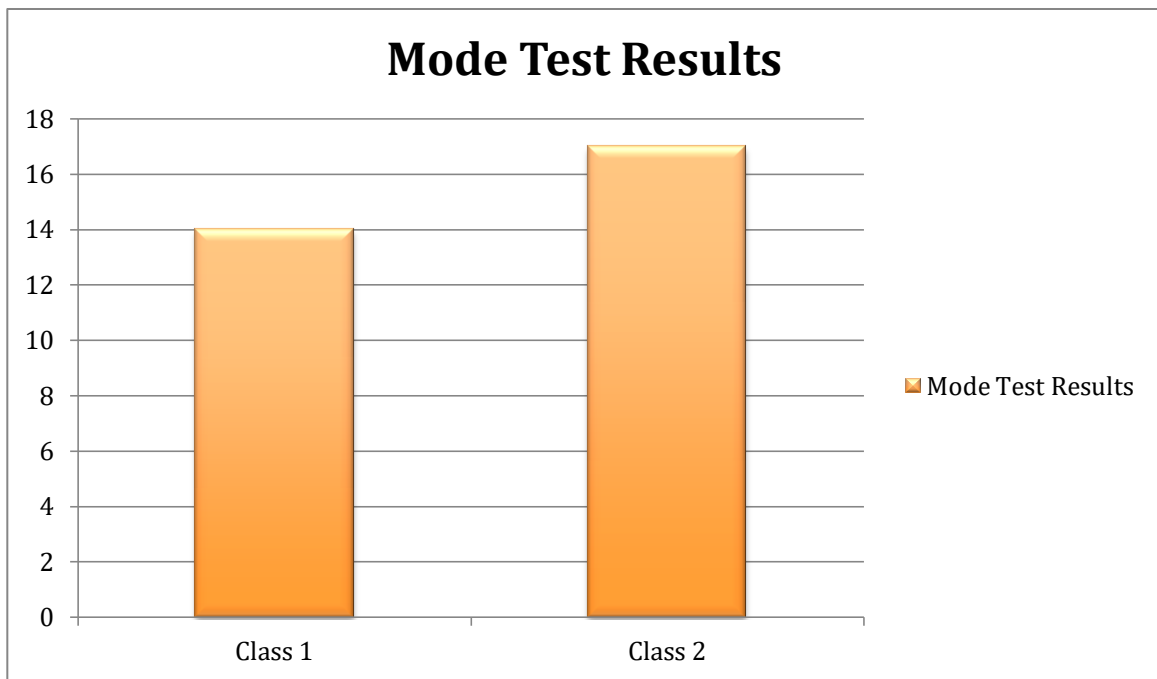
Appendix 1), not every question is multiple choice, some ask the pupils to write out an answer. This stops the pupils marks being too high because of simple questions (Ibid). After pupils in both classes sat the summative test, I decided not to peer-assess to find the results, but rather mark them myself. This meant that pupils did not get a grade for their test, which meant that any pupil who scored low did not respond negatively towards me (Harlen, 2009). Also, because there is no feedback given to pupils, no peer or teacher feedback, it means there is no negative or judgemental feedback (Ibid). This stops pupils feeling degraded from negative feedback and comparing lower-achievers to higher-achievers (Ibid). If pupils feel the need to know how well they performed in the summative test, then they will have access to their own results, but without knowing others results as not to compare (Government, 1998; Harlen, 2009).

On the day of the summative test, a majority of pupils from class 2 were missing due to illness and school priorities. There were only 18 out of 32 pupils from this class. As well as, some pupils from class 1 were not in the class either. There were only 13 out of 18 pupils in this class. As previously mentioned, this meant that those pupils missed out on vital information during that particular class (Rogers, 2013). This is another factor that affected my results, because the higher-achieving pupils from class 1 were not in. This meant that the average test results for this class would be lower than normal. However, because pupils from class 1 have been tested on the information in the summative test, then the lower-achieving pupils could score higher if my research project is right. Additionally, pupils missing from class 2 were mainly lower-achieving pupils, so their scores were higher than normal because a majority of the class on that day were higher-achieving pupils.

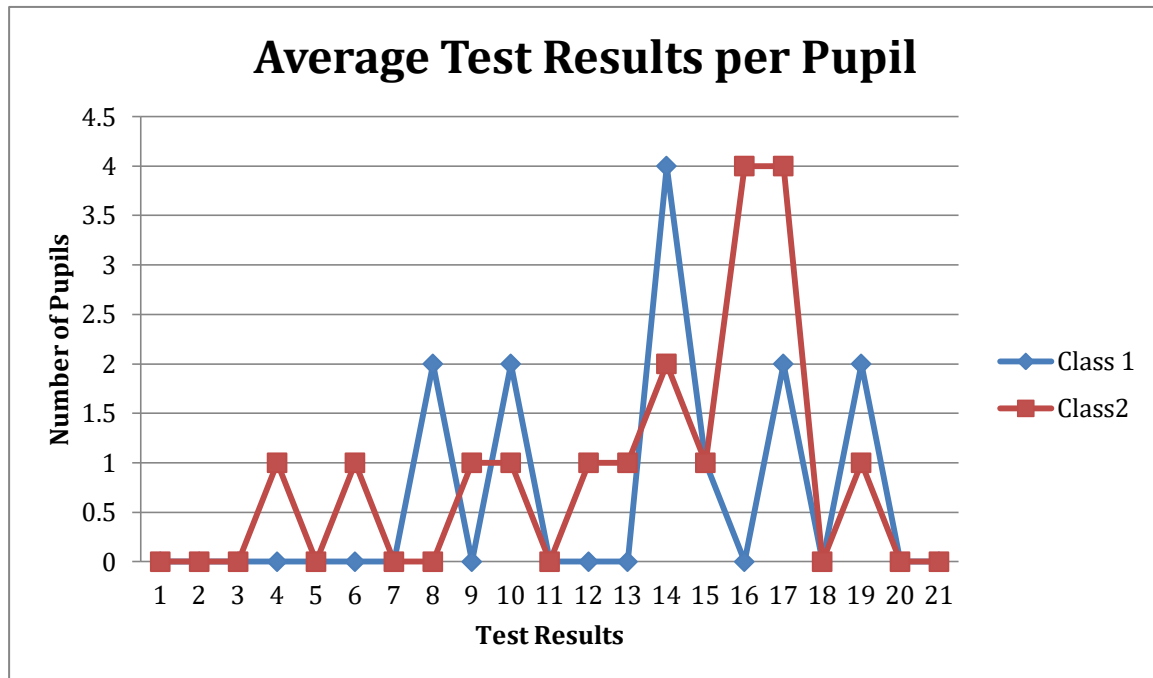
After pupils from both classes completed the summative tests, I marked them and compiled the results into graphs so we can see how well each class has done, and can compare the results.



As you can see from the mean test results, there is only a 0.2 difference between each class' average results. Although class 1's results are not better than class 2's results, as I had predicted, we can see that it certainly has closed the learning gap between the two classes, especially since there are different abilities. Class 1 has more lower-ability pupils than class 2, but yet their results are similar. Additionally, on the day of this test, a majority of higher-achieving pupils from class 1 were absent, affecting the overall results. These results suggest that if this intervention had carried on over longer period of time then class 1's results might have improved significantly and done better than class 2. In addition, if the higher-achieving pupils from class 1 had been in on the day, then the results gap would have been closer. Additionally, from the mode results we can see that a majority of pupils from class 1 scored 14 on the test and a majority pupils from class 2 scored 17. Considering class 2 has more able pupils, these results are similar, and class 1 scored high on this test.



Furthermore, using the table below, we can see how many pupils scored a particular mark for each class. Looking at this graph we can see that the lowest mark for class 1 was 8 out of 21 and the highest mark is 19 out of 21. On the other hand, the lowest mark for class 2 is 4 and the highest mark is 19. Despite class 2 being the higher ability class, they had a lower mark than class 1. Additionally, despite both classes having the highest mark of 19, class 2 only had one pupil who scored 19 marks, whereas, two pupils from class 1 scored 19 marks. These results indicate that regular testing had a positive effect on pupils overall score. For class 1 to achieve similar results to a higher ability class, this shows a correlation between regular testing and improved results.



Limitations

As mentioned throughout this essay, there were variables that had to be taken into account when planning this research project and some variables that arose throughout as well. These limitations meant that the results from this research project were not fully accurate and that only assumptions could be made from the overall outcomes. Pupils enjoyment of a particular topic can affect their results when reviewing their knowledge (Turner, 2015). When planning this research project, I considered to do a pre and post test results from one class. Although this method seems as if it would produce accurate results, it has its limitations. I decided against this idea because some pupils might enjoy the topic or lessons before the pre test and then not like the topic or lessons before the post test. This would lead to the pupils not putting much effort into the outcomes as they did not enjoy lesson or topic content before the summative post test (Ibid). This would lead to lower post test results, so the outcomes would not be accurate. Additionally, the time of day that pupils sit their test can affect their results (Cohen, et al., 2011). If some pupils cannot

concentrate in the morning and perform better in the afternoon then their test results will be different at the different times of day (Ibid). When planning for my research project I took this into account. However, I only see class 1 and class 2 for an hour, three times a fortnight. This left me with insufficient time to pick and chose when to test to better suit my pupils. Because of this, the pupils had to sit the formative and summative tests at the end of the lessons. Again, this variable will have had an impact on the overall results. Some pupils might have performed better in the summative tests at a different time of the day, which means the results they produced will not have been accurate (Ibid). As previously mentioned, pupils in class 1 have more behavioural issues than class 2. Pupils with behavioural issues typically do not concentrate in class and therefore miss out on valuable content (Exley, 2014). To enable these pupils to access the content in the lesson, I differentiated the tasks so they could learn the information needed and made the lesson engaging. However, when they had to sit the formative tests, I noticed they would lose focus and begin to misbehave. I had to manage their behaviour and keep them focused on the test. Behavioural issues can cost a pupil up to a month of teaching within a year (Ibid). Pupils who misbehaved in the lessons and the test would miss out on vital information and not have the information needed for the summative test, thus making the overall results less reliable. This affects their ability to achieve their best (Ibid). From reviewing literature, I decided that self assessment at the end of a formative test was the best route as it allowed the pupils to be involved in the learning process and they can easily identify their misconceptions themselves (Black & Wiliam, 1998; Bell & Cowie, 2001; Black, et al., 2002; Gardner, 2006; Looney, 2011). However, there were some limitations that I decided to address before the research project took place. I would lead the self assessment process, so all pupils know the correct answers (Bell & Cowie, 2001; Brown & Harris, 2014). I also provided a supportive environment so pupils felt comfortable if they had an answer wrong they would not be embarrassed to admit it (Black, et al., 2002; Ross, 2006).

However, another limitation that was discovered throughout the assessment process was the trust I put in the pupils to self assess. As I previously mentioned, many pupils will feel the need to cheat and change their marks during the self assessment process to inflate their scores (Ross, 2006). During the first formative test self-assessment, I discovered a handful of pupils were changing answers. I quickly corrected the lesson after and switched to peer assessment, so pupils could not cheat (Spiller, 2012). If I had not noticed this practice going on within my classroom and had not changed it accordingly, then the pupils would not have had an effective self-assessment exercise. This would mean they would have missed out on correct information necessary for the summative test and their results would not have been as accurate as they are now. Furthermore, the variable that affected my results the most was pupil participation. Many pupils from both class 1 and class 2 were off ill for the summative test. When pupils go off ill they can miss vital information from their class. This can affect their education in the long run (Rogers, 2013). Additionally, many pupils from class 1 missed some formative tests due to school priorities, so they missed out on information necessary for the summative test. Moreover, pupils from class 1 and class 2 missed the summative test due to school priorities. The pupils who were not in for the summative test affected the overall test results. All these limitations significantly affected the results of this research project and meant the overall results of both classes are not fully accurate and reliable. These limitations have helped me identify restrictions that take place within a classroom. Being able to identify these and overcome them has helped me become a more confident teacher and I will use my understanding to develop my professional and personal development.

Conclusion

This research project has helped me develop a further understanding of the workings of a classroom. It has helped me enhance my professional teaching. What I have learnt

from this research project has shaped my future practice. By implementing strategies from my readings I felt that my pupils from class 1 produced higher results than they usually would have. This is because I created a supportive climate which helped pupils feel comfortable in my classroom, so they felt comfortable giving answers in class (Black, et al., 2002; Ross, 2006). Also, throughout my research I formed a positive bond with my pupils. Forming an encouraging teacher-pupil relationship has helped a handful of pupils perform better (Ibid). Additionally, if pupils are provided with negative feedback then this could damage their confidence when they have to do another piece of work (Brown & Harris, 2014). Because of this, I now understand that if I provide feedback on pupils work there should be suggestions to improve along with positive comments on what they did well. This will help boost their confidence for next time and they should perform better (Black & Wiliam, 1998; Ross, 2006; Brown & Harris, 2014). Also, when I have to do assessed work or tests with my classes in the future, I will implement strategies that stop pupils from cheating and taking advantage (Ross, 2006). This will stop pupils inflating their scores by cheating and producing false records on their progress (Ibid). Even though the main focus in the classroom is learning, I have realised that the welfare of the pupils is always put first (UNICEF, 1989). This has helped me shape my classroom teaching to always ensure that the safety of my pupils in my classroom and in the school are always the main priority (Ibid). Furthermore, the limitations from this research project have heightened my understanding of the working of a classroom and have helped me develop into a more competent teacher. Not all pupils enjoy every topic, so to tackle this problem, I will try to make every lesson engaging to ensure full participation from all pupils. Furthermore, engaging lessons will help pupils perform at different times of the day. I now understand that all pupils become engaged at different times throughout the day. Ensuring the lesson is enjoyable enough will help overcome this. Also, managing behaviour in the classroom is vital to support pupils education. By controlling behaviour appropriately will

help keep pupils on task and ensure they are gaining the information needed. Finally, many pupils miss lessons due to illness or school priorities, this means they miss out on topic content. To correct this variable, I will ensure that pupils catch up on missed work when they are next available to do so. I will use my understanding of these limitations to help further develop my professional and personal development. This research project set out to discover whether regular testing improves pupils overall results. From the project findings (see Appendix 2) we can see that class 1's results were not as high as class 2's in the end. This shows that regular testing does not improve results. However, considering the different abilities between the two classes, the findings demonstrate that there is a correlation between improved results and regular testing. Pupils from class 1 scored a highest on the test of 19 and a lowest of 8, whereas, pupils from class 2 scored a highest of 19 and a lowest of 4. Although this research project has not improved results as high as I had predicted, it has proven that regular testing does help improve overall results as pupils become used to test conditions.

To conclude, this research project has proven that regular testing does help improve pupils' overall results by improving their cognitive skills. Although their results are not as high as expected, they were still improved beyond their natural capabilities.

Appendix

Appendix 1

Name _____

Class _____

Circle the correct answer

1. Who were the National Union of Women's Suffrage Societies?

- A. Suffragists
- B. Suffragettes

2. Who lead the Suffragists?

- A. Millicent Fawcett
- B. Emmeline Pankhurst
- C. Margaret Haig Mackworth
- D. Sophia Duleep Singh

3. Who lead the Suffragettes?

- A. Sophia Duleep Singh
- B. Millicent Fawcett
- C. Margaret Haig Mackworth
- D. Emmeline Pankhurst

4. What methods did the Suffragettes use?

- A. Militant and violent
- B. Peaceful and non-violent tactics

5. Write down 1 campaign method that the Suffragettes used:

6. What is Emily Davison famous for?

7. What were women called who worked in factories?

- A. Munitionettes
- B. Weaponettes
- C. Munition Workers
- D. Industry Women

8. What were women whose skin turned yellow called?

9. What was the job role in the Women's Land Army?

- A. Civil Servants
- B. Armed Service
- C. Farmers
- D. Nurses

10. What class of women became Nurses?

- A. Lower
- B. Middle
- C. Upper

11. Roughly how many Nurses were killed or died during the war?

- A. 1,000
- B. 18,000
- C. 200
- D. 500

12. What jobs did half the women have before going into the Civil Service?

- A. Housewives
- B. Nurses
- C. Domestic Servants
- D. Farmers

13. What was established as part of the newly-established Royal Air Force on 1 April 1918?

- A. Women's Royal Air Force
- B. Women's Royal Flying Corps
- C. Women's Royal Naval Air Service

14. What life did upper and middle class women lead before WWI?

- A. Sheltered
- B. Adventurous
- C. Out-going

15. Approximately how many women served in the US armed forces?

- A. 900
- B. 4,000
- C. 20,000
- D. 90,000

16. Name one way to identify a flapper

17. Did every upper and middle class woman experience the flapper lifestyle?

- A. Yes
- B. No

18. Where did Jazz originate from?

- A. Los Angeles
- B. New York
- C. New Orleans
- D. Philadelphia

19. Who was one of the most famous Jazz player in the 1920's?

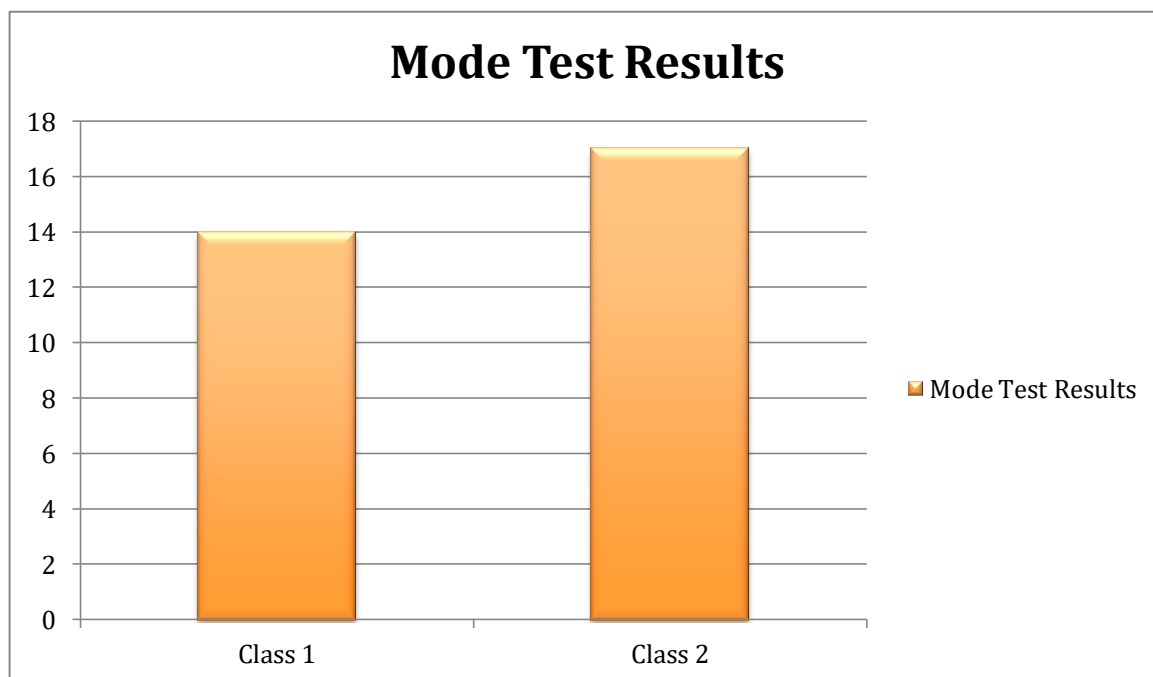
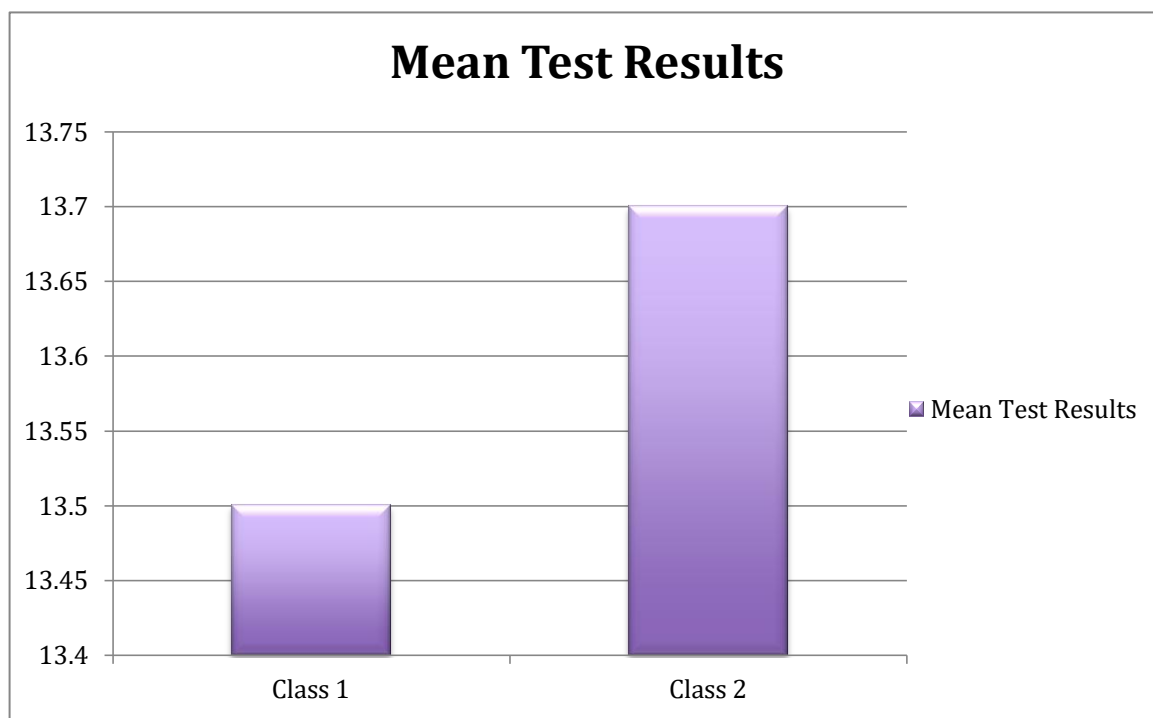
- A. Eric Dolphy
- B. Jack Teagarden
- C. Louis Armstrong
- D. Cecil Scott

20. What age group did Jazz become popular with?

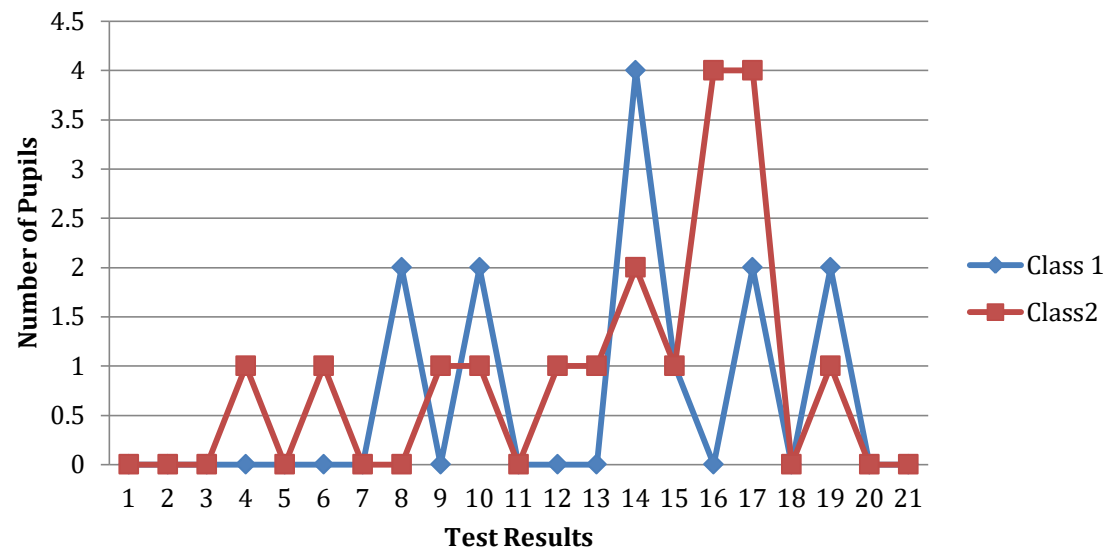
- A. Old
- B. Young
- C. Both

21. Why did many Americans oppose Jazz?

Appendix 2



Average Test Results per Pupil



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