

**Assignment Title – “Do classes of mixed ability
students affect student behaviour?”.**

Please add your targets from the previous assignment using the table below.

	Target	What I have done in this assignment.
Target 1	Continue to use a wide range of readings to inform practice	Tried to read from a range of sources.
Target 2	Minor, but frequent, omissions in the use of apostrophes sometimes distract the reader	Tried to improve English skills in the assignment.
Target 3	NA	NA

Part 2 – The Assignment

Aim, focus and purpose of the research

The purpose of the research activity is to conduct an observation research study, within a secondary school, to observe the behaviour of students. The research will gather data to determine whether classes of mixed ability students affect the behaviour of those students. The research will involve investigating if students of higher and lower ability have a positive or negative impact on the behaviour of each other. This is an area of interest to me because classes for my chosen post graduate certificate of education subject, business, is typically made of mixed ability students.

Research context

Teaching a mixed ability class is challenging for a number of reasons and this is an area of interest to me. During my time on placement I have taught a mixed ability year 9 class with a number of students whose behaviour was at times challenging, I considered if the makeup of the class, i.e. the fact that it was mixed ability, was a contributory factor. This is an area of research that I had also discussed with my partner as they were having similar challenges in a mixed ability English classes. Specifically the research question is 'Do classes of mixed ability students affect student behaviour?'.

The research study was undertaken in an English medium mixed comprehensive school of 11 to 18 year olds situated in Cardiff with approximately 1550 students on the school roll. In 2018 17% of the school population were eligible for free school meals, approximately 19% were identified as having a special educational need and approximately 5% were statemented (My Local School 2019).

Literature Review

The literature specifically regarding the research question is limited. However if we deconstruct the question and review behaviour and mixed ability classes as a topic then the literature is plentiful.

A mixed ability class can be described as one in which there is a significant range levels in the achievement and learning of its students (Al-Subaiei 2017). Purcell (2013) notes that teaching to mixed ability classes presents a number of challenges. The challenges are complex and are not just because some children may present as more academically able than others but because of a number of other factors including differences in motivation, personality, preferred learning style and in any interests that the student may have (Purcell

2013). A mixed ability class does not just consist of a range of abilities but also a range of learning styles and preferences. All these factors can have an impact of student behaviour, Bremner (2008) argues students demonstrate strengths at different times, often dependant on the study topic and also the learning style used.

According to a report by the Education Endowment Foundation (2019) many schools believe that good behaviour is required for learning and that students cannot benefit from a lesson when they are not engaged in the lesson or behaving appropriately in that lesson. The report goes on to state that behaviour which is disruptive distracts other pupils and has a negative impact of their learning. In support, Coe et al (2014), state that whilst a teachers ability manage student behaviour are relevant to be able to maximise learning, this is also a factor that allows learning to happen. Hattie (2012) argues that peers can have a high effect on student learning and that this can be higher when negative affects of peers are mitigated. This is relevant in relation to this paper because it can be suggested that within a mixed ability classroom, higher ability students can have a positive affect on lower ability students.

Mason (2018) notes that there is evidence that taking students with high ability out of a class can have a negative affect on the progress of those students who remain in a class. As detailed in a report by the Education Endowment Foundation (2018), setting or streaming students by attainment has a very small impact for learners, both high ability and low ability students. Coe et al (2014) support this and state that grouping by ability can lead to teachers not making the required accommodations for the range of needs within that class and delivering too much at speed for the high ability classes and not fast enough for the low ability classes. Bremner (2008) notes that setting students by attainment can lead to behavioural problems as lower ability students can feel stigmatised by the setting.

It is suggested that mixed ability classrooms provide for an interesting learning environment because of the range of skills, perspectives and dispositions of students (Al-Subaiei 2017). However an article in the telegraph (2010) argued that mixed ability classrooms were a contributory factor in increasing levels of bad behaviour in secondary schools. Al-Subaiei (2017) proposes that the interactions within mixed ability classes enable students to be creative and innovative and that students, because of this, learn from each other. Rosenshine (2012), in support of this, notes that a classroom that adopts a cooperative learning approach, where students assist each other in their studies, leads, as research has shown, to students achieving more. Such cooperative and competitive environments assist the lower ability students by providing additional instruction for them (Rosenshine 2012). It can be argued that mixed ability classrooms not only enable students to learn curriculum

content from each other but also learn what acceptable behaviour looks like. However, this possibility may be lower where behavioural issues are present. Hattie (2012) argues that splitting students by ability may not be advantageous as students learn from each other. In support of this, Gedge (2017), notes that acceptable behaviour in schools is learnt through influence from peers that children learn from each other, that teaching students in mixed ability classes enables children to learn, via peers, these behaviours.

Perhaps within a mixed ability classroom the challenges manifest when students become frustrated because higher ability students are not sufficiently challenged and low ability students feel that the work is too difficult for them. Al-Subaiei (2017), somewhat in support of this, argues that trying to teach to a large mixed ability class will often mean that the teacher concentrates on average teaching methods, teaching to the middle. Students within mixed ability classes will have a number of different strengths and weaknesses, needs, abilities etc. It is the challenge of the class teacher to address all these different wants and needs within the same class. In teaching to a mixed ability class and the challenges that this poses because of the wide breadth of learners, it may be that behaviour is effected because high ability students find the work un-challenging and low ability students find the work un-achievable and as such their frustrations manifest in what is perceived as poor or negative behaviour.

Explanation of lesson study design

The research was conducted following a lesson study method of teacher led research, myself and my colleague worked together, collaborating with each other. We discussed and agreed the goals, discussed the lesson plans, observed how the ideas worked in practice, reflected and now report on the findings. Lesson study, as a form of action classroom research methodology, is highly specialised and focuses on developing teacher practice knowledge (Dudley 2014). A report by McKinsey & Company (2007) notes that enabling teachers to learn from each other, as a lesson study approach allows, is a success factor for high performing schools. In contrast, a study by the Education Endowment Foundation (2017), following a large scale trial of lesson study, found no impact of student outcomes. However, if we accept that the most important factor in enabling students to reach their full potential is that of the quality of the teacher and that this quality has a direct impact on the standards achieved by students then allowing teachers to develop professionally using a methodology of lesson study should be positive. Myers (2012) argues that lesson study methodology allows teachers to examine their own approach to teaching and should make teachers more effective. Hattie (2012) proposes that teachers coming together to plan and critique lessons is a successful method in order to maximise the impact of teaching.

The methods of data collection in relation to the research were observations, focus groups and reflection. As a research technique, observation allows for the researcher to obtain information which is happening in real time and in a situation which naturally occurring (Cohen et al 2011), in this case a classroom environment. Observation can be undertaken as either a participant or non-participant approach. A non-participant observation model was followed which allows the researcher to observe in a non-intrusive manner and to simply observe what is happening without taking part. Undertaking participant observation would have been challenging as this type of observation would require notes to be made at a later stage once the observation has been concluded as noted by Kawulich (2005) and Cohen et al (2011). In carrying out the observation it was important that the notes were taken in real time and that full and detailed notes could be taken.

Semi-structured written observation sheets (see Appendix 1 & Appendix 2) were used as a model for recording the observations. This qualitative model provided a structure based on the focus and aims of the research question and as such included observation categories under each heading which were identified prior to the observation taking place. Acheson & Gall (2003, cited in Myers 2012 p .95) note that for an observation to be effective, a specific procedure should be followed, the model allows for this.

We chose year 9 classes in order to have compatibility of the lessons. In accordance with the lesson study methodology, as proposed by Dudley (2014), 'case pupils' were selected to form the sample. Four students were identified in relation to lesson 1 and lesson 2 based on their ability being either high or low. This was established by reviewing test scores and in consultation with the class teacher. This selection method was chosen in order to fit with the research question and to provide a representation of the mixed abilities within the classroom. The sample size was chosen (i.e. four for each lesson) in line with lesson study methodology to focus on a small number of students. Of the four students selected for lesson 1, two returned consent letters and of the four students selected for lesson 2, four returned consent letters. Interviews were carried out as part of a focus group which consisted of two students for lesson 1 and three students for lesson 2 (one student who had consented did not attend the interview). The interviews were conducted as a focus group and were based on structured pre-prepared open ended questions (see Appendix 3 & Appendix 4).

Reflection is a key part within the lesson study cycle and particularly at the end of the process for the teachers to reflect on the actual process (Stepanek et al 2007). In order to reflect on the lesson an Assisted Reflected Conclusions (ARC) model has been used to

provide structure for the reflection (see Appendix 5). Reflection is important to assist in the development of a teachers pedagogy. Pedagogy must go beyond just looking at methods that have been used in the classroom and ideally, according to Donaldson (2015) needs to be a combination of theoretical and practical knowledge that is used to encourage effective learning.

Ethical considerations

Educational research cannot be undertaken without due regards to ethics and should not begin unless approval has been given. As such, approval to commence the research was sought via a completed Ethics Form and approved via an ethics committee as per the University of Wales Trinity St David (UWTSD) approval procedure. In undertaking the research, guidelines, as set out by the British Educational Research Association (2018) were followed. Specifically this included our responsibility to participants, observing the need for consent, transparency, the right for participants to withdraw at any time, privacy and data storage (including considerations in relation to General Data Protection Regulation). The UWTSD Research Data Management Policy and UWTSD Research Ethics & Integrity Code of Practice were also adhered to. In consideration of this and the need for privacy and anonymity, the school shall be referred to as the school and the students shall be referred to as students A, B, C or D.

Lesson study 1 results and analysis

Lesson 1 was a mixed ability English class of year 9 students, the lesson was immediately before lunch at 12:15 on a Monday afternoon. The lesson focus was to plan and begin writing an assignment (see Appendix 6). During this lesson I acted as the observer (see Appendix 1) as per the lesson study methodology. Student A was identified as a low ability student and student B as high ability student.

On entering the room students needed to be settled, which is not uncommon in a school environment and not limited to mixed ability classes. Students were initially focused on listening to the teacher explain the lesson focus and objectives. The lesson plan did not include a starter due to the nature of the lesson, however I think that students would have benefitted from this, particularly as it was a mixed ability class and evidently, because of the level of questioning, not all students were able to engage. The subject of the assignment (which the students were required to plan and begin writing as part of the lesson) had been studied previously over a number of weeks by the students and as such a starter, in consideration of a future lesson, could be used to recap on previous knowledge, for example a think, pair, share exercise on post it notes. A starter in this lesson 1 could have helped to settle students more quickly and focus straight away on the lesson. In the focus groups (see Appendix 3 Lesson 1 Focus Group), Student A noted that disruptive behaviour can make it difficult for students to understand what is being taught and that this can follow through to the next lesson. It can be argued that this could lead to disruptive behaviour, although not by this student in this lesson, as low ability students may not always be clear on the lesson objectives. Starters which re-cap previous learning can help to bridge this gap somewhat.

During the lesson, whilst the majority of students appeared focused, a number of students were asking questions and not clear on what they needed to do. The teacher addressed many of these questions individually and in future lessons it may be more effective to stop the lesson and seek clarification of understanding from the class. Wiliam (2017) argues for the need to check for student understanding and proposes the use of hinge point questions. This is echoed by Rosenshine (2012) who identifies the importance of checking for student understanding and minimising the risk of students developing misunderstandings. This can be particularly important in a mixed ability class as students will have different levels of understanding, behavioural issues may manifest when students are unsure of what to do and during transition phases of the lesson. Whilst student B did ask questions of the teacher (to clarify understanding) during the lesson, Student A did not. We know from the focus group that the students are able to identify what is positive and what is negative behave and that students identify how behaviour affects their learning and it may be that Student A was

not comfortable to ask questions. In the focus group both students were able to comment on how the behaviour of others affected their own behaviour.

Wiliam (2017) notes the importance of sharing and clarifying learning intentions and success criteria for a lesson. This is echoed by Hattie (2012) who argues that knowing and sharing the success criteria with students can increase the impact of the learning. As the focus of lesson 1 was on preparing for a GCSE assessment then the success criteria as per the GCSE marking criteria could be shared in future lessons, this would make it clear to students what success looks like. Students were asking questions throughout as they were perhaps unclear on the requirements of the lesson, including Student B, which may have led to their distraction. Conversely, Student A, may have been unclear on the lesson objectives and how to be successful in the lesson but may not have been confident to ask a question and as such worked on a misunderstanding and worked in error. The teachers attention was often diverted in dealing with the low level disruption of these students, a traffic light system (as proposed by Wiliam 2017) for students to identify when they were unsure of what they needed to do.

Finally in order to improve the lesson going forward, a greater use of scaffolding could help. Scaffolding can be used to guide students and according to Husbands and Pearce (2012), scaffolding is part of an effective pedagogy. Scaffolding is useful to mixed ability classes and can help to improve behaviour by providing temporary support to those students that need it. Rosenshine (2012) notes that students should be provided with temporary supports when appropriate.

In undertaking this research again I would consider modifying our research tools and use a scale as part of the observation, I found it difficult at time to contextualise in words how the 'case pupils' were behaving. As suggested by Kumar (2014) a numbered scale can assist in the observation. As such, I would use a numbered scale to asses behaviour as I think this could have improved the structure of the observation. I would also change my seating within the class as sitting at the back, which was chosen to try to be non-intrusive, it was difficult to assess accurately the behaviour and focus as much of this was not visible. Whilst the focus group worked in that the students were able to answer the questions and appeared keen to give responses, I think it would have been useful to provide students with a questionnaire also, based on a scale, which could have been used to support responses and gain a more accurate and insightful picture of how the students felt about behaviour within the lesson. Finally I think it would be beneficial to increase the number of teachers involved in the research, lesson study as a methodology may work more effectively if using three teachers,

as proposed by Dudley (2014). This would allow us to increase the number of lessons observed and from which to gather more data/information.

Lesson study 2 results and analysis

Lesson 2 was a mixed ability Business class of year 9 students, the lesson was immediately after lunch at 14:05 on a Monday afternoon. The lesson focus was revision based on different forms of business ownership (see Appendix 7). During this lesson I was the teacher and my colleague observed (see Appendix 2) Four students were observed, two of high ability and two of low ability, in the observation notes Student A and B are identified as low ability students and students C and D as high ability students.

During the lesson, as noted in the observation sheet, most students were on task and completing the work. However there were a number of students talking and distracted, including students A and B. It is noted that students C and D remained on task throughout the lesson, appeared not to be distracted and their body language suggests they were focused. The observation notes that all students were focused on answering the questions, which suggests they were engaged, questions asked were on topic however a number of students were shouting out the answers out of turn. During the focus group students were able to identify what was meant by positive and negative behaviour and commented that positive and negative behaviour had an impact on learning.

In order to improve the lesson I would ensure that I enacted the schools behaviour policy to those students who were misbehaving and shouting answers out and talking over the teacher. This behaviour is disruptive to other students and does not give others the opportunity to answer questions, however it is not clear from the research if this behaviour is linked to the fact that it's a mixed ability class. To improve the issue of students shouting out I could use a no hands up rule as as proposed by Wiliam (2017) and select students to answer questions when their names are randomly selected using lollipop sticks. This could have the benefit of engaging all students in the lesson and requiring them to pay attention, it could also give a clear structure to how questions were to be answered in class.

In questioning if students A and B were distracted because they found the work too difficult and if in turn students C and D were sufficiently challenged I would look to include better differentiation in the lesson. Whilst I feel that in planning the lesson I built in a variety of different tasks I do not think that the tasks, whilst some included extension questions, had sufficient differentiation to allow for the breadth of learners in the mixed ability class. Hattie (2012) argues that when learning is not successful students often do not need more of the

learning, they need it to be different. I feel that the lesson was aimed at the middle of the class and as Purcell (2013) suggests this is not ideal and is likely to be frustrating for all students. In order to improve the lesson I would also use Blooms taxonomy of questioning as Bremner (2008) proposes that this can help a teacher by providing differentiated work which is challenging and also helps to recap on the social and academic benefits of collaboration within a mixed class.

If we were to undertake the research again I would use a scale to record the observation in addition to taking notes under pre-populated headings. In the focus groups I would change the time of the group meeting, because of time constraints the focus group had to happen during lunch break which I think the students were conscious of. I would also interview students individually as I feel that they were limiting in their responses because they were conscious of the presence of their peers, I would support the interviews with questionnaires that ask questions relating directly to determining what they have been taught in the lesson to make an assessment of learning. Finally I think the research would have benefited if we were able to review each of the students written responses to the tasks throughout the class, this would have given us clearer results to analyse based on the the known abilities of each of those students. Whilst I, as the class teacher, circulated the room to visually check that students were answering the questions in the workbooks it would have been beneficial for the research to carry out a thorough review of this work following the lesson. This was not possible because of time constraints on the research.

Discussion of research findings

Teaching effectively to a class of mixed ability students can be challenging. As noted by Al-Subaiei (2017) and Purcell (2013), this challenge is not just because of different levels of academic ability but also because of different personalities, needs, motivations etc. Dudley (2014) argues that adopting lesson study as a form of research methodology and specifically selecting case pupils, makes teachers more aware of the needs of individual students. Dudley and Osvath (2016) propose that observation, by another teacher, is a useful method when teaching in mixed ability classes, stating that it can give a wholistic view of what is happening in the mixed ability classroom. This reduces the tendency to focus on teaching to the 'middle' which is described as the pupils with higher and lower ability students at either side. Hattie (2012) states that teachers planning lessons together results in a high likelihood of making a notable difference on the learning of the student.

In carrying out the research it has taught me about the importance of the individual in classroom and the caution required for teaching to the middle of the class. Whilst Al-Subaiei

(2017) and Rosenshine (2012) both support cooperative learning approaches, Wiliam (2017) cautions that there is a risk in this approach that those that benefit from group work are those that are able to give help to other students and the students that receive this help, noting that students in the middle are left only to watch what is happening. Al-Subaiei (2017) argues that a strategy to teach more effectively to a mixed ability class is differentiation. This has been reaffirmed to me during the course of this research. Following the lesson study methodology has taught me about the importance of differentiation in the classroom and the impact that this can have on behaviour. Behaviour within the classroom can have negative and positive effects on students and this is perhaps more heightened in mixed ability classrooms because of the range of students present. Purcell (2014) notes that teachers need to know the strengths and limitations of students in the class, this is challenging as a student teacher on placement for a limited period. Bremner (2008) suggests that when students are working outside of their preferred learning style they not perform as well, this could explain why students in mixed ability classes behave in a certain way because their needs as individuals are not being met, it can be argued that this is also evident in the observations and responses from the focus groups.

Bremner (2008) argues that a teacher should focus not on what they teach but on what pupils learn, this will be a focus for me and my classes going forward. Although the research is not conclusive I believe it does demonstrate that the difficulty of a mixed ability class is not necessarily the fact that it is mixed ability but that as a teacher, I need to teach effectively for the needs of all students within the class. It has also taught me the importance of good classroom management, the research as shown that whilst it is not possible to identify if the fact that classes are mixed ability affects behaviour but that positive and negative behaviour does impact learning. This will be challenging, classroom environments are dynamic and often fast paced, Dudley (2014) notes that the amount of information that is generated by students over the course of a lesson is vast. However, not doing so may be apparent in some behaviours that are demonstrated. Lesson study as a research and professional development technique, it has been shown, enables teachers to recognise the importance of individual students within the class, this has certainly been the case for me.

Conclusion

The research methods were chosen based on a need to gather the required data and information in order to support the research question. Donaldson (2015) suggests that a good pedagogy necessitates that teachers are not just aware of the 'what' but also of the 'how' and the 'why'? Research is a tool that allows teachers to uncover this further. The strengths of the research include that the lesson study methodology allowed for the research

to be carried out in a real classroom and with real students, Dudley (2014) notes this as an important factor. The research environment, i.e. the classroom, was familiar to the students and the observation was unobtrusive, students are familiar with having adults, other than their class teacher, in the classroom. The observation notes taken were structured and taken in real time to allow for a true and accurate record to be taken. The focus groups were well structured and the observers ensured that the students felt comfortable throughout the research. However, whilst the research methods do have strengths, there are also limitations.

The methodology adopted of being a non-participant observer during lessons 1 and 2 followed a semi structured method and included ensuring a non-intrusive and passive role. There is a possibility that the presence of the observer could have affected the observation and the actual observation itself could have had an impact on the students. This is referred to as the Hawthorne effect, those that are being observed may have changed their behaviour in some way (Kumar 2014). Cohen et al (2011) note that having an observer present can lead to different behaviours being displayed. Kumar (2014) does argue however that this is not always a problem. In relation to this research it is difficult to say if the presence of an observer had any impact on behaviour. The students who were the subject of the research were made aware in advance that the observation would be taking place and that they would participate in a focus group following the lessons, therefore it is possible that this could have affected behaviour in those lessons. Cohen et al (2011) note a limitation of research that involves observations as to the validity as to how we can be confident that what has been observed in one lesson is representative of the whole picture, as such I do not believe it is possible to generalise the research findings. In order to counteract this and to extend the research in future it could be more accurate if the 'case pupils' were observed over a number of different lessons which would include different subjects and ones in which classes were set by ability. This would allow us to see if the behaviour of these pupils was influenced by the classes they were in i.e. set by ability or mixed ability. Hobart and Frankel (2010) note the importance of avoiding observer bias and remaining objective in the observation, this is a risk when the observers have preconceived ideas about the students being observed. In the case of this research it is possible that the observers may have held bias and expected the students to display certain behaviours, this is particularly relevant in that during the lessons the observers discussed how they thought the students and, specifically, the 'case pupils' would react and behave in relation to different parts of the lesson. However the observers were careful to act in a professional and non-judgemental manner throughout the research to avoid any bias and remain objective.

Cohen et al (2011) note that a number of limitations to observation as a method of research namely that the researcher may not be aware of antecedent events. This is relevant to a classroom environment as there are many events that can happen either outside of or inside school that effect a student's responses in that lesson and may not be representative of general behaviour. This is a risk in the observations as to the validity of behaviour in one lesson and as to how much that behaviour is representative generally and as noted previously validity could be improved by observing over a number of lessons.

Using a focus group as a method of data collection can also have limitations. It is possible in this research, whilst the researchers were keen to clearly explain the purpose and roles to students and the right at any time to withdraw, that students see the role of the teacher facilitating the focus group as that of an authority figure and as such may be hesitant in their responses. This may have been the case as the focus group responses, although useful, were limited in terms of insight and as such I do not believe it is possible to generalise the results. Dudley (2014) suggests that the interviews should happen immediately after the lesson, in the case of lesson 2 the focus group took place the following day and as such it is possible that students do not remember correctly what happened in the lesson.

Whilst the research has proved useful in gaining an insight into behaviour in mixed ability classes I do not feel that it was sufficient to fully answer the question or to generalise on findings. The research methodology adopted was fairly narrow in its focus in that it only included two year 9 classes in one school, it would be necessary to extend the focus much wider in order to maximise the research potential. The tools and methods of data collection would also need to be refined. In taking this forward in my practice I would look to develop the use of lesson study further, particularly in relation to meeting the needs of mixed ability classes and improving ones own practice.

Recommendations

The research has shown me that the behaviour of others can have an effect, positive or negative, on others. The research and particularly the research into exiting and current literature has demonstrated to me of the need to ensure that classes are planned, taught and reflected on with the different needs of all students in the class in mind. It has taught me that teaching to only the middle group of students and planning lessons that do not include for a wide breadth of differentiation is unlikely to lead to positive and satisfying results from those lessons. I believe that lesson study as a form of professional development and research methodology will prove a useful tool going forward and one that I would like to build upon in terms of my own professional development and for sharing good practice.

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