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WELCOME FROM THE EDITOR

Welcome to our final edition of volume three of the Birmingham City University (BCU) Education Journal Magazine (EJM). This edition contains nine articles from a variety of sources, ranging from students, ex-students, academics and teaching professionals.

This edition was a particularly challenging edition to collate, with the university undergoing an OfSTED inspection during the writing and collection stages of the journal. This appears to be reflective of the slightly lower number of articles for this edition. However, the articles we have on offer are outstanding and raise an interest in a number of different themes and topics.

We start the edition off with three articles from three of our year 3 secondary education with QTS students, who have tweaked and amended their dissertation module submissions for these articles, and I hope you agree, these are fascinating insights into three different themes. We then have further articles that discuss enquiries around the national curriculum in English, early years SEN, and music inclusion. We have a fascinating article around the use of comic strips to inspire writing, an article from one of our international master's students on assessment, and finally an article from Simon Chapman, a colleague from Northampton university, on how prepared pre-service teachers are in teaching PE. This article forms part one of many future articles around this topic.

I hope you find this edition interesting and hopefully it inspires you to contribute an article for a future edition.

Best wishes

Grant Huddleston

Our aim

Our aim is to help support practice across our partnership schools and promote enquiry and research. We welcome contributions from students, teachers and academics who wish to make a positive difference to teaching and learning and believe they could help develop and support other's practice. We aim to support new and experienced writers to submit their work so that we share a variety of perspectives.

Our goals

- **Showcase the excellent work our BCU Students produce**
- **Allow an opportunity for those interested to publish their work to promote positive development and reflection across our partnership schools**
- **Promote confidence and competence to write for an education publication**
- **Promote interest towards research and enquiry**

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How to contribute

Anybody wishing to contribute an article for consideration should email their draft to **BCUEJM@bcu.ac.uk**

You do not need to decide which chapter you wish your article to appear, but you can indicate this if you wish. Please ensure you follow the house style. Final decisions on publication are made by the editorial board. You can submit as many articles as you wish. If the editorial team have received a large number of contributions, your article may be held for later editions.

House style

When submitting an article for consideration, please aim to follow the subsequent house style:

- Documents must be submitted in Word in font Calibri, size 11, with 1.5 line spacing.
- Include your full name and role/school – this will appear under the title.
- Any web links given should be accessible by the reader and not sit behind passwords or paywalls.
- Word count is expected to be 500 to 3000 words "all in" (including references lists).
- Acronyms and abbreviations must be written in full the first time they are used in each article; thereafter the abbreviation may be used, e.g. "The special educational needs and disability co-ordinator (SENDCO) is … "
- UK English should be used, e.g. "…ise" endings instead of "…ize"
- Numbers one to ten written in full; thereafter numerical (e.g. 28 pupils aged nine completed… etc.)
- Double speech marks for direct speech or quotes; otherwise single speech marks
- Please use the Harvard referencing system (where applicable – we can support with this if necessary).

Please note that the editorial team will amend the final copy to suit our house style. You will receive a copy back if any major changes have been made for you to proofread.

RESEARCH PAPERS

ENQUIRY AND SUPPORT WITHIN THE PARTNERSHIP

Supporting bereaved students in a Walsall Secondary School: What strategies can be implemented in addition to those that are currently available to teachers?

Aliya Levene – Year 3 BA hons Secondary Physical Education with QTS, Birmingham City University

Bereavement is one of the few things that we will all face at some point in our lives, and sadly, 92% of young people will experience this before the age of 16 (Child Bereavement UK, 2023a). It is estimated that approximately 70% of secondary schools in the United Kingdom (UK) will have a bereaved student on their register at any given time (Child Bereavement UK, 2023a); however, despite its prevalence, several studies (Holland, 2003; Lowton, and Higginson, 2003; Scott et al., 2019) have discovered that many teachers lack confidence and feel underqualified to provide these students with the appropriate support, raising questions about not only effectiveness but also whether we are doing enough to assist teachers in dealing with something as inevitable as loss.

The purpose of this study is to investigate how qualified teachers currently feel about supporting bereaved students using the strategies available at their school, as well as to assess what more could be done to improve this. Children spend the majority of their time at school (Holland, 2016), placing teachers in an ideal position to provide them with additional support when needed, especially when their families may be unable to do so (McLaughlin, Lytje, and Holliday, 2019). During an uncertain time, school can provide stability, consistency, and a break away from everything going on at home. However, we must ensure that all members of staff are adequately prepared to handle these situations, as the response they provide could potentially have long-term consequences for that student (Leek-Bailey, 2019).

This paper is underpinned by three research questions:

1 What strategies exist to assist secondary school teachers in supporting bereaved students?
2 How confident are teachers in supporting bereaved students?
3 What new strategies could be put in place to further support teachers?

Literature review

Bereavement and grief

The terms bereavement and grief are often used interchangeably, however, they both have different meanings. Bereavement refers to the period of time that follows the death of a loved one, whereas grief describes an individual's reaction to loss (Buglass, 2010; Child Bereavement UK, 2020; Goveas, and Shear, 2021), whether it is of a job, relationship, injury, or illness or, for the purposes of this study, a loved one or pet.

Grief is a universal experience that affects everyone differently. Although there are some similarities – sadness, anger, guilt (Mind, 2019) – the way these feelings are processed and expressed varies from person to person. There are a variety of external and internal factors, known as determinants of grief, which can influence an individual's response, including the nature of the death, social support networks, gender, cultural and religious beliefs, personal history of loss, intimacy level and emotional complexity (National Cancer Institute, 2021; Bacchus, 2021). Individual differences, however, will again change the amount of influence since generalisations will not be true for everyone.

Grief during adolescence

Growing up in the UK can be stressful enough for adolescent Children and Young People (CYP) aged 10 to 19 (WHO, 2023), with pressures from school and exams, social media, beauty standards, and puberty, all of which can affect their mental health and wellbeing (YMCA, 2019). When you add in the death of a significant figure, such as a parent/carer, sibling, another family member, pet, or close friend (YoungMinds, 2023), life can become incredibly difficult. It not only changes their life as they knew it, but it may also make them feel extremely vulnerable and alone (Child Bereavement UK, 2023b; NHS, 2022), because they may be the only person in their friendship group or family who has ever experienced anything like this before, or on the contrary, may make them more empathetic, compassionate and tolerant (Hogan, and DeSantis, 1996, cited in Gerhardt et al., 2011), as they now understand what it is like to lose someone.

During the grieving process, CYP will experience a variety of emotional and physical symptoms that can last anywhere from a few days to several years (Better Help, 2023) and can vary in intensity. This can include shock, denial, bargaining, acceptance, and behavioural, eating, and sleeping changes (Cruse Bereavement Support, 2023). Some of these signs are thought to be protective mechanisms, allowing them time to process what has happened. Despite this, a number of CYP may still find it difficult to deal with these feelings, and as a result, may begin to engage in risky or anti-social behaviours, such as self-harming, or using substances such as alcohol and drugs (Gupta, 2022) to numb the pain and forget about their grief.

While there is little evidence examining the complex relationship between childhood bereavement and educational outcomes, and what there is relies on self-reports from teachers, parents or students, general findings indicate a negative impact. Abdelnoor, and Hollins (2004) examined the GCSE results of children in England who had lost a parent (n=73) or sibling (n=24) to determine if there was a long-term impact on their school performance, anxiety levels, self-esteem, and school attendance. Not only did they observe that bereaved participants underperformed significantly depending on their age, gender, and parental job history, but they also identified an increase in anxiety among the parentally bereaved group. School attendance, on the other hand,

remained unaffected, despite Dyregrov (2004) concluding that 'survivors of disasters, violence and death tend to be more absent from school and some drop out prematurely.' The reasons for these outcomes are unknown, but they are most likely the result of a lack of motivation, concentration caused by a diversion of attention, and energy that is currently being used to process the loss (Dyregrov, Dyregrov, and Lytje, 2020).

Role of secondary educational institutions in bereavement support

Many schools see bereavement support as a high priority, yet often lack the skills to respond effectively (Holland, 2016). For many CYP, school can provide security, routine, respite, and the opportunity to be a child, during an emotionally challenging time (Leek-Bailey, 2019; Holland, 2008), in a safe and comfortable environment where they can also process their grief (Dimery, and Templeton, 2021).

Schools have a good understanding of their students, their families, and the local community and organisations (Dyregrov, 1991, cited in Holland, 2016), placing them in a unique position to communicate with everyone involved in the care of that child to ensure they receive the appropriate support. Furthermore, teachers, who are frequently identified as emotionally detached adults (Rowling, 1995), play a central role in that support, as they interact with those children on a weekly, if not daily, basis and can identify any changes in behaviour, meet their individual needs, and check in with them to see how they are coping with their loss (Hornby et al., 2003, cited in Dimery, and Templeton, 2021).

Within any given school, there will be a range of teachers, each with their own specialisms, experiences, capabilities, interests, and levels of training, all of which will be influenced further by contextual, societal, cultural, familial, student and teacher-related factors (Lowton, and Higginson, 2003; Lane, Rowland, and Beinart, 2014) that will dictate how they respond. As a result, schools often refer students to external agencies for support, however, this is not always a possibility, particularly in deprived or remote areas (Leek-Bailey, 2019). Despite differences and inconsistencies in support in the UK and around the world, research suggests that members of staff do not need to be counsellors to support bereaved students; they simply need to understand their role and what they can do (Holland, 2016) to help them adjust to their new reality (Lane et al., 2014, cited in Levkovich, and Elyoseph, 2021). Through well-managed (McLaughlin, Lytje, and Holliday, 2019) and kind-hearted support, they can help reduce the challenges and issues that bereaved students are likely to encounter.

Teachers' views on supporting bereaved students

Although research into teachers' perspectives on supporting bereaved students in the UK is limited, international research indicates that, while teachers recognise that they may be the first point of contact for some students (Lane, Rowland, and Beinart, 2014) and that it is within their professional responsibility to address their students' grief (McEachron, 2014, cited in Case, Cheah, and Liu, 2020), they lack certainty and confidence, and express fears about providing the right support (Alisic, 2012; Lane, Rowland, and Beinart, 2014). Some reported feeling inadequately prepared (Reid, and Dixon, 1999; Potts, 2013), unsure of how to help, what to say and how much support to provide (Lowton, and Higginson, 2003; Cyfers, 2021), wary of causing upset or harm (Holland, 2001, cited in Holland, 2008), and a sense of helplessness, confusion, overloaded emotion and anxiety (Levkovich, and Elyoseph, 2021). Despite all of these feelings, teachers reported feeling obliged to display strength, address the bereavement and provide support, even if they felt distressed (Lowton, and Higginson, 2003).

Bereavement training is not usually included in initial teacher training courses (Reid, and Dixon, 1999), despite its potential to raise awareness and build confidence and skills (Holland, 2008), but is often encouraged once qualified through CPD. However, a recent survey by Child Bereavement UK (2019) revealed that only 10% of teachers have received some type of training, which Tracey, and Holland (2008) attribute to the cost, lack of awareness of the various qualifications, and accessibility. Some teachers have also reported that course content needs to be updated since they did not feel adequately prepared after completing the training (Lane, Rowland, and Beinart, 2014).

Methodology

Research design

This area of study is very under-researched as a whole, and due to its sensitive nature (Parkes, 1995), is not something that many people are willing to talk about. As a result, this research has been investigated using two questionnaires, to gather current data, rather than an interview, as this poses the risk of causing additional discomfort (Elmir et al., 2011) to the researcher and participants. The aim of this paper was to establish what strategies and policies are available to teachers who are supporting bereaved students at a secondary school in Walsall, and what can be further implemented to better assist them. The methodology yielded both quantitative and qualitative data that provided objective results (Goertzen, 2017) and insight into numerical responses (Atieno, 2009) through detailed descriptions and replies, respectively.

The British Educational Research Association's (2019) ethical guidelines for educational research were followed in this study, gaining ethical approval in January 2023, before any data was collected later in the year. Due to the sensitivity of this research, informed consent was acquired prior to the completion of the questionnaires, as well as explicit assurance of confidentiality, which Singer, Von Thurn, and Miller (1995) highlighted as a strategy to enhance data quality of sensitive questions. In addition, participants were told that they had the right to withdraw and remain anonymous; however, any data gathered up until that point could not be removed as there was no means of determining which response belonged to them.

Data collection

Before collecting data, two pilot questionnaires were created, the first for general staff and the second for the head of Continuing Professional Development (CPD). A colleague reviewed both of the questionnaires to help measure the effectiveness and validity; if any questions were misinterpreted, and if anything needed to be changed or added, then this was made. As a result of this discussion, the wording of some of the questions was altered and additional information was included, such as 'if you have supported more than one student, respond to this question based on your most recent experience', to make them easier for participants to understand.

After making the appropriate adaptations, both questionnaires were created using an online platform called Smart Survey. This allowed data to be gathered at a low cost, over a relatively short period of time, whilst also ensuring the safety and confidentiality of data (Nayak, and Narayan, 2019). To avoid respondent fatigue, both questionnaires were designed to take no more than 8 minutes to complete and had a limited number

of questions (Van Susteren, 2023); the first questionnaire had six questions and the second had up to eight. They both consisted of a variety of question types, including multiple choice, likert scales, and question boxes, which allowed for a broad range of responses (Bhandari, 2022).

After gaining consent from the headteacher to conduct the research at their school, both questionnaires were emailed out, accompanied by the necessary consent forms and information sheets, along with a deadline of seven days; however, the first questionnaire was sent to all members of staff, while the second was emailed directly to the head of CPD, who was selected to participate in this research because of their job role. A simple, random sampling approach was used to gather participants for the first questionnaire. While this strategy had the ability to provide a sample of qualified participants who were eager to engage in the questionnaire and answer the questions properly, it also carried the risk of failing to attract potential respondents (Murairwa, 2015), which proved to be one of the problems of this study.

From invitations to participate in this research, nine responded with interest, whereas only 5 eventually gave their consent. While key conclusions may still be drawn, this is a common problem with online surveys (Nayak, and Narayan, 2019) and sensitive questions that can induce item non-response due to social desirability bias (Plutzer, 2019), which occurs when participants give responses that they perceive to be socially acceptable (Bergen, and Labonté, 2019). The small sample size of this study does, however, highlight the current situation surrounding this issue. Regardless of this, the findings are unlikely to be generalisable to larger target populations, as the sample simply is not representative.

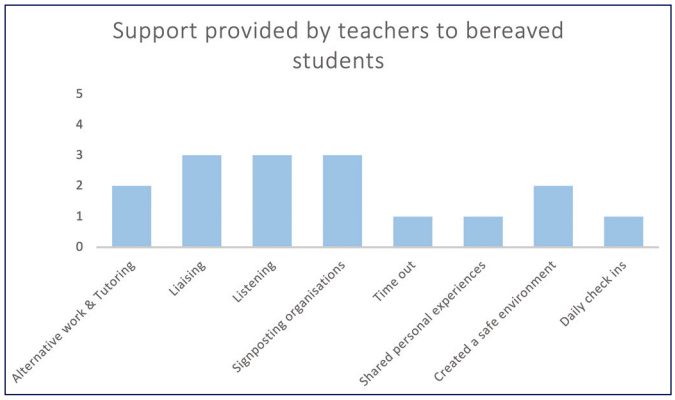
Data analysis

Qualitative data will be transcribed and thematically analysed using open codes. As the researcher was a bereaved student herself, there is a risk of researcher bias in this study, which occurs when the researcher's personal beliefs or expectations influence the research design or data analysis (Ingram, 2023). However, data will be analysed in accordance with the findings of Ryan, and Bernard (2003), which stated that researchers should look out for repetitions of words or phrases, metaphors, linguistic connectors and transitions in narrations. These will be highlighted after numerous readings of the responses have been achieved, to guarantee a high level of comprehension and understanding. The data will then be examined for similarities, differences, and connections, allowing themes to be extracted and conclusions to be drawn. In addition, a supervisor will go over the data analysis to identify any potential bias.

It is probable that other questions and thoughts may develop when analysing the data, however, one limitation of self-reporting questionnaires is that it does not provide scope for follow up communication with participants (Imperial College London, 2023). This is why it is imperative that all of the data is thoroughly evaluated and taken into consideration, and that any unexplained or provoking thoughts that arise after data collection, are put forward as suggestions for future research.

Results

100% of participants, who took part in this research, identified that they had supported a bereaved student at some point during their time at School X, providing both emotional and academic support where necessary. Graph 1 below provides examples of the support they provided to bereaved students.



Graph 1: Emergent themes from Q2 of the general staff questionnaire

Discussion

Based on all the data collected and analysed through thematic analysis, the following discussion will be aligned with the research questions of this study.

What strategies exist to assist secondary school teachers in supporting bereaved students?

All of the participants in this study work at School X, but their perspectives on the existing strategies differed greatly, as seen by comments such as:
"No real strategy as such" and *"None."*

Despite the fact that other participants have mentioned:
"Safeguarding policies, Counselling services, Buddy systems (and) Form time structures"

it is clear that not all teachers are aware of them, value them equally, or use them. Highlighting the need for ongoing awareness of what exists within schools and communication between staff to find out what does and does not work.

60% of participants reported that the school's pastoral system helps them support bereaved students. This is a team of non-teaching staff whose role is to promote students' physical and emotional welfare (Twinkl, n.d.). However, the head of CPD reported that:
"We have 3 specialist pastoral staff who support students (in school) – however, they have never received any specialist bereavement training."

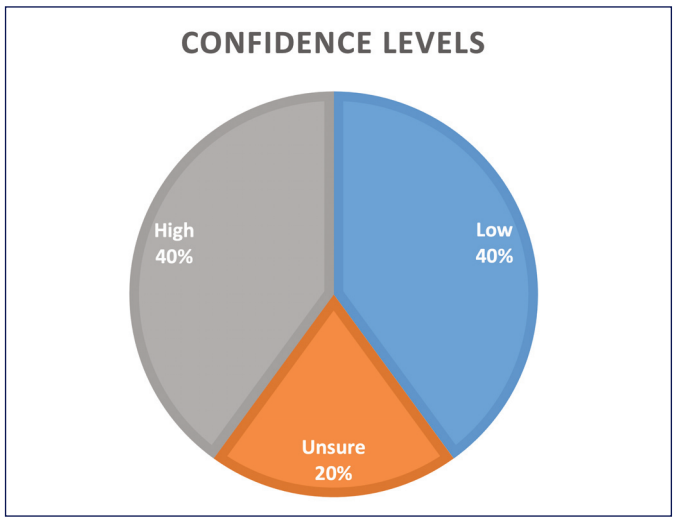
Nobody on the team has any formal qualifications in bereavement support; instead, they rely on their own experiences and knowledge of how to best support students, which is invaluable and should therefore be shared among staff, where necessary.

Furthermore:
"Staff are encouraged to undertake their own CPD. Every staff member has access to the full training package with the National College and there are a number of webinars on there."

However, according to Bartleton (2018), due to increased workload and limited free time available to teachers, uptake in individual CPD can be poor, and a collaborative approach (Pedder, and Opfer, 2010) may be more beneficial, which School X has provided on a few occasions.
"Staff have received 'general' training on supporting students' mental health on an annual basis, (as well as an additional session) which included bereavement elements following the Covid pandemic, (and delivered by a) local counselling service."

How confident are teachers in supporting bereaved students?

Despite all of the participants from the general staff questionnaire reporting they have supported a bereaved student at some point during their time at School X, there was a varying level of confidence among them, as shown in Graph 2 below, which displays their responses to question 3 of the questionnaire.



Graph 2: How confident did you feel supporting a bereaved student?

After further clarification, it is clear that these ratings are the result of several variables, some of which appear to have had a positive, negative, or mixed effect.

Being unaware of the loss was one of the key contributing factors for participants who evaluated their confidence level as low (a score of 1 or 2), with one participant saying that:
"I did not understand why they were getting upset and angry when learning about certain topics. I did not have the information needed to support them."

Although the data does not explain why this member of staff was unaware of this particular student's loss, it does indicate a greater issue of communication, not only between teachers but also between the school and the student's family. If the school was aware of the death but failed to share the appropriate information with all of the teachers involved in this student's care, including non-teaching staff, then efficient communication systems must be put in place (Holland, 2001) to ensure nothing is missed and the appropriate support can be provided. However, as the head of CPD pointed out, this can only be achieved:
"If (they) are told by the family."

According to Dyregrov, Dyregrov, and Lytje (2020), it is the family's responsibility to notify the school of a family bereavement. To ensure this happens, two-way communication needs to be established between families and schools, which is deemed successful when both parties feel comfortable initiating and directing interactions. Depending on the individual circumstances and accessibility needs, this could take the form of newsletters, texting, emailing, phone calls, or in-person communication.

Participants' personal experiences of loss were one of the factors that had a mixed effect, with one participant falling into each of the three categories: low, unsure (a score of 3), and high (a score of 4 or 5). They all highlighted that they could:
"Rely on (their) own experiences and empathy."

While this may have raised their awareness of loss and bereavement, and taught some participants how to respond to bereaved students, others still:
"(Did not) feel equipped to give advice."

This demonstrates the need for additional emotional support, as they may have not dealt with their own grief reactions yet (Reid, 2002), as well as training on what to say and do in these situations, as:
"(Teachers) aren't always sure if they (have) said the right things at the right time or anticipated possible problems."

Professional experience was also assessed as having a positive influence on confidence. One participant, who has been teaching for 30 years, stated:
"(They have had) many years of dealing with student traumas of all kinds as a Form Tutor, Head of Year, Head of Department, Head of Faculty and Assistant Principal."

This is a unique finding of this study, indicating that confidence may increase with time and experience, both professional and personal, as well as access to information and resources.

What new strategies could be put in place to further support teachers?

The data clearly shows that more needs to be done to support teachers, as acknowledged by the head of CPD, who stated:
"Your survey has made me consider whether this is something we need to look at …. (and) I'd be interested in your findings!"

100% of participants indicated or alluded to the need for more training.
"Ways we can support students … Support groups … More CPD … Coaching techniques … Short session to our CPD."

This result is consistent with the findings of earlier research (Reid, and Dixon, 1999; Rowling, and Holland, 2000; Potts, 2013), and demonstrates that very little progress has been made in this area during the past 24 years.

According to the head of CPD, several teachers at the school have undergone training that included:
"elements of bereavement support."

However, there has never been a whole-school session with a:
"specific bereavement focus."

As teachers have indicated that this would *"be helpful,"* schools should incorporate it into their training schedule, either as a twilight session or inset day. In addition, there are a number of bereavement training opportunities available to teachers and schools in the UK, through programmes such as High Speed Training (2023) and Alliance for Learning (2023), as well as those from established bereavement networks, such as Child Bereavement UK (2023c) and Winston's Wish (2023a), which can also be accessed or delivered during these sessions, to help facilitate and provide some structure. The latter two offer a selection of courses that vary in method of delivery, length, cost, information depth, and course content, which can also be tailored to meet the school's specific needs.

Throughout their career, teachers should undergo regular bereavement training of some kind because:
"it's always good to be kept up to date with current practice."

This should be implemented during the initial teacher training

years, when awareness of the issue can first be raised. Teachers should then continue to refresh and expand their knowledge throughout their careers, as this is an important issue that they will most likely encounter.

Another finding of this study is the need for a formal policy, as reported by one participant who stated that:
"It would be nice if we all had a few agreed principles on how to support bereaved students most effectively."

School X, like many other secondary schools across the country, does not have a bereavement policy in place because it is not compulsory in the UK (Rowling, and Holland, 2000), relying instead on the initiative and knowledge of individuals within a given school (Holland, 2008). As demonstrated in countries such as Denmark and Australia, which both have bereavement response systems in operation on a national scale (McLaughlin, Lytje, and Holliday, 2019), this can have huge benefits for staff, who have reported a sense of safety during a stressful time, and increased confidence (Lytje, 2017), which ultimately benefits students. Some have criticised the standardisation of these policies for attempting to generalise students' grief responses into a single document (Lytje, 2017); nonetheless, it is suggested that they be flexible and adaptable to suit the needs of the school and each individual case (Rowling, and Holland, 2000) and influenced by students themselves (Lytje, 2018).

This proactive approach, which encourages schools to develop policies ahead of time, during a period of calm (Holland, 2016), helps ensure that everyone knows what to do with confidence and in a timely manner when a bereavement occurs (McLaughlin, Lytje, and Holliday, 2019). Organisations, such as Anna Freud (2023) and Winston's Wish (2023b) have created blank templates that schools can use, and a book written by Holland (2016), titled *'Responding to Loss and Bereavement in Schools: A Training Resource to Assess, Evaluate and Improve the School Response'* includes exercises and audits that schools can use to build their own policy.

Despite this, it is evident that broader reform is required, and bereavement policies must be made compulsory in order for teachers to feel comfortable and confident in providing support to grieving students at the appropriate time.

Conclusion

Based on the evidence presented, it is possible to conclude that the existing strategies in place at the participating secondary school could do with much development, and that more can be done to further support teachers.

Participants' perspectives on the strategies available at School X, varied greatly. While some were unaware of what existed, others emphasised the importance of the pastoral team and their role in providing support for both teachers and students. It was later discovered, however, that they had no formal bereavement training and were instead relying on their own experiences and knowledge. Even though teachers had access to a full training package through the National College, it was not evident from their responses that they had taken advantage of the opportunity. They did however participate in at least one whole-school CPD session on bereavement following the Covid pandemic.

Despite the strategies in place, participants' confidence levels differed, with 40% ranking their confidence as low, 20% unsure, and the remaining 40% as high. This was identified to be related to a variety of factors, some of which had a positive, negative, or mixed effect. Teachers' confidence levels suffered as a result of their lack of awareness of the loss, as they were unsure why students were reacting the way they did; however, this information could only be shared with staff when the family informed the school. The factor that had a mixed influence was personal grief experiences. While it allowed teachers to empathise with students because they understood what they were going through, it also left some teachers feeling ill-equipped to give advice since they knew that everyone's experiences and reactions would be different. Finally, professional experience was one of the factors that had a positive influence. This was identified among the pastoral team as well as other members of staff who had previously dealt with similar situations and thus knew how to respond and what to do.

Two key strategies were identified, based on questionnaire responses and research into how other countries assist teachers with supporting bereaved students, with the first being the need for more training. All teachers should, at the very least, receive basic loss awareness training. In an ideal world, schools would arrange regular bereavement focused CPD sessions where they would share and discuss strategies, advice and information on how to support bereaved students. Furthermore, it was determined that schools should have a formal bereavement policy in place, and national laws should be established to make this mandatory. These policies will: enable schools to identify key contacts within the school, plan for supporting the bereaved student upon their return, and collate information from local organisations. This document can then be utilised as and when a bereavement happens to ensure that nothing is overlooked and that the proper support is provided.

While there is still work to be done, it can be said that clear and open communication forms the foundation for robust support. To achieve good outcomes for the child, all parties need to ensure they share necessary and proportionate information. Everyone's reaction to loss will be different; however, by listening to and connecting with everyone involved in that child's care, we can guarantee that everyone is more comfortable, confident, and on the same page, ensuring that child receives the support they need and deserve.

Recommendations

Based on the findings of this study, I would recommend that:

- Schools improve their information sharing and communication with all parties.
- Schools create a shared folder with various resources in that all members of staff can access.
- Schools include regular whole-school bereavement training sessions into their schedule
- All teachers receive regular bereavement training, through CPD. If this is not feasible for any reason, they should at the very least receive basic loss awareness training or consider having a "bereavement champion" who receives training on behalf of the school and relays this information back.
- Schools develop a formal bereavement policy, using the materials from Anna Freud, Winston's Wish, and Holland (2016), if needed, or they can use the source materials to develop their own format to inform their policy.
- National regulations are established to make it mandatory for schools in the UK to have a formal bereavement policy in place.

Further Research

Based on this study and the review of literature, I would recommend that further research is needed in finding out what other secondary schools around the country do and the affects this has on teachers, as well as the effectiveness of various training programmes and bereavement policies to establish if they are the best strategies to support teachers. Despite the advances gained in this study, it is evident that there is still a long way to go.

References

- Abdelnoor, A., and Hollins, S. (2004) The effect of childhood bereavement on secondary school performance. *Educational Psychology in Practice*, 20(1), pp. 43–54. Available at: https://doi.org/10.1080/0266736042000180401.
- Alisic, E. (2012) Teachers' Perspectives on Providing Support to children After Trauma: A Qualitative Study. *School Psychology Quarterly*, 27(1), pp. 51–59. Available at: https://doi.org/10.1037/a0028590.
- Alliance for Learning (2023) *Childhood Bereavement.* Available at: Childhood Bereavement – Bright Futures Alliance for Learning [Accessed 14/05/23].
- Anna Freud (2023) *Example bereavement policy template.* Available at: Example bereavement policy template : Mentally Healthy Schools [Accessed 14/05/23].
- Atieno, O. (2009) An analysis of the strengths and limitation of qualitative and quantitative research paradigms. *Problems of education in the 21st century,* 13. Available at: Atieno_Vol.13.pdf (scientiasocialis.lt) [Accessed 08/05/23].
- Bacchus, G. (2021) *Factors That Affect The Grieving Process.* Available at: Factors that Affect the Grieving Process | Grief and Loss [Accessed 02/05/23].
- Bartleton, L. (2018) Teachers' Perceptions of the Impact of Continuing Professional Development on Their Professional Practice in a Further Education College in the West Midlands. *Educational Futures*, 9(2). Available at: BESA-Journal-EF-9-2-5-bartleton.pdf (educationstudies.org.uk) [Accessed 13/05/23].
- Bergen, N., and Labonté, R. (2019) "Everything Is Perfect, and We Have No Problems": Detecting and Limiting Social Desirability Bias in Qualitative Research. *Qualitative Health Research*, 30(5). Available at: https://doi.org/10.1177/1049732319889354.
- Better Help (2023) *What Is Bereavement, And How Can I Find Support?* Available at: What Is Bereavement? What You Need To Know | BetterHelp [Accessed 02/05/23].
- Bhandari, P. (2022) *Questionnaire Design | Methods, Question Types & Examples.* Available at: Questionnaire Design | Methods, Question Types & Examples (scribbr.co.uk) [Accessed 08/05/23].
- British Educational Research Association (2019) *Ethical Guidelines for Educational Research,* fourth edition (2018). Available at: Ethical Guidelines for Educational Research, fourth edition (2018) | BERA [Accessed 08/05/23].
- Buglass, E. (2010) Grief and bereavement theories. *Nursing standard: official newspaper of the Royal College of Nursing,* 24(41), pp. 44–47. Available at: https://doi.org/10.7748/ns2010.06.24.41.44.c7834.
- Case, D., Cheah, W., and Liu, M. (2020) "Mourning With the Morning Bell": An Examination of Secondary Educators' Attitudes and Experiences in Managing the Discourse of Death in the Classroom. OMEGA – *Journal of Death and Dying,* pp. 1–23. Available at: https://doi.org/10.1177/0030222817737228.
- Child Bereavement UK (2019) *'90% of teachers receive no bereavement training despite one bereaved child in every average class' – new research.* Available at: '90% of teachers receive no bereavement training despite one bereaved child in every average class' – new research | Child Bereavement UK [Accessed 06/05/23].
- Child Bereavement UK (2020) *What are bereavement and grief?* Available at: What are bereavement and grief? | Child Bereavement UK [Accessed 01/05/23].
- Child Bereavement UK (2023a) *Supporting a bereaved student in secondary school.* Available at: Supporting a bereaved student in secondary school | Child Bereavement UK [Accessed 30/04/23].
- Child Bereavement UK (2023b) *How children and young people grieve.* Available at: How children and young people grieve | Child Bereavement UK [Accessed 02/05/23].
- Child Bereavement UK (2023c)*Child Bereavement UK training.* Available at: Child Bereavement UK Training [Accessed 14/05/23].
- Cruse Bereavement Support (2023) *Signs of grief in a child.* Available at: Signs of grief in a child – Cruse Bereavement Support [Accessed 02/05/23].
- Cyfers, M. (2021) *A Phenomenological Study: Understanding Teacher Experiences with Grief in the Classroom.* Dr. Thesis. Marshall University. Available at: A Phenomenological Study: Understanding Teacher Experiences with Grief in the Classroom – ProQuest [Accessed 06/05/23].
- Dimery, E., and Templeton, S. (2021) Death, bereavement and grief: the role of the teacher in supporting a child experiencing the death of a parent. *Practice: Contemporary Issues in Practitioner Education,* 3(2), pp. 146–165. Available at: https://doi.org/10.1080/25783858.2021.1882263.
- Dyregrov, A. (2004) Educational consequences of loss and trauma. *Educational and Child Psychology,* 21(3), pp. 77–84. Available at: https://doi.org/10.53841/bpsecp.2004.21.3.77.
- Dyregrov, A., Dyregrov, K., and Lytje, M. (2020) Loss in the family – A reflection on how schools can support their student. *Bereavement Care,* 39(3), pp. 95–101. Available at: https://doi.org/10.1080/02682621.2020.1828722.
- Elmir, R., Schmied, V., Jackson, D., and Wilkes, L. (2011) Interviewing people on potentially sensitive topics. *Nurse Researcher,* 19(1), pp. 12–16. Available at: https://doi.org/10.7748/nr2011.10.19.1.12.c8766.
- Gerhardt, C., Fairclough, D., Grossenbacher, J., Barrera, M., Gilmer, M., Akard, T., compass, B., Davies, B., Hogan, N., and Vannatta, K. (2011) Peer Relationships of Bereaved Siblings and Comparison Classmates After a Child's Death from Cancer. *Journal of Pediatric Psychology*, 37(2), pp. 209–19. Available at: https://doi.org/10.1093/jpepsy/jsr082.
- Goertzen, M. (2017) *Applying Quantitative Methods to E book Collections.* pp. 12–18. Chicago: American Library Association. Available through: View Issue (ala.org) [Accessed 08/05/23].
- Goveas, J., and Shear, K. (2021) Grief and the COVID-19 Pandemic in Older Adults. *The journal of lifelong learning in psychiatry,* 19(3), pp. 374–378. Available at: https://doi.org/10.1176/appi.focus.19303.
- Gupta, S. (2022) *What to Know About the Anger Stage of Grief.* Available at: The Anger Stage of Grief: Characteristics and Coping (verywellmind.com) [Accessed 02/05/23].

- High Speed Training (2023) *Child Bereavement Training.* Available at: Child Bereavement Training | Online Course & Certification (highspeedtraining.co.uk) [Accessed 14/05/23].
- Holland, J. (2001) *Understanding Children's Experiences of Parental Bereavement.* London: Jessica Kingsley Publishers.
- Holland, J. (2003) Supporting schools with loss: 'Lost for words' in Hull. *British Journal of Special Education*, 30(2), pp. 76–78. Available at: https://doi.org/10.1111/1467 8527.00287.
- Holland, J. (2008) How schools can support children who experience loss and death. *British Journal of Guidance & Counselling,* 36(4), pp. 411–424. Available at: https://doi.org/10.1080/03069880802364569.
- Holland, J. (2016) *Responding to loss and bereavement in schools: A training resource to assess, evaluate and improve the school response.* London: Jessica Kingsley Publishers.
- Imperial College London (2023) *Questionnaires.* Available at: Questionnaires | Research and Innovation | Imperial College London [Accessed 09/05/23].
- Ingram, O. (2023) *Research Bias – Definition, Types & Examples.* Available at: Research Bias - Definition, Types & Examples – Research Prospect (buyassignmentonline.com) [Accessed 09/05/23].
- Lane, N., Rowland, A., and Beinart, H. (2014) "No Rights or Wrongs, No Magic Solutions": Teachers' Responses to Bereaved Adolescent Students. *Death Studies*, 38(10), pp. 654–661. Available at: https://doi.org/10.1080/07481187.2013.840018.
- Leek-Bailey, D. (2019) *'Not enough teachers are trained to support a grieving child'*. Available at: 'Not enough teachers are trained to support a grieving child' | Tes Magazine [Accessed 30/04/23].
- Levkovich, I., and Elyoseph, Z. (2021) "I Don't Know What to Say": Teachers' Perspectives on Supporting Bereaved Students After the Death of a Parent. *OMEGA – Journal of Death and Dying*, 86(2). Available at: https://doi.org/10.1177/00302228219936 24.
- Lowton, K., and Higginson, I. (2003) Managing Bereavement In The Classroom: A Conspiracy Of Silence? *Death Studies,* 27(8), pp. 717–741. Available at: https://doi.org/10.1080/713842340.
- Lytje, M. (2017) The success of a planned bereavement response – a survey on teacher use of bereavement response plans when supporting grieving children in Danish schools. *Pastoral Care in Education,* 35(1), pp. 28–38. Available at: https://doi.org/10.1080/02643944.2016.1256420.
- Lytje, M. (2018) The Danish Bereavement Response in 2015 – Historic Development and Evaluation of Success. *Scandinavian Journal of Educational Research,* 62(1), pp. 140–149. Available at: https://doi.org/10.1080/00313831.2016.1212258.
- McLaughlin, C., Lytje, M., and Holliday, C. (2019) *Consequences of childhood bereavement in the context of the British school system.* [pdf] Cambridge: Winston's Wish. Available at: Name Surname (winstonswish.org) [Accessed 30/04/23].
- Mind (2019) *Bereavement.* Available at: What does grief feel like? – Mind [Accessed 02/05/23].
- Murairwa, S. (2015) Voluntary Sampling Design. *Journal of Advanced Research in Management and Social Sciences,* 4(2). Available at: (PDF) VOLUNTARY SAMPLING DESIGN (researchgate.net) [Accessed 08/05/23].
- National Cancer Institute (2021) *Grief, Bereavement, and Loss (PDQ) – Patient Version.* Available at: Grief, Bereavement, and Loss (PDQ®)–Patient Version – NCI (cancer.gov) [Accessed 30/04/23].
- Nayak, M., and Narayan, K. (2019) Strengths and Weakness of Online Surveys. *Journal of Humanities and Social Sciences,* 24(5), pp. 31–38. Available at: https://doi.org/10.9790/0837-2405053138.
- NHS (2022) *Bereavement and young people.* Available at: Bereavement and young people – NHS (www.nhs.uk)\ [Accessed 02/05/23].
- Parkes, C. (1995) Guidelines for conducting ethical bereavement research. *Death Studies,* 19(2), pp. 171–81. Available at: https://doi.org/10.1080/07481189508252723.
- Pedder, D., and Opfer, D. (2010) Benefits, status and effectiveness of Continuous Professional Development for Teachers in England. *The Curriculum Journal,* 21(4), pp. 413–431. Available at: https://doi.org/10.1080/09585176.2010.529651.
- Plutzer, E. (2019) Privacy, Sensitive Questions, and Informed consent: Their Impacts on Total Survey Error, and the Future of Survey Research. *Public Opinion Quarterly,* 83(1), pp. 169–184. Available at: https://doi.org/10.1093/poq/nfz017.
- Potts, S. (2013) Least said, soonest mended?: Responses of primary school teachers to the perceived support needs of bereaved children. *Journal of Early Childhood Research,* 11(2), pp. 95–107. Available at: https://doi.org/10.1177/1476718X12466201.
- Reid, J., and Dixon, W. (1999) Teacher attitudes on coping with grief in the public school classroom. *Psychology in the Schools,* 36(3), pp. 219–229. Available at: https://doi.org/10.1002/(SICI)15206807(199905)36:3<219:: AID-PITS5>3.0.CO;2-0.
- Reid, J. (2002) School Management and Eco-systemic Support for Bereaved Children and their Teachers. *International Journal of Children's Spirituality,* 7(2). Availableat: https://doi.org/10.1080/1364436022000009109.
- Rowling, L. (1995) The Disenfranchised Grief of Teachers. *OMEGA – Journal of Death and Dying,* 31(4). Available at: https://doi.org/10.2190/3EM7-71U5-ME8V-54MP.
- Rowling, L., and Holland, J. (2000) Grief and School Communities: The Impact of Social Context, A Comparison Between Australia and England. *Death Studies,* 24(1), pp. 35–50. Available at: https://doi.org/10.1080/07481100200685.
- Ryan, G., and Bernard, R. (2003) Techniques to Identify Themes. *Field Methods,* 15(1), pp. 85–109. Available at: https://doi.org/10.1177/1525822X02239569.
- Scott, R., Wallace, R., Audsley, A., and Chary, S. (2019) Young people and their understanding of loss and bereavement. *Bereavement care,* 38(1), pp. 6–12. Available at: https://doi.org/10.1080/02682621.2019.1588560.
- Singer, E., Von Thurn, D., and Miller, E. (1995) Confidentiality assurances and response: a quantitative review of the experimental literature. *Public Opinion Quarterly,* 59(1). Available at: Confidentiality assurances and response: a quantitative review of the experimental literature - Document - Gale Academic OneFile (oclc.org) [Accessed 09/05/23].

- Tracey, A., and Holland, J. (2008) A comparative study of the child bereavement and loss responses and needs of schools in Hull, Yorkshire and Derry/Londonderry, Northern Ireland. *Pastoral Care in Education,* 26(4), pp. 253–266. Available at: https://doi.org/10.1080/02643940802472197.
- Twinkl (n.d.) *Pastoral Care*. Available at: What is Pastoral Care? - Answered - Twinkl Teaching Wiki [Accessed 12/05/23].
- Van Susteren, E. (2023) *Eliminate survey fatigue: Fix 3 things your respondents hate!* Available at: Eliminate survey fatigue: Fix 3 things your respondents hate! | SurveyMonkey [Accessed 09/05/23].
- WHO (2023) *Adolescent health*. Available at: Adolescent health (who.int) [Accessed 03/05/23].
- Winston's Wish (2023a) *Bereavement support training for professionals.* Available at: Bereavement training for professionals | Bereavement support training | Winston's Wish (winstonswish.org) [Accessed 14/05/23].
- Winston's Wish (2023b) *Free bereavement resources and guided for schools.* Available at: School Download Form | Winston's Wish (winstonswish.org) [Accessed 14/05/23].
- YMCA (2019) *A different world: The challenges facing young people.* [pdf] London: YMCA. Available at: Challenges-facing-young-people.pdf (ymca.org.uk) [Accessed 02/05/23].
- YoungMinds (2023) *Grief and loss.* Available at: Grief & Loss | Parents Guide To Support | YoungMinds [Accessed 02/05/23].

Is there an impact on a student's participation levels in extra-curricular rugby based on their socio-economic status?

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In schools today, students come from a range of socio-economic backgrounds that influence the number of opportunities they will experience during their time in secondary education. As teachers, we must promote opportunities to students to allow them to excel in their field. A question that I often ask myself focuses on the impact that funding and student up-bringing has on student's opportunities evolving in sport.

Generally, students who have a weaker socio-economic background will have less sporting opportunities during their childhood, including their time in school, due to financial constraints, therefore being unable to participate and engage within a variety of sports (Hargreaves et al, 2016) always fully. This has a demoralising impact on the willingness and motivation to consider playing sports as part of a lifestyle when students become adults (Ankrum, 2016). Currently, around 45% (3.2 million) of children and young people (CYP) achieved the new Chief Medical Officer guidelines of taking sport and physical activity for an average of 60 minutes or more a day (Sport England, 2021). Of this, an estimated 32% of CYP completed an average of less than 30 minutes per day. Within the survey's participants, it was found that activity levels varied by age, gender, family affluence and ethnicity. As a PE teacher, this is a concerning figure that I feel we should look to improve.

My research will aim to determine the overall impact that a student's demographic background has on their sporting opportunities within and outside of their secondary school.

Throughout this work, I will refer to the school used in this process as 'School X'. School X is a secondary school located in Telford, Shropshire. On the whole, Telford contains more deprived areas than the national average for each town (Telford and Wrekin, 2019). Due to this, Telford is a good fit for the study as the overall aim is to determine the impact that disadvantaged backgrounds have on participation levels in extra-curricular. School X opens doors to all abilities within the surrounding area with the overall aim for all pupils to value and enjoy their learning inside and outside of the classroom. Generally, School X is known for its specialism and commitment towards two sports that attract pupils and parents to join the school family and pathway to sport succession. These two sports are netball and rugby, where a large proportion of the school's community will represent the school at both a regional and national scale competing against other schools.

Research Questions

1 Are there links to attendance at extra-curricular rugby and socio-economic status in key-stage boys?
2 Does this differ between the year groups?

Literature Review

What is socio-economic status and how is it measured?

Socio-economic status (SES) is interlinked with poverty as a measurement of how people live. In relative terms, poverty is often defined as "exclusion from the minimum acceptable way of life in one's own society because of the inadequate resources" (Perry, 2002). When measuring the socio-economic status within society, the usual recommendation is to consider parental education, occupation, income or wealth and home possessions, either individually or as a composite (DFE, 2021). This is because these variables are believed to reflect access to different kinds of resources and may have less errors in measurements than other variables (Harwell, 2019). The UK government has recently proposed the abolition of income-based measures of child poverty in favour of environmental, educational and employment measures of deprivation (Hargreaves et al, 2016).

Research up to now (Ankrum, 2016) has indicated that family status variables (including SES status) are an accurate predictor of children's achievements within school. Increasingly, research (Joan and Smrekar, 2009) has suggested that rather than having a direct association with children's academic achievements, SES status and parents' level of education is part of a larger constellation of psychological and sociological variables that influence a child's school outcomes.

Socio-economic impact from an educational perspective

The issue of socio-economic statuses of students in relation to sporting opportunities has always been a talking point in the education field. Economic factors may impact on a school's ability to provide opportunities within the school to promote physical activity (PA) interests amongst students. The association between SES and students' PA is equivocal. However, this evidence is based on individual-level indicators

of SES such as parental education, employment status, income and affluence (Peralta et al, 2019).

As teachers, outside of the curriculum, I believe we should try to encourage students to partake in as much physical activity as possible to find where their potential can be nurtured. These include extra-curricular, local clubs/teams and promoting the surrounding facilities within an area (Capel et al, 2020). Teachers play a crucial role in the opportunities that a student will be granted through a combination of commitment, passion and drive for sport. Teachers are the link that students may need support from to contact external providers of sport to allow students to participate in during weekends or evenings (Martin, Collie and Graham, 2019).

Student motivation towards PE within school, including extra curricular, is positively associated with leisure time, MVPA motivation and PA outside of school hours (Hagger et al, 2005). Therefore, this means that if a student is lacking in PA time outside of school, they are less likely to display any interest in extra-curricular due to routines. From this, we can surmise that those students who have limited access to sport outside of school, due to their SES status, are therefore less likely to show interests to attend extra-curricular activities. However, this may not always be the case as there are a range of factors that contribute to the opportunities that a student will be provided with during their time in school.

Previous research (Ding et al, 2006) has indicated that children who have access to facilities and funding associated with sport are more likely to participate in physical activity outside of school. According to a review of literature on children's attitudes towards physical education / activity, children's characteristics and contextual factors are two major headings that are related to children's attitudes. The predominant factors focus on a child's accessibility to after school physical activity as well as outside of school physical activity (Zeng, Hipscher and Leung, 2011). An additional impact of a child's attitude towards physical activity is the influence of parents. Parents with low socio-economic statuses often find themselves struggling to make ends meet resulting in little time to spare for their children in imparting good habits, values and commitments (Saifi and Mehmood, 2011).

A study carried out by Ankrum (2016) investigated the impact that a SES had on the communication between teachers and parents in schools. Within the results, Ankrum found that over 50% of participants agreed that SES was a determiner in the level of activity displayed by parents of students who were disadvantaged. Furthermore, over 60% of participants believed that SES plays a role in how teachers interact with parents. Finally, over 85% of participants believed that parents' communication played a vital role in the success of the students.

Previous research has shown that there is a relationship between deprived areas and educational outcomes which includes attainment and achievement within physical education (Ferguson and Michaelsen, 2015). Children who grow up and are educated within deprived areas are more likely to spend their adulthood living in poverty (Harwell and LeBeau, 2010).

To succeed within the sporting environment in a school setting, students must demonstrate a variety of qualities that enhance their chances of performing at the highest levels. These qualities include showing passion and motivation within performances to show teachers the desire and drive to display these to reach their potential. To encourage consistency, research has indicated that frequent interactions between parents and teachers will help to provide evidence about a child's progression in sport (Howe and Simmons, 2005).

Current literature findings for Telford

A total of 18 areas in Telford and Wrekin were ranked in the 10% most deprived nationally in 2019 (Telford and Wrekin Council, 2019). The most deprived in this borough is Brookside which is ranked 346th nationally, placing it in the top 2% most deprived of areas. On the contrary, just 1% of the borough's population live in areas ranked in the 20% least deprived nationally; this area is better known as Priorslee.

Another key part of the data to analyse is the health deprivation domain. If an area displays health deprivation, it suggests that there could be a lack of surrounding facilities to encourage residents to exercise on a more regular basis. This is inter-linked with the overall IDACI (income deprivation affecting children index) for an individual's deprivation rates. IDACI measures the proportion of children living in income deprived families (Hargreaves et al, 2016). The most health deprived area in Telford and Wrekin is Brookside (Telford and Wrekin Council, 2019). Health related concerns within an area are well interlinked with physical activity levels. Generally, when linking health to exercise, a health deprived area would be considered a place with low physical activity levels, causing strains on the body such as obesity and type 2 diabetes.

School X has the opportunities to use a local leisure centre which enhances the quality of physical education lessons as there is access to greater facilities. Within this, customers have access to a state-of-the-art 25 metre swimming pool with a movable floor, a fitness studio and an indoor sports hall created for a variety of activities (Telford and Wrekin Council, 2023). The membership packages on offer start from £26 a month up to £30.50 a month, which gives customers the option to have access to everything on offer.

Within the research around this proposed topic area, there are a variety of opinions and thoughts regarding the overall impact an SES status has on a student's opportunities and participation rates in sport. I have researched and reviewed a range of articles online that differ in findings due to a variety of reasons. There are students who will not engage with the opportunities the school are offering due to usual routines and showing a lack of interest outside of school time, which influences the amount of physical activity they partake in on a weekly basis. On the other hand, there will be students who engage with the school opportunities as they understand there are very limited experiences they will encounter outside of school.

Methodology

This study received ethical clearance in the spring of 2023. Consent forms were received from participants involved in the process. To underpin my research, I chose a mixed methods (MM) approach. MM research is characterised as gathering and analysing qualitative and quantitative data in response to overarching research aims (Levitt et al, 2018). My research was focusing on elements of both quantitative and qualitative data which allowed me to integrate the benefits of both methods. MM allows a researcher to view and underpin findings from all perspectives, helping to find patterns in data as well as avoiding bias (Ryba et al, 2022).

To allow me to carry out my research, the focus points looked at the socio-economic background and status that students

were represented as. These socio-economic factors included:

- Pupil Premium
- Free School Meals
- Income Deprivation Affecting Children Index (IDACI)
- English Indices of Deprivation

To determine the effect that a student's SES has on their participation levels, I researched the surrounding areas of School X to assess the deprivation levels as well as the average income levels to underpin the environment the students within the school are surrounded by. The decision to carry out this study at this particular school was an effective way of comparing students' participation rates based on their SES as the areas surrounding the school are contrasting in a variety of ways, such as average household income, average housing price and unemployment rates.

To ensure that I gathered data that assessed both quantitative and qualitative information, I used the school's data system 'SIMS' to gain a greater understanding of students' back-ground information. This background information allowed me to analyse the current issues students are facing and why they may be classed as disadvantaged. This information allowed a variety of factors to be considered to help answer my overall question including what surrounding area does the student live in, are they classed as pupil premium, do they have access to free school meals and finally, do they fit in the category of both pupil premium and free school meals?

To help gather a greater understanding to my findings from what the data illustrates, I carried out a formal interview with the Head of PE and director of rugby at the school. Both of these individuals are the teachers that predominantly teach boys PE lessons across all year groups. I chose these two professionals to interview as they show great enthusiasm and passion towards school rugby by promoting it throughout the year groups to encourage as many students as possible to represent the school. I proposed questions that would help me to gain a different perspective and new knowledge regarding these students from a specialist within this profession. Furthermore, this allowed me to gain additional information about these students who have been at the school for 1–2 years to see if there has been any changes to their approach and take towards extra-curricular rugby and why this may be.

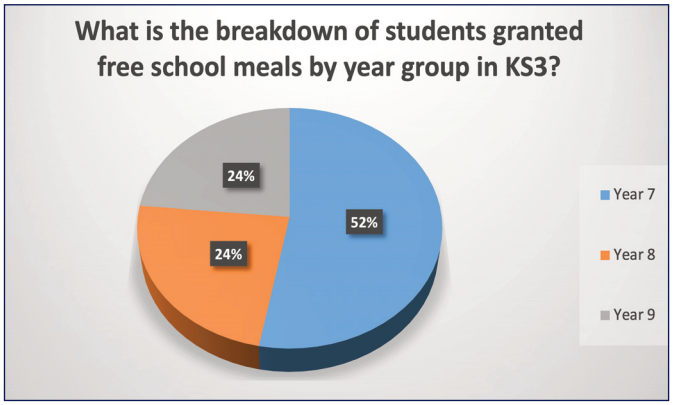
Carrying out interviews on a small scale allowed for potential drawbacks in the results following the questions put forward. Firstly, as the overall study is focusing on the schools' offering, both participants were always going to present an element of bias within their answers as they explained the achievements that they have both been able to show great pride towards. As the focus is on the students involved in extra-curricular rugby, both parties wanted to speak very highly of those involved which can impact the results to an extent as the aim was to compare students based on their socio-economic backgrounds and statuses.

To analyse the data, I used the school's data system to create a table of those students who attended extra-curricular rugby on a frequent basis against a variety of socio-economic factors that help determine a student's background. These factors included pupil premium, free school meals and the surrounding area the students were living in. This allowed me to assess the students who were granted FSM or PP and consider where they lived to see if there was a correlation between the two.

To analyse the responses from the interviews, I created a table to record the information from the discussions during the interview so I could assess their answers for each question I proposed. I recorded the interview process on my phone which allowed me to take advantage of the playback system that enabled me to revisit their answers. As a result of creating the table, I was able to compare the similarities and differences in their answers so I could analyse to what extent their opinions and views differed.

Findings

The data collected shows that out of the 62 pupils in KS3 (years 7–9) who are attending extra-curricular rugby on a weekly basis, 27% receive free school meals (FSM) while 24% are classed as pupil premium (PP). An interesting part of my findings is based around the data results for each year group within KS3. The most common pupils who fit within the PP and FSM categories are in year 7. Of all the students granted free school meals, 9 are in year 7, 4 are in year 8 and 4 are in year 9. This suggests that depending on the year group, there are different patterns in terms of the students involved in extra-curricular rugby and the impact their socio-economic background has on their drive and desire to partake.



To determine the impact of FSM and PP on extra-curricular attendance, I used the school's data system to investigate which areas the students were living in. Of the 17 students who are granted free school meals, 14 live in areas which are deemed to be in the highest 10% deprived areas nationally (Telford and Wrekin Council, 2019). The areas that contain a high proportion of houses have limited the space for sporting facilities and fields which discourages people living within this area to engage in physical activity. The remaining three students who have access to free school meals live in areas which are deemed to be above average on a variety of factors including average household income.

Although there is a leisure centre that the school can access, the costs begin at £26 a month. If students do not have access to facilities outside of school hours, they are likely to show very little interest within school due to not having the opportunity to continue participating in activities outside of school hours. Furthermore, those who are attending extra-curricular rugby but live in very deprived areas, are likely to have no time for deliberate play or practice as the area has no suitable places for students to continue to train in a safe and appropriate manner.

One of the key elements from the interviews is the general dedication of the students in KS3 across the three year groups who show a true passion and commitment for representing

the school in rugby. After discussing the patterns in the data I had found, it was clear that the head of PE and the director of rugby were not surprised in my findings. On the whole, both parties commented that the majority of the students who frequently attend extra-curricular rugby play for the well-known clubs within the surrounding areas with a large proportion of the students playing together for the same clubs, meaning they participate both in and out of school.

After questioning the divide in society due to SES status, the head of PE commented that throughout his time in teaching, a pattern has emerged that follows the tradition that students who are generally financially stable and wealthier, show a greater willingness to achieve to a high standard within the sporting environment in school. Additionally, the general patterns and trends you see in the students often result in representing and competing for the same rugby clubs outside of school once they go into years 8 and 9, as they develop friendships from sharing a passion to partake in rugby at the highest levels. This may suggest a reasoning behind lower numbers of PP and FSM in year 9 as this team of students are able to play for the same clubs outside of school.

Another interesting point in the interview with the director of rugby showed a reason for general patterns in students based on their socio-economic background. As the rugby fixtures against other schools generally take place on Saturday, he stated that there are occurring issues regarding parents struggling to get their child to away fixtures due to not being able to provide the transport or have the funds to cover public transport costs. This has a negative impact on the student affected as it means that on a regular basis, they miss competitive fixtures which would allow them to develop as a performer. As a result of these ongoing issues, these disadvantaged students only have the chance to participate in training sessions or home games which means every academic year, they miss around 50% of the competitive games against other schools. This supports previous research that Saifi and Mehmood (2011) carried out, who stated that parents with an unstable financial background will make little to no time for their children who wish to take up every opportunity. The students who are able to attend and compete at away games and are in a more stable position are likely to develop at a faster rate while showing high levels of motivation, resulting in a lower chance of drop out in future years.

Discussion

Fundamentally, there can be a case argued that the SES status has a powerful impact on students' attainment and achievements. Students with a disadvantaged background are less likely to feel motivated and driven to partake in extra-curricular which then has a continuing effect on their interest in the minimal opportunities outside of school. Essentially, if students are not able to pursue interests outside of school hours, then why are they likely to engage within school? This supports the earlier work by Ferguson and Michaelsen (2015), who also found that students that come from a more deprived area were the ones who show less enthusiasm towards physical education, resulting in not attending extra-curricular clubs.

Most students we see in schools who show interest in PE lessons and extra-curricular activities are those who are most involved in the clubs outside of school, where they have the opportunities to commit to high frequency training sessions, as well as competitive games. These students are consistently motivated to perform and engage in extra-curricular as frequently as possible, which supports earlier findings that stated student motivation towards PE in and out of school hours is positively associated with leisure time and the ability to access facilities and funding after school (Hagger et al, 2005).

For a minority of students, the barriers facing them to participate and compete in rugby outside of school gives them the motivation to take advantage of the schools offer as they are aware it is the only chance they have to play in this particular environment. The data collected shows that the socio-economic impact changes for each year group in KS3. In some cases, the biggest driver and factor for opportunities comes from a financial perspective. Ultimately, the costs to participate in clubs on a regular basis is constantly increasing which poses greater difficulties for those parents or guardians who want to get their child involved but it is simply not accessible or affordable.

Based on attendance levels, there can be a case argued to say that a socio-economic background can negatively impact students' engagement in sport. As there are a small proportion of attendees who are frequently attending extra-curricular rugby that come from a less stable background, we can suggest that for other students, there is no drive to participate for a variety of reasons including financial and transport issues. Furthermore, the differences between the year groups, shows there is a large proportion of the disadvantaged students within year 7 compared to year 8 and 9. From this, we can suggest that once students join the school, they want to show a willingness to participate and compete to exploit new challenges within sport. However, as they progress through KS3, the disadvantaged students begin to withdraw as they cannot commit to training on a frequent basis, which has an ongoing impact on their chances of being picked to represent the school in competitive matches. If they are not being picked for matches due to a lack of commitment, students will begin to lose motivation and a drive to continue to attend rugby when they can, resulting in them dropping out.

Conclusion

This study confirms earlier work by a range of researchers, suggesting that we have a divide within society based on a student's SES. This has an ongoing negative impact towards these students as they are faced with limited opportunities to show a willingness to partake in as much sport as possible. This means that for some of these students who are within the PP and FSM category, their only opportunities come from within extra-curricular where they have access to the facilities, equipment and coaches.

Furthermore, from an educational perspective, PE teachers could have meetings with students and their parents or guardians regarding what opportunities are available to their child if they wanted to participate in a given sport. Within the literature review above, research has shown that strong and effective relationships between teachers and parents will act as a motivator for students (Ankrum, 2016). At this particular school, this could be implemented within events such as parents evening, where teachers are able to share their knowledge and understanding around what they think is best for a student. PE teachers know the most about students' sporting abilities which helps to guide them on a pathway to where they are likely to succeed. By doing this, we are likely to see a positive response from forming an agreement with

the parents to ensure their child has the greatest access to participating in sport as much as possible, which may result in success for the student.

From what can be concluded from this study, it is our responsibility as PE teachers to engage with parents or guardians to ensure we give students the best opportunities. PE teachers should strive to ensure that all students attending extra-curricular rugby are aware of the local teams and clubs in the surrounding area that they join and represent. As some students will lack confidence, the school could take a different approach where they bring in external coaches who represent a range of clubs and coach at a variety of levels to speak to students and lead training sessions so students can experience sport outside of school to see if it is a potential pathway they wish to pursue.

Furthermore, it would be interesting to see whether there is a pattern in students' attendance and their achievements within school including sport and extra-curricular. This could demonstrate to younger students the impact of strong commitment towards rugby in school in order to achieve greatness which may result in a change of attitude and motivation to give them a valid reason for participating in extra-curricular and wanting to represent the school. The overall question we need to assess for the future of teaching is, are we currently doing enough to promote PE and school sport to students so they carry on pursuing an interest and competing when they leave school?

References

- Ankrum, R. J. (2016) Socioeconomic status and its Effect on Teacher/Parental Communication in Schools. Journal of Education and Learning. Vol. 5 (1), pp. 167–175.
- Burton, D. (2018) Physical Education: becoming a great PE teacher. Routledge.
- Capel, S. et al (2020) Learning to teach Physical Education in the secondary school: A Companion to School Experience. Milton: Taylor and Francis.
- Department for Education (2021) Ethnic, socio-economic and sex inequalities in educational achievement at age 16, by Professor Steve Strand. Research and analysis. Available at: https://www.gov.uk/government/publications/the-report of-the-commission-on-race-and-ethnic-disparities-supporting -research/ethnic-socio-economic-and-sex-inequalities-in-educational-achievement-at-age-16-by-professor-steve-strand
- Ferguson, N. T., and Michaelsen, M. M. (2015) Money changes everything? Education and regional deprivation revisited. Economics of Education Review. 48. pp. 129–147.
- Hagger, M.S et al (2005) Perceived autonomy support in physical education and leisure time physical activity: A cross cultural evaluation of the trans-contextual model. 97 (3), pp. 76–90.
- Hargreaves, D. S. et al (2016) Associations between measures of child poverty, health-care use, and health outcomes: observational study of nationally representative English data. The lancet. London: Elsevier. Vol. 388, pp. 53–54.
- Harwell, M. (2019) Don't Expect Too Much: The Limited Usefulness Of Common SES Measures. The Journal of experimental education. Washington: Routledge. Vol. 87 (3), pp. 353–366.
- Harwell, M. and LeBeau, B. (2010) Student eligibility for a free lunch as an SES measure in education research. The journal of experimental education. Washington: Routledge. Vol. 39 (2), pp. 120–131.
- Howe, F. and Simmons, B. J. (2005) Nurturing the parent teacher alliance. Phi Delta Kappan. Educational module. Vol. 86 (8), p. 631.
- Joan, M. T. and Smrekar, C. W. (2009) Influence of parents' level of education, influence on child's educational aspirations and attainment. Vol. 3, pp. 1062–1073.
- Levitt, H. M., Bamberg, M., Creswell, J. W., Frost, D. M., Josselson, R., and Suárez-Orozco, C. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology. The APA Publications and Communications Board task force report. American psychologist. Vol. 73 (1), pp. 26–46.
- Matrin, A. J., Collie, R. J. and Graham, S. (2019) Teacher Student Relationships and Students' Engagement in High School: Does the Number of Negative and Positive Relationships With Teachers Matter? Journal of educational psychology. Vol. 111 (5), pp. 861–876.
- Peralta, L. R. et al (2019) Influence of School-Level Socioeconomic Status on Children's Physical Activity, Fitness and Fundamental Movement Skill Levels. The Journal of school health. 89 (6), pp. 460–467.
- Perry. B. (2002) The mismatch between income measures and direct outcome measures of poverty. Social policy journal of New Zealand. Ministry of Social Development. Vol. 19, pp. 101–127.
- Ryba, T.V. et al (2022) Developing mixed methods research in sport and exercise psychology: potential contributions of a critical realist perspective. International journal of sport and exercise psychology. Routledge. 20 (1), pp. 147–167.
- School X Website (2023). Available at: https://www.haberdashersabrahamdarby.co.uk
- Sport England (2021) Physical education, physical activity and sport in schools. Data on children's physical activity levels. Available at: https://commonslibrary.parliament.uk /researchbriefings/sn06836/
- Telford and Wrekin (2019) Indices of deprivation. Available at: https://www.telford.gov.uk/downloads/download/802/ telford_and_wrekin_indices_of_multiple_deprivation
- Telford and Wrekin Council (2023) Abraham Darby Sports and Leisure Centre: Our facilities. Available at: https://www.telfordandwrekinleisure.co.uk/info/23/ abraham-darby-sports-and-leisure-centre
- Zeng, H.Z., Hipscher, M. and Leung, R.W (2011) Attitudes of high school students towards physical education and their sport activity preferences. Journal of Social Sciences. 7 (4), pp. 529–530.

How does the physical layout of a science classroom affect teaching secondary science?

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School science laboratory layouts have changed and evolved over the decades for several reasons. These include, but are not limited to, a change in user requirements, upgrades to classroom technologies, increased funding avenues, and increase in student numbers. Classroom lab configurations are reflective of the times they were built. The varying layouts within school laboratories therefore present a unique challenge for teachers when planning and delivering science lessons across these different laboratory spaces. From working in different schools, I have had to share classrooms, hot desk, and teach in multiple classrooms throughout the school week. The change in classroom settings means that teachers are having to consider the physical restrictions that are created by specific classrooms when planning practical and theory cience lessons.

This article is based on a research project I carried out in the academic year of 2022–23 at a mainstream secondary school. The aim of this project was to explore how the physical school laboratory layout could impact how a science teacher prepares and delivers a lesson and the quality of that lesson within that environment, looking through the lens of a teacher (Brookfield, 1992) and focusing specifically on the impact the different room features have on teaching. The participants for this research project were student science teachers (trainees).

There were two research questions underpinning this project:

1 What physical classroom features do trainee secondary school science teachers attribute to a positive teaching environment?

2 What physical classroom features do trainee secondary school science teachers attribute to a negative teaching environment?

This research paper will investigate what physical classroom features trainee secondary school science teachers attribute to both positive and negative teaching environments, where positive features are features that help support or enhance teaching and learning, whereas negative features are any features that could hinder or create a barrier to effective teaching and learning.

Literature Review

There are many sources of literature that are linked to aspects of classroom layout, however, much of this is either guidance for construction professionals, or is focused on individual aspects of a classroom, or new technology integration. There appears to be a disconnection between schools and classroom designers as to how the classroom should be configured to create a positive teaching environment. This literature review will look at three papers, specifically chosen due to their close relationship to this research study:

1.Building Bulletin 80: Science Accommodation in Secondary Schools.

Building Bulletin 80 (BB80) is a design specification used in the building industry as guidance for how to design and create a science laboratory. This document focuses on the construction of new buildings or the adaption of current buildings, and is aimed at teachers, governors, local education authority advisers, and building professionals involved in their design. The BB80 gives clear governmental guidance on the setting out of secondary school and college science laboratories and recommends the dimensions and specifications laboratories are to be set out for optimum learning (DfE, 2004). In order to meet the needs of a full range of teaching and learning activities, science is normally taught in serviced laboratories (DfE,2004). The learning environment can therefore be deemed to make an important contribution to staff recruitment and retention, and pupil enjoyment of science. The BB80 states the key services that a student should have access to in a lab, including the following: all students should face the main teaching wall, have access to one gas tap and power socket per student and access to one sink per six people as a minimum (DfE, 2004). The BB80 also defines that the 'main teaching wall' provides a focus for whole class discussion, presentation, and demonstration visible to all students. There must be a clear area in front of the teacher's table to allow pupils to gather together for briefing sessions and demonstration of experiments with sufficient space to use a fume cupboard (DfE 2004).

This document is now 19 years old and is still used by designers as a guidance for school science laboratory designs. It is a recognised standard within the Construction Industry but lacks defined parameters with regards to learning. BB80 is informative about what a classroom layout should look like and gives best practice advise but doesn't explain why or the impact that this has on student learning or link to current teaching pedagogy or best practice. Critically, BB80 doesn't provide enough evidence and although it states that educators can use this document it could be argued that the elements missing from this design guide are the input of current teaching professionals and their experiences. This guidance was produced with the input of senior educators, however looking at this document through the lens of a teacher in a classroom, the BB80 is focused on requirements and not justifications that could be a cause for disconnect between users and providers.

2. The 'why and how' of flexible learning spaces: A complex adaptive systems analysis

The article 'why and how' of flexible learning spaces: A complex adaptive systems analysis (Kariippanon et al, 2020), is focused on looking at the creation of flexible learning spaces characterised by a variety of furniture and classroom layouts in the Australian school system. This is to investigate the possible promotion of a more student-centred pedagogy with an emphasis of social-material interplay between the pedagogical and physical environment. Key concepts are linked to a significant increase in funding from the Australian government in 2017 towards the improvement of school infrastructure over a 4-year period. This funding was made available to create more flexible learning spaces and create a new generation of learning environments that break away from traditional classroom layouts. The Kariippanon et al (2020) study used an interpretive qualitative case study approach to examine different shareholders and end users such as school leadership teams, teachers, and students and

focused on the experiences and perceptions of designing and implementing new flexible learning space. The authors used complexity theory as a lens to investigate this research. Complexity theory draws on research in the natural sciences and examines uncertainty and non-linearity using feedback loops that can constantly change. Complex theory does not seek to predict outcomes of a particular process, but rather aims to enable comprehension and explanation of what is occurring (Kariippanon et al, 2020). Stake holders were invited to open ended interviews and teacher and student focus groups from this data was collected and coded for critical analysis. This coding was then used to create feedback loops to greater data analysis.

The results to this are the limiting factor to this type of research as they are based solely on the reported perceptions of the participants and their understanding of how flexible learning spaces can be integrated not only physically into existing infrastructure but also into curriculum, classroom pedagogy and student mindsets. The conclusion of this study discusses the importance of a holistic approach to change and suggests that change must be something that happens at every level from students, teachers, senior leadership, through to governors, local government, and national government in order to promote success particularly when looking at the distribution of funds.

3. Empirical evaluation of different classroom spaces on students' perceptions of the use and effectiveness of 1-to-1 technology

This study by Byers et al (2018) explored the effect of different classroom spatial layouts on student perceptions of digital technology in the secondary school environment. The authors focused on the integration of new technologies into existing classrooms and the impact they have on the traditional layout of the classroom. The aim of this study was to evaluate if different classroom layouts enacted different pedagogical uses of technologies in a secondary school context. The integration of digital technologies into unaltered traditional classrooms often reflect a preformation age way of thinking. The study focused on two classrooms with two different layouts one was set out in traditional rows and the second was set up as new generation learning space (NGLS) layout with smaller nests of tables around the classroom. Data was collected through anonymous student surveys and teacher focused groups. This study used a qualitive approach to gaining data. This research is innovative as it was able to gain results from Realtime experiences. The use of two classroom settings set completely differently allowed the author to produce effective results. The results from this study suggest that the layout of a classroom can impact the use and integration of technologies into classroom spaces. This is relevant as currently the curriculum requires a greater focus on working scientifically and integration of STEM learning which requires greater incorporation of technologies. However, this review doesn't address the issues that can occur from users. Limiting factors to the integration may not be solely linked to classroom layout but could for example be linked to a lack of understanding of the technology by the teacher. An example of this might be the introduction of heads-up cameras or smart boards. If a teacher hasn't been trained on these pieces of equipment, then this might have a greater impact instead of classroom layout.

All three papers link directly with my research study however they are all based on larger scale research project's and critically don't completely address the specific nature of my study as they are much broader than the aspects I am looking at.

Methodology

The methodology for this project involved a mixed qualitive and quantitative approach, collecting data through the use of an online survey, using Microsoft Forms. Ethical clearance was received in the winter of 2022–23, with data collection being carried out in the spring of 2023. Participants were selected through judgmental sampling and all data was then analysed through a grounded theory type approach, coupling with pre-decided axial code themes helped with the interpretation of data making it more focussed.

This research has required my interpretation of all the collected data which may have been perceived as a limiting factor to this research paper as my personal experiences in this area are similar to the selected participants and critically may be expressed as a potential unconscious bias. Therefore, for the purpose of balance and to mitigate this, and reduce any incorrect interpretation of language, and decrease my own influence several steps were taken to reduce this impact. This included the selection of trainee teachers from the same geographical area that have all undertaken the same teacher training course as each other but have however worked in three different schools over the three year placement. The participant group consisted of BSc (Hons) Biology with QTS students. All students are currently in the final year of their studies and were all native English-speaking students.

My intention for selecting these students was to gain their opinions shaped by their experiences from working in different learning environments in several learning establishments throughout their 3-year training cycles. All participants selected were Science based trainees which added greater credibility to this paper as they are all working in this environment and experiencing different classroom environments. The survey was designed with this in mind and included a Likert scale for each classroom asking directed questions on specific features of the room which would give quantitative data and two open questions to develop and build on the Likert scale promoting more in-depth answers.

For this study semantic profiling was used to further interpret the responses so that participants answer to the survey can be further scrutinised and evaluated. All data was then converted and analysed in both graph and table form to produce the research paper findings so that further discussion and a critical analysis of the data could be carried out.

The online questionnaire gave participants access to four different computer aided designs (CAD) of four classroom layouts (Figures 1, 2, 3, 4). These CAD drawings are based on 4 classrooms that I have worked in during my training cycle and one of them a new classroom based on the recommendations set by DFE within the Building bulletin 80 (DfE,2004) document that is used by Designers within the construction industry as a guideline for the construction of new secondary school science laboratories. Each classroom also had two accompanied images to highlight the condition of each room and to help the participants visualise the space.

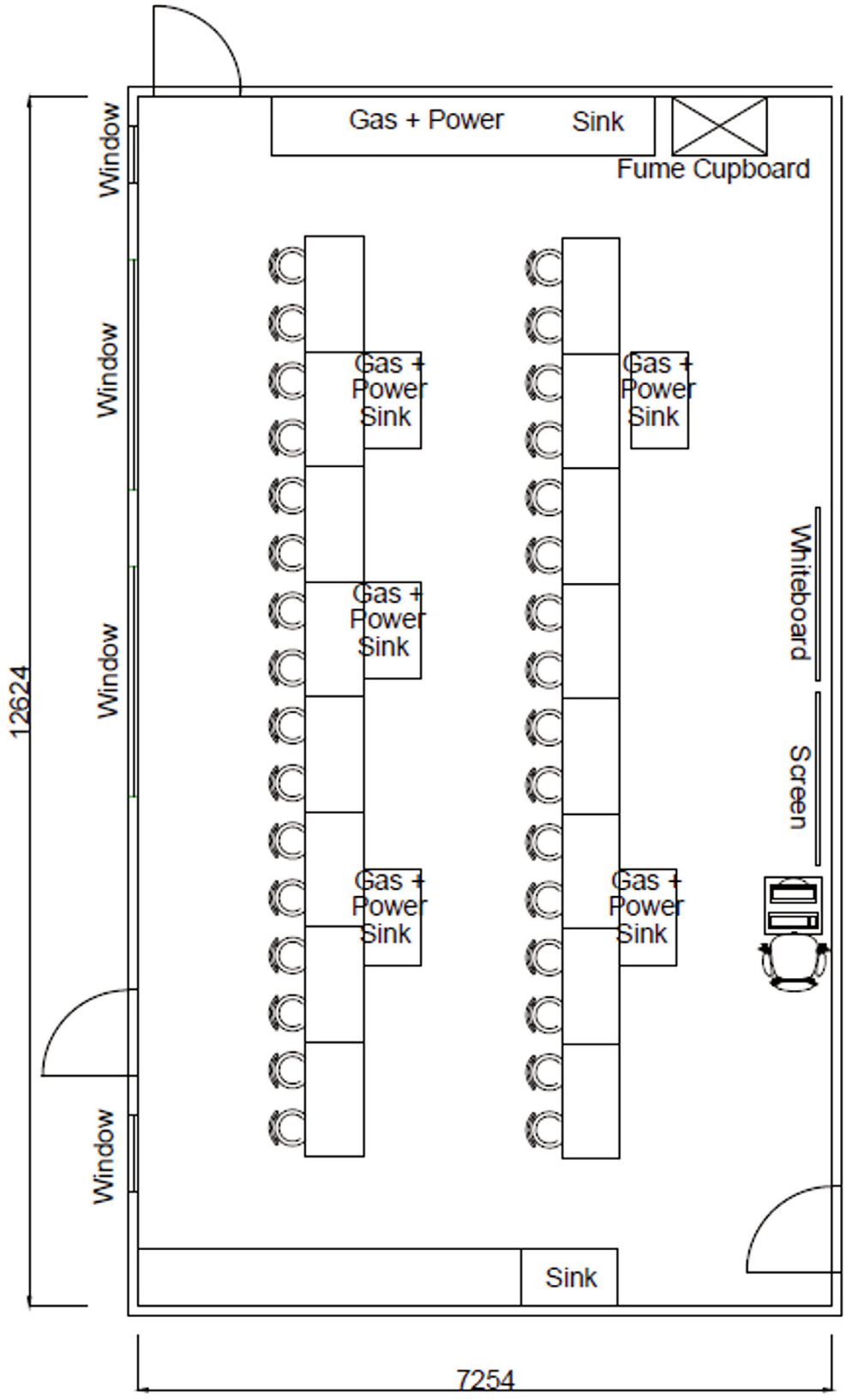


Figure 1: Classroom one layout

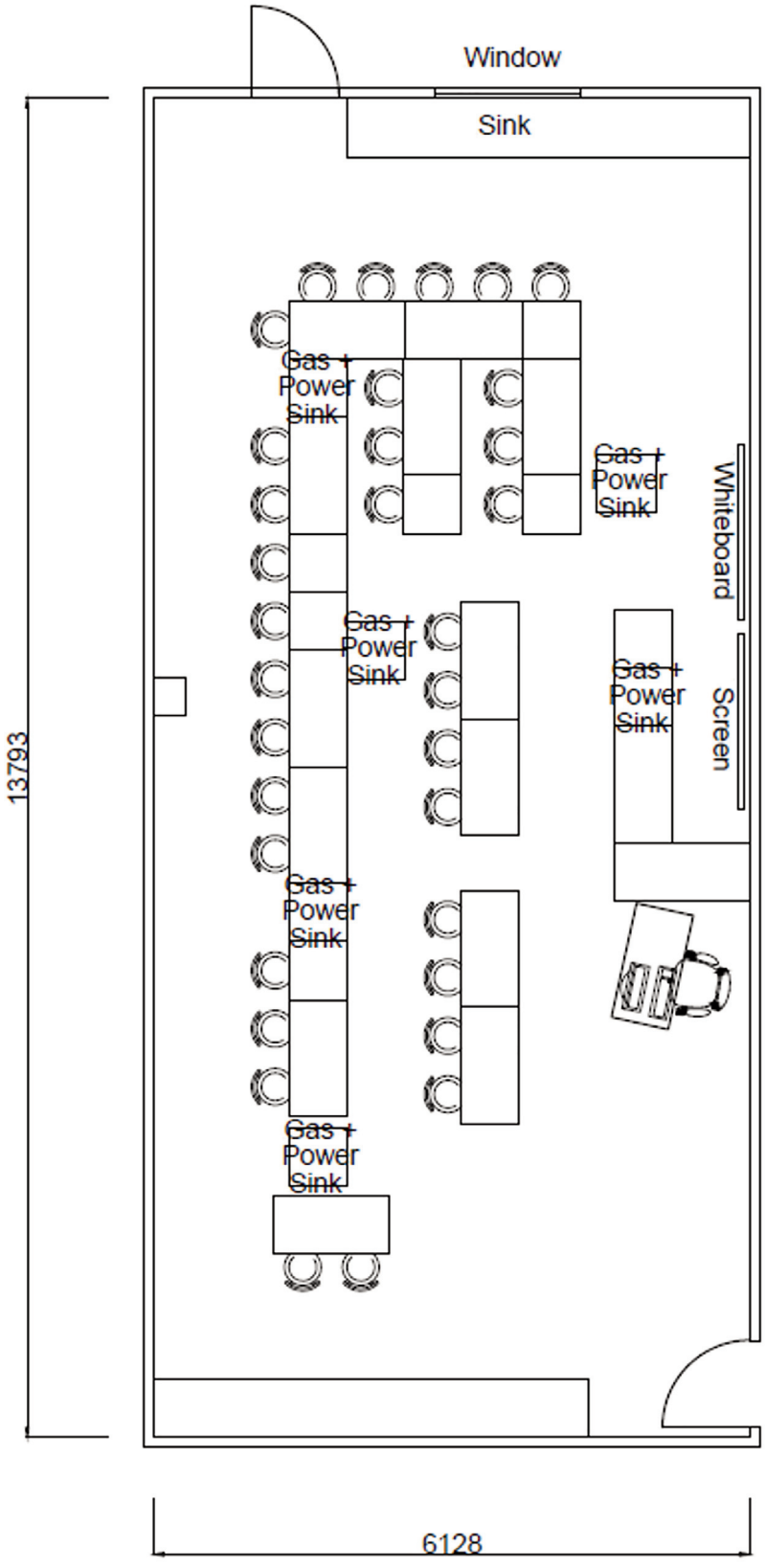


Figure 2: Classroom two layout

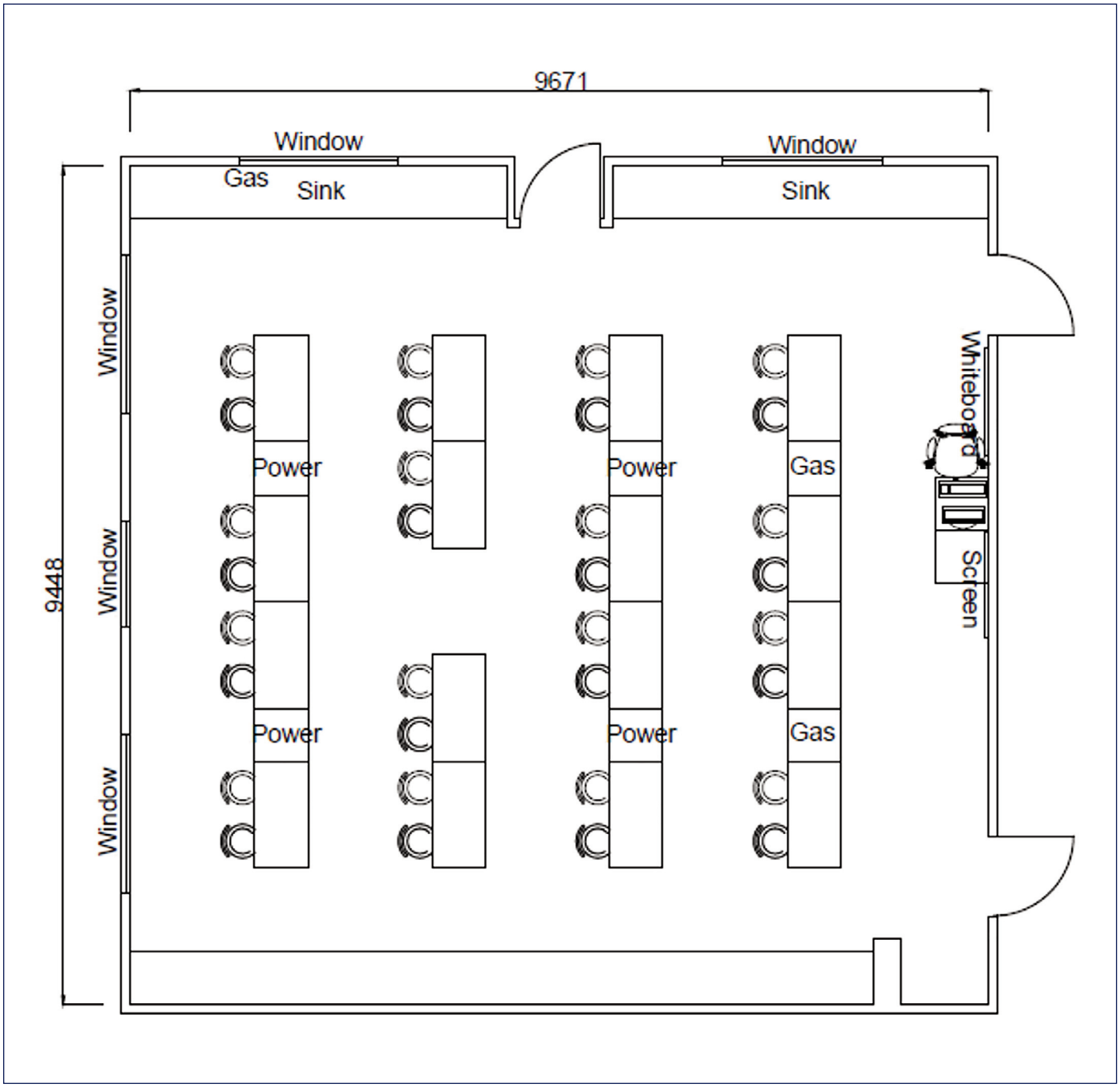


Figure 3: Classroom three layout

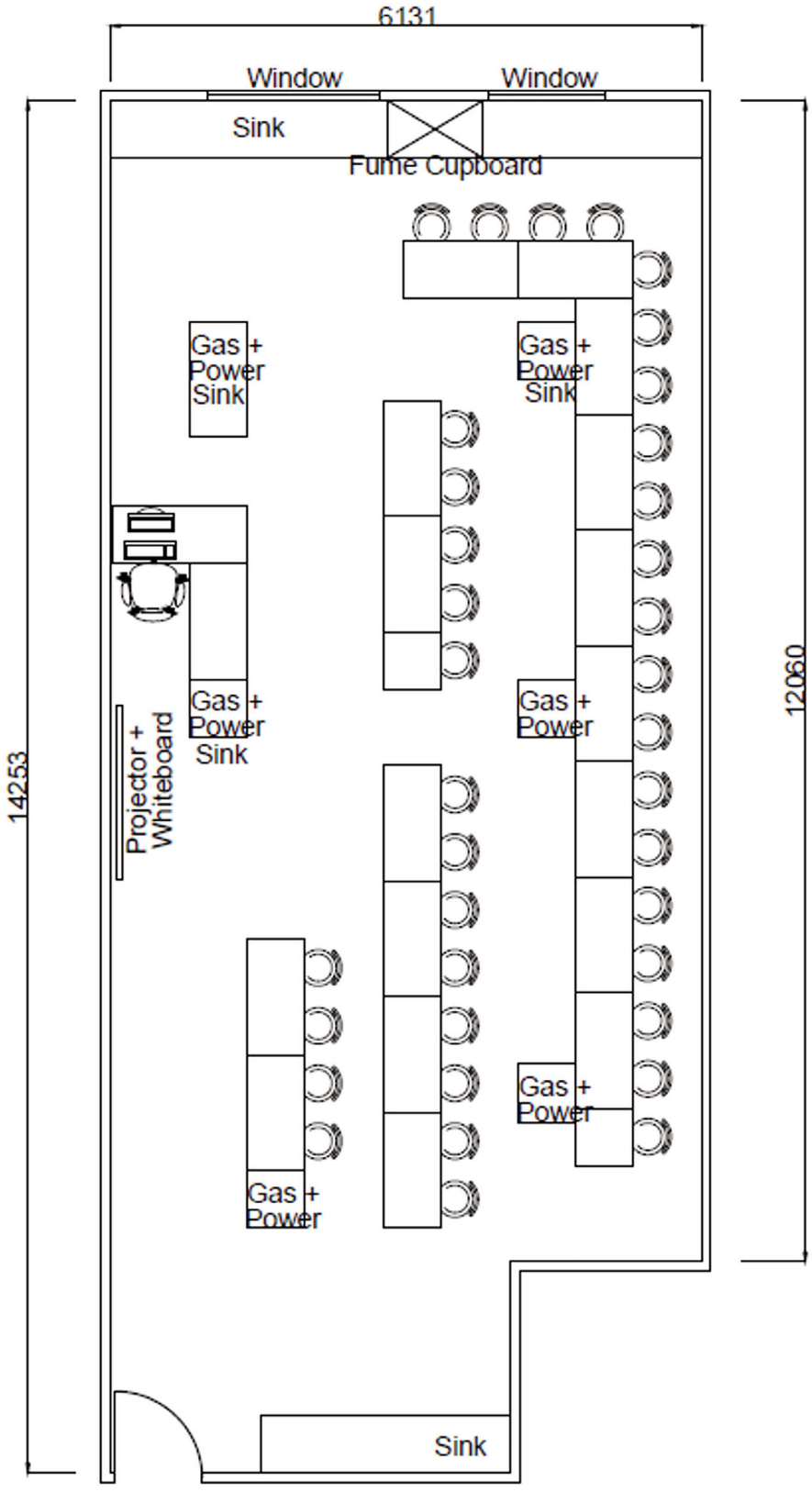
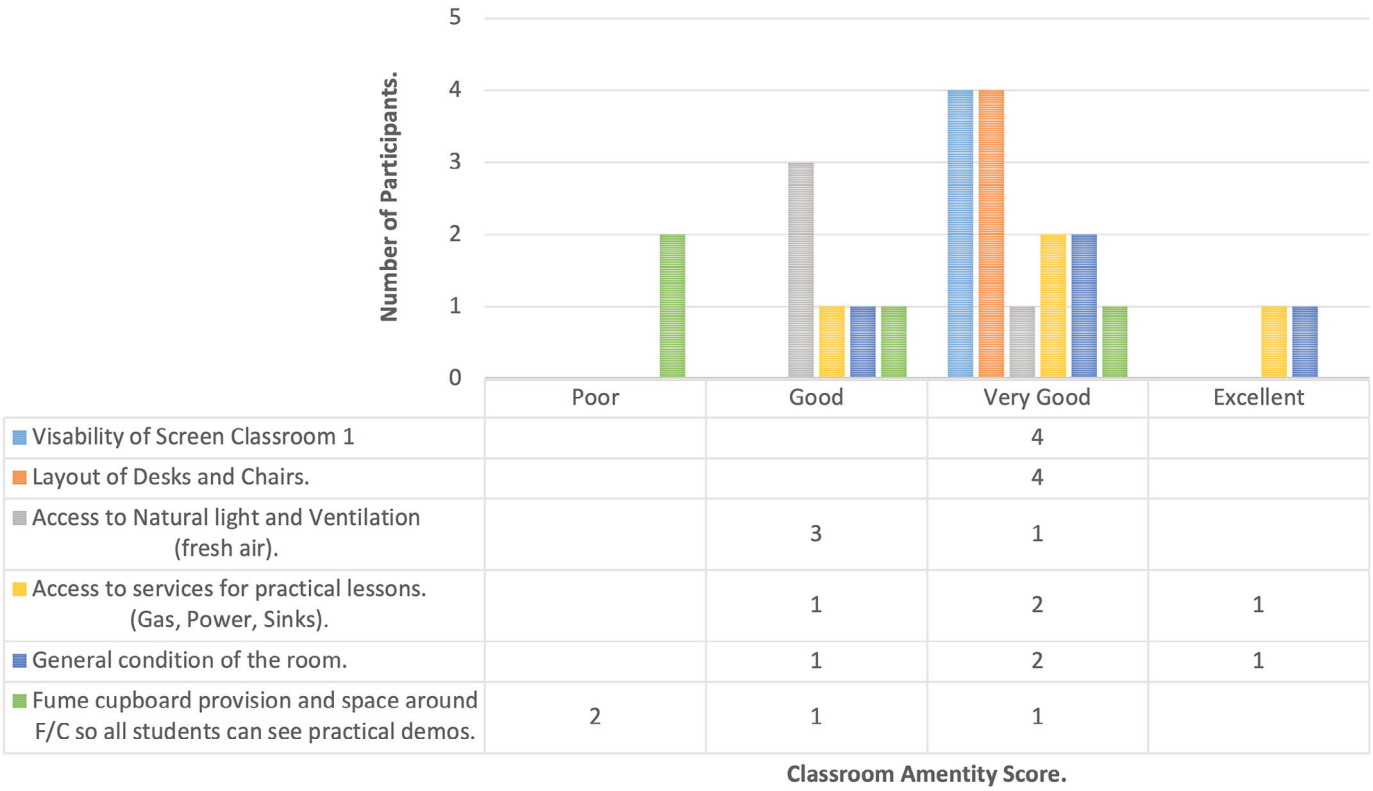


Figure 4: Classroom four layout

Findings

The survey consisted of three questions repeated for the four different classrooms.

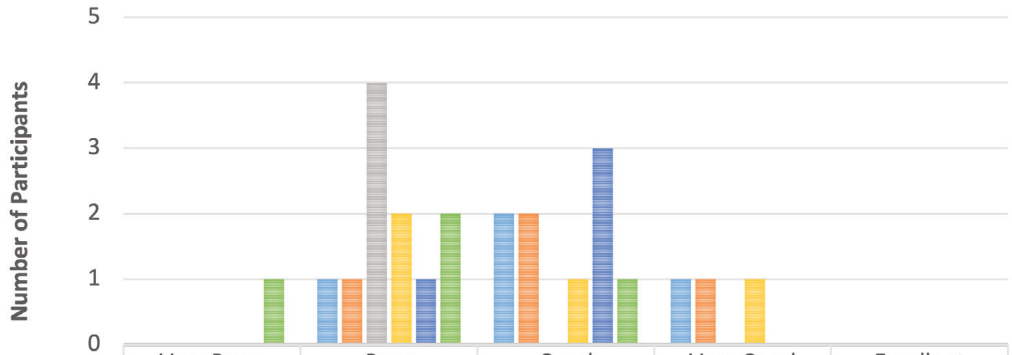
Question One: Features of the physical layout of the classroom



	Poor	Good	Very Good	Excellent
Visability of Screen Classroom 1			4	
Layout of Desks and Chairs.			4	
Access to Natural light and Ventilation (fresh air).		3	1	
Access to services for practical lessons. (Gas, Power, Sinks).		1	2	1
General condition of the room.		1	2	1
Fume cupboard provision and space around F/C so all students can see practical demos.	2	1	1	

Figure 5: Classroom one data

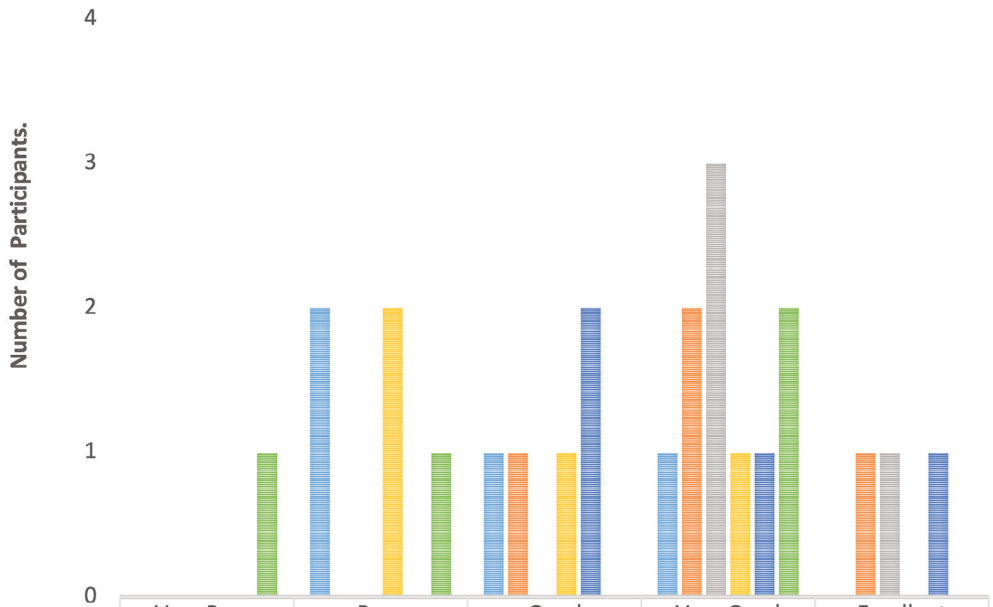
The data collected for classroom one suggests that this classroom has an effective layout of desks and chairs with 100% of the surveyed participant selecting very good. 100% of the participants also agreed with each other that the visibility of the screen in classroom one was very good for the students. 50% have stated that the provision for a fume cupboard and space for all students to see practical demonstrations is poor. The other participants have said the provisions are good and very good.



	Very Poor	Poor	Good	Very Good	Excellent
Visability of Screen Classroom 1	0	1	2	1	0
Layout of Desks and Chairs.	0	1	2	1	0
Access to Natural light and Ventilation (fresh air).	0	4	0	0	0
Access to services for practical lessons. (Gas, Power, Sinks).	0	2	1	1	0
General condition of the room.	0	1	3	0	0
Fume cupboard provision and space around F/C so all students can see practical demos.	1	2	1	0	0

Figure 6: Classroom two data

The data collected for classroom two suggests that the majority of participants believe that this classroom has good visibility of the screen with 75% of the participants scoring it as good to very good. However, the graph also highlights that 100% believe that this classroom has poor access to natural light and ventilation which when compared to the other classrooms is scored the worst overall for this feature. 50% of the students believe that the access to services for practical lessons is poor and 75% believe that the access to a fume cupboard is poor to very poor. Overall, 75% state that the general condition of this room is good.



	Very Poor	Poor	Good	Very Good	Excellent
Visability of Screen Classroom 1	0	2	1	1	0
Layout of Desks and Chairs.	0	0	1	2	1
Access to Natural light and Ventilation (fresh air).	0	0	0	3	1
Access to services for practical lessons. (Gas, Power, Sinks).	0	2	1	1	0
General condition of the room.	0	0	2	1	1
Fume cupboard provision and space around F/C so all students can see practical demos.	1	1	0	2	0

Classroom Amenity Score.

Figure 7: Classroom three data

The Data collected for Classroom 3 suggests that this classroom is spread across a greater range than the other classrooms. 50% of participants believe that the fume cupboard provision is very good compared to the other 25% who believe that it is poor. The majority of participants believe that this classroom has a range between very good to excellent for access to natural light.

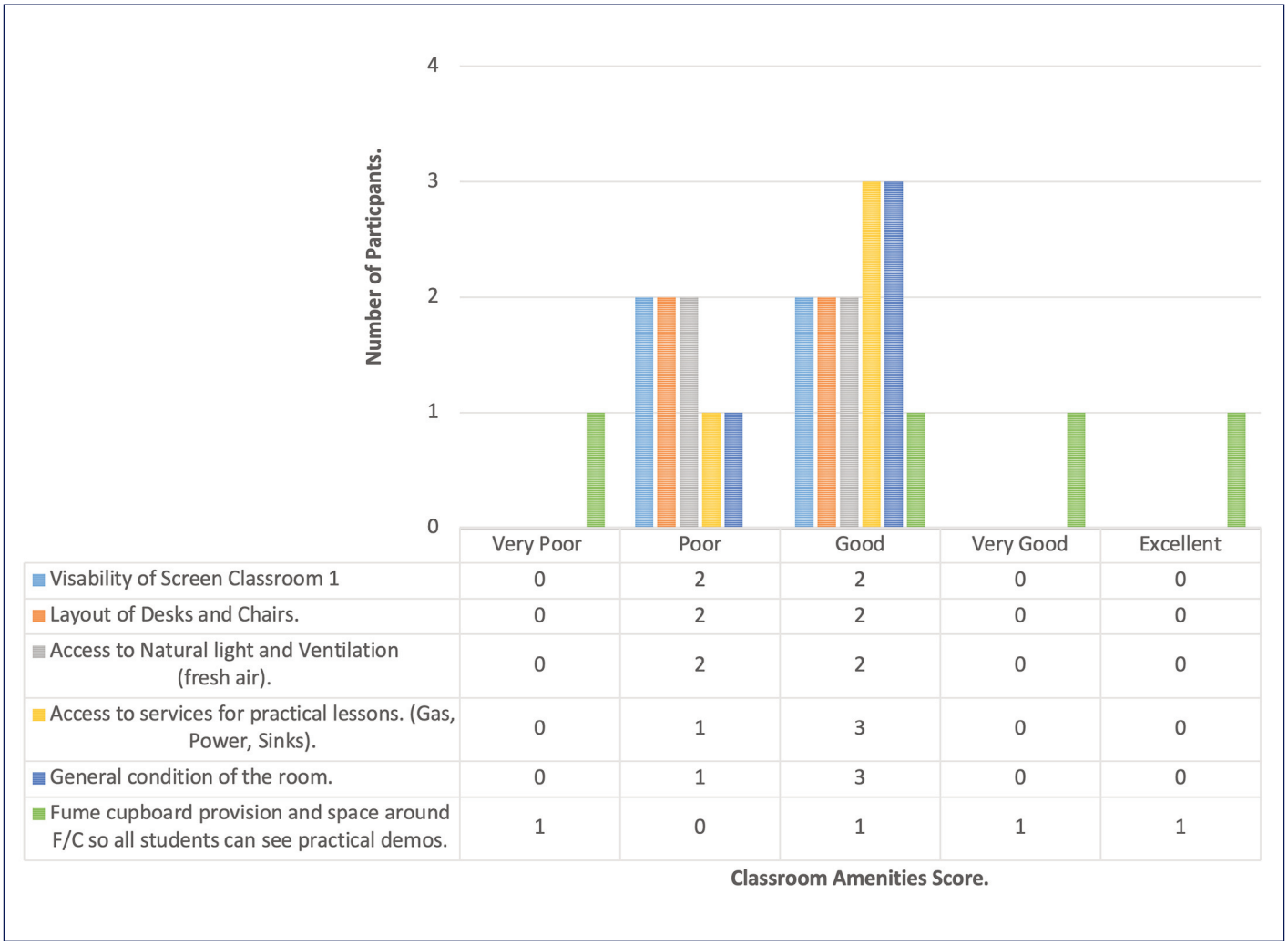


Figure 8: Classroom four data

The data collected for Classroom four suggests that this classroom is split overall between poor and good. 50% believe that the visibility of the screen, layout of the desks and chairs, and the access to natural light and ventilation is poor whilst 50% believe it to be good. However, the majority of the survey suggest that classroom 4 has good provisions for access to services such as gas, power and sinks and 75% believe that this classroom is in a good condition.

Question Two: How the physical layout of classroom 1, 2, 3, 4 could impact your planning for practical and theory lessons

Figure 9 demonstrates the codes that were created from the data collection based on practical and theory teaching. Nine codes were produced and these are shown below. Starting from the left the first code is Practical and theory followed by key areas of classroom management such as behaviour and understanding. This then links to the main concept themes. This was broken down further into positive and negative codes.

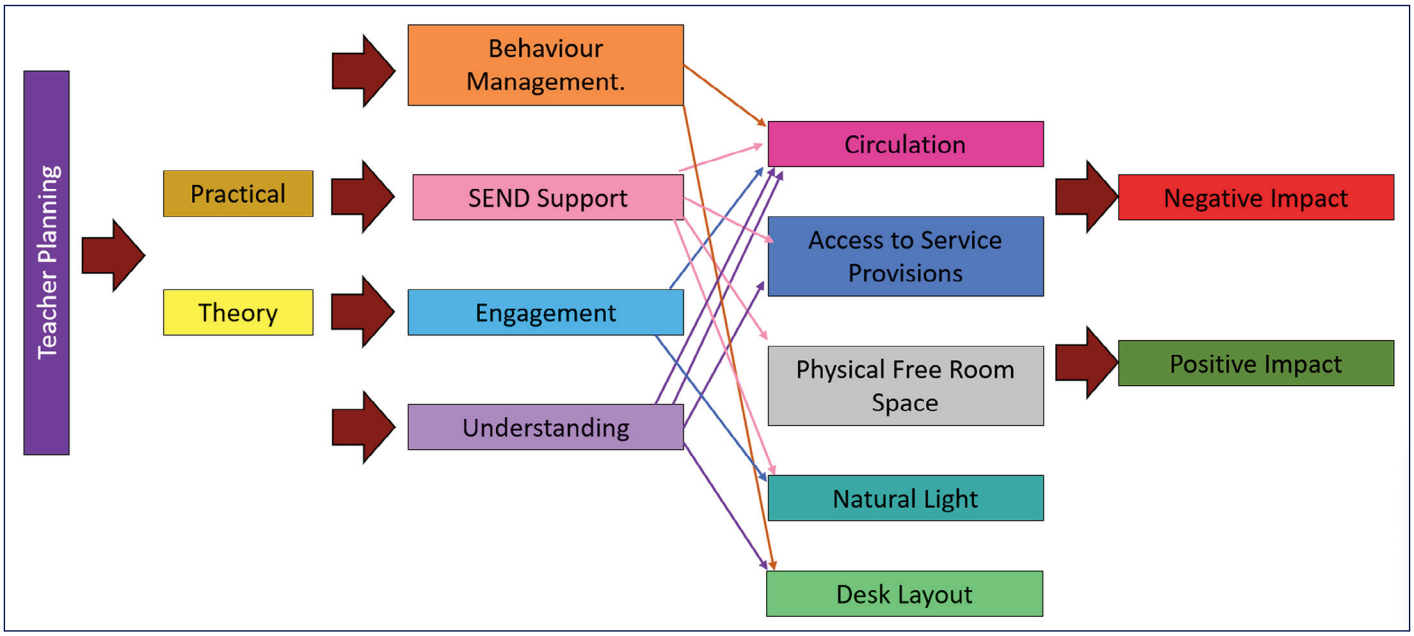


Figure 9: Coding breakdown of responses

Question Three: State how the layout of classroom 1, 2, 3, 4 promotes a positive or a negative classroom environment

Figure 10 show the open and axial codes created to explore the answer further, using the same approach as question two.

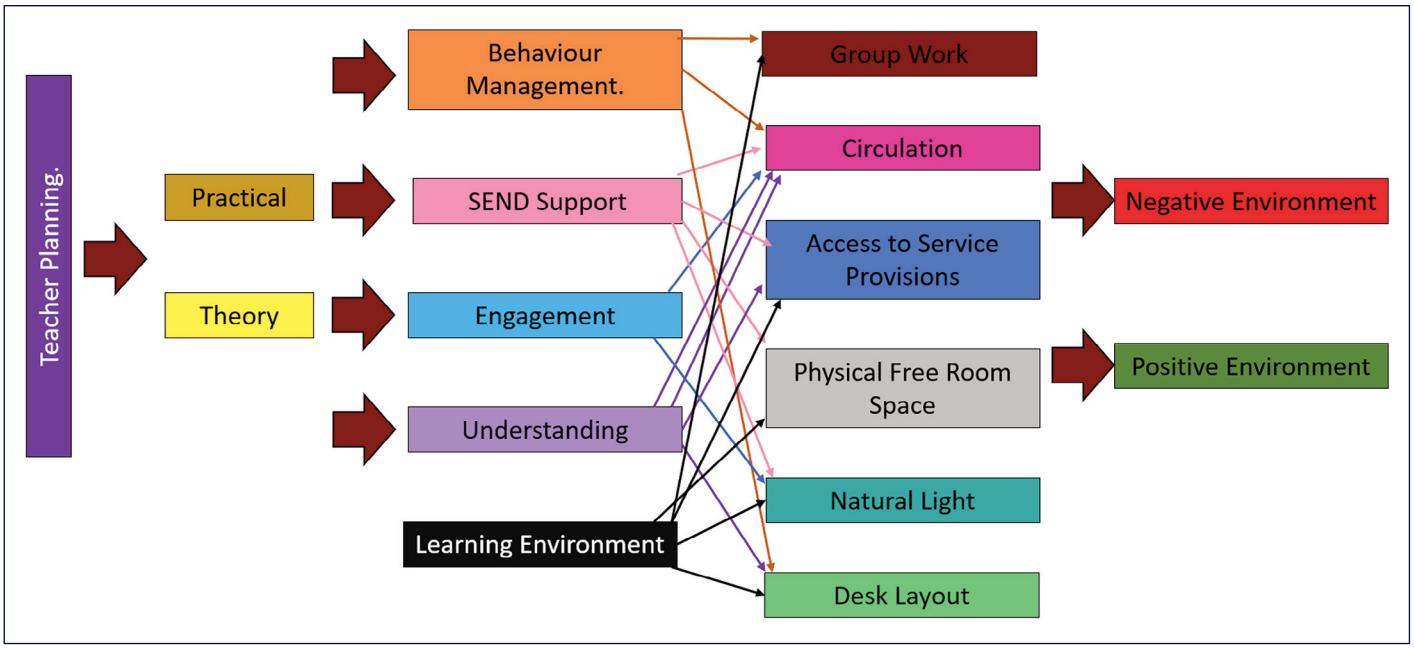


Figure 10: Codes of responses from the participants answering question 3 for each of the four classrooms.

Discussion

Research has shown that how a classroom is arranged accounts for 16% of the impact on student learning and Classroom layout can have a 25% impact on learning either positive or negatively depending on how the classroom is designed (Loveless 2022).

Analysis of the rooms

The results show that classroom one is the highest scoring classroom from the participants surveyed for this research paper. This classroom is the newest science classroom built in 2015 and was designed to incorporate some of the aspects of Building bulletin 80. This classroom in comparison to the other 3 classrooms scored much higher with all participants in both quantitative scoring and qualitive feedback questions and this is reflected in figures 5, 6, 7 and 8. The highest scoring elements to each classroom were the visibility of the screen, layout of the furniture, and access to natural light. These three

elements scored highest in Classroom 1 and Classroom 3. Both classrooms are very different in shape with classroom 1 being rectangular and classroom 3 being square. Classroom 1 is 91.5m2 and classroom 3 is 91.3m2 so both classrooms are approximately the same size. BB80 suggests that for a classroom of 30 students the square metre range should be between 83 and 91m2 (BB80) and therefore classroom 1 and 3 both fit into the higher end of this guidance. Both classrooms have central screens for maximum visibility and all students are facing towards the screens in traditional rows. They have large windows allowing lots of natural light. The biggest difference between classrooms is that Classroom 3 does not have a fume cupboard. This has created an anomalous result as 50% of the participants scored Classroom 3 as very good for this provision. However, even with the removal of these results classroom 3 still scores second to classroom 1. In comparison Classroom 2 scored the lowest out of all classrooms. Results for Classroom 2 suggest that 100% of the participants believe that this classroom has poor access to natural light with 25% scoring this classroom as having a poor layout and poor visibility of the screen.

Themes created from responses

The data collected and coded for each classroom identifies different potential considerations for classroom layout. This is reflected in tables 2 and 3 which highlights other potential considerations such as circulation of the teacher, ability to conduct group work, distance from white board and screen, and access to service provisions. This data presents several patterns, for example, Teacher A focuses on the ability to circulate around the classrooms and group work with a planning consideration of how this layout impacts behaviour management and restrictions to group activities; whereas Teacher D puts a greater emphasis to how the layout of the desks might impact planning and cause restrictions to learning.

Limitations

Critically evaluating this research paper there are several limitations on the results collected. There is limited data due to the small number of participants and therefore it could be argued that the study could be completely different if this research was expanded to include a larger number of participants.

Conclusion

Teachers do not generally have input into a classrooms design. They tend to inherit existing, often dated, facilities. Classrooms can be configured into many different internal layouts for example horseshoe, circles, rows and nested table groups, however, there are limitations within science laboratories primarily due to fixed services.

Limitations of a classroom need to be considered when planning lessons in order to deliver gold standard teaching within a science laboratory. This may include changing lessons from practical to Theory, or reconfiguring furniture to fit the lesson plan and maximise learning. This study highlights the requirement for a review into how teachers consider classroom layout and its impact in lessons and arguably a greater understanding of flexible teaching spaces.

Moving forward schools must consider the flexibility and adaptability of their science laboratories as most science classrooms serve a dual purpose. However, this requires a multi-disciplinary team of experts and end users to give input and address future development in a more whole school approach to ensure feasibility and future proof any development.

The nature of funding and construction in schools will always be a limiting factor and therefore the most cost-effective and economically appealing way to improve classrooms layout may require the adaptions of existing classrooms over the development of new ones. This could include the improvement of services by increasing the number of gas taps, power supply's, workbench space, and sinks to the recommended ratio (DfE 2004). Further to this the introduction of cost-effective mobile equipment such as mobile fume cupboards or practical trollies could drastically improve classrooms that have limited infrastructure.

At a teaching level this research paper has investigated how the physical layout of a science classroom can impact learning by identify from the data how physical features and service requirements can restrict lessons and therefore requires the adaption of an individual teacher pedological teaching style to accommodate room limitations.

On reflection this study was limited by built in failures that in future must be corrected in order to explore this topic further. The participation group must be increased to produce more data and therefore improve on the credibility of the results.

This study is open to interpretation, and this can be seen in the results where there are some contradictory views. This is because ultimately teachers are creatures of habit, and all have preferred methods of delivering different lessons gained from their personal experiences. Therefore, future studies could be developed to also consider asking students for their interpretation of what layout best suits their learning which may give an alternative and valuable insight.

References

- Brookfield, S. (1992). Uncovering assumptions: The key to reflective practice. Adult Learning, 3(4), 13–18.
- Byers, T., Hartnell-Young, E., Imms, W,. (2018): "Empirical Evaluation of Different Classroom Spaces on Students' Perceptions of the Use and Effectiveness of 1-to-1 Technology." British journal of educational technology 49.1 153–164. Available at: Empirical evaluation of different classroom spaces on students' perceptions of the use and effectiveness of 1-to-1 technology - Byers - 2018 - British Journal of Educational Technology - Wiley Online Library [Accessed 15 April 2023]
- Department for Education, Building Bulletin 80 (Revised 2004) Science accommodation in Secondary Schools, a Design Guild Available at: https://science.cleapss.org.uk/resource/building-bulletin-80.pdf [Accessed 21 November 2022]
- Kariippanon, K., Cliff, D., Okely, A., and Parrish, A. (2020) "The 'why' and 'how' of Flexible Learning Spaces: A Complex Adaptive Systems Analysis." Journal of educational change 21.4: 569–593. Available at: https://doi.org/10.1007/s10833-019-09364-0 [Accessed 15 April 2023].
- Loveless, B, Education Corner. (2022) Guide on classroom Design and Layout. Available at: https://www.education-corner.com/classroom-design-layout.html [Accessed 11 December 2022]
- Noble, H. (2016) BMJ Journals, What is Grounded Theory, Available at: What is grounded theory? | Evidence-Based Nursing (bmj.com) [Accessed 10 November 2022]

CURRENT ENQUIRY AND PRACTICE

Does the English National Curriculum, with a focus on writing, offer enough opportunity for children's agency?

Simone Douglas – MA in Education, English writing lead.

Introduction and Theoretical Framework

In the current educational climate, there are often too many aims for teachers to teach and children to process. As a teacher, I have created assessments and taken part in moderation meetings and training where I have had to ensure children are achieving these aims and often making sure that there are percentages of children working at or working above their curriculum level. If they are not at this level, there is often a pressure from senior leaders to begin targeting these children with intervention groups to make rapid progress. Cremin and Arthur (2014) argue that most curriculums strive for educational standards of excellence. Because of this, there is a focus on the economy of governments and the efficiency of teaching rather than on the child as an individual.

I will focus this article on the Upper Key Stage Two English National Curriculum (2013), specifically on writing. With this area of deconstruction, I am aware of my unconscious bias as I have been a KS2 teacher for my whole career and feel that children of this age should be given a chance to explore their learning in a conducive environment. I have chosen this focus area because of heavily scaffolded lessons due to assessment stifling creativity. I am going to be using the Pedagogic Framework (Bernstein, 2000), the Banking Model (Freire, 1996), and the 'Futures Curriculum' (Young et al., 2014) to frame this. These theorists relate to and support my argument of how our current curriculum is framed in a traditionalist style that focuses on transmitting knowledge.

Deconstruction of the English curriculum

The current National Curriculum (2013) was created under a coalition government of the Liberal Democrats and Conservatives, which significantly focuses on 'essential knowledge'– however, what kind of knowledge is deemed essential and who has decided this? White (2015) argues that the curriculum is created with a political angle and a focus on knowledge and aims for children to achieve so that the league tables reflect success for marketisation. Therefore, this begins to convey a traditionalist view of transmissible knowledge, which could be argued is an agenda of the Conservative due to previous policies. Kelly (2009) states three types of curricula design: content, product, and process. The content curriculum design is more in line with a traditional style of education (knowledge and acquisition) rather than progressive child-centred learning. Young et al. (2014) define this traditional curriculum as 'Future One', meaning that knowledge is measurable through assessment and that acquisition is paramount to success. Therefore, teaching to the test becomes a focus.

Concerning Kelly (2009) and Young et al. (2014), the writing curriculum should be an outlet for creativity and skills acquisition, not a subject where this knowledge is measurable. Creativity should be assessed in a variety of ways. This subject should have many opportunities for children to express their agency. However, because of 'essential knowledge', there are many aims that children need to achieve to reach the expected standard, leading to teachers transmitting their knowledge rather than focusing on student interaction and participation. I noticed many weaknesses when completing my SWOT (strengths, weaknesses, opportunities, and threats) analysis (appendix one) of the UKS2 (upper key stage 2) writing National Curriculum. One of the main focuses on writing composition was the knowledge of grammatical devices; there is a significant emphasis on ensuring literary devices are used correctly, which limits children's agency, allowing them to be creative writers.

Corbett (2019) supports this view by stating that children need opportunities to explore texts to be successful writers. According to an Ofsted (2022) review of the English curriculum, "the concepts, facts, language and narratives" is described as the appropriate subject knowledge older children need to be successful with writing. However, an emphasis on concepts and facts and creativity is not mentioned. Both in the National Curriculum (2013) and this recent report from Ofsted (2022), acquiring skills is more critical to Ofsted and National Curriculum than children's construction. This reflects the 'Future one' curriculum (Young et al., 2014), as knowledge is the only type that is measured.

When looking at the English programme of study by the DfE (2013), the initial overview seems optimistic, focusing on building on previous skills. Nevertheless, when reading further, it turns to a very structured writing composition, with a heavy focus on grammar. Concerning this, my teaching experience has highlighted the focus on structured writing composition. I found that the more pressure for children to achieve the expected standard, the writing curriculum has become less creative. When ensuring that children are reaching the targets and goals set by the school's assessment framework (appendix two), we created a very structured lesson of, I do, we do, you do to structure how to write correctly punctuated relative clauses, fronted adverbials, and parenthesis so that when they were writing independently, they could use these premade sentences so that when we were assessing, we could tick these off from the framework, so we knew the goals were achieved. Consequently, because of the traditionalist way of being able to provide evidence for aims, this conveys that the acquisition of knowledge, as argued by Kelly (2009), is more important than children's ability to create.

Whilst this was effective for scaffolding children, it meant that I delivered knowledge of how to write rather than children creating their own. This was an example of strong framing, research from Bernstein (2000) discusses that traditional education transfers power from teacher to student and that strong framing is teacher dominated where their voice is predominant. The communication is closed, meaning there is a need for more opportunities for children to express or share their ideas or be able to further their knowledge by working independently. Therefore, strong framing does not value children's diversity and the English curriculum should value this as it is a creative subject. Freire's banking model reflects this deconstruction of strong framing within the writing

curriculum. Freire (1996) states that teachers deposit the information to students rather than learning being a social process. Both theories from Bernstein (2000) and Freire (1996) complement each other to frame the transmission of knowledge rather than learning as a tool for students to have agency and independence.

While both texts predate the current National Curriculum, it is evident from my deconstruction that the current education system is too focused on traditionalist teaching. As my SWOT analysis (appendix one) reflects, there is a greater focus on how to write rather than what to write, meaning there is no chance to be creative. Recent research from Pluim et al. (2021) supports my reflection by stating that both the research from Bernstein (2000) and Freire (1996) are both pedagogies that are linked with politics and power structures within the curriculum, conveying how transmitted knowledge is essential for governments to organise knowledge in a way that benefits marketisation.

One of the main reasons the English writing curriculum (2013) has structured aims that need to be taught by strong framing and the banking model from a governmental perspective is for children to achieve successful grades for marketisation. Arora-Kukreja (2022) explains that schools and governments use data to compete locally and globally. This could be because the government want to achieve neo-liberal aims such as endogenous privatisation – meaning that schools are run like businesses and therefore need the highest grades to succeed. When teaching English, I have found there is often pressure from senior leaders for children to reach the expected grades. In planning meetings with phase leaders, I have often been asked how children will achieve the expected standard and when discussing that these children find it hard to use grammatical features that reach the expected standard, these children have then been put into intervention groups so that they will specifically learn this curriculum aim so that there is a higher percentage of children who reach the expected standard at the end of the year. Wyse (2013) argues that the curriculum is now delivered to students due to an increased emphasis on national and international testing.

Therefore, the issues I have deconstructed conveys how the curriculum is based on the traditionalist views by the theoretical frameworks I have used, as the predominant view of traditionalist education is assessment and ensuring knowledge acquisition is measured and does not focus on the enjoyment of education or of the creation of learning. Wrigley (2014) agrees that this curriculum needs more breadth and balance and there are too many objectives to achieve and for children to learn.

Conclusion

There are many elements to the UKS2 writing curriculum that aid in writing success. However, there is not enough opportunity for children to be agents of their learning when writing. My deconstruction of the UKS2 writing curriculum has shown that lessons are prescriptive and what is measured is more important than the content of the writing. Small changes like utilising the text appropriately and allowing children to create their writing based on their preferences effectively engage children within the writing curriculum. An ideal future for this curriculum would be the 'Future three' (Young et al., 2014) where the promotion of teaching for understanding is valued more than teaching to the test. To achieve this, children's agency is paramount, and collaboration would promote a classroom environment conducive to learning for all attainers.

In the future, I would like to continue to research into this area and discuss this with writing leaders to gain a better equilibrium of acquisition and participation.

References

- Arora-Kukreja, R. (2022) *Relocating the political in education: why we need to revisit the marketisation of education in the contemporary political climate. Contemporary social science.* [Online] 17 (5), 485–500.
- Bernstein (2000) *Pedagogy, Symbolic Control, and Identity.* Lanham, MD: Rowman and Littlefield Publishers.
- Corbett, P. (2019). *Analysis: Pie Corbett examines the New Curriculum for English*. Available at: https://www.talk4writing.com/wp-content/uploads/2019/03/Pie-on-New Curriculum-for-English-2.pdf.
- Cremin, T and Arthur, J (2014). *Learning to Teach in the Primary School.* London: Routledge.
- Department for Education (2013). *English Programmes of study: Key Stages 1 and 2 National Curriculum in England.* [online] GOV.UK, p.3. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335186/PRIMARY_national_curriculum_-_English_220714.pdf.
- Department of Education (2013). *The National Curriculum in England Key Stages 1 and 2 Framework Document.* [online] GOV.UK. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425601/PRIMARY_national_curriculum.pdf.
- DfE (2011). *Tests and assessments (key stage 2) – GOV.UK.* [online] Available at: https://www.gov.uk/education/primary-curriculum-key-stage-2-tests-and-assessments.
- DfE (2022). *Tests and assessments (key stage 2) – GOV.UK.* [online] Available at: https://www.gov.uk/education/primary-curriculum-key-stage-2-tests-and-assessments.
- Freire, P. (1996) *Pedagogy of the oppressed.* [20th anniversary ed.]. London: Penguin.
- Grupe, D. W. and Nitschke, J. B. (2013). *Uncertainty and anticipation in anxiety: An integrated neurobiological and psychological perspective.* Nature Reviews Neuroscience, 14, 488–501. doi: 10.1038/nrn3524
- Kelly, A. V. (2009) *The Curriculum: Theory and Practice: 6th Edition.* London: Sage
- Ofsted (2022). *Research review series: English.* [online] GOV.UK. Available at: https://www.gov.uk/government/publications/curriculum-research-review-series-english/curriculum-research-review-series-english#curriculum-and-pedagogy.
- Pluim, G., Nazir, J. and Wallace, J. (2021). *Curriculum Integration and the Semicentennial of Basil Bernstein's Classification and Framing of Educational Knowledge.* Canadian Journal of Science, Mathematics and Technology Education.
- White, J. (2015). Aims of Education in a Democracy. In: *The SAGE Handbook of Curriculum, Pedagogy and Assessment, London: SAGE.*
- Wrigley, T. (2014). *Stand Up for Education 1 What is wrong with the new National Curriculum?* [online] Available at: https://reclaimingschools.files.wordpress.com/2014/12/what-is-wrong-with-the-new-national-curriculum1.pdf.
- Wyse, D. (2013) Creating the curriculum: 1. publ. London: Routledge.

Appendix

Strengths

- Strong emphasis on vocabulary
- Showing skills needed for writing
- A good presentation of skills
- Explicit teaching of grammar
- Applying grammar to real life situations
- Key texts being familiar e.g., fairy tales
- Emphasis on enjoyment of language

Weaknesses

- Selling lists follow patterns and therefore will need to be 'taught to the test'
- A great focus on reading sentences orally – some children will feel uncomforable with this
- Lack of creativity for children to explore their interests
- Lack of opportunity for children to write freely and explore their imagination, meaning children will become dependent on the teacher or a structure
- Speaking and listening is not utilised effectively for children to explore creativity before writing
- A greater focus on using grammatical devices, such as parenthesis, to achieve expected standard therefore limiting what children can write
- Writing with increasing speed; conveying that if children find handwriting difficult, they will not achieve expected standard

Opportunities

- Learn ambitious and subject specific vocabulary (tier two and tier three)
- Broaden the language of all children
- Children who struggle with writing but have ideas have a chance to perform their own composition
- Applying grammatical skills to their own
- Teachers assess writing of students over a period of time, giving them a chance to build a portfolio of the child's skill and achievements rather than just basing it off one piece of evidence

Threats

- Because there is a great focus on narrative, other fictional devices such as playscripts or poetry will be neglected or taught for novel value
- Similarly to the aforementioned point, there is no mention of non-fiction writing in the stautory section of the curriculum, again meaning these could be neglected
- Recent publications and opinions of the government have reservations about teacher autonomy – their ability to assess children could be removed, meaning assessments would be very harsh on children and completed in SATs like conditions off one piece of work

Appendix 1 - My personal reflection of the English writing National Curriculum, using a SWOT analysis.

Working at						
The pupil can: **Date** **Context**						
write for a range of purposes and audiences, and mostly select language that shows good awareness of the reader (e.g. clarity of explanations; appropriate level of formality in speech writing)						
in narratives, describe settings, characters and atmosphere						
begin to convey character and advance the action through dialogue, maintaining a balance of speech and description						
select vocabulary and grammatical structures that are appropriate for the audience and purpose (e.g. correct sentence types; tenses; a range of verb forms; relative clauses)						
begin to use a range of devices to build cohesion within and across paragraphs (e.g. conjunctions; adverbials of time and place; pronouns; synonyms), in much of their writing						
use verb tenses consistently and correctly throughout most of their writing						
use the range of punctuation taught up to and including Y5 mostly correctly (e.g. commas separating clauses; punctuation for parenthesis)						
spell correctly words from learning in previous year groups, and some words from the year 5 and year 6 spelling list,* using known spelling strategies and dictionaries to check the spelling of uncommon or more ambitious vocabulary						
write legibly, fluently and with increasing speed.						

Appendix 2 – A snippet of the assessment framework I have used to assess Y5 children who are working at national standard in writing.

An Exploration into the application of social learning theories in an early years classroom – SEN case study

Robyn Weir – Reception class teacher, Yew Tree Community School

Introduction

Social learning theories are used to describe and analyse how individuals learn from interactions with others around them. This was first recognised by Vygotsky (1962), who in his multiple theories described the underlying role of social interaction in the development of an individual- and how mediation through language and other means was key to shaping thinking, reasoning and consequentially supporting other activities like reading and writing (Vygotsky, 1978). Many social-constructivist theorists have acknowledged Vygotsky's theories around mediation, scaffolding, the Zone of Proximal development (ZPD) and the more knowledgeable other (MKO), (Vygotsky, 1978). One Theorist who has expanded on Vygotsky's concepts is Engestrom. Engestrom's activity theory (1987) expanded on Vygotsky's activity theory that focussed on the importance of mediation as a tool for an individual, and Leontiev's addition of rules, community, and division of labour to the activity theory in relation to the group and adapted this framework to analyse an individual within a group (Ding, 2021). In this paper, I will be exploring how Engestrom's activity theory can be used to demonstrate the power of the group and the impact of an individual on a group through a case study of a child within my classroom.

I am a reception teacher in an inner-city school in Birmingham. In my classroom I have 30 children, six with additional needs. These needs range from very high academic ability with behavioural needs, to complex communication and language needs. When reflecting on the progress that has been made over the year, the establishment of routine, rules and relationships were the starting point for creating a well-functioning classroom. These set rules encouraged a consistent environment, where all learners are aware of expectations, and can feel safe to learn. As I have a wide range of abilities in my group, the consistency in the environment was key to setting up expectation, to then allow for differentiation. This is what drew me to analysing Engestrom's activity theory, as the importance of those relationships and rules were mirrored in the theory and could allow me to observe the behaviours of some of my SEN learners within the group and analyse how these have evolved over the last few terms, and with what input.

Engestrom's activity theory

Engestrom's activity theory combines the activity theory from Vygotsky that analyses an individual's action through mediation and internalisation (Vygotsky, 1978 in Cong-Lem, 2022), and Leontiev's activity theory that reflects on the individual's impact within the social group activity system, with the additions of rules, community and division of labour (Leontiev, 1978). Engestrom (1987, 2015) acknowledged the revolutionary manner with which Leontiev revitalised activity theory to only recognise an individual with regards to their culture and the superior societal structure. However, he recognised that there were limitations to Vygotsky's work as they focused solely on the individual, and Leontiev's, as his focus was purely on the group activity. Engestrom's activity theory blended these two together by introducing a need for analysing dialogue and recognising how different individual activity systems interact

to create a network (Engestrom 2001) and how this network is built on consistent foundations of societal expectation.

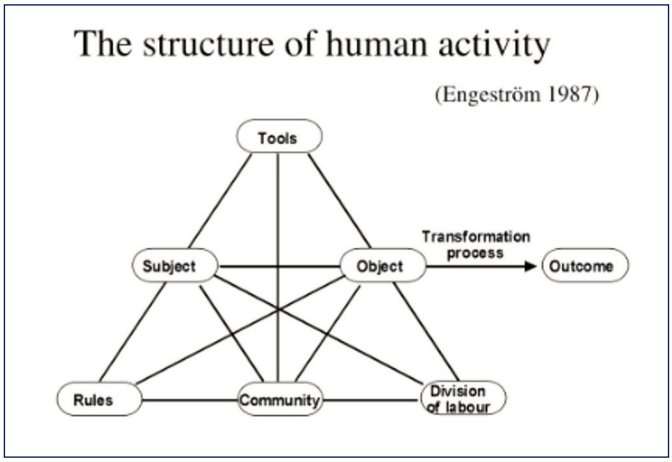


Figure 1. Engestrom, 1987

Figure 1 is a visual demonstration of Engestrom's activity theory. When describing community within Engestrom's activity theory, the community in this case study is reflected through the group within the classroom. In this essay, the words group, class, community will be used interchangeably throughout to reflect the community described in the activity theory. This theory recognises the importance of rules, the community and labour in the 'transformation process' of an individual in achieving an outcome (Engestrom, 1987). When reflecting on my classroom and Engestrom's theory, if we are to suggest that these activity systems create a network (Engestrom, 2001), then that would suggest that the understanding of rules, community and division of labour should correspond across each individual activity system to create the community. Within the classroom community, all actors (children and teachers) have agency, which is 'the ability to originate action' (Bandura, 2001). Agency recognises that every actor has the ability to regulate their behaviours, but if one of the actors within the community is not playing by the rules, then that puts the community off kilter, forcing the community to reject the person for not playing by the rules. Of course, the group also has potential to impact the individual, and mediation can support the individual to play by the rules of the group, as Vygotsky believed 'through others, we become ourselves' (Vygotsky, 1978). I have chosen to write about one individual and her impact on the wider group in relation to Engestrom's activity theory and reflect on how the tools of mediation that were put in place by myself and the Teaching Assistants have supported this child (Child A)'s learning and behaviour, and how this has simultaneously impacted on the wider group in achieving our objectives.

Case study subject

Child A is a child with a family history of ADHD and quite severe behaviour issues. Child A did not attend our nursery provision, so was new to the school in September. No behaviours or suspected SEN were mentioned prior, but when we first observed some of the severe behaviours such as kicking, pushing, shouting, throwing, pulling hair, etc. this brought into question whether our expectations of her were contradicting those of her previous nursery environment. In discussion, the previous nursery explained that child A had shown these behaviours in their environment, and to avoid the behavioural consequences, they gave child A special jobs with TA's. This established the expectation that whenever she did not want to participate, respond to instruction, or if she started to display behaviours, that she would be given special attention. Regarding her individual activity system, this impacted her understanding of rules as she did not have to abide by them, she did not have to respond to the set community expectations of the whole class, which simultaneously disrupted the group learning environment. Within the wider group, the distribution of labour was not fair as child A took over, and this may have contributed to her excluding herself from the wider group and not having secure peer relationships. As no tools or mediation were put in place to support child A to respond to and integrate within the nursery environment, she was struggling to comprehend the complete switch in expectation when entering Reception. This highlighted the need to overhaul her individual activity system and re-establish rules and expectations to create a safe and effective learning environment for child A and subsequently the rest of the group.

Our Individual activity theories – object

My objective (known as the object within Engestrom's activity theory) within the classroom is to ensure a safe, rich, and engaging learning environment, where all children can thrive. Child A's behaviours put a strain on my objective as she disrupted the rules, community, and division of labour parts of the activity theory, leading to an ineffective learning environment that did not mirror the behaviour expectations that are present within the school rules. The behaviour she was exhibiting disrupted the wider community; she hurt the children within her group contributing to disturbed learning, the TA's and I had to deviate our attention from learning to support or continually observe her, senior leadership were involved in managing strategies and behavioural discipline, and parents were making complaints about whether she should be at the school due to the number of incidents. Dealing with this behaviour everyday caused huge stresses for myself and the TA's as we had to completely adapt the way we divided labour in the classroom to support her. The jobs that we should be getting done to create that engaging learning environment could not be achieved, as the division of labour involved them having to constantly watch her rather than sort, tidy, setup and support different children in the group. The other children also did not want to respond to her as her behaviours scared them. These multiple aspects meant that the overarching community within our class was not secure.

Child A's objective in her individual activity system was making friends. Our objectives are aligned in a certain form, in that we want a happy community where friendships can develop. However, her behaviours did not encourage that outcome of making friends, and her outcome of displaying behaviours did not support my objective for the wider community. The outcome that she was portraying was to get attention, regardless of whether it was positive or negative. This did not align with the expectations of friendship for the other children within the group, meaning that the network of activity systems (Engestrom, 2001) was not created with the other individuals in the classroom and her outcome was not successful.

Tools and Mediation

The first step for us in creating that happy community was developing a relationship with Child A. We recognised the need to expand Child A's zone of proximal development (ZPD)

to adjust to the rules and routines within the classroom. We needed to establish her role within the group rather than just seeing herself as an individual and teach her that she must respond to the group rules. This had to be established through modelling as the MKO, and language (Vygotsky, 1978) We established within our classroom a calm corner that was aimed at use for this child. This calm corner has a rug and pillows to sit with, has a step-by-step guide to calming down with visuals, breathing pattern techniques for the child to follow, a zones of regulation poster and communication visuals for child A to use. This space was established as a safe, mutual space for thinking time, but it also allowed the teachers to use this space to have 1-1 conversations with child A to discuss her behaviour, and model to her what she needs to do next time. We needed to create a space to work collaboratively with child A to reflect on her experience and change her perspective (Mezirow, 1991) to allow for new and reoccurring situations to become a part of her comfort zone, so she knows how to handle them effectively.

Modelling through language

Vygotsky (1978) explains how language is essential to communication, which in turn reflects itself in understanding culture and behaviour. Vygotsky explains how language develops over the years, and how external speech modelled by an MKO, will then become inner speech for the individual. This shows how an MKO can model expected behaviours through language communication and how this will start to be internalised by the individual. In the case of child A, we used the calm corner to model explicitly why her behaviours were wrong, how they made us and the other children feel and what she needed to do next. Then in recurring instances we could ask her 'what should you have done? how did that make us, or the other children feel?'. These instances of 1-1 communication then started to develop child A's inner speech in understanding that she must use kind hands and kind words so that we are all happy. This supports her object in her activity system as the other children are more likely to want to respond to her and be her friend if she is kind. It also corresponded with my activity system as this establishment of inner speech for child A encouraged her to develop her sense of self within the class community, which supported my objective for a safe and engaging learning environment.

Rules

In the activity theory, the understanding and compliance of rules also attributes itself to the success of an objective (Engestrom, 1987, 2015). In this case, the establishment of rules are crucial in developing a safe learning environment. With child A, her understanding of the rules did not support her outcome. It was clear through discussion that she knew the rules and knew the correct way to respond to a situation, but in the moment could not produce that outcome. She displayed this through behaviours, showing that the rules had not yet been internalised. Sometimes Child A would be the child ignoring instruction and displaying challenging behaviours which stopped the flow of learning, and other times if another child did not comply with instruction, child A would scream across the classroom 'x isn't joining in' and would 'attack' this child with her reason being that they weren't abiding by the instruction.

When we made the class rules, we did this as a circle time activity, using myself as the MKO and using language and discussion to model why each rule was important. The key in establishing these rules was to engrain how they keep everyone safe and contribute to a happy classroom – again corresponding with my activity system objective in making a safe and engaging learning environment. Through discussion we also recognised that kind words, hands and feet are important to make friends, reflecting on child A's objective. I modelled writing these rules and then took child A 1-1 and discussed with her what picture I could draw next to the rule to remind her of it. An example of this was good sharing where she said to draw both of us and another child sharing a book. This use of external speech supported child A to understand the importance of each rule and relate it to something that she could recognise from within her cultural capital (Bourdieu, 1986). After this activity I gave child A special pens to colour and decorate the rules so that she felt they were special to her as well as to the group. Other children recognised that child A was doing this activity and asked her if they could help- by the end there were seven children sat around one piece of A3 paper, sharing pens and pencils and discussing what they were drawing. This instilled in her that these rules are for everyone, but she also needs to abide by them. Child A and I then chose to place the rules in the calm corner, to consistently remind her of her agency (Bandura, 2001) within the classroom.

Community

The community is understood by Vygotsky (1978) to be key in the cognitive development of an individual. This idea of community is reflected in the MKO, the role of language, scaffolding and the ZPD. It recognises each person within the community to have agency on the space around them and recognises the importance of social interaction on cognitive development. Engestrom (1987, 2015) suggests in his activity theory that community allows you to recognise yourself within the group and encourages individuals to learn from others within the community. Child A needed to recognise her role as a student within the class, to learn and listen, but also recognise she is part of a group where there are twenty-nine other individuals with their own objectives. Modelling and language were essential in child A recognising that she needed to respond to the community. An example of this was understanding that the calm corner wasn't just for her, that it was a communal space for all children to access when necessary. My TA and I had to build her ZPD and use our external speech to explain to child A that this space is used for her when she needs calm time, but sometimes other children also need thinking time. This needed to be explained explicitly so she could recognise that it is kind for her to share this space with others which encouraged friendships from her objective. She now recognises that if another child is using the space, it is for a reason, and it is good for her to share this space with her friends.

The other children also started to recognise child A as a part of their community. They started to reflect on the way that I as class teacher and the TA's model and support child A, and they started to see themselves as MKO's to support her. An example of this has been where child A has refused to sit down, and another child has recognised that child A is not following the rules as stated in their activity system. This child then used their language as a tool to explain to child A that she needs to do her good listening and held her hand to guide her to make the right choice. This relationship for Child A was crucial in understanding that the other children were there to help her and wanted to be friends. This helped her objective

by establishing the relationships that she wanted within the group.

Division of labour

The division of labour recognises that within the community, everyone has a part to play- every child has agency within the classroom. This agency is reflected through the community and recognises everyone's involvement, but the division of labour elaborates on how everyone must work together and understand their role to play within the group. Child A found this element very tricky at the beginning of the year. Her understanding was that if she put her hand up, she would automatically be allowed to answer a question, always be chosen to complete a task, be at the front of the line or would get to choose the activity she wanted immediately without reflecting on the other children and their division of labour in the group. If this was not what she received, then she would display behaviours. Through language we had to explain to child A that she is an individual within a group, sometimes it is her turn, sometimes it is someone else's turn, and sometimes they can work together. An example is that child A used to expect to be given the task to tidy boards or pens and would get upset if I chose another child. As a group, the higher abilities first noticed that multiple children can pick up boards and pens and help each other so it's quicker. This was then echoed by some of the other middle/lower ability children. At first, child A did not understand this concept, but then started to recognise that she could support other children to complete a task and allow her friends to take her board and pen to give them a turn, again supporting both of our objectives.

Outcome

With the support of mediational tools, such as having a familiar adult within the classroom as an MKO and using language to model external speech and turn it into internal speech, we can notice how child A's objective of making friends will have been supported to a certain extent. But establishing those rules for her and for the whole group, establishing her as a student within the classroom setting and acknowledging her role within the group was fundamental in her achieving her objective to make friends. The outcome for child A is that she now doesn't worry about being the first in the line, she doesn't get upset if I don't choose her to answer a question, she has started to recognise her impact on the group and how she can be a part of it. She looks forward to completing activities that she can do in a partner: talk partners, talk for writing, creative activities. Child A now will ask to participate with other children as she recognises this to be her objective, but it also supports my objective for the class, that all children are engaged, happy and wanting to learn. Without this outcome and mediation for child A, the objectives for both me and child A would not have had successful outcomes. The mediation that has been put in place has allowed child A to benefit from the group, make friends, and the create positive networks with the other children in the group.

References

- Bandura, A. (2001). Social cognitive theory: an agentic perspective. *Annu. Rev. Psychol.* 52, 1–26. doi: 10.1146/annurev.psych.52.1.1. Available from: Social Cognitive Theory: An Agentic Perspective | Annual Review of Psychology (annualreviews.org). [Accessed 11.4.23]
- Blunden, A. (2015) *Engeström's Activity Theory and Social Theory.* Available from Engeström's Activity Theory and Social Theory (ethicalpolitics.org). [Accessed 10.3.23]
- Bourdieu, P. (1986), 'The Forms of Capital', Handbook of Theory and Research for the Sociology of Education, pp. 241–258
- Cong-Lem, N. (2022) Vygotsky's, Leontiev's and Engeström's Cultural-Historical (Activity) Theories: Overview, Clarifications and Implications. Available from: Vygotsky's, Leontiev's and Engeström's Cultural-Historical (Activity) Theories: Overview, Clarifications and Implications | SpringerLink. [accessed 10.3.23]
- Ding, O. (2021) Yrjö Engeström: the Activity System Model [Activity Theory]. Available from: Yrjö Engeström: the Activity System Model [Activity Theory] (activityanalysis.net). [Accessed 3.4.23]
- Ding, O. (2021) The concept of Mediation. Available from: https://www.activityanalysis.net/the-concept-of-mediation/. [Accessed 3.4.23]
- Engestrom, Y. (2001). *Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization.* Journal of Education and Work.
- Engeström, Y. (1987). *Learning by Expanding: An Activity Theoretical Approach to Developmental Research.* Helsinki: Orienta-Konsultit Ltd.
- Engestrom, Y (2015). *Learning by Expanding: An Activity Theoretical Approach to Developmental Research* – Second Edition. Cambridge Press.
- Golding, c. Wass, R (2014) *Sharpening a tool for teaching: the zone of proximal development.* Available from: Sharpening a tool for teaching: the zone of proximal development: Teaching in Higher Education: Vol 19, No 6 (tandfonline.com). [Accessed 11.02.2023]
- Gowrie, NSW. Lev Vygotsky's Theory of Child Development – Gowrie NSW. Available from: Lev Vygotsky's Theory of Child Development – Gowrie NSW. [Accessed on 03.04.23]
- Leontiev, A. N. (1978). *Activity, consciousness, and personality.* Prentice-Hall Englewood Cliffs.
- Martin, J. (2004). Self-regulated learning, social cognitive theory, and agency. *Educ. Psychol.* 39, 135–145. Available from: Self-Regulated Learning, Social Cognitive Theory, and Agency: Educational Psychologist: Vol 39, No 2 (tandfonline.com). [Accessed 11.4.23]
- Mcleod, S. (2023). *Lev Vygotsky's Sociocultural Theory Of Cognitive Development.* Available from: Lev Vygotsky's Sociocultural Theory of Cognitive Development (simplypsychology.org). [Accessed on 03.04.2023)
- Mezirow, J. (1991). Transformative Dimensions of Adult Learning. San Francisco, CA: Jossey-Bass.
- Vygotsky, L.S. (1978) *Mind in Society*: The development of higher psychological processes. Cambridge, MA: Harvard University Press.
- Vygotsky, L.S. (1962).*Thought and Language*. Cambridge, MA: MIT Press. (Original work published in 1934)

Writing for Pleasure: How comic strips can inspire children (and adults) to love writing

Suzanne Swan – Visiting Lecturer, Birmingham City University

As parents and educators, we want our children to have **a love for writing** that will stay with them throughout their lives. However, enthusing children to write is the teacher's ongoing intent for each child. The benefits of writing are countless, and it's up to us, as parents and educators, to ensure that children see the joy and fulfilment in writing.

It's important to make writing fun and engaging to encourage children to pick up a pen and paper, a keyboard, and a mouse or in this case, a pencil, and a comic strip. Yes, you read that right, comic strips can be a powerful tool for getting children interested in writing.

Birmingham City University's (BCU) Primary English and Foreign Language Initial Teacher Training lecturers and their Associate Teachers (Trainees) embarked on their own writing journey after lecturers attended an inspirational training session led by Ross Young from the Writing for Pleasure Centre as part of National Literacy Trust Primary Conference: Empowering through education, 2023.

In the world of primary education, writing is a fundamental skill that every child should learn. And the task of teaching writing skills falls to the educators. However, being an effective teacher in this field requires more than just the knowledge of the basic mechanics of writing. In fact, an essential quality of an outstanding writing instructor is to be a writer themselves.

"A writer-teacher is simultaneously a writer who knows how to teach writing and a teacher who identifies as a writer" (Young & Ferguson, 2020:199)

As part of an undergraduate module at BCU, we worked with our Associate Teachers during our subject-in-action module. They developed three workshops, totalling six hours to motivate children to write and develop their use of vocabulary. During this process, we encourage them to be teacher-writers. We then worked with two local primary schools (Chandos Primary and Millfield Primary) to begin to create a community of writers.

We did not work on creating perfect examples of work but instead developed an enjoyment for all participants in the process and the final product we shared with others.

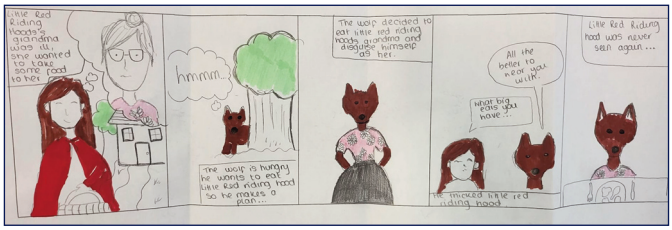


Figure 1: Comic strip produced by a trainee teacher during a university lead session

Our new learning

We developed our teachers to be writers that have an inherent understanding of the writing process. This understanding is more than the ability to craft good sentences and develop characters; it includes recognising the time and effort that goes into creating something from nothing.

> The writing process is neither fixed nor predictable and is perhaps best taught by teachers working as artists, composing in the classroom, and voicing an insider's informed perspective. As artists/writers, teachers may be prompted to demonstrate to children the creative thinking involved, reflecting for example, on false starts or blank spots, the uncertainty of open exploration and their cognitive and emotional engagement. Through sharing their writing, modelling possible ways to express ideas, and reflecting upon their own intentions and choices, teachers can enhance the agency of young writers.
>
> (Cremin 2006:418)

Figure 2: www.writing4pleasure.com

This appreciation of the writing process enables a writing teacher to be patient, empathetic, and supportive as children develop their own writing skills (Kaufman 2002; Grainger 2005; Gardner 2014; Cremin and Locke 2017 Bean 2020 cited in Young and Ferguson 2021).

If the modelling of writing is effective, then the teacher's confidence impacts the children's ability

to explore their own creative skills. In addition, when a teacher writes alongside children, they become writing partners who lead by example. Being writers, teachers act as mentors who show, not tell. They act as a role model and share their personal experience with writing, showing that everyone makes mistakes and how to grow from them. When children can see their teacher participating in the process of writing, it breaks down the teacher-child hierarchy, making them feel less judged and intimidated. The children feel encouraged to write creatively and embrace their personal writing styles (Young and Ferguson 2021).

The range of research looking into children's motivation to write for pleasure is strong and growing (Bruning and Horn, 2000; Boscolo 2009; Garrett and Moltzen 2011 cited in Young and Ferguson 2021). Being a writer, teachers can make writing more relevant to the children's lives. It helps them relate writing to things they are interested in, providing context, and meaning that go beyond classroom exercises. Teachers who write can explore writing topics that are familiar and relevant to the children, helping them recognise writing as a vital skill that can enrich their daily lives.

So, Why Comic Strips?

Comic strips can be an exciting source of inspiration for

primary-aged children. The visuals and storylines in comic strips are a fun and effective way to pique their interests.

"Comics are powerful modes of expression enabling teachers and students to express empathy and explore others' cultures and history through vivid compositions of image and text." (Issa, 2018:311)

We wanted to pursue authentic and purposeful writing projects therefore we worked towards the publication and sharing of a comic magazine. Writing for pleasure teachers ensure projects are authentic in several ways:

- They give children agency over the choice of topic.
- They welcome children's own funds of knowledge into the classroom.
- They allow children to construct their own imaginative writing projects.
- They involve children in the construction of a project.
- They promote the reasons why children are moved to write.

Young & Ferguson (2021:115)

Reading and analysing comic strips helps children develop reading comprehension skills and vocabulary, but the process of creating a comic strip can also improve their writing and develop the use of language and critical thinking skills. When writing a comic strip, children think about character development, dialogue, and plot. They also need to use their creativity to come up with unique and exciting storylines. All these areas of learning fit perfectly with the outcome of the Primary National Curriculum (DfE, 2013).

How we used comic strips as a stimulus for writing

Associate Teachers collaborated to plan and deliver to small groups of children using a range of scaffolds to lead the children in collaborating to create a comic.

Our process:

1 We began with an Ideas Party (Young 2023) which is a glorified mind map however, as a motivational tool there are few that would not find the opportunity of attending a party engaging. The Associate Teachers were able to reflect upon the barriers they faced when putting their ideas down. These barriers were overcome by the reassurance that they could write ideas, draw ideas and could magpie an idea from someone else and build upon it. We used an array of colours and gave the Associate Teachers feedback based on their idea and not their handwriting or drawing ability.

2 We introduced the medium of LEGO as a tool to role play and trial storylines. This would also feature as our images for the comics later as we did not want to spend our limited workshop time on illustrations as this would lose the learning focus of language development. This low-risk activity gave the Associate teachers the opportunity to fail and succeed in using adventurous vocabulary and telling a story with a clear storyline.

Workshop 1

The Associate Teachers then planned and delivered a project introduction, an ideas party and a LEGO workshop.

3 The Associate Teachers returned to the lecture classroom where we ensured to review and reflect on workshop 1. We then moved on to reviewing prior learning of story mapping and story mountains and introduced the idea of publication which the children in their group would decide on, but the Associate Teachers could also consider where else the work could be showcased. We also decided upon the language focus for their comics. Some chose emotive language, including onomatopoeia and descriptive language.

Workshop 2

The Associate Teachers then planned and delivered their session which revisited the 'ideas party' thinking and their LEGO creations ideas which they used to take photos to be used for their comic strip. These were used to create a story plan. The language feature was then explicitly taught and modelled, and each group created their first draft, ensuring to include their language focus.

4 For the final cycle the Associate Teachers returned to campus to repeat the review and reflect workshop 2 and to decide on their editing and publishing strategies. We also discussed the logistics of publishing the children's work.

Workshop 3

The Associate Teachers presented the children with a draft of their comic, including the LEGO images in frames. This session finalised their work, gave opportunity for self and peer assessment and we left the children with the understanding that their work was off to the publishing house to be printed and shared.

5 We then ensured to digitally create all their work and deliver the published comic magazine, individual copies of each comic strip and smaller versions for sharing with friends, to the school in a timely fashion to ensure that the motivation for writing continued.

We also took time to review our sequence of learning and draw together our rationale for choices made and evaluate how effective our workshops were in developing writing for pleasure and the use of our chosen language features.

Figure 3: Our process for module EDU5157

CLICK HERE TO SEE OUR PRODUCT

We gave the children a real opportunity to publish their work and they chose where and who they wanted to see their work. This included handing it out to their peers, displaying it in their reading corners, and sharing them with other schools and with industry experts.

said they were BLAMTASTIC!

said WOW! These are fantastic and our project sounded amazing. They were pleased that comics like The Phoenix inspired such talent.

said they were well put together and entertaining.

Next steps for our BCU ITT Community of Writers

- More writing
- Building on our new learning and the findings by Young & Ferguson (2021) we would like to build a community of writers across our undergraduate and postgraduate ITT routes.
- More choices and more opportunities
- No limit to what we offer as a platform for publication. If they write it, we will host it.
- More writing and publishing!
- Continue to publish the comic magazine with a collection of comic strips written by teachers from the university and from our partnership schools and by the children from those schools too.
- Expand our publishing to anthologies of poems and collections of short stories.
- Further, develop publishing opportunities through social media and blogs and vlogs.

Teachers who have a background in writing provide more than the mere instruction of mechanics, they possess a deeper understanding of the writing process.

So, come join us and let's inspire our children to write for pleasure. Send your work to Suzanne.swan@bcu.ac.uk

References

- Bean, B (2020) Ten minutes a day – a writer I'll stay [Available: http://writing4pleasure.com/ten-minutes-a-day-a-writer-ill-stay/]
- Boscolo, P (2009) Engaging and motivating children to write. In The SAGE Handbook of Writing Development, Beard, R, Myhill, D, Riley, J and Nystrand, M. London: Routledge
- Bruning, R and Horn, C (2000) Developing motivation to write. Educational Psychologist, 35(1), 25–37
- Cremin, T (2006) Creativity, uncertainty, and discomfort: teachers as writers, Cambridge Journal of Education, 36:3, 415–433, DOI: 10.1080/03057640600866023
- Cremin, T., and Locke, O. (2017). Teachers as writers: A systematic review. *Research Papers in Education,* 32(3), 269–295.
- Department for Education (2013) The National Curriculum in England: Key Stages 1 and 2
- Gardner (2014) Becoming a teacher of writing: Primary student teachers reviewing their relationship with writing. English in Education, 48(2), 128–148
- Garrett, L and Moltzen, R (2011) Writing because I want to, not because I have to: Young gifted writers' perspectives on the factors that "matter" in developing expertise. English Teaching@ Practice and Critique, 10(1), 165–180
- Grainger, T, Goouch, K, Lambirth, A (2005) Creativity and Writing: Developing Voice and Verve in the classroom. London: Routledge
- Issa, S (2018) Comics in the English classroom: a guide to teaching comics across English studies, Journal of Graphic Novels and Comics, 9:4, 310–328, DOI: 10.1080/21504857.2017.1355822
- Kaufman, D (2002) Living a literate life: Revisited. English Journal, 91(6), 51–57
- Young, R & Ferguson, F (2020) Writing for Pleasure: Theory, Research and Practice, Taylor & Francis Group
- Young, R. & Ferguson, F. (2021) *Writing for pleasure: theory, research and practice*. Abingdon, Oxon: Routledge.
- Young, R (2023) National Literacy Trust Primary Conference: Empowering through education

INDIVIDUAL ENQUIRY AND SCHOLARSHIP

How prepared are Primary Pre-Service Teachers when teaching Physical Education? The study outline – Part One.

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Introduction

For many, since 2002, government policies and funding have unintentionally negatively impacted primary Physical Education (PE) provision (Blair and Capel, 2008), seeing a removal of classroom teachers' responsibility to deliver lessons in favour of outsourced providers (Jones and Green, 2017). Many argue this has de-skilled teachers (Duncombe et al., 2018), de-valued the subject (Randall et al., 2016) and limited opportunities for Primary Pre-Service Trainee Teachers (PPSTs) to put theory into practice (Randall, 2020), leaving them reliant upon their own prior experiences to deliver PE lessons (Morgan and Bourke, 2008). The impact and sustainability of reforms have been questioned, with critics suggesting outsourcing provides short-term gains (Griggs, 2016) that has subsequently created an unqualified PE workforce (Randall et al., 2016). These factors have impacted PPSTs' Initial Teacher Education (ITE) experiences and their ability to develop their own PE preparedness.

This article, the first of five, focuses on findings from a Masters in Education thesis specifically concerning curriculum PE, which is defined as: 'the planned and progressive learning that takes place in school curriculum timetabled time and is delivered to all pupils; this involves both learning to move and moving to learn' (Association for Physical Education (AfPE), 2019). The study investigated undergraduate PPSTs' perceptions of their preparedness to deliver curriculum PE. This initial article outlines the thesis rationale, considering the current landscape of PE within ITE before outlining the study's research questions, each of which are the focus of subsequent articles. Additionally, an exploration of the theoretical framework and methodology used in the study is discussed before providing an overall conclusion.

Rationale

Vast literature exists detailing PE's benefits which include greater agility, balance and coordination (Pickard and Maude, 2014); reduced risk of disease (Graham et al., 2020); physical, cognitive and social advantages (Morgan and Bourke, 2008) and spiritual, moral, cultural and mental development (Cale et al., 2016). The United Kingdom (UK) government utilised the London 2012 Olympic Games' legacy to reinforce the importance of these benefits and inspire new generations into healthier, active lifestyles (Griggs and Ward, 2013) using funding from the new PE and School Sport Premium (PESSP) to support this (Department for Education (DfE), 2013a).

Despite their intention, the current landscape of PE within primary schools still requires further attention for several reasons. Firstly, in terms of curriculum PE itself, UK primary schools are encouraged to provide two hours of weekly timetabled PE (Ofsted, 2013); however, 31% of schools do not achieve this (Ofsted, 2018) with children active for on average of just 35.5 minutes per lesson when they occur (Powell et al., 2019).

Additionally, the PE National curriculum aims to provide children with opportunities to become physically confident through a broad range of activities, sustained over time, to improve health and Fundamental Movement Skills (FMS) (DfE, 2013b). Yet recent studies highlight less than one-quarter of pupils aged between six and nine achieve mastery in running, jumping, throwing and catching (Duncan et al., 2019) with fewer than 40% aged between seven and ten achieve mastery in hopping, skipping and stability (Lawson et al., 2021). Around one-quarter of primary teachers indicate low or no perceived knowledge regarding FMS (Eddy et al., 2021).

Moreover, despite being a long-term concern, many primary aged children are still classified as obese due to poor diet and limited physical activity (Office for Health Improvement and Disparities, 2022). By 2020, one-third of primary school leavers were deemed overweight with one-fifth considered obese (Department of Health and Social Care, 2020); by 2021, obesity prevalence across primary phases increased with children from deprived areas twice more likely to be obese (National Health Service, 2021). The Coronavirus Pandemic exacerbated this impacting activity levels by preventing children attending school and accessing PE. During the pandemic, 32.4% of the UK's child population were active for less than 30 minutes a day. Post pandemic, the government deemed PE as crucial in tackling this issue (Strain et al., 2021).

Finally, PE and children's health are still topics of political debate. Ofsted (2022) outlined strengths and limitations of primary PE noting curriculums, assessment and pedagogies must develop to improve provision. Furthermore, calls for PE to become a core subject (House of Lords Select Committee, 2021, AfPE 2022) emphasised the development of physical literacy and making PE fun and inclusive to create a fitter nation and reduce future health issues (Harris, 2018). Despite the government agreement with this, there is still limited commitment to it (Department for Digital, Culture, Media and Sport, 2022). Critics raised logistical concerns including low numbers of confident teachers delivering PE and timetabling issues (Hallahan, 2022). This reinforces the importance of the study as PPSTs (and current teachers) need to feel prepared in order to potentially provide enhanced PE provision.

Research questions

Following a review of the literature, the study explored aspects that impacted PPSTs' perceptions of preparedness to teach curriculum PE. The research questions, which each subsequent article will in greater detail, were:

1 What impact do PPSTs' prior experiences of PE have on their preparedness to teach the subject? (Article 2)
2 Do university-based lectures develop PPSTs' PE Subject Knowledge and Subject Pedagogy? (Article 3)
3 To what extent has outsourcing impacted PPSTs' school based training? (Article 4)

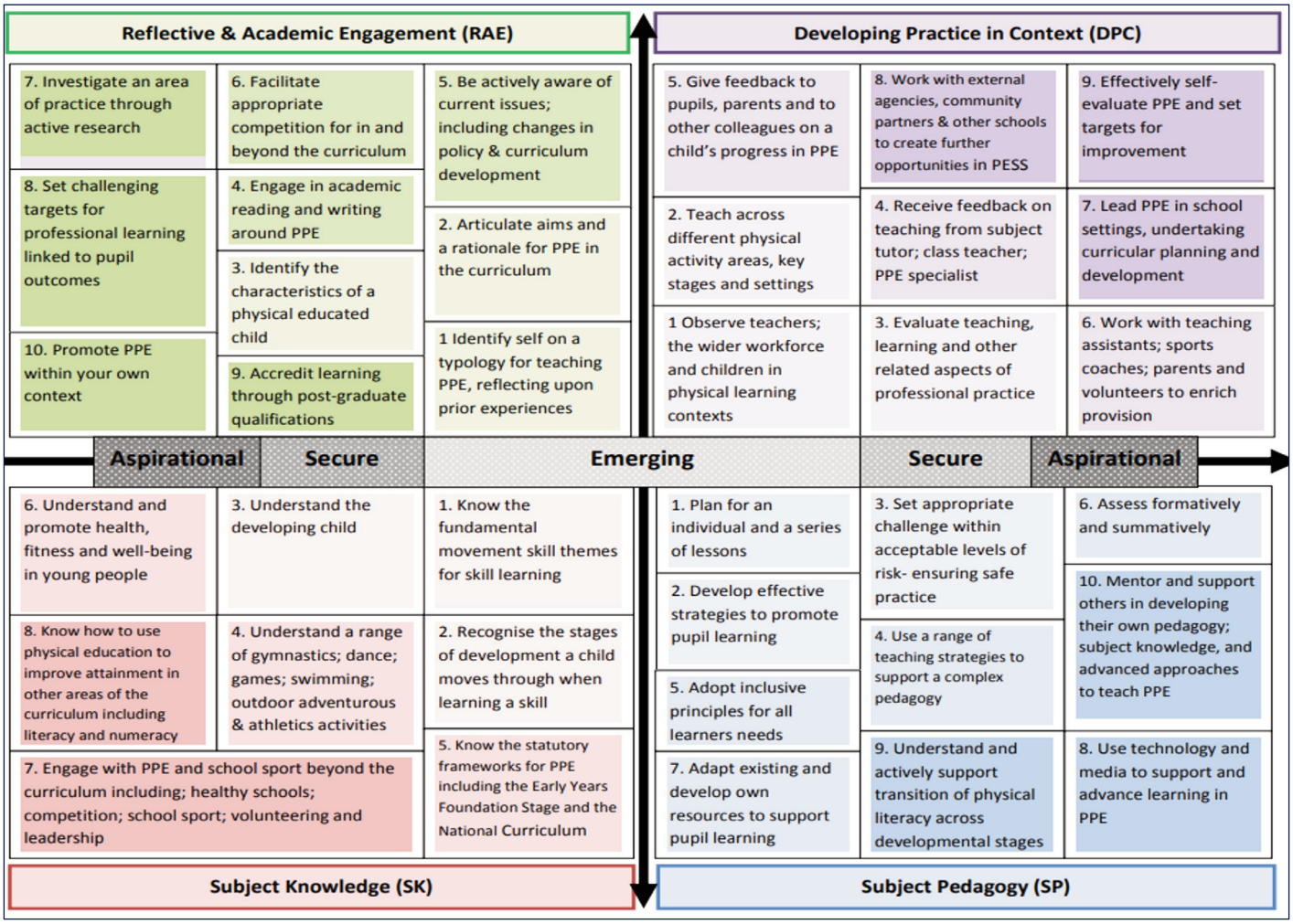

Figure 1: Professional Knowledge Model (Randall, 2013)

Additionally, Article 5 will consider the overall findings of the study and propose potential recommendations for the future of PE within ITE.

Methodology

Theoretical Framework

To investigate these research questions, a theoretical framework and a rigorous research design was required. In terms of a theoretical framework, the Professional Knowledge Model (PKM) (Figure 1) (Randall, 2013) was a significant thread throughout the study. The PKM is a starting point for discussions concerning PE considering an individual's career point from ITE (emerging), entering the professions (secure) to PE specialists and subject leads (aspirational). It considers four key domains for considering to develop preparedness within PE which are:

Reflective and Academic Engagement

PPSTs must understand the rationale for curriculum PE and what a physically educated child is through engaging with academia, research and policy (Randall et al., 2016); evidence-informed teaching should be central to a trainees' development (DfE, 2015). Additionally, trainees should explore the self and their own prior PE experiences as these are considered starting points for influencing future practice (Randall, 2015).

Subject Knowledge

Trainees must understand the PE National curriculum to support children in Key Stage 1 develop FMS and become competent across a range of opportunities to improve agility, balance and coordination. In Key Stage 2 children should apply and develop skills, and use them in different ways, encouraging children to lead healthy lives (DfE, 2013b). Therefore, PPSTs must know what FMS are and how these develop through gymnastics, dance, games, swimming, athletics and Outdoor and Adventurous Activities (Randall et al., 2016).

Subject Pedagogy

Shulman (1987) explains teachers must have knowledge of 'what we teach' and 'how we teach it' which strengthens the relationship between theory and practice. Consequently, PPSTs must plan and assess lessons, understand risk and safe practice and develop PE specific strategies promoting inclusive learning (Randall et al., 2016) including widely advocated pedagogical approaches such as Teaching Games for Understanding, Sports Education Models and STEPs (Ennis, 2014; Casey and MacPhail, 2018).

Developing Practice in Context

This domain encourages PPSTs to observe teachers, mentors, specialists and the wider workforce delivering PE and evaluate their own teaching practice. PPSTs must also receive fee back from mentors and provide feedback themselves. Randall (2020) argued it is not enough for educators to have strong subject knowledge and subject pedagogy if they cannot put theory into practice.

Research design

Paradigm

The study used a case study approach to explore knowledge of participants' truths using the researchers self-developed pragmatic paradigm which is underpinned by an interpretivist heart, Grounded Theory and mixed methods research (Figure 2); a real-world problem was solved using fit for purpose 'what works' research methods (Cohen et al., 2018). The paradigm was appropriate as pragmatists accept multiple realities exist and sidestep the issue of 'truths' (Feilzer, 2010) knowing individuals' views are subject to change (Bielsa, 2010). This does not mean pragmatism is an unprincipled approach; it is rigorous as chosen methods answer questions delivering practicable, reliable answers (Cohen et al., 2018).

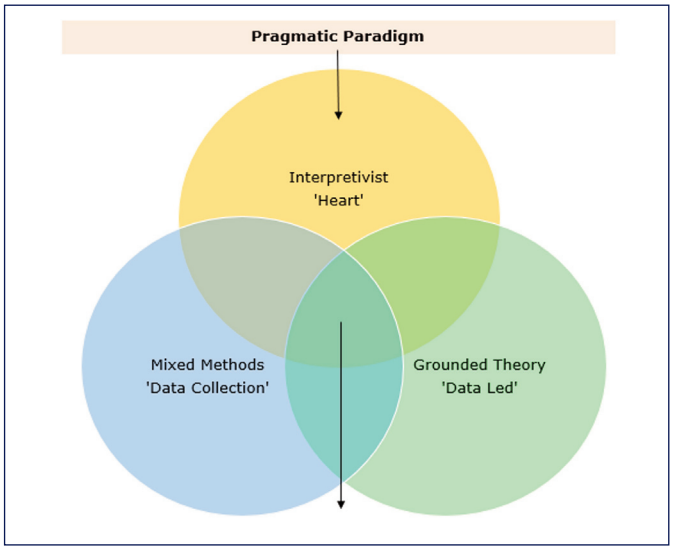

Figure 2: An overview of the study's Pragmatic Paradigm

Links existed with interpretivism, which is acceptable, as paradigms can mix to better understand research areas (Cohen et al., 2018). Interpretivists see the world subjectively through participants' eyes, forgoing their knowledge to investigate interpretations of situations and understand attitudes, behaviours and realities (Hammersley, 2013). Researchers unavoidably see information through their own lens to some degree; highlighting transparency increases research credibility allowing the reader to interpret the researcher's subjectivity and analytical criticality (Harvey, 2013).

Grounded theory was also explored in the study. Glaser and Strauss (1967) state that in Grounded Theory data leads the creation of new theories. Within this study, Grounded Theory helped to firstly select research participants and to generate future potential recommendations for practice for multiple stakeholders including PPSTs, lecturers and the Higher Education Institution (HEI). Additionally, the data helped generate future study possibilities (Yin, 2009).

Mixed Methods Research is widely used within pragmatism (Johnson et al., 2007) providing greater opportunities to understand participants' truths by converging quantitative and qualitative methods (Feilzer, 2010) and triangulating data to prove or disprove things (Denscombe, 2010). The study used mixed methods to create a nuanced account of complexities of an educational phenomenon by using an online questionnaire followed by subsequent interviews to further explore participants' views, increasing data validity and reducing research bias as more information could be analysed, improving possibilities of generating stronger recommendations (Denscombe, 2010).

Case Study

Case studies are used widely in social research exploring particularities and complexities of cases (Denscombe, 2010). Conducted with a specific HEI cohort, this study was small-scale, exploratory and discovery-led within organisational boundaries (Cohen et al., 2018).

The scale of the study could encourage scepticism over generalisations (Bell and Waters, 2014) yet all case studies are unique, a single example of a broader class of things meaning if a study is like others of its type, generalisations are applicable (Denscombe, 2010). However, Bassey (1981) criticised making generalisations between studies citing relatability; however, over time, his view altered stating it is possible to formulate 'fuzzy generalisations,' which are outcomes that are not yet fully developed but transferable, specifically in educational contexts for developing professional actions, particularly when the context is clear and justified using rigorous evidence (Bassey, 2001). Based on his Four Dimension Criteria, Guba (1981) would agree noting if studies use credible, dependable and confirmable data, judgements from similar contexts can be transferred.

Questionnaires and Interviews

The first research method used was an online questionnaire where participants were chosen through purposive and convenience sampling: purposive as participants were picked on their appropriateness and knowledge of the ITE programme (Day Ashley, 2012); convenience as participants were accessible through institutional connection (Teddlie and Yu, 2007).

The questionnaire posed 27 questions: 17 Likert Scale questions generating quantitative responses with 10 optional open questions to create qualitative data. To support data analysis, questions were grouped according to the four PKM domains (Figure 1). A pilot study with four respondents was conducted where it was noted that the nature of the study was clear and although there were several questions, they were not time consuming. The questionnaire was distributed to all 74 PPSTs on the course, generating 39 participants (n=39), a 52.7% response rate.

Selective sampling determined interviewees (Denscombe, 2010) based on two criteria: firstly, participants were willing to conduct subsequent research, and secondly, each had alternative views on their preparedness to teach PE on course completion either 'agreeing,' 'somewhat agreeing' or ' disagreeing,' aligning with Grounded Theory as participants were chosen according to data. Overall, six interviews (n=6) were conducted.

Throughout interviews, five open, semi-structured questions were asked meaning participants could illicit opinions and elaborate on topics (Creswell and Creswell, 2018). Additionally, questions could be rephrased or prompts could be provided to ensure clarity and further explore topics (Denscombe, 2010).

Prior to interviews, participants RAG-rated an adapted PKM which outlined the 'emerging' and 'secure' statements amended to 'I can/I know' statements (Figure 3) in order for PPSTs to consider their own perceptions of preparedness; red denoted 'unprepared,' amber was 'neutral' with green implying 'prepared;' such coding provided a quick reference for each statement. Choices were discussed during interviews,

Reflective and Academic Engagement (RAE)		Developing Practice in Context (DPC)	
I have engaged in wider reading and writing around PE e.g., assignments	I have reflected upon my own prior PE experiences.	I have observed teachers, wider specialists, and children in PE contexts	I have received effective feedback on my PE teaching from mentors/ specialists
I am aware of current issues regarding curriculum PE	I can outline the aims and rationale for curriculum PE	I have taught PE in different settings and key stages	I have given feedback to pupils, parents and colleagues concerning PE
I know how to facilitate appropriate levels of competition within PE	I know the characteristics of a physically educated child	I can evaluate my own teaching and learning within PE	I have worked with others to enrich PE provision for the children I teach
Secure	**Emerging**		**Secure**
I know how to promote health, fitness, and well-being in young people	I know about the stages of a developing child	I know how to ensure practice is safe and how to reduce levels of risk	I know formative and summative strategies to assess to children in PE
I know what is outlined in the Primary PE National Curriculum	I know the stages of development a child moves through when learning a skill	I know different strategies that promote teaching and learning in PE	I know how to be inclusive for all learners when teaching PE
I know a range of activities in gymnastics, dance, games, swimming, OAA and athletics	I know what the Fundamental Movement Skills are	I have planned and taught individual and sequences of PE lessons	I know and can use PE specific pedagogies to support teaching
Subject Knowledge (SK)		**Subject Pedagogy (SP)**	

Figure 3: An adapted version of the Professional Knowledge Model.

challenging perceptions and exploring the PKM's usefulness in developing preparedness.

To analyse the data, information required coding to identify themes (Braun and Clarke, 2006). A thematic approach was used in which there are two methods: inductive and deductive. An inductive analysis approach is 'bottom-up' where dominant themes are identified within data, whereas deductive analysis is 'top-down,' where researchers bring pre-considered concepts when interpreting data (Braun and Clarke, 2019). It is impossible to be purely inductive as researchers always bring some knowledge to analysis; in practice, studies use both approaches (Thomas, 2006).

As codes were determined by data, an inductive approach was used, however as questions within the questionnaire were purposefully phrased to link with the PKM, some inevitable preconceived, deductive researcher perceptions were generated. Guba (1981) would argue this is acceptable as it satisfies the Four Dimensions Criteria as the process was logical promoting dependability and data led ensuring confirmability. When analysing quantitative data, an in built analyse tool was used to produce descriptive statistics including frequencies and percentages, collating data in charts. For qualitative data, transcriptions were made using Otter.ai (Otter.ai, 2022) which were manually coded.

In terms of ethics, before researching, the BERA Guidelines (2018) were consulted to ensure the study was ethically sound and participant consent was obtained during the questionnaire and in advance of interviews taking place.

Conclusion

The aim of this article was to set the platform for a subsequent series of articles concerning research questions outlined from a Masters in Education thesis. The questions focused on how PPSTs' prior experiences, ITE provision and outsourcing impact a trainees' preparedness to deliver curriculum PE before a final article offers recommendations for practice. These proposals are applicable to other HEI institutions as the rigor of the theoretical framework and research design has created trustworthy and dependable findings (Guba, 1981). The original study is very much relevant in the context of curriculum PE today due to the context of children's physical health, the funding being provided to primary schools through the PESSP and calls for PE to become a core National curriculum subject.

The next article focuses on the study's first research question in more detail exploring the impact PPSTs' prior experiences have upon their PE preparedness. It outlines how PPSTs' negative perceptions are not fixed but subjective and can be altered through developing emotional intelligence, which those trainees with positive perceptions must not become complacent within their training.

References

- Association for Physical Education (2019) Definitions of Physical Education, School Sport and Physical Activity. *Association for Physical Education* [online]. Available from: https://www.afpe.org.uk/physical-education/wp-content/uploads/Definition-of-PA-PE-School Sport.pdf.Association for Physical Education (2022) Taskforce on the Future of Physical Education (PE): The Heart of School Life. Association for Physical Education [online]. Available from: https://www.afpe.org.uk/physical-education/wp-content/uploads/afPE-Taskforce-Report-on-the-Future-of-Physical-Education-Final.pdf

- Bassey, M. (1981) Pedagogic research: on the relative merits of the search for generalization and study of single events. *Oxford Review of Education*. 7(1), pp.73–93.
- Bassey, M. (2001) A solution to the problem of generalisation in educational research: Fuzzy Prediction. *Oxford Review of Education.* 27(1), pp.5–22.
- Bell, J. and Waters, S. (2014) Doing Your Research Project: A Guide for First-time Researchers. 6th ed. Maidenhead: Open University Press.
- Bielsa, G. (2010) Pragmatism and the philosophical foundations of mixed methods research. In: Tashakkori, A. and Teddlie, C. (eds.) Handbook of Mixed Methods in Social and Behavioural Research. Thousand Oaks, CA: Sage Publications, pp.95–117.
- Blair, R. and Capel, S. (2008) Intended or Unintended? Issues arising from the implementation of the UK Government's 2003 Schools Workforce Remodelling Act. *Perspectives in Education*. 26(2), pp.105–121.
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(1), pp.77–101.
- Braun, V. and Clarke, V. (2019) Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health.* 11(4), pp.589–597.
- British Educational Research Association (2018) *Ethical guidelines for Educational Research*. 4th ed. British Educational Research Association [online]. Available at: https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018
- Cale, L., Casey, A. and Harris, J. (2016) An advocacy paper for physical education and school sport. *Physical Education Matters.* 11(1), pp.18–19.
- Casey, A. and MacPhail, A. (2018) Adopting a models-based approach to teaching physical education. *Physical Education and Sport Pedagogy*. 23(3), pp.294–310.
- Cohen, L., Manion, L. and Morrison, K. (2018) Research methods in education. London: Routledge.
- Creswell, J. and Creswell, J. (2018) Research design: Qualitative, Quantitative, and Mixed Methods Approaches. 5th ed. Thousand Oaks, CA: Sage Publications.
- Day Ashley, L. (2012) Planning you research. In: Waring, M. and Arthur, J. (eds.) Research Methods and Methodologies in Education. Thousand Oaks, CA: Sage Publications, pp.33–42.
- Department for Digital, Culture, Media and Sport (2022) Government response to the House of Lords National Plan for Sport and Recreation Committee report: 'A national plan for sport, health and wellbeing. GOV.UK [online]. Available from: https://www.gov.uk/government/publications/government-response-to-the-house-of-lords-national-plan-for sport-and-recreation-committee-report/government-response-to-the-house-of-lords-national-plan-for-sport and-recreation-committee-report-a-national-plan-for-sport-health-and-wellbeing
- Department for Education (2013a) PE and sport premium for primary schools. GOV.UK [online]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/379202/The_20PE_20and_20sport_20premium_20for_20primary_20schools.pdf
- Department for Education (2013b) Physical education programmes of study: key stages 1 and 2: National curriculum in England. GOV.UK [online]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239040/PRIMARY_national_curriculum_-_Physical_education.pdf
- Department for Education (2015) Carter Review of Initial Teacher Training (ITT). GOV.UK [online]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/399957/Carter_Review.pdf
- Department of Health and Social Care (2020) Tackling obesity: empowering adults and children to live healthier lives. GOV.UK [online] Available from: https://www.gov.uk/government/publications/tackling-obesity-government strategy/tackling-obesity-empowering-adults-and-children-to-live-healthier-lives
- Denscombe, M. (2010) The Good Research Guide: For small-scale social research projects. Berkshire: Open University Press.
- Duncan, M., Roscoe, C., Noon, M., Clark, C., O'Brien, W. and Eyre, E. (2019) Run, jump, throw and catch: how proficient are children attending English schools at the fundamental motor skills identified as key within the school curriculum? *European Physical Education Review*. 26(4), pp.814–826.
- Duncombe, R., Cale, L. and Harris, J. (2018) Strengthening 'the foundations' of the primary school curriculum. *Education* 3-13. 46(1), pp.76–88.
- Eddy, L., Hill, L., Mon-Williams, M., Preston, N., Daly-Smith, A., Medd, G. and Bingham, D. (2021) Fundamental movement skills and their assessment in primary schools from the perspective of teachers. *Measurement in Physical Education and Exercise Science.* 25(3), pp.236–249.
- Ennis, C. (2014) The role of students and content in teacher effectiveness. *Research Quarterly for Exercise and Sport.* 85(1), pp.6–13.
- Feilzer, M. (2010) Doing Mixed Methods Research Pragmatically: Implications for the Rediscovery of Pragmatism as a Research Paradigm. *Journal of Mixed Methods Research*. 4(1), pp.6–16.
- Graham, G., Hale, S., Parker, M., Hall, T. and Patton, J. (2020) Children Moving: A reflective Approach to Teaching Physical Education. 1st ed. New York: McGraw-Hill Education.
- Glaser, B. and Strauss, A. (1967) The Discovery of Grounded Theory. Chicago: Aldine.
- Griggs, G. (2016) Spending the Primary Physical Education and Sport Premium: A West Midlands case study. *Education* 3–13. 44(5), pp.547–555.
- Griggs, G. and Ward, G. (2013) The London 2012 legacy for primary physical education: Policy by the way? *Sociological Research Online.* 18(3), pp.1–7.
- Guba, E. (1981) Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology Journal*. 29(2), pp.75–91.
- Hallahan, G. (2022) The problems with the push to make PE a core subject. *Times Educational Supplement* [online]. Available from: https://www.tes.com/magazine/analysis/general/problems-push-make-pe-core-subject
- Hammersley, M. (2013) What is Qualitative Research? London: Bloomsbury Academic.
- Harris, J. (2018) The Case for Physical Education Becoming a Core Subject in the National Curriculum. *Physical Education Matters.* 13(2), pp.9–12.
- Harvey, J. (2013) Footprints in the field: researcher identity

on social research. *Methodological Innovations Online*. 8(1), pp.86–98.
- House of Lords Select Committee (2021) A national plan for sport, health and wellbeing. Available from: https://publications.parliament.uk/pa/ld5802/ldselect/ldsportrec/113/113.pdf
- Johnson, R., Onwuegbuzie, A. and Turner, L. (2007) Towards a definition of mixed methods research. *Journal of Mixed Methods Research.* 1(2), pp.112–133.
- Jones, L. and Green, K. (2017) Who teaches primary physical education? Change and transformation through the eyes of subject leaders. *Sport, Education and Society.* 22(6), pp.759–771.
- Lawson, C., Eyre, E., Tallis, J., and Duncan, M. (2021) Fundamental movement skill proficiency among British primary school children: analysis at a behavioral component level. *Perceptual and Motor Skills.* 128(2), pp. 625–648.
- Organ, P. and Bourke, S. (2008) Non-specialist teachers' confidence to teach PE: the nature and influence of personal school experiences in PE. *Physical Education and Sport Pedagogy.* 13(1), pp.1–29.
- National Health Service (2021) National Child Measurement Programme, England 2020/21 School Year. *NHS Digital* [online]. Available from: https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurment-programme/2020-21-school-year
- Office for Health Improvement and Disparities (2022) Childhood obesity: applying All Our Health. GOV.UK [online]. Available from: https://www.gov.uk/government/publications/childhood-obesity-applying-all-our-health/childhood-obesity-applying-all-our-health
- Ofsted (2013) Beyond 2012 – outstanding physical education for all Physical education in schools 2008–12. GOV.UK [online]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/413187/Beyond_2012_-_outstanding_physical_education_for_all.pdf
- Ofsted (2018) Obesity, healthy eating and physical activity in primary schools. GOV.UK [online]. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/726114/Obesity__healthy_eating_and_physical_activity_in_primary_schools_170718.pdf
- Ofsted (2022) Research review series: PE. GOV.UK [online]. Available from: https://www.gov.uk/government/publications/research-review-series-pe/research-review-series-pe
- Pickard, A. and Maude, P. (2014) Teaching Physical Education Creatively. 1st ed. Oxon: Routledge.
- Powell, E., Woodfield, L., Nevill, A., Powell, A. and Myers, T. (2019) We have to wait in a queue for our turn quite a bit: examining children's physical activity during primary physical education lessons. *European Physical Education Review.* 25(4), pp.929–948.
- Randall, V. (2013) Becoming a Primary Physical Educator: Sourcing professional knowledge and confidence. Association for Physical Education [webinar]. Available from: https://www.afpe.org.uk/physical-education/wp content/uploads/Becoming_a_Primary_Physical_Educator_afPE_March_2014.pdf
- Randall, V. (2015) Professional Knowledge – Challenge and Opportunity for Primary Physical Education. *Physical Education Matters.* 10(1), pp.60–63.
- Randall, V. (2020) Becoming a primary physical educator. *Education* 3–13. 48(2), pp.133–146.
- Randall, V., Richardson, A., Swaithes, W. and Adams, S. (2016) Generation Next: The preparation of pre-service teachers in primary physical education. *The University of Winchester* [online]. Available from: https://cris.winchester.ac.uk/ws/files/355812/918918_Randall_GenerationNext_original.pdf
- Shulman, L. (1987) Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review.* 57(1), pp.1–21.
- Strain, T., Sharp, S., Spiers, A., Price, H., Williams, C., Fraser, C., Brage, S., Wijndaele, A. and Kelly, P. (2021) Population level physical activity before and during the first national COVID-19 lockdown: A nationally representative repeat cross-sectional study of 5 years of Active Lives data in England, *The Lancet Regional Health – Europe*. 12, pp.1–13.
- Teddlie, C. and Yu, F. (2007) Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research.* 1(1), pp.77–100.
- Thomas, D. (2006) A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation.* 27(2), pp.237–246.
- Yin, R. (2009) Case Study Research: Design and Method. 4th ed. London: Sage Publications.

Teachers' perceptions of Criteria-Based Assessment Model of the International Baccalaureate Middle Years Program

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Introduction

My experience with the International Baccalaureate's (IB) Middle Year Programme (MYP) over the past 18 months as a newly qualified mathematics teacher, gave me opportunities to explore the criteria-related assessment model first-hand. The learning objectives and assessment criteria of each subject are defined in the MYP rubrics in respective subject guides, but as International Baccalaureate Organisation (IBO) (2014) warns, the rubrics are holistic in nature, making the criteria's interpretations subjective. Subjectivity in interpretation leads to subjectivity in marking, which as Burton (2006) states, questions the validity of the assessments and the outcomes. Apart from grading, I experienced challenges in designing assessments which are aligned with the criteria, which included choosing the appropriate questions, considering how a question meets certain criteria, and defining the various performance levels. While designing tasks for Grades 6–8, I found limited resources such as question banks and sample tasks, aligned to the criteria, which led to my own interpretations of the criteria culminating into tasks. The subjectivity in

interpretations of the criteria among teachers of my department leads to ambiguity in students' understanding of the grading process and thus interpretations of students' achievement are unclear. These challenges raised questions such as: What entails a good Criteria-Based Assessment (CBA) task? What do the criteria mean? How do teachers learn to design CBA? What is the community's understanding of the criteria? How do we help students understand the criteria? And above all, how do we reduce the subjectivity in our interpretations? Thus, this research article will describe a qualitative study of the criteria-related assessment model followed in the IB MYP from the teachers' perspective. Interestingly, through this research, I found that many teachers irrespective of their length of experience with the IB face similar challenges.

I chose an IB World school in Bangalore, India as the research site. The school is called an IB World School since it has adopted the IB curriculum for all age groups – the Primary Years Programme (PYP), the MYP and the Diploma Programme (DP), which together cater to the IB continuum across grades 1–12, consisting of 1100 students from 33 countries and 160 plus faculty members across the three programmes. The MYP alone has 50-plus teachers practising the criterion-referenced assessment model, of which I am a part.

Background and context:

IBO (2014) deems assessments crucial to teaching and learning processes. As Sadler (2005: 177) defines, assessments are 'processes of forming a judgement about the quality of student achievement or performance, and therefore by inference a judgement about the learning that has taken place'. While teachers use information from assessments to inform their instructional practices, identify students' strengths and weaknesses and provide feedback on students' work to support their learning (Tosuncuoglu, 2018), assessment methods affect students' efforts in learning (Yuskel and Gunduz, 2017).

Sadler (2005: 178) mentions, 'Assessment and grading do not take place in vacuum'; hence, norm-based and criteria-based are the two assessment frameworks against which students' work is interpreted and graded. IBO (2014: 79) claims that IB's MYP follows the criteria-related assessment model, which differs from CBA where 'students must master all strands of specific criteria at lower achievement levels before they can be considered to have achieved the next level' and from the norm-referenced model, where 'students must be compared to each other and to an expected distribution of assessment'. On the other hand, Sadler (2005) contends that a grading model could be identified as criteria-based if grading is solely based on students' work without referring to others' performances or the student's previous level of performance.

According to Carlson (2012), the MYP assessment model is based on the theoretical framework of Educative Assessment, where assessment is an integral part of the learning process and students' achievement depends on continuous feedback, self-assessment, and appropriate articulation of assessment criteria within the learning community. Moreover, IBO (2014) demands students' awareness of the assessment criteria and their involvement in the assessment process, which according to Carlson (2012), develops critical thinking, metacognition, and reflection. Building a common understanding of the criteria within the learning community involving students, teachers, and parents is essential to implementing CBA in teaching and learning processes (Carlson, 2012; IBO, 2014).

IBO (2014) mandates judging students' achievement in criteria-related assessments by using teachers' professional judgement based on pre-established subject-specific criteria that are publicly known and precise. Andrade (2005) highlights that the qualities or assessment criteria are listed, and the levels of qualities in each criterion, are articulated in an assessment tool called a rubric. In explaining the power of rubrics, Bargainnier (2003) suggests that when used for evaluative purposes, the levelled criteria in rubrics can help evaluate higher-order thinking skills in open-ended complex assessments. According to Carlson (2012), students' success level in meeting the pre-established objectives or criteria is described qualitatively in the rubric. Scarino (2007) contends that these criteria clarify expectations and control subjectivity in judgement. In addition to evaluation, IBO (2014: 81) states that these 'criteria for each subject group represent the use of knowledge, understanding and skills that must be taught' and they 'encompass the factual, conceptual, procedural and metacognitive dimensions of knowledge'.

Based on the guidelines of IBO (2014) and the ideas of Sadler (2005) and Carlson (2012), the subtle difference in the two terms - criteria-related and criteria-based, as stated by the IB depends on the grading method. Despite the difference, as Rust et al. (2003) and Carlson (2012) identify and IBO (2014) recommends, the aspects of articulation of criteria, developing assessments and instructions based on criteria, and the learning community's knowledge of criteria remain the same for both the models. Hence, this research article will highlight the key aspects which underpin designing CBA- teachers' perception of the criteria and the process of articulating criteria to students, from the perspective of teachers.

Research methodology

The study concentrated on an in-depth description of teachers' perception of teaching and learning practices around the criterion-related assessment model of the IB MYP, in an IB World School. The narrow focus might raise questions about generalisability of the research outcomes; however, Schwandt and Gates (2018: 609) declare such questions as 'irrelevant because establishing typicality is not the intent of the researcher', rather adding to the existing research around CBA in the MYP is intended. I conducted questionnaires of 15 teachers who are currently using the MYP rubrics in their teaching and learning practice from the five subject groups (languages, sciences, mathematics, design, individuals and societies). I also conducted face-to-face semi-structured interviews with two MYP program coordinators and three teachers from the MYP, who are involved in the CBA processes regularly. Program coordinators alongside teaching, oversee the implementation of the MYP program in the school. The following sections will elaborate on the three themes - Reducing subjectivity in the rubric, Articulation of the criteria and Teachers' knowledge and understanding of CBA - that emerged from the data to make the CBA model effective.

1. Reducing subjectivity

While discussing the considerations teachers make about a criteria-based task, teachers I interviewed mentioned aligning the tasks with the criteria as essential but difficult, especially when multiple criteria are involved. Alignment was identified as asking questions appropriate to the MYP rubric's criteria descriptors, which define MYP's outcomes and subject standards. While, one of the first recommendations regarding designing criteria-based tasks made by Perlman (2003) is to align tasks and the discipline's outcomes, teachers argued

that understanding the criteria completely can be quite subjective and may present an ambiguous picture of students' work. IBO (2014) similarly described MYP rubrics as holistic, and the level descriptors are only general qualitative statements to describe students' work.

One way of reducing subjectivity recommended by the teachers and IBO (2014) is to provide task-specific clarifications (TSC) to students instead of the general MYP rubrics. The data showed such TSCs are used for some assessments only. While it is ideal to set TSC for all assessments, Burton (2006) warned that defining the performance standards employing exemplars or anticipating the levels of responses suiting each performance level is the most difficult part for CBA designers and becomes more challenging when the number of levels increases. Even though TSCs help align with the grading process, reducing subjectivity in grading, such clearer requirements, Torrance (2007) warned, are easier to pursue, thus posing a danger of reducing the learnings' challenge and questioning the outcomes' quality and validity. The extent to which the TSC is specific needs careful consideration to not only reduce subjectivity in grading, and in teachers' and students' understanding of the criteria, but also not limit the task's challenge.

Another method of reducing subjectivity that emerged from the data was using command terms (CT) in CBA. CT, as IBO (2014: 108) defined, are instructional verbs that 'indicate the level of thinking and type of performance that is required of students in a task'. Every criterion can be described using CTs, which are easier to understand rather than descriptors. IBO (2014: 108) added that these CTs make 'explicit a shared academic vocabulary that informs teaching and learning in the MYP' and is 'used to establish learning outcomes and assessment objectives'.

The contrast between the grading systems for grades 9–10 and for grades 6–8 might potentially increase the subjectivity in the grading process for grades 6–8, where only achievement levels are assigned based on teachers' judgement and understanding of the criteria and no scores are allocated. Such subjectivity in the grading process questions the assessment's reliability since Burton (2006) claimed consistency in feedback when multiple assessors are involved or the same assessor marking at different points in time makes assessments more reliable. Explicit scoring systems, as Chan and Ho (2019: 541) asserted 'enables consistent and clear marking to promote transparency', without which marking may base on impressions, which will affect students' learning. Additionally, Tomas et al. (2019) claimed a combination of holistic marks-based and analytical criteria-based grading, while considering each criterion's weightage in a task is an efficient way of gaining insights into overall criteria-based marks, for both students and teachers, however, it may fail to represent complex interactions amongst criteria and achievement levels.

2. Articulation of the criteria to students

Carlson (2012) contended that appropriately articulating assessment criteria is not just about having access to criteria and frequency of articulation but quality of the process and students' awareness about judging their work against the set criteria. Carlson (2012) also warned that even though assessment rubrics and presentation sheets are primary means of articulating achievement levels, students rarely read them with depth and understanding. Additionally, Panadero and Jonsson (2020) highlighted general holistic rubrics convey abstract ideas such as competency, requiring substantial time investment in training students rather task-specific rubrics are simpler and have more utility for a student. During the interviews the coordinators warned it could be overwhelming since students study nine subjects, each having its criteria and strands, hence discussing one strand at a time may be helpful. Additionally, Carlson (2012) highlighted students with language difficulty may find it more challenging and suggested differentiation while articulating rubrics.

The coordinators suggested using simplified rubrics to set clear task expectations for students, since 40 minutes of class is insufficient for most students to read a complicated rubric. Teachers suggested simplifying the rubric by discussing the CT aligned to the criteria with students rather than the criteria descriptors while doing a task is a better way to communicate the expectations in the rubric. Jonsson (2014) claimed making references to words in criteria while looking at a task may help successfully articulate criteria, however, Torrance (2007) warned coaching students to answer questions is a convergent way of checking what students can do with the criteria rather than what else students can do. Balloo et al. (2018) added such transactional approaches are unlikely to help students engage with the criteria to develop learning and self-regulation.

The data revealed limited exposure of students to the assessment criteria and most discussions on rubrics happened on the eve of the examinations and all the interviewees identified the need of exploring the rubric regularly. According to the teachers, discussing the criteria only before assessments, impacted students in two ways – firstly, it causes students to view rubrics only as a tool to score better rather than prepare, progress and reflect, secondly, it leads to poor students' understanding of the rubric. Jonsson (2014) pointed out that students' understanding of the criteria influences how students will use the rubric to self-regulate. Balloo et al. (2018) added presence of explicit criteria does not mean students will automatically self-regulate their performance rather regular classroom interventions where students can decrypt the assessment criteria are essential. The data also revealed that very few teachers engage students actively through peer/self-assessment to understand the criteria, which could be a possible reason for teachers' low rating of students' understanding of the rubric. According to Carlson (2012), peer/self-assessment involves students actively in the assessment process, leading to a clearer focus on the learning objectives and greater accountability from students' side. Rust et. al (2003) demonstrated dialogues between students and teachers complement the explicit knowledge provided in written format and brought forth the tacit knowledge required to understand the criteria.

In addition to methods and frequency of articulation, teachers themselves face challenges in planning for such articulations. Challenges come in two ways- firstly, planning tasks reflecting all the criteria is difficult, especially for new teachers and secondly, time constraints act as a constant obstacle to exploring the criteria in depth. Even though teachers admit that rubrics push students and teachers to explore questions beyond knowledge and understanding, into applications, teachers limited understanding of the rubric itself deems them incapable of effective articulation methods. This attests to Carslon's (2012) recommendations of training and guiding teachers to help develop tasks meeting the MYP objectives. According to Shafer et al. (2001), teachers who understand rubrics may design more effective instructional experiences

and reveal the relevant characteristics of achievement to students effectively. During the interviews, the coordinators mentioned that often feedback given on aspects of students' active engagement in unit plans sees limited impact because of time constraints since the planning, feedback and assessing cycles run on tight timelines and feedback often does not reach on time. Though Palmer (2003) suggested making CBA a worthy part of instructions instead of using them as add-ons, Burton (2006) warned while adopting the criterion-referenced model, workload and time required in setting performance levels, articulating the criteria to students, supervising grading reliability and feedback to students, must be considered.

3. Teacher's knowledge and understanding

Teachers build their knowledge and skills in designing CBA from the IB subject guide, by studying examples, available past papers and through colleagues' feedback on their tasks. Despite these resources, along with difficulties in aligning tasks to criteria, challenges such as uncertainty in knowledge about CBA for new teachers, designing assessments catering to diverse students' needs, making the TSC, time constraints, and articulation of criteria to students also exist. The coordinators believed understanding the criteria takes time for a teacher and requires practice and reflection on the deficiencies of the current assessments and new teachers indeed face problems, but once understanding comes, making unit plans and summative tasks aligned to the criteria becomes easier. While this supported Andrade's (2005) idea of an instructional rubric used in aligning learning goals and instruction design through backward planning in designing tasks, daily lesson plans and choosing resources, So and Lee (2011) warned that a teacher will bring in her personal beliefs and perceptions, which might hinder potential benefits of the criteria and the teacher might use the rubric primarily as an evaluation tool, rather than a flexible learning tool. Most teachers participating in the questionnaire come with experiences from the Indian education system where Sancho (2016) points out there is a culture of turning academic years into an exam-oriented training regime, hence it is likely teachers take an evaluative approach to rubrics usage.

Teachers gave insights into the nature of challenges teachers face such as meeting the mandates of testing at least two criteria in every cycle, leading to force-fitting criteria into tasks, and creating tasks which fulfil multiple criteria, irrespective of how experienced the teacher is. The teachers also identified a limitation in the abundance of resources to bank on. Teachers believed their interpretation of the criteria might be limited and pointed out several misconceptions that the teaching community has about the meaning of the criteria, which limits the utility of the criteria. So and Lee (2011) added even though teachers might be willing to work towards using rubrics to promote learning, they might not always decide rationally while practising due to deep-rooted prior perceptions, which Scarino (2007) claims are often influenced by past experiences, relationship with students, and personal and professional identities. Even though most teachers identified the need for workshops and very few had formal IB training, the coordinators insisted on making mistakes, reflecting on mistakes, collaborating, practising, and asking questions to improve assessments continuously are the key to developing assessment designing abilities. One coordinator insisted sending teachers on professional development workshops is not enough since 'IB is one such curriculum where you have to undertake personal development on your own...because it is continuously evolving'. These views resonate with Polk (2006) who refuted periodic in-service training as being sufficient to develop new teaching methods and improve practices and asserted that teachers learn in a cycle of demonstration, practice and feedback.

In addition to the effectiveness of training, coordinators highlighted the mindset of undergoing self-development and lifelong learning is essential for teachers to become experts in designing CBA, which resonates with Polk (2006) who claims that it is the teacher's responsibility to continuously stay current in the field and develop themselves. One of the teachers, who is more experience in the IB curriculum, shared that she developed her expertise in the CBA by studying the examiner's reports of MYP e-assessment papers and suggested guiding new teachers on the design of e-assessment papers and examiner's reports will give them more clarity on CBA rather than just sharing sample papers. Indeed, as Callahan (2016) denoted mentoring is an important aspect that guides new teachers in instructional planning and delivery based on standards, building content and grade level expertise, which retains motivation in the profession, however, such mentoring should happen for a prolonged duration. Though conducting workshops is a means to train teachers, Balan (2012: 146) warned introducing assessment only through lectures is not enough to influence teachers' practices, rather a 'close tutorial is more likely to be effective', which may demand commitment of teachers beyond work hours.

Conclusion

This study explored nuances of teachers' perception of the CBA in an IB world school in India and it is not without limitations. It is not justifiable or intended to generalise the findings to IB schools worldwide. As Cohen et al. (2018) assert, the study intended to add to the growing pool of case studies related to the CBA model, acknowledging the biases in researcher's interpretations (Stake, 2008) and participants' views (Denscombe, 2010) which may influence the findings.

The findings rendered MYP teachers' and coordinators' perspectives on CBA, initiating reflection on my role as a mathematics teacher who designs CBA regularly and, on the practices followed by MYP teachers in different departments. The insights provoked me to modify my CBA designs, consciously articulate criteria to students and begin conversations with my colleagues about strategies to improve teachers' knowledge and practices of CBA. Coordinators and teachers extensively described teachers' limited knowledge and misconceptions of criteria and IBO (2014) recommends teachers ensure that the expected standards remain the same. Hence, exploring the community's understanding of the MYP criteria would be interesting. Teachers' and coordinators' perspectives indicated time constraints as a common challenge in CBA, as Burton (2006) also noted.

CBA model is designed to involve teachers and students actively in the assessment processes and aims at building self-regulation and metacognition in students. This model's success depends on teachers who creates a culture of assessment in the classrooms. Discussion among colleagues, exploring resources such as the examiner's report and past assessment papers of the MYP e-assessment can help develop teachers' ability to design criteria-based tasks, plan for lessons and resources; however, new teachers will require mentoring and guidance. As this study indicated, simply delivering guiding documents to teachers is unlikely to develop

teachers' understanding of the nuances of the CBA, rather a consistent support system could be more effective.

References

- Andrade, H. (2005). Teaching With Rubrics: The Good, the Bad, and the Ugly. *College Teaching*, [online] 53(1), pp.27 31. doi:10.3200/CTCH.53.1.27–31 [Accessed 10 Mar. 2022].
- Balan, A. (2012). *Assessment for Learning: A case study in mathematics education.* [Doctoral dissertation] Available at: https://www.diva-portal.org/smash/get/diva2:1404417/FULLTEXT01.pdf [Accessed 24 Feb. 2022].
- Balloo, K., Evans, C., Hughes, A., Zhu, X. and Winstone, N. (2018). Transparency Isn't Spoon-Feeding: How a Transformative Approach to the Use of Explicit Assessment Criteria Can Support Student Self-Regulation. *Front. Educ.*, [online] 3(69). doi:https://doi.org/10.3389/feduc.2018.00069 [Accessed 10 Jan. 2022].
- Bargainnier, S. (2003). *Faculty Development Series Purpose and Use of Rubrics.* [online] Pacific Crest. Available at: https://www.webpages.uidaho.edu/ele/scholars/practices/Evaluating_Projects/Resources/Using_Rubrics.pdf [Accessed 10 Feb. 2022].
- Burton, K. (2006). Designing Criterion-Referenced Assessment. *Journal of Learning Design*, [online] 1(2), pp.73–82. Available at: https://eric.ed.gov/?id=EJ1066490 [Accessed 10 Mar. 2022].
- Callahan, J. (2016). Encouraging Retention of New Teachers through Mentoring Strategies. *CoThe Delta Kappa Gamma Bulletin: International Journal for Professional Educators*, [online] 83(1), pp.6–11. Available at: http://www.deltakappagamma.org/GA-betaepsilon/Newsletters/2016_Jour_83-1_Early-Career-Educators_web.pdf#page=6 [Accessed 15 Sep. 2022].
- Carlson, C. (2012). *Perspectives of Criteria Based Assessment in the International Baccalaureate's Middle Years Programme.* [online] Available at: https://www.ibo.org/contentassets/4ccc99665bc04f3686957ee197c13855/finalcarlsonexecutivereport.pdf [Accessed 2 Dec. 2021].
- Chan, Z. and Ho, S. (2019). Good and bad practices in rubrics: the perspectives of students and educators. *Assessment & Evaluation in Higher Education*, [online] 44(4), pp.533–545. doi:10.1080/02602938.2018.1522528. [Accessed 15 Jan. 2022]
- Cohen, L., Manion, L. and Morrison, K. (2018). *Research Methods in Education.* 8th ed. London: Routledge.
- Denscombe, M. (2010). *Research Guide for Small-Scale Social Research Projects.* 4th ed. New York: McGraw Hill.
- International Baccalaureate Organization (2014). *MYP From Principles into Practice.* [online] Geneva: International Baccalaureate Organization, pp.79–106. Available at: https://www.spps.org/site/handlers/filedownload.ashx?moduleinstanceid=38342&dataid=21191&FileName=arts_guide_2014.pdf [Accessed 2 Jan. 2022].
- Jonsson, A. (2014). Rubrics as a way of providing transparency in assessment. *Assessment & Evaluation in Higher Education*, [online] 39(7), pp.840–852. doi:https://doi.org/10.1080/02602938.2013.875117 [Accessed 20 Dec. 2021].
- Palmer, N. (2016). Prototype Application to Address the Challenges of Criteria-Based Assessment. In: 2016 SAI Computing Conference (SAI). [online] 2016 SAI *Computing Conference (SAI).* IEEE, pp.836–842. doi:10.1109/SAI.2016.7556076 [Accessed 24 Feb. 2022].
- Panadero, E. and Jonsson, A. (2020). A Critical Review of the Arguments Against the Use of Rubrics. *Educational Research Review*, [online] 30(June 2020). doi:10.1016/j.edurev.2020.100329 [Accessed 24 Feb. 2022].
- Perlman, C.C. (2003). Performance Assessment: Designing Appropriate Performance Tasks and Scoring Rubrics. *ERIC.* [online] Available at: https://eric.ed.gov/?id=ED480070 [Accessed 10 Dec. 2021].
- Polk, J. (2006). Traits of Effective Teachers. *Arts Education Policy Review*, 107(4), pp.23–29. doi:10.3200/aepr.107.4.23-29 [Accessed 10 Dec. 2021].
- Rust, C., Price, M. and O'Donovan, B. (2003). Improving Students' Learning by Developing their Understanding of Assessment Criteria and Processes. *Assessment & Evaluation in Higher Education*, [online] 28(2), pp.147–164. doi:https://doi.org/10.1080/02602930301671 [Accessed 11 Jan. 2022].
- Sadler, D.R. (2005). Interpretations of criteria-based assessment and grading in higher education. *Assessment & Evaluation in Higher Education*, [online] 30(2), pp.175–194. doi:10.1080/0260293042000264262 [Accessed 11 Jan. 2022].
- Sancho, D. (2016). 'Keeping up with the time': rebranding education and class formation in globalising India. *Globalisation, Societies and Education*, [online] 14(4), pp.477–491. doi:10.1080/14767724.2015.1077101 [Accessed 11 Jan. 2022].
- Scarino, A. (2007). Teacher judgments. Going beyond criteria for judging performance. *Babel*, [online] 39(3), pp.8–16. Available at: https://www.researchgate.net/publication/275221655_Teacher_judgments_Going_beyond_criteria_for_judging_performance [Accessed 11 Jan. 2022].
- Schwandt, T.A. and Gates, E.F. (2018). Case Study Methodology. In: *The Sage Handbook of Qualitative Research.* London: SAGE Publications Ltd., pp.600–630 [Accessed 12 Mar. 2022].
- Shafer, W.D., Swanson, G., Bene, N. and Newberry, G. (2001). Effects of Teacher Knowledge of Rubrics on Student Achievement in Four Content Areas. *Applied Measurement in Education*, [online] 14(2), pp.151–170. doi:10.1207/S15324818AME1402_3 [Accessed 11 Jan. 2022].
- So, W.W.M. and Lee, T.T.H. (2011). Influence of teachers' perceptions of teaching and learning on the implementation of Assessment for Learning in inquiry study. *Assessment in Education: Principles, Policy & Practice*, [online] 18(4), pp.417–432. doi:10.1080/0969594X.2011.577409 [Accessed 10 Dec. 2021].
- Stake, R.E. (2008). Case Studies. In: *Strategies of Qualitative Inquiry.* [online] London: SAGE Publications, pp.134–164. Available at: https://www.sfu.ca/~palys/Stake2003-CaseStudies.pdf [Accessed 12 May 2022].
- Tomas, C., Whitt, E., Lavelle-Hill, R. and Severn, K. (2019). Modeling Holistic Marks With Analytic Rubrics. *Frontiers in Education*, [online] 4 (September 2019). doi:https://doi.org/10.3389/feduc.2019.00089 [Accessed 12 May 2022].
- Torrance, H. (2007). Assessment as learning? How the use of explicit learning objectives, assessment criteria and feedback in post-secondary education and training can come to dominate learning. *Assessment in Education*, [online] 14(3), pp.281–294. doi:https://doi.org/10.1080/09695940701591867 [Accessed 15 Jan. 2022].

- Tosuncuoglu, I. (2018). Importance of Assessment in ELT. *CoJournal of Education and Training Studies*, [online] 6(9), p.163. doi:10.11114/jets.v6i9.3443 [Accessed 15 Jan. 2022].
- Yüksel, H.S. and Gündüz, N. (2017). Formative and Summative Assessment in Higher Education: Opinions and Practices of Instructors. *European Journal of Education Studies*, [online] 3(8), pp.336–356. doi:10.46827/ejes.v0i0.904 [Accessed 11 Jan].

In music and through music: Inclusion and equity for pupils with PMLD in the context of classroom music-making

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Introduction

This paper focuses on equality, diversity and inclusion issues related to music education provision for pupils with Profound and Multiple Learning Disabilities (PMLD). It explores contemporary policy and practice and suggests principles upon which future training provision for music teachers could be based.

In the first part of this article I define 'PMLD' and the meaning of 'equity' for disabled people in the context of the Equality Act 2010. I state my motivation for addressing this subject and the importance of music in the education of pupils with PMLD. I then discuss how pupils with PMLD fit into historical and current discussions around 'inclusive education' and curriculum design.

In the second part of this article I use Biesta's (2004; 2020) theory on the purpose of education and the government's Engagement Model (STA, 2020) to contend that a focus on skills and knowledge excludes pupils with PMLD from a meaningful education. Based on this, I suggest three principles of inclusion for music teachers working in PMLD settings: planning and assessment as an iterative process, teaching as embodied inclusion, and ensuring music is planned and delivered as a standalone subject. In the conclusion I discuss the development of my own position on inclusion for this cohort.

PMLD, Equity and Music Education

The term 'PMLD' is used to describe a heterogenous group of individuals who have more than one significant cognitive, motor and/or sensory impairment as well as complex health-care needs (WAG, 2006). Their cognitive ability is comparable to the first 0-24 months of typical development (Hogg et al., 2007). They need constant, personalised support in order to engage with the world and achieve their optimum potential (Samuel and Pritchard, 2001). Some social constructionists (McClimens, 2005) have criticised the use of labels to describe disabilities as a reinforcement of unequal power relations. However, I agree with Bellamy et al. (2010) who argue that identifying PMLD learners as a distinct group is necessary to ensure they have distinct and relevant provision.

The Equality Act 2010 states that disability is unique among the protected characteristics. Disabled people 'often' must be treated 'more favourably' (DfE 2014: 24) than non-disabled people so that they "can benefit from what you offer to the same extent that a person without that disability can". This contrasts with other protected characteristics, for example gender and race, that mandate 'equal' treatment.

This provision in the Equality Act is an example of the distinction between equality of provision and equity of access to that provision, and is reflected in recent music education policy. The 2022 National Plan for Music Education (DofE, 2022) sets out the government's vision for music education for the next decade and identifies areas of focus for the wider music education sector. It references the Equality Act and states the necessity of an 'equitable' music offer for all pupils (DofE 2022: 42). Specifically, all pupils should have access to one hour per week of curriculum music as well as individual instrumental tuition and ensembles. This should be provided through a partnership between a pupil's school and the local Music Education hub (Music Education Hubs are publicly funded organisations responsible for music provision for young people in England). An equal offer implies the provision of the same instruments, ensemble types and teaching methods as in mainstream school. An equitable offer implies a much more pupil-centred approach, putting in place what is necessary for pupils, including those with PMLD, to access music-making in a meaningful way. This may look very different to provision in a mainstream or even a more general special education setting.

I am a music teacher who has worked in a variety of mainstream and specialist settings over the last decade. My strong belief is that pupils with PMLD are one of the cohorts that have the most to gain from classroom music-making. Music "strikes deep in the human experience" (DfE, 2012), and can reach pre-verbal pupils in ways that words cannot. It is not uncommon after my sessions for teachers to report new or rare behaviours, emotions and interactions during music projects, or above average levels of pupil engagement.

My experiences are supported by recent literature: Rushton's (2022) survey of classroom interventions for pupils with PMLD provides evidence that that music making can increase social interaction, engagement and playfulness (Bosch et al., 2017; Rushton and Kossyvaki, 2020). Meanwhile, the related area of music therapy has its own body of research that evidences the development of social skills and wellbeing, though this takes place in one-to-one rather than classroom settings (Adler & Samsonova-Jellison, 2017; Thompson and McFerran, 2015).

Despite this, there appears to be very few training programmes for music teachers who work in or want to work in PMLD settings. Unless more instrumental teachers feel comfortable to work with this cohort then pupils with PMLD will be excluded from music provision and the requirements of the NPME will not be met. Stewart and Walker-Gleaves (2020: 367) assert that "inclusion happens at a relational and responsive level", and it is arguable that the most important quality for prospective PMLD teachers is an inclusive mindset. This is more likely to develop if the teacher has a grounding in the policy, theory and practice of working with pupils with PMLD, and I will use the learning from this paper to inform my ongoing work training teachers in inclusive practice.

'Inclusive Education' and PMLD

This section considers what 'inclusive education' means for pupils with PMLD. I outline the tension between the ideal and practical realities of 'inclusive education' and discuss the development of inclusive curricula for pupils with PMLD.

The question of where and how pupils with disabilities and additional learning needs should be educated has presented a challenge for policy makers since the 1944 Education Act (Lacey et al, 2015). This act made young people with complex needs the responsibility of health (rather than education) authorities, creating 'hospital schools' (Colley, 2020). This led to the segregation that, in one form or another, continues to the present day (Armstrong et al., 2010).

Since that time, discussions have focused on two areas. Firstly, where pupils are educated: alongside non-disabled colleagues in mainstream settings, or in specialist, segregated provision. Secondly, what this education should contain: can and should mainstream curricula and assessment frameworks be adapted to become accessible for disabled pupils or are 'separate and distinct' (Imray and Hinchcliffe, 2012: 1) curricula more effective for learning?

Mainstream or specialist settings?

The ideal of 'inclusive education', as articulated by the UN Salamanca declaration in 1994, is a school system where "a child with a disability should attend the neighbourhood school that would be attended if the child did not have a disability" (UNESCO, 1994: 17). This is reflected in UK policy. The government's SEND Code of Practice requires a "presumption of mainstream education" (DfE and DoH 2015: 28). It is based on the view that the separation of pupils from mainstream education is "intrinsically discriminatory" (Robertson 2015: 23) as it reinforces a lack of visibility and othering and excludes them from the full range of opportunities available in mainstream settings at a formative time in their lives (Florian, 2019: 696). Jordan and Goodey (2002: 33) go as far as suggesting that this amounts to "educational apartheid".

However, recent statistics show that only 18% of children with PMLD are educated in mainstream settings (Male and Rayner, 2017) and that "very few" teachers were in favour of including this cohort in mainstream settings (Colley, 2020). This is despite studies that show pupils with PMLD display higher rates of interaction and development after spending time in mainstream settings (Simmons, 2011). The reason for this apparent contradiction is likely to lie in the flawed reality of the UK mainstream school system that cannot provide the specialist skills, equipment and medical support to effectively support pupils with PMLD (Hornby, 2015).

Adapted or bespoke curricula?

The Rochford Review (DfE, 2016) was a significant milestone in the debate around curriculum design for pupils with PMLD. Pre-Rochford, many special schools based their planning on the National Curriculum with differentiated learning strategies and outcomes (Ware, 2014). This was based on the belief that "any subject can be taught in some intellectually honest form to any child at any stage of development" (Bruner, 1960:30). Advocates of this approach believed it avoid othering, unhelpful labels and stigmatisation (Hart et al, 2007). Subject-specific assessment for pupils with PMLD was formalised in 1998 with the introduction of 'P-scales': attainment targets for those not yet accessing the national curriculum.

The subject specific approach in general, and P-scales in particular, were criticised by many in the sector. Martin (2006) suggested that P-levels were not able to identify progress at the necessary "granular" level. Imray and Hinchcliffe (2014) argued that the linear, subject-based nature of the curriculum was not appropriate for learners whose progress came in non-linear, atypical ways. Colley (2020: 13) went further, stating that using a mainstream curriculum in mainstream settings "reinforces exclusion", as it effectively sets pupils with PMLD up to fail.

The Rochford Review agreed with these analyses. It shifted the government's position, moving away from subject-specific learning and statutory assessment (P-levels) and towards personalised curricula developed in response to individual needs, synergy with Education, Health and Care Plans (EHCPs) and a strong focus on engagement as the starting point of learning (Hinchcliffe, 2022).

Rochford's recommendations led to the creation of the 2020 Engagement Model, a statutory assessment framework for pupils "working below the standard of the national curriculum assessments" (STA, 2020: 7). It identifies five "areas of engagement": exploration, realisation, anticipation, persistence and initiation (STA, 2020: 10) that together "represent what is necessary for pupils to fully engage in their development and reach their full potential".

I believe that the introduction of the Engagement Model is a positive step towards the increase of inclusive music-making for pupils with PMLD. The power of music to support multiple areas of progression has been demonstrated in the literature discussed above, but the Engagement Model allows us to map this progress and demonstrate value to teachers who may not necessarily see the value of 'music for music's sake'. Music teachers should therefore be familiar with the model and able to discuss progress with classroom teachers within this framework.

PMLD curricula through the lens of Biesta's Purpose of Education

I have established the current government position of PMLD education as focused on non-subject specific learning based on the five skills in the Engagement model. In this section I draw parallels in this approach with Biesta's (2004, 2020) writings, demonstrating the importance of an education based on more than the acquisition of skills and knowledge.

Biesta's theory of the three purposes of education concerns the perceived dialogic shift from education and the teacher and towards learning and the learner, a process he calls 'learnification' (Biesta, 2004). He sees 'learning' as an "empty process term" (Biesta, 2020: 91) that makes "invisible" the question of what learning is "supposed to be about and for". He argues that education necessarily impacts on the student as an individual and that knowledge acquisition, which he terms 'qualification', is just one of three purposes of learning. The second he identifies as 'socialisation', referring to the process of pupils situating themselves and finding meaning and value in their communities, society and the wider world. The third purpose he terms 'subjectification', referring to a pupil's development of a sense of themselves as an individual with what Rousseau (1979: 37) would call '"sovereignty": freedom to act (or not) in the world.

I believe that clear parallels can be found between these three purposes and the five learning areas of the Engagement model. Three of the five areas of the Engagement Model –

'exploration', 'realisation' and 'anticipation' – relate to the identification, control over and response to a stimulation or activity. These can be understood as Biesta's 'socialisation': the pupil is interacting with and finding meaning from others. The remaining two areas – 'persistence' and 'initiation' – can be connected with Beista's 'subjectification': the pupil is attempting to bring about a desired outcome, to impact on the world, and therefore create a sense of self and other that is reinforced over time.

The literature supports the equal importance of Biesta's three domains of learning for pupils with PMLD. A study by Shipton and O'Nions (2019) surveyed teacher attitudes to teaching pupils with PMLD. They identify independence and interaction as the two most important qualities that should be nurtured within pupils with PMLD. This has manifested in recent years an approach called 'Intensive Interaction'. Developed in the 1990s, it is a method of one-to-one child/educator interaction that is based on techniques of mirroring and matching pupil action. Evidence shows that it increases communication (Aljaser, 2017) and social inclusion (Clegg et al, 2020) of individuals with PMLD.

Developing principles of practice for music teachers

The training that I am currently developing considers how Biesta's three domains can inform music educators' planning, assessment and reflection. In this final section I propose that lesson planning should incorporate both musical and engagement model-related outcomes and introduce the Sounds of Intent assessment framework. I put forward a process of iterative planning and reflection, and frame teaching as a process of embodied inclusion.

Music-making for multiple outcomes

Music is often described as a language (Levine, 2011) and can be the first language of some learners with PMLD (McFerran and Shoemark, 2013). As such, educators should consider how pupils can communicate and grow through music as well as how they can learn to 'do' music. Educators should plan activities that can yield both musical and engagement model-based outcomes and situate activities within Biesta's learning areas.

For example, consistently choosing the same instrument to play would demonstrate a preference for an instrumental timbre (musical outcome), persistence (engagement model) and an increased sense of being an effective agent in the world (subjectification). Another example would be based on a close observation of how a pupil reacts to the same piece of music over several lessons. The pupil may react to certain parts of the piece, showing anticipation (engagement model) while developing an understanding of form and structure within music (musical outcome and Biesta's objectification). Activities such as these allow pupils with PMLD to take an active role in an interaction in a way impossible with speech or written communication.

Fortunately for music educators, a music assessment framework exists that brings together musical and engagement-based outcomes. The Sounds of Intent (SoI) assessment framework aims to "map the musical development of young people with complex needs" (Ockelford et al., 2011: 178). It identifies clear attainment goals, for example "[pupil] intentionally makes simple patterns through repetition" (SoI, 2023) and maps them across three 'domains' – proactive (playing music), interactive (interacting with others through music) and reactive (responding to music). Both goals and domains show clear links with Biesta's three purposes and the Engagement Model while allowing for explicitly musical outcomes to be measured.

Planning and reflection as an iterative process

The non-linear ways that pupils with PMLD learn means that planning must be pupil-centred and responsive. This can seem at odds with pre-defined, written curricula, and numerous writers have explored the tension between curriculum as written and curriculum as enacted (Walker et al, 2014). Stewart and Walker (2020: 369) interview several teachers who see their school's curriculum as completely disconnected from what happens in the classroom, and unable to "reflect the complex patterns of learning for this group of children".

In response to this tension, I have developed a process that combines planning and reflection into something approaching a "lived curriculum" (Joseph, 2007). When planning the first session of a new project I create an overarching structure of activity types (e.g. a listening activity, an improvising activity, a movement activity) and several different possibilities for what each of these activities could be. The choice and development of a specific activity will be determined in response to how pupils engage with what comes before it. After this initial session a structured process of reflection takes place with the classroom teacher and any other colleagues who have participated in the session. This reflection informs an agreed set of medium-term goals for each pupil that can inform assessment through the Engagement Model.

The input of the classroom staff in this process is crucial as it brings together the classroom teacher's familiarity of the pupil and my own expertise as a musician. This allows a more effective interpretation of sometimes ambiguous behaviours and responses of individual pupils and allows us to create hypotheses about the impact of further interventions: "'if I do 'x', the child may do 'y', or may learn more about 'z'." (Hinchcliffe, 2022: 75). This cooperation can also help classroom staff feel more confident to run similar activities outside of formal music lessons (Stewart and Walker, 2020).

Teaching as embodied inclusion

Stewart's belief that "inclusion happens at a relational and responsive level", is a powerful framing for all the work we do with pupils with PMLD. Our development as music teachers must take in our whole selves, not just our musical abilities. Alongside personal qualities such as patience, resilience and creativity (Shipton, 2019), inclusion begins by attempting to see the world from the other's point of view as opposed to "the surface to which a certain label can be applied" (Williams, 1973: 236).

From this perspective we can shift the dynamic of the relationship from one of dependency to one of reciprocity (Vorhaus, 2014), shedding labels and becoming co-creators in the music-making process. It then becomes easier to recognise the difference between 'coercive' playing (for example taking a pupil's hand and banging a drum) and 'co-active' playing (supporting the pupil's wrist so that they are able to choose whether or not to play the drum) (Crosby, 2002). This approach also prevents or reverses the phenomenon of 'learned helplessness' (Imray and Hinchcliffe, 2012), where an individual's thoughts and actions have such a minimal impact on the world around them that they conclude that there is no purpose in acting at all.

Conclusion

I have come to understand that 'inclusion' in PMLD settings is something that necessarily happens at both a policy and inter-personal level. Furthermore, I now understand that an effective music teacher must understand the multiple processes and domains of learning that are taking place within a single class or even interaction, as theorised by Biesta. By developing an iterative planning process that values both musical and non-musical outcomes and has at its core a commitment to equity of access and inclusion as an embodied process, we can maximise the value of our teaching in the music classroom.

References

- Adler R and Samsonova-Jellison O (2017) Music Therapy for Multisensory and Body Awareness in Children and Adults with Severe to Profound Multiple Disabilities. The MuSense Manual. London: Jessica Kingsley Publishers.
- Aljaser, K.M. (2017) Identifying the interactive communication ability of children with profound and multiple learning disabilities: The intensive interactive approach, Global Journal of Special Education and Services, 5(5), pp. 106–125.
- Armstrong, A. C., Armstrong, D. and Spandagou, I. (2010) Inclusive Education. London: Sage
- Bellamy, G. et al. (2010) A study to define: Profound and multiple learning disabilities (PMLD), Journal of intellectual disabilities , 14, pp. 221–35.
- Biesta, G. (2004) Against Learning: Reclaiming a Language for Education in an Age of Learning. 1st edn. Abingdon: Routledge.
- Biesta, G. (2020) Risking Ourselves in Education: Qualification, Socialization, and Subjectification Revisited. Educational Theory, 70(1), pp. 89–104.
- Bosch K, Andringa T, Peterson W, et al. (2017) A comparison of natural and non-natural soundscapes on people with severe or profound intellectual and multiple disabilities, Journal of Intellectual & Developmental Disability 42(3), pp. 301–307.
- Bruner, J. (1960) The Process of Education. Cambridge, MA: The Presidents and Fellows of Harvard College.
  Clegg J, Black R, Smith A, Brumfitt S. (2020) Examining the impact of a city-wide intensive interaction staff training program for adults with profound and multiple learning disability: a mixed methods evaluation, Disability and Rehabilitation, 42(2), pp. 201–210.
- Colley, A. (2020) To what extent have learners with severe, profound and multiple learning difficulties been excluded from the policy and practice of inclusive education?, International Journal of Inclusive Education, 24(7), pp. 721–738.
- Crosby, K. (2002) Communication through Music for Pupils with Profound and Multiple Learning Difficulties, The SLD Experience, 32, pp. 19–21
- Department for Education (2012) Training materials for teachers of learners with severe, profound and complex learning difficulties. [pdf] Available at: http://complexneeds.org.uk/ [Accessed: 23/12/2022]
- Department for Education (2014) The Equality Act 2010 and schools [pdf] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/315587/Equality_Act_Advice_Final.pdf [Accessed: 23/12/2022]
- Department for Education and Department of Health (2015) Special educational needs and disability code of practice: 0 to 25 years. Available at: https://www.gov.uk/government/publications/send-code-of-practice-0-to-25 [Accessed 23/12/2022]
- Department for Education (2016) The Rochford Review: Final Report. Review of Assessment for Pupils Working Below the Standard of the National Curriculum Tests. Available at: https://www.gov.uk/government/publications/rochford-review-final-report [Accessed 23/12/2022]
- Florian, L. (2019) On the necessary co-existence of special and inclusive education, International Journal of Inclusive Education, 23(7), pp. 691–704.
- Hart S and Drummond M (2014) Learning Without Limits: Constructing a Pedagogy Free From Determinist Beliefs about Ability in: Florian, ed. The Sage Handbook of Special Education. 2nd ed. London: Sage pp 439–459.
- Hinchcliffe, V. (2022) The Rochford review, pre-key stage standards and the engagement model – what does it all mean to schools for children with SLD and PMLD?, Support for Learning, 37(1), pp. 62–79.
- Hogg, J., Juhlberg, K., & Lambe, L. (2007) Policy, service pathways and mortality: a 10-year longitudinal study of people with profound intellectual and multiple disabilities. Journal of Intellectual Disability Research, 51(5), 366–376.
- Hornby, G. (2015) Inclusive Special Education: development of a new theory for the education of children with special educational needs and disabilities, British Journal of Special Education, 42(3), pp 234–256
- Imray, P. and Hinchcliffe, V. (2012) Not fit for purpose: a call for separate and distinct pedagogies as part of a national framework for those with severe and profound learning difficulties, Support for Learning, 27(4), pp. 150–157.
- Imray, P. and Hinchcliffe, V. (2014) Curricula for Teaching Children and Young People with Severe or Profound Learning Difficulties. London: Routledge.
- Jordan, L and Goodey, C. (2002) Human Rights and School Closure: The Newham Story. Bristol: CSIE
- Joseph, Pamela. (2007). Seeing as strangers: Teachers' investigations of lived curriculum. Journal of Curriculum Studies – J CURRICULUM STUD. 39. 283–302.
- Legislation.gov.uk. (2010). Equality Act 2010. [pdf] Available at: http://www.legislation.gov.uk/ukpga/2010/15/contents [Accessed 23/12/2022].
- Levine, M. (1995) The Jazz Theory Book. Petaluma, CA: Sher Music.
- Male, D and Rayner, M (2007) Who Goes to SLD Schools? Aspects of policy and provision for pupils with profound and multiple learning difficulties who attend special schools in England. Support for Learning 22(3), pp 145–152
- Martin, A. (2006) Assessment using the P scales: best fit – fit for the purpose? British Journal of Special Education, 33(2), pp. 68–75.
- McClimens, A. (2005) From Vagabonds to Victorian Values: The Social Construction of a Disability Identity'. In Grant, G., Goward, P,. Richardson, M,. & Ramcharan,P,. eds, Learning Disability: A Lifecycle Approach to Valuing People. Milton Keynes: Open University Press. pp. 28–46
- McFerran, K.S. and Shoemark, H. (2013) How musical engagement promotes well-being in education contexts: the case of a young man with profound and multiple disabilities, International Journal of Qualitative Studies on Health and Well-Being, 8, pp. 205–270.

- Ockelford A (2008) Music for Children and Young People with Complex Needs. Oxford: Oxford University Press.
- Robertson, C. (2015) Changing special educational needs and disability legislation and policy. Implications for learners with SLD/PMLD. In Lacey, P et al eds The Routledge Companion to Severe, Profound and Multiple Learning Difficulties London: Routledge pp. 19–28
- Rousseau, J (1979) Émile, or On Education, trans. Allan Bloom, New York: Basic Books
- Rushton, R. and Kossyvaki, L. (2020) Using Musical Play with children with profound and multiple learning disabilities at school, British Journal of Special Education, 47(4), pp. 489–509.
- Rushton, R., Kossyvaki, L. and Terlektsi, E. (2022) Music-based interventions for people with profound and multiple learning disabilities: A systematic review of the literature, Journal of Intellectual Disabilities, 0(0) pp. 1–18
- Samuel, J. & Pritchard, M. (2001) The Ignored Minority: Meeting the Needs of People with Profound Learning Disability, Tizard Learning Disability Review, 6(2), 34–44.
- Shipton, C. and O'Nions, C. (2019) 'An exploration of the attitudes that surround and embody those working with children and young people with PMLD', Support for Learning, 34(3), pp. 277–289.
- Simmons, B. (2011) The "PMLD ambiguity": articulating the lifeworlds of children with profound and multiple learning difficulties, in The Nordic Network on Disability Research (NNDR) 11th Annual Conference. Reykjavík, Iceland, 28/05/2011.
- Sounds of Intent (2023), Level 3, Proactive. Available at: https://soundsofintent.app/resources/sounds-of-intent-framework/elements-and-strategies/level-3-proactive-p3 . [Accessed: 09/01/2023]
- Standards and Testing Agency (2020) The Engagment Model [pdf] Available at: https://www.gov.uk/government/publications/the-engagement-model [Accessed: 23/12/2022]
- Stewart, C. and Walker, C. (2020) A narrative exploration of how curricula for children with profound and multiple learning difficulties shape and are shaped by the practices of their teachers, British Journal of Special Education, 47.
- Thompson, G & McFerran, K (2015) Music therapy with young people who have profound intellectual and developmental disability: Four case studies exploring communication and engagement within musical interactions, Journal of Intellectual and Developmental Disability 40(1), pp. 1–11.
- UNESCO (1994) The UNESCO Salamanca Statement. [pdf] Available at http://www.csie.org.uk/inclusion/unesco-salamanca.shtml [Accessed: 21/09/2022]
- Vorhaus, J. (2014) Philosophy and profound disability: Learning from experience, Disability & Society, 29.
- Walker, P., Carson, K., Jarvis, J., McMillan, J., Noble, A., Armstrong, D., Palmer, C. (2018). How do Educators of Students With Disabilities in Specialist Settings Understand and Apply the Australian Curriculum Framework? Australasian Journal of Special and Inclusive Education, 42(2), 111–126
- Ware J (2014) Curriculum Considerations in Meeting the Educational Needs of Learners with Severe Intellectual Disabilities. in: Florian, ed. The Sage Handbook of Special Education. 2nd ed. London: Sage pp 491–506.
- Warnock, M. (2010) Special Educational Needs: A New Look. 2nd ed. London: Continuum
- Welsh Assembly Government (2006) Routes for Learning: Assessment Materials for Learners with Profound and Multiple Learning Difficulties and Additional Disabilities. Cardiff: Welsh Assembly Government. Available at: https://hwb.gov.wales/curriculum-for-wales/routes-for learning [Accessed: 23/12/2022]
- Williams, B. (1973). The Idea of Equality. In: Williams, ed. Problems of the Self. Cambridge: Cambridge University Press. pp. 230–249.

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