



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

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STUDENT NAME: Marli Lawrence

STUDENT NUMBER: 2303873

BA Primary Education with QTS

Module Code – Ecad5011

Student name – Marli Lawrence

Student number - 2303873

AI Acknowledgement

I acknowledge the use of Chatgpt [chatgpt.com] on 20th March 2025 to proofread my work and to structure some of my paragraphs. I used the prompts:

1. Please proofread this paragraph to check for fluency, spelling and grammar.
2. Please check the structure and flow of my literature review.
3. Please check the structure and flow of my methodology.

I confirm that I have not presented any AI generated text as my own work.

I confirm that I have copies of my drafts, notes, and other resources I used before and after the use of AI tools which I may be asked to provide in evidence.

Targets from previous assignment

Target	How I have addressed it in this work
Consider how to structure your overly long paragraphs for the best impact. You may find the PEEL method helpful How to Use PEEL Writing in Your Assignments ICS Learn	To address previous feedback, I familiarised myself with the PEEL structure to improve paragraph clarity, ensuring each point is clearly stated, supported with evidence, explained in context, and linked back to the research focus
Continue to develop a supported critical approach throughout, offering the opposing view whenever possible.	I have addressed this by presenting opposing views throughout, supporting arguments with evidence, and critically analysing differing perspectives to ensure a balanced, reflective, and well-supported approach to the research.

Design and conduct small-scale research study and critically evaluate the impact of chosen research tools and data/findings on your professional practice.

Research question – How the use of targeted questioning strategies impact pupil engagement and understanding in K2 classrooms?

Introduction

This assignment explores Assessment for Learning, focusing on the impact questioning strategies have on pupil engagement and understanding within Key Stage 2 classrooms. Black and Wiliam (1998b) describe formative assessment as ongoing feedback that improves teaching and learning. This research project explores how the use of questioning strategies impacts pupil engagement and understanding in Key Stage 2 classrooms. The aim is to investigate how different questioning strategies influence pupil participation, encourage deeper thinking, and support learning. The study took place in a small rural primary school in West Wales, with approximately 207 pupils. As a student teacher, understanding the effectiveness of questioning techniques is essential for developing strong classroom practice. Alexander (2020) supports this, as he states that by encouraging critical thinking and active participation, good questioning raises student engagement and deepens understanding. I conducted interviews with five Key Stage 2 pupils, planned to interview two Key Stage 2 teachers and collected four completed questionnaires from Key Stage 2 teachers. I aimed to gather insights from both pupils and teachers by collecting responses to understand different perspectives. These responses provide valuable perspectives on the role of questioning in enhancing learning.

Literature review

Assessment for Learning has been widely recognised as an effective means of improving pupil engagement and understanding in classrooms (Black & Wiliam, 1998a). Within AfL, questioning strategies play an important role in promoting pupil engagement and assessing understanding. Mercer and Dawes (2014) have explored how different questioning techniques impact pupil engagement and comprehension in Key Stage 2 classrooms, with numerous studies suggesting that the type and delivery of questions significantly influence learning outcomes.

This study considers the impact questioning strategies have on pupil engagement and understanding in Key stage 2 classrooms. Hattie and Timperley (2007) state that questioning is an important tool in education, it promotes critical thinking by encouraging pupils to analyse, evaluate and articulate their understanding. From my experiences on PTE2 I observed that questioning strategies could help to

develop higher order thinking skills, but its effectiveness depended on the teacher's ability to pose meaningful and well-structured questions. Additionally, questioning enhances classroom dialogue and serves as a key aspect of formative assessment, allowing teachers to gauge pupil understanding and adjust their teaching accordingly (Black & Wiliam, 1998b). However, this relies on teachers using a range of questioning techniques rather than simply testing factual recall. While some argue that varied questioning strategies increase engagement and comprehension (Alexander, 2020), I noticed on PTE2 that overuse of questioning could cause anxiety in less confident pupils. Despite this, I do agree that questioning is essential for deepening learning, provided it is used inclusively and effectively to support all learners rather than putting them under pressure to respond.

According to Hattie (2009), good questioning techniques can increase understanding, encourage conversation, and spike curiosity. Similarly, Black and Wiliam (1998) emphasise how teacher inquiry is key in influencing pupil engagement. As shown in appendix 18 Bloom's taxonomy levels of learning indicate that higher-order questions, which require analytical and evaluative thinking, tend to be more effective in developing deep learning than lower-order recall questions. According to Paul and Elder (2007), open-ended questions encourage pupils to think critically and make connections between concepts. A study by Chin (2006) supports this view, suggesting that classrooms with a balance of both lower and higher-order questions facilitate better scaffolding of learning, ensuring that pupils of all abilities remain engaged.

One area of questioning that has been widely explored is the use of 'wait time' – the pause a teacher allows after posing a question. It is estimated that on average teachers allow pupils 0.9 seconds to respond to a question. Rowe (1974) disagreed with this and found that extending wait time beyond three seconds led to improved pupil responses, encouraged deeper thinking and increased participation. I noticed that allowing time for reflection can encourage greater engagement, particularly among pupils who might otherwise avoid participating. I agree with the importance of longer wait times, as I have observed during my research day that pupils who are given more time often provide more detailed and reflective answers, demonstrating a deeper understanding of the topic. Although questioning is commonly acknowledged as a successful tool, from my research I am of the opinion that classroom dynamics, teaching standards, and student confidence can all affect how effective it is. According to Alexander (2017), some learners could be unwilling to take part if they believe their answers would be negatively assessed. Furthermore, Wragg and Brown (2001) contend that retaining participation requires making sure questioning techniques are inclusive. Mercer and Dawes (2014) share this viewpoint, contending that effective questioning techniques are largely dependent on the connections between teachers and students.

Methodology

This research will include a mixed-methods approach, employing both qualitative and quantitative methods to investigate how questioning strategies impact pupil engagement and understanding in Key Stage 2 classrooms. By using a combination of semi-structured interviews and questionnaires, I aim to gather in-depth and diverse perspectives from both teachers and pupils, ensuring a comprehensive understanding of the topic.

The research design consists of semi-structured interviews with two Key stage 2 teachers and a group interview with five Key Stage 2 pupils selected at random. The use of semi-structured interviews allows for flexibility, enabling me to explore unanticipated themes and obtain rich, authentic, qualitative data. The interviews will include open-ended questions designed to encourage participants to share their views on the effectiveness of questioning strategies. As part of my research day, I have the opportunity to observe the participant's lesson to familiarise myself within their setting. This approach aligns with the interpretivist paradigm, which seeks to understand participants' perspectives within their natural contexts (Bryman, 2016). The questionnaire will be distributed to Key Stage 2 teachers and will consist of 10 questions, blending multiple-choice and open-ended responses. This quantitative approach will provide measurable data on the use of questioning strategies and their perceived impact on pupil engagement and understanding. By gathering responses from at least three teachers, I aim to identify trends and patterns in classroom practices. I will carry out individual interviews with two Key Stage 2 teachers and a group interview with five Key Stage 2 learners. The interview questions will focus on participants' experiences and opinions regarding targeted questioning strategies. One semi-structured question I prepared for teachers is: "What strategies have you found most effective in engaging learners through targeted questioning?" More examples of interview questions can be seen in appendix 13.

To ensure I created a supportive and safe environment, the interviews will take place in a familiar setting. I will also make it clear to pupils that they can leave the interview at any point or can use a thumbs up, thumbs down strategy to skip any questions if they wish to do so. The interviews will be audio-recorded, with participants' consent, which can be seen in appendix 16 and 17. The reason for audio recording is to ensure accuracy in transcription and analysis, and to engage with the interview rather than be taking notes as the participants speak. The semi-structured strategy allows for consistency in questioning while allowing flexibility to probe deeper thinking and understanding, emerging into key themes (Kvale,

2007). I have chosen to use questionnaires in my research to gather quantitative data from Key Stage 2 teachers. Incorporating questionnaires into education research offers both advantages and disadvantages. According to Lindemann (2023), questionnaires enable efficient data collection from individuals, enhancing a wider range of opinions and views. Another advantage of questionnaires is that they reduce the time and resources required for data collection, compared to other methods such as interviews or focus groups (Jain, 2023). However, Lindemann (2023) does argue that questionnaires may not capture the depth of respondents' feelings or experiences, potentially limiting the richness and detail of the data. Additionally, Cohen, Manion and Morrison (2018) state that the design of questionnaires are highly important, as poorly constructed questions can lead to misunderstandings, affecting the reliability of responses. While an advantage of questionnaires is that they offer complete anonymity, which may encourage more honest responses, a potential limitation I noticed during research is that they do not offer for follow up questions or deeper exploration of responses.

The data collected through questionnaire responses and semi-structured interviews will be analysed using both qualitative and quantitative methods. The qualitative data from interviews will be transcribed and coded using thematic analysis, following Braun and Clarke's (2006) six-step approach: familiarisation with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. This approach is effective in identifying patterns and gaining a deep understanding of participants' perspectives. Thematic analysis is particularly suitable for semi-structured interviews as it allows flexibility in interpreting complex responses and drawing meaningful insights (Nowell et al., 2017).

For the quantitative data gathered from questionnaire responses, statistical data analysis will be employed. The results will be visually represented using graphs and tables to illustrate trends, commonalities, and differences among participants. This approach enables a clear comparison of responses and identification of patterns, enhancing the validity of the findings (Cohen, Manion, & Morrison, 2018). Combining qualitative and quantitative analysis provides a holistic view, allowing for both methods to strengthen the reliability and validity of the research (Denscombe, 2014). This research adheres to the British Educational Research Association (BERA) guidelines (2018), prioritising informed consent, confidentiality, and anonymity. Consent forms will be provided, detailing the study's purpose, participants'

rights, and the option to withdraw at any time. The headteacher has granted permission for the research, and all data will be securely stored. No personal information will be shared, ensuring participants' privacy. This methodology ensures an ethical approach to exploring questioning strategies in Key Stage 2 classrooms, providing valuable insights to enhance teaching practices.

Discussion and findings

The findings of this research provide valuable insights into pupils' perceptions of questioning in the classroom, revealing both positive and challenging aspects of this pedagogical approach. The data collected from the group interview suggests that questioning can be a powerful tool for engagement and learning but also highlights areas for refinement to maximise its effectiveness. These findings align with contemporary research on formative assessment, active learning, and dialogic teaching (Alexander, 2020; Black & Wiliam, 2018).

Pupils expressed enthusiasm for classroom questioning, particularly when it allowed them to share their thoughts without fear of being wrong. The preference for open-ended questions suggests that such approaches help develop critical thinking skills and develop a growth mindset (Dweck, 2006). The "phone a friend" strategy was highlighted as beneficial, reinforcing studies on peer-assisted learning (Gillies, 2016), which suggest that collaborative discussions can boost confidence and deepen understanding. However, some pupils also noted feeling anxious when asked to justify their responses, indicating that while questioning is valued, additional scaffolding may be necessary to support learners in articulating their reasoning (Mercer & Howe, 2012). A recurring theme was the importance of psychological safety in classroom discussions. Pupils felt more comfortable answering questions when reassured that mistakes were part of the learning process. Nevertheless, some pupils indicated that direct questioning could sometimes feel pressurising, particularly when they were uncertain about their answers. This suggests a need for varied questioning approaches that accommodate different levels of confidence and learning styles, supporting claims that differentiation in questioning strategies enhances engagement (Rosenshine, 2012).

The data also pointed to opportunities for enhancing questioning strategies, particularly by incorporating more interactive and outdoor activities. Pupils expressed a preference for questioning formats that involve movement, such as the "beach ball game" or using chalk

outside to record responses. Such findings are consistent with studies that highlight the benefits of active learning techniques in increasing motivation and participation (Hattie & Zierer, 2019). While traditional classroom questioning remains effective, a blended approach that includes physical and peer-led interactions may further improve engagement. Despite these strengths, a potential challenge lies in ensuring equitable participation. While peer-based questioning methods were highlighted as effective, there is a risk that some learners may rely too heavily on their peers for answers rather than developing independent critical thinking skills. This concern is supported by research on the need for balanced teacher-led and student-led questioning to prevent passive learning (King, 2002). Differentiated questioning strategies that cater to varying abilities, alongside teacher facilitation, may help mitigate this issue.

The findings, drawn from both questionnaire data and open-ended responses, suggest that questioning strategies play an important role in developing inclusive participation, encouraging cognitive engagement, and supporting formative assessment. Quantitative data from the questionnaire revealed that 50% of respondents favoured open-ended questions that invite exploration, while the remaining 50% opted for a combination of questioning strategies (See appendix 3). This supports Alexander's (2020) idea that dialogic teaching, which encourages open-ended dialogue, is effective in developing higher-order thinking and deeper engagement. On the other hand, closed or probing questions received no responses, suggesting a shift away from traditional, teacher-centred practices (Wragg & Brown, 2018). The data also highlighted that 75% of participants decide which pupils to question by randomly selecting pupils, aligning with the use of inclusion tools such as name generators and lollipop sticks. This approach is tentatively consistent with Black and Wiliam's (2018) notion of formative assessment, which advocates for equal participation opportunities. Similarly, responses indicated that rephrasing questions (50%) and redirecting them (33%) were the most common adaptations when pupils struggled to respond, reflecting the flexible and responsive teaching strategies described by Cowie and Bell (2019).

In terms of engagement outcomes, 43% believed targeted questioning encouraged pupils to remain focused, while another 43% noted it facilitated collaborative discussion (See Appendix 6). These findings align with the work of Mercer and Dawes (2014), who argue that structured questioning can enhance classroom dialogue and peer learning. Responses from the open-ended questions reinforced the quantitative data. Participants frequently

referenced strategies such as extended thinking time, group discussions, and the "pounce and bounce" technique—approaches commonly associated with active learning (Clarke, 2014). However, a notable challenge cited by several respondents was balancing participation and designing questions for mixed-ability learners, echoing issues highlighted by Moyles et al. (2003). Some limitations were encountered during this research. The sample size was relatively small so prevented a wider range of opinions and responses. Additionally, due to time constraints, I was not able to carry out interviews with any Key Stage 2 teachers so only a face-to-face interview with five pupils, potentially restricting the depth of qualitative insight.

Overall, these findings suggest that questioning strategies should be dynamic, inclusive, and responsive to the needs of individual learners. By creating a supportive environment, integrating interactive elements, and scaffolding learners' explanatory skills, questioning can serve as a highly effective tool for learning and engagement. Future research could explore how digital technologies or adaptive questioning techniques further support these pedagogical goals. While findings should be interpreted with caution, they suggest that questioning strategies, particularly open-ended and inclusive approaches, may positively influence pupil engagement and understanding in Key Stage 2 settings.

Conclusion and recommendations

This research set out to explore how questioning strategies influence pupil engagement and understanding in Key Stage 2 classrooms, with a particular focus on formative assessment. The literature review highlighted the importance of questioning as a tool for promoting critical thinking, inclusive participation, and reflective learning (Black & Wiliam, 1998; Alexander, 2020; Hattie, 2009). The findings from both pupil interviews and teacher questionnaires suggest that open-ended, inclusive questioning can significantly enhance pupil engagement, especially when scaffolded and adapted to meet individual needs. One of the main strengths of this study was its use of a mixed-methods approach, which allowed for a richer and more in depth understanding of participants' experiences. However, limitations such as the small sample size and the absence of teacher interviews constrained the depth of insight into classroom practices. Despite these limitations, the consistency between literature and findings strengthens the credibility of the research.

Professionally, this inquiry has been invaluable. It has deepened my understanding of how questioning, when used effectively, can encourage dialogue, promote inclusivity, and support formative assessment. I have also become more aware of how classroom dynamics and pupil confidence levels must be considered when planning and delivering questions. Going forward, I intend to be more intentional with my questioning strategies—using varied formats, wait time, and peer-led approaches to ensure all learners feel supported and challenged. This research has reinforced the importance of responsive teaching and has equipped me with strategies that I will continue to develop and refine in my professional practice.

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