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Examining the Use of Verbal Teacher Feedback in Physical Education Lessons

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Abstract: This study analysed the frequency and nature of verbal feedback given by physical education (PE) teachers in a secondary school, focusing on the influence of teacher gender, experience, and student learning stage. Eight PE teachers (four male, four female) were observed across 24 lessons, with each teacher observed three times. Feedback was systematically coded using a structured framework for evaluating coaching practises. The results revealed variations in feedback patterns based on teacher experience, gender, and student age. Female teachers provided more specific positive feedback (28%) compared to male teachers (23%). Younger, less experienced students received more corrective feedback (years 7 and 8: 18.7%; years 9 and 10: 12.7%), highlighting the importance of targeted instruction in early learning stages. Additionally, less experienced teachers used less corrective feedback (15%) than their more experienced counterparts (25.6%), suggesting a need for professional development in feedback strategies. These findings emphasise the role of tailored feedback in PE to optimise student learning and engagement.

Keywords: feedback frequency; feedback types; gender effect; stage of learning; teacher experience

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1. Introduction

Physical education (PE) teachers play vital roles in supporting student learning, one of which is monitoring progress and providing timely, purposeful feedback. However, the Levelling the Playing Field PE subject report (Ofsted, 2023) highlighted a concerning trend—pupils are often expected to acquire knowledge rapidly and demonstrate achievement with minimal effective feedback. While coach observation studies have emerged over recent decades (Gilbert & Trudel, 2004), few have focused specifically on PE teachers. Moreover, existing research on gender- and age-related differences is largely classroom-based, and studies in PE tend to emphasise student perceptions rather than objectively measuring the feedback provided. As a result, little is known about the actual nature of feedback given by PE teachers, or how factors such as teacher gender, pupil experience, and teacher experience may influence it. The purpose of this study, therefore, was to measure the frequency and types of feedback used by PE teachers in a secondary school in the south of England. The findings aim to inform teacher educators and those responsible for professional development, helping to create more effective and meaningful learning opportunities in this important area.

Feedback is an essential component of successful teaching and learning. Hattie and Timperley (2007) define feedback as the information provided by an agent (e.g., teacher, peer, parent, or self) regarding aspects of one's performance or understanding. Furthermore, this information should reduce the gap between the current performance and the desired outcomes. There are many different forms of feedback that can be used in PE, such as oral,

written, informal, formal, peer, self-assessed, and video feedback. Teacher verbal feedback was the most common feedback identified in pedagogical research in the PE setting (Lee et al., 1993). One key advantage of verbal feedback is its immediacy—it allows PE teachers to address mistakes or offer encouragement in real time during a lesson. For instance, if a teacher observes an error in a student's serving technique, they can instantly provide corrective feedback that the student can apply right away. When combined with visual cues or demonstrations, verbal feedback becomes even more effective by enhancing clarity and aiding retention.

Beyond its immediacy, verbal feedback is also highly adaptable. Teachers can tailor their messages to suit the specific needs of individual students or groups. In secondary schools, students may display contrasting attitudes toward physical education—some may be highly engaged, while others lack confidence or motivation. Verbal feedback can play a crucial role in encouraging less confident students, building their self-belief and engagement. This study will therefore investigate the nature of teacher verbal feedback in physical education settings.

The positive impact of effective feedback on student achievement is well established. According to Hattie and Timperley (2007) and Kluger and DeNisi (1996), feedback can significantly enhance learning outcomes. The Education Endowment Foundation (2021) notes that verbal feedback alone can improve outcomes by five months or more for secondary-age pupils. A systematic review by Zhou et al. (2021), which examined 23 studies on feedback in PE, found a clear link between feedback and improved skill learning. This may be due to two key mechanisms: first, feedback enables learners to identify and correct performance errors (Palao et al., 2013); second, it can strengthen teacher–student relationships, enhancing motivation and engagement (Whitney & Ackerman, 2020). Despite this, feedback remains underused in many PE settings (Scott, 2017).

To explore feedback's dual role in promoting performance and motivation, this study adopts Self-Determination Theory (SDT) as a theoretical lens. SDT (Deci et al., 1991) offers a comprehensive framework for understanding human motivation. It posits that motivation exists along a continuum from extrinsic to intrinsic, and that its quality is shaped by the satisfaction of three basic psychological needs—autonomy, competence, and relatedness. This framework is especially relevant when analysing the motivational impact of teacher feedback in PE contexts.

Applying SDT helps to identify how feedback can either support or undermine student motivation. For example, positive specific feedback—such as "You've made great progress with your batting accuracy, what did you change to achieve this?"—can foster autonomy by recognising effort and offering students choice. Corrective feedback like "Don't forget to scan" reinforces competence by helping students improve specific aspects of performance. Similarly, fostering relatedness might involve simple but personalised affirmations like "I can see how much effort you're putting in—you're making much better contact with the ball" These types of interactions help students feel supported and valued, which in turn enhances their engagement.

The recipe for effective feedback is complex. Feedback should give the learner clear learning goals ("Where am I going?") and identify the gap between actual and desired levels of performance ("How am I going?") (Hattie & Timperley, 2007). Feedback can reinforce successful performance or provide reasons for failure, such as effort or strategy choice (Dweck, 1999). Finally, feedback can give the learner next steps ("Where to next?") (Hattie & Timperley, 2007). To do this effectively, the teacher must consider what the learner already knows, what they need to know, and their readiness for the next steps. Good teachers have enough knowledge and experience of similar situations to develop sound intuition about what is likely to work best (Hogarth, 2001).

While numerous feedback classifications exist, this study employs the typology developed by Cushion et al. (2012), which includes five categories of verbal feedback—specific positive, specific negative, general positive, general negative, and corrective. These categories allow for nuanced analysis of teacher–student interactions. Building on Zhou et al.'s (2021) work, this study further refines the categories of informational and encouragement feedback into positive and negative types, allowing for clearer comparisons with previous research findings.

The most used feedback in education settings is general positive feedback, such as phrases like "well done" and "good job". This type of feedback is widely employed as it creates a more positive experience for students and contributes to the development of strong student–teacher relationships (Hattie & Timperley, 2007). However, without providing specific information about why a performance was successful then students may struggle to replicate that success. Similarly, praise could have a detrimental effect on learning if the student perceived the teacher as having a low perception of their ability and as giving praise too freely (Hattie & Timperley, 2007).

A commonly accepted situation within PE teaching and research community is that the combination of general positive feedback and specific positive feedback may have more benefits (Silverman et al., 1992). Zhou et al. (2021), highlight that combining general and specific positive feedback enhances motor learning more effectively than general feedback alone. This suggests that providing learners with detailed, targeted reinforcement helps reinforce correct movements and techniques more efficiently.

In general, studies of negative feedback suggest it can be related negatively to intrinsic motivation (Koka & Hein, 2005) and may have a detrimental effect on student self-esteem. To see the benefits of negative feedback, the student's experiences of positive feedback would need to outnumber their experiences of negative feedback. Corrective feedback, which is sometimes perceived as negative, is a method used by teachers to help students understand and rectify their mistakes, while also providing guidance for future practical performances (Whitney & Ackerman, 2020). For instance, in PE, a teacher may correct a student's technique by instructing them to land softly on the balls of their feet. This correction aims to enhance their ability to change direction quickly while participating in a game. Creating a positive and supportive learning environment where students feel comfortable receiving feedback will prevent them perceiving this corrective feedback as negative.

The timing, quantity, and type of feedback should also align with the student's learning stage. The Education Endowment Foundation (2021) stresses the importance of matching feedback to the learner's experience. Beginners often benefit from frequent, specific guidance but can become overwhelmed if overloaded (Ofsted, 2023). As students gain proficiency, feedback should shift toward encouraging self-reflection, supported by tools like video analysis or peer assessment. This fosters autonomy and reduces over-dependence on teacher input (Boud & Molloy, 2013). A reduction in general praise can also help promote intrinsic motivation (Apter et al., 2020).

In their case study using a school with children aged 6 to 12, Burnett and Mandel (2010) interviewed students and teachers regarding the use of praise and feedback in the classroom. Younger students had a stronger preference for ability feedback than older students. Interestingly this was in conflict with the beliefs of the teachers who thought younger children preferred effort feedback. This study will investigate whether secondary teachers also adjust the amount and type of feedback they give according to the student's stage of learning.

Traditionally, PE has been perceived as having a masculine orientation, favouring boys' participation and learning over that of girls (Castejón & Giménez, 2015). This gender bias,

if held by PE teachers, can significantly influence the nature and distribution of feedback provided to students. When teachers perceive a particular gender as less competent, they may offer more frequent feedback under the assumption that these students require greater support due to perceived lower ability (Schuster et al., 2021).

Interestingly, research by Nicaise et al. (2007) found that girls reported receiving more praise and technical feedback than boys, while boys were more often subjected to criticism or correction—regardless of actual skill level. This suggests that feedback practices may not be aligned with students' abilities, but rather with teachers' gendered perceptions of competence.

The role of teacher gender in shaping feedback practices remains underexplored. Although Nicaise et al. (2007) reported no significant difference in the overall perception of feedback from male versus female teachers, some gender-specific patterns emerged. Female teachers were perceived to give more praise and spend more time with boys, whereas male teachers appeared to allocate similar attention to both genders. These findings indicate a complex interplay between teacher and student gender that warrants further investigation to better understand how verbal feedback in PE is influenced by gender dynamics.

Lastly, teacher subject knowledge plays a pivotal role in determining the quality of feedback. Coe et al. (2014) emphasise that strong subject knowledge has the greatest impact on student outcomes. Teachers with deep content expertise are better positioned to identify learning needs, offer precise guidance, and build student confidence. This ability is further enhanced through experience. A review of classroom observations by Apter et al. (2020) suggested that experienced classroom teachers not only provide more frequent feedback but also attend to a broader range of student behaviours and demonstrate a stronger capacity to evaluate teaching moments within context. Similar findings were reported by Tan (1996) in a PE setting; however, this was a small-scale study conducted nearly two decades ago in a primary school context. As such, there remains a need for more current research within secondary school PE environments.

The purpose of the current study was to investigate teacher feedback in an authentic PE context. To answer this central research question, the following related questions have been formulated based on the analysis of the existing literature:

1. What is the frequency of teachers' feedback?
2. What types of feedback are most used?
3. Do the above answers to 1 and 2 differ based on pupil age?
4. Do the above answers to 1 and 2 differ based on teacher gender?
5. Do the above answers to 1 and 2 differ based on teacher experience?

2. Materials and Methods

2.1. Participants

The participants involved in this study were eight fully qualified PE teachers (four female, four male). They were aged 24–37 (M = 31 years) and had an average of seven years of teaching experience. Three of the participants were in the early stages of their careers with just two years teaching experience and the remaining five participants had 6 years or more experience (See Table 1). All the participants taught at the same nonselective co-educational state comprehensive school situated in a moderately deprived area in the south of England. The teachers were aware that we were carrying out a study which looked at teaching behaviours, but did not know that we were explicitly observing their feedback and had not received additional feedback training prior to the observations.

Table 1. Characteristics of participating teachers.

Teacher	Gender	Age	Years of Teaching Experience
Teacher 1	Female	32	10
Teacher 2	Female	37	15
Teacher 3	Female	26	2
Teacher 4	Female	24	2
Teacher 5	Male	30	7
Teacher 6	Male	28	6
Teacher 7	Male	37	8
Teacher 8	Male	28	2

2.2. Systematic Observations

The consent of all teachers was sought prior to the research and ethical approval was granted by the university's ethical committee. The eight participants were each filmed teaching three games lessons, making a total of 24 videos. The teachers wore a microphone to record their voice throughout the lesson. Filming began when the teacher and students arrived in the teaching space and continued for the duration of the lesson. Lesson duration ranged from 26.10 min to 57.45 min, with an average of 36.20 min. Students from years 7, 8, 9, and 10 were involved. In all lessons, the gender of the teacher matched the gender of the pupils; this was not an intentional design choice, simply a characteristic of the school's normal class allocation. The videos consisted of different sports from three areas: (1) net and wall games, (2) invasion games, and (3) striking and fielding games. The games were selected as an activity focus because so much of the previous research has focused on self-paced skills like gymnastics and fundamental movement skills.

The research data were collected during the summer term (May to July). While extraneous variables such as weather conditions, group size, and available space were not controlled, the summer months typically offered stable conditions. No extreme weather events were recorded during the data collection period, and the school's excellent sporting facilities ensured that all lessons took place in purpose-built sports spaces.

The system used to record feedback behaviours in this study was the *Coach Analysis and Intervention System* (CAIS) developed by Cushion et al. (2012). The CAIS identifies 23 primary coaching behaviours such as questioning, instruction, and modelling as well as secondary behaviours, including the timing of these behaviours in relation to performance episodes (i.e., before, during, or after). For the purposes of this study, a more focused approach was adopted, with attention limited to five specific feedback behaviours. Operational definitions for these behaviours (see Tables 2 and 3) were consistent with those used in the original CAIS framework. Each recorded behaviour was further categorised based on whether it was directed at an individual student or a group. To ensure accuracy and enable detailed analysis, all teacher feedback was recorded and transcribed verbatim, allowing for the identification of patterns in language and delivery. It should be noted that non-verbal feedback was excluded from the analysis due to limitations in video quality, which would not have allowed for accurate and reliable coding.

The researcher made several decisions as to how to evaluate teacher feedback. In the decision-making regarding specificity, we asked: do the students know exactly what they have done right or wrong? If we could answer this question positively, we scored the feedback as specific. When remarks like "come on, wakey wakey" were delivered when a student had missed a catch, this was classified as general negative feedback. Similarly, "unlucky" when a student had tried hard but was unsuccessful, was marked as general positive feedback because the intention was to reward their efforts. Where there were different types of feedback delivered consecutively, each type of feedback was recorded

individually, e.g., "perfect" and "that was a really good bowl" were recorded as general positive and specific positive feedback.

Table 2. Specific feedback (positive or negative) adapted from Cushion et al. (2012).

Specific Positive	Specific Negative
Good you followed through well	Don't lose sight of the ball and your man
Good drag	Don't force the pass
That was good defending	The attack is too slow
I liked the way that you got low in the tackle	You're swinging too early
Good serve	You've got to talk
Excellent counterattack	You maybe got caught a bit too wide

Specific verbal statements (either positive or supportive OR negative or unsupportive) that specifically aim to provide information about the quality of performance (can be delivered concurrently or post an activity).

Table 3. General (positive or negative) and corrective feedback adapted from Cushion et al. (2012).

General Positive	General Negative	Corrective Feedback
Well tried	Don't do that again	It would help if your stance was not a metre wide
Good job	Oh, guys, please	You probably do not want to be on the same side as your team-mate initially
Much better	That was rubbish	Move your feet and not your stick
Well done	You got that wrong	Pass it earlier next time
That's lovely	Not from there	Force them away from the goal when they are attacking
I like that		We need to increase the ball pace'

Note: **General verbal statements** (either positive or supportive OR negative or unsupportive (can be delivered concurrently or post an activity). **Corrective statements** that contain information that specifically aim to improve the player(s) performance at the next skill attempt (can be delivered concurrently or post an activity).

Teacher feedback from the video was coded by one analyst with experience in this type of analysis. All feedback was transcribed verbatim and then classified within feedback categories. To estimate intra-observer reliability, the initial analyst coded the data for a second time three weeks later. To establish inter-observer reliability, a second analyst (another teacher) with experience in this type of analysis, coded 3 lessons. The scored-interval method was used to calculate intra- and inter-observer agreement (Van der Mars, 1989). The mean intra- and inter-observer agreement percentage scores were 92% (range 92–100%) and 90% (range 85–100%), respectively. The figures are above the recommended 85% regarded as acceptable reliability agreement scores (Van der Mars, 1989).

2.3. Data Analysis

Systematic observations provided detail on what feedback behaviours teachers used in practice. The behaviours were coded and quantified based on operational definitions (see Tables 2 and 3). Doing this gave frequency for individual feedback behaviours used, which then allowed percentages to be calculated. Percentages were calculated by dividing the frequency of individual feedback behaviours by the total number of feedback behaviours. Descriptive data were calculated for each teacher.

3. Results

The aim of this research was to interpret the frequency and preferred style of feedback used by secondary PE teachers and to assess factors that could affect this.

3.1. What Is the Frequency of Teachers' Feedback?

Filming started as soon as the teacher and students entered the teaching space and continued throughout the lesson. Over 939 min of observation, a total of 1473 feedback behaviours were documented. Lesson durations varied between 26.10 and 57.45 min, averaging 36.20 min. On average, the eight PE teachers gave verbal feedback 60 times per lesson, with the highest recorded instance being 196 and the lowest 13.

3.2. What Types of Feedback Were Most Used?

As shown in Figure 1 and Table 4, general positive feedback was the most used feedback behaviour (44.6%), followed by specific positive feedback (25.6%), and corrective feedback (15.5%). Specific negative feedback was the least used feedback behaviour (7%).

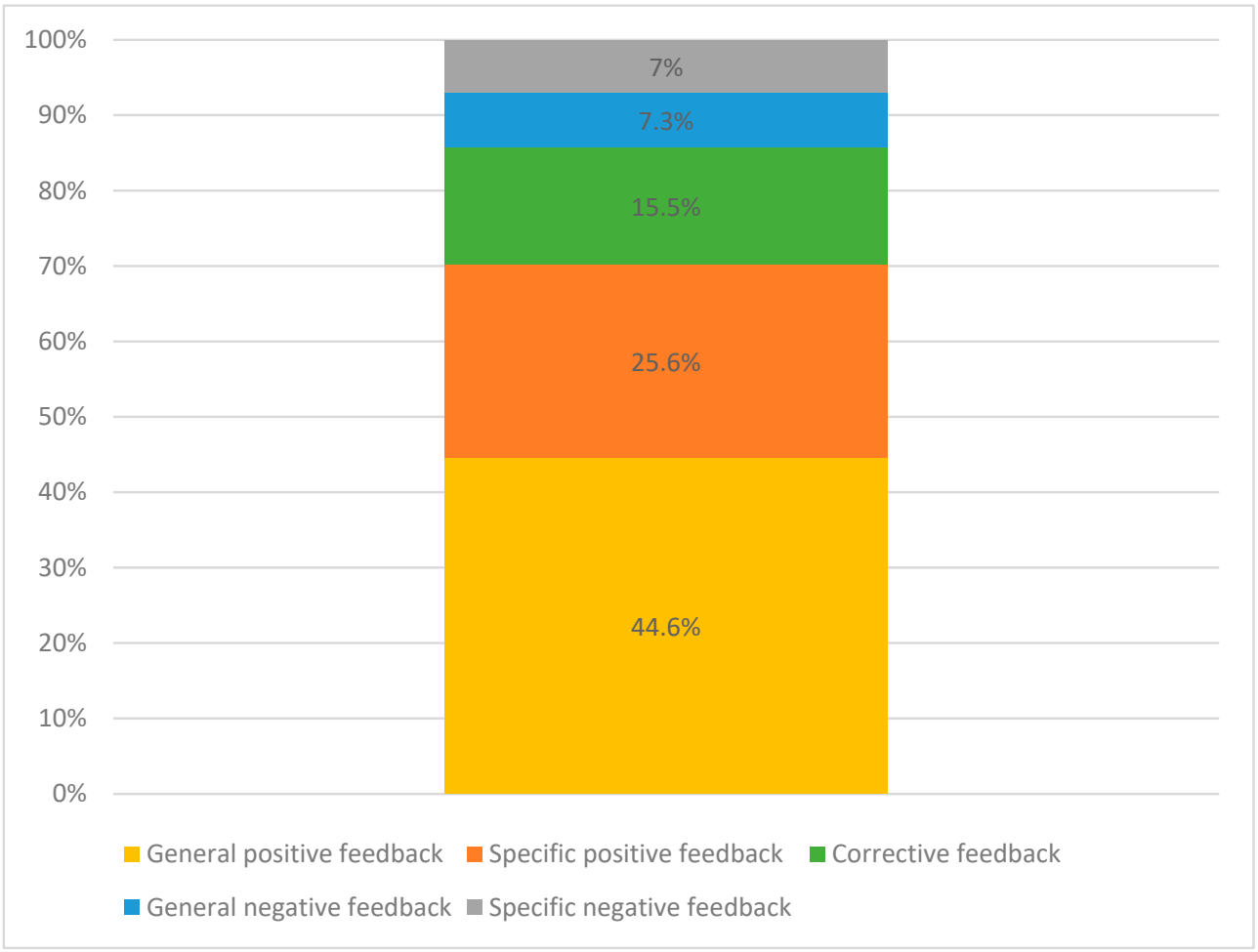


Figure 1. Teacher feedback behaviours.

Table 4. Descriptive statistics of teacher feedback behaviours.

Feedback Behaviour	Frequency	%
Specific positive feedback	441	25.6
Specific negative feedback	97	7
General positive feedback	610	44.6
General negative feedback	105	7.3
Corrective feedback	220	15.5

3.3. Do the Above Answers to 1 and 2 Differ Based on Pupil Age?

There were more feedback occurrences in year 9 and 10 lessons (frequency = 922) compared to year 7 and 8 lessons (frequency = 551). The most notable difference was in the proportion of positive feedback provided (Figure 2). Lessons in years 9 and 10 received a higher percentage of both general and specific positive feedback (74%) compared to years 7 and 8 (66.7%). Conversely, corrective feedback was more frequent in years 7 and 8 (18.7%) than in years 9 and 10 (12.7%). Furthermore, teachers used a similar amount of general negative and specific negative feedback across both groups (years 7 and 8 = 14.6%, years 9 and 10 = 13.2%).

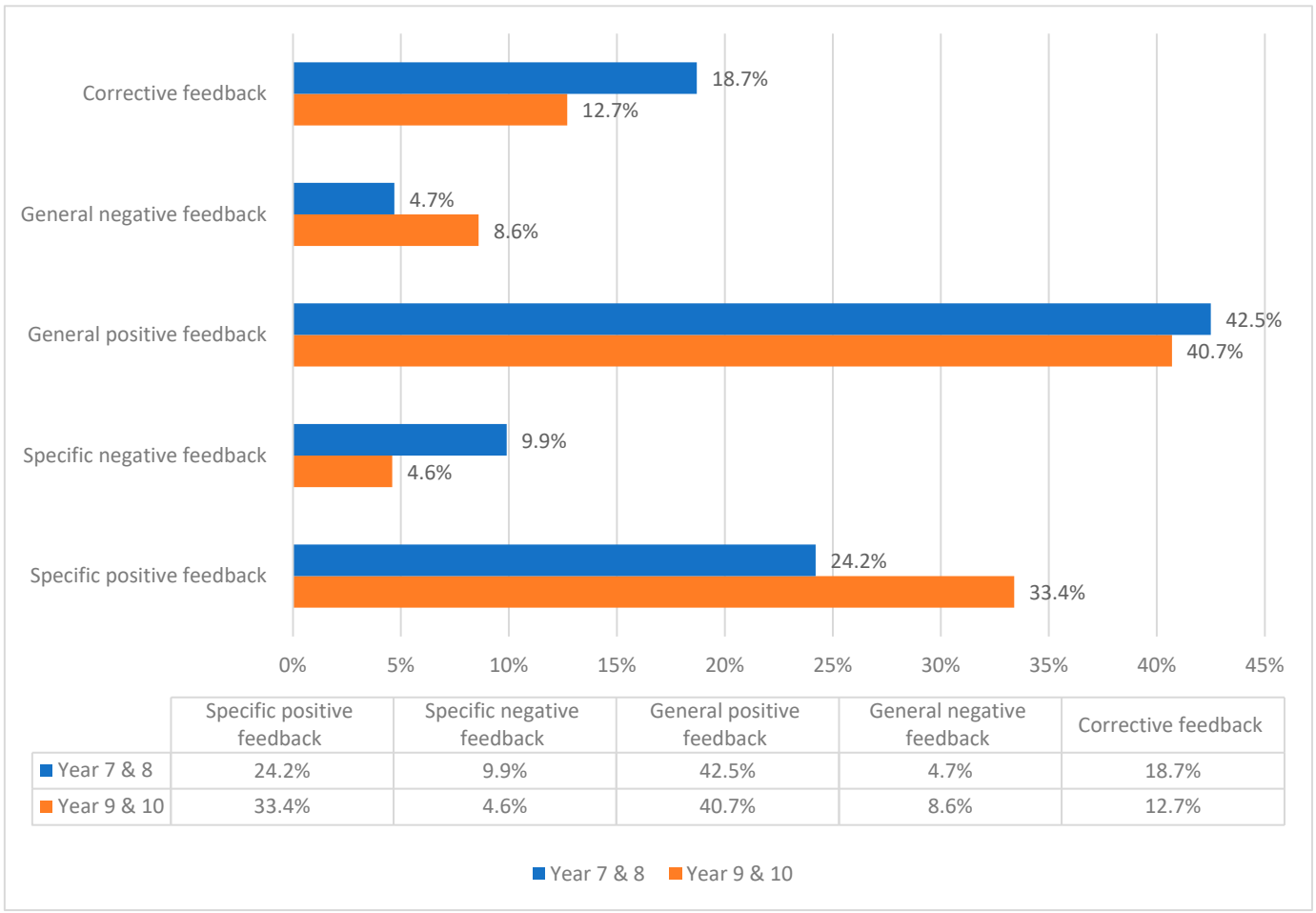


Figure 2. Teacher feedback behaviours within years 7 and 8 and 9 and 10.

3.4. Do the Above Answers to 1 and 2 Differ Based on Pupil Teacher Gender?

On average, female teachers provided more feedback to female students in a single lesson (80 occurrences) compared to male teachers providing feedback to male students (40 occurrences). As can be seen in Figure 3, despite this difference in frequency, the proportion of positive feedback remained similar between the two groups (Female: 70.6%, Male: 69.8%). However, female teachers gave more specific positive feedback (28%) compared to their male counterparts (23.2%).

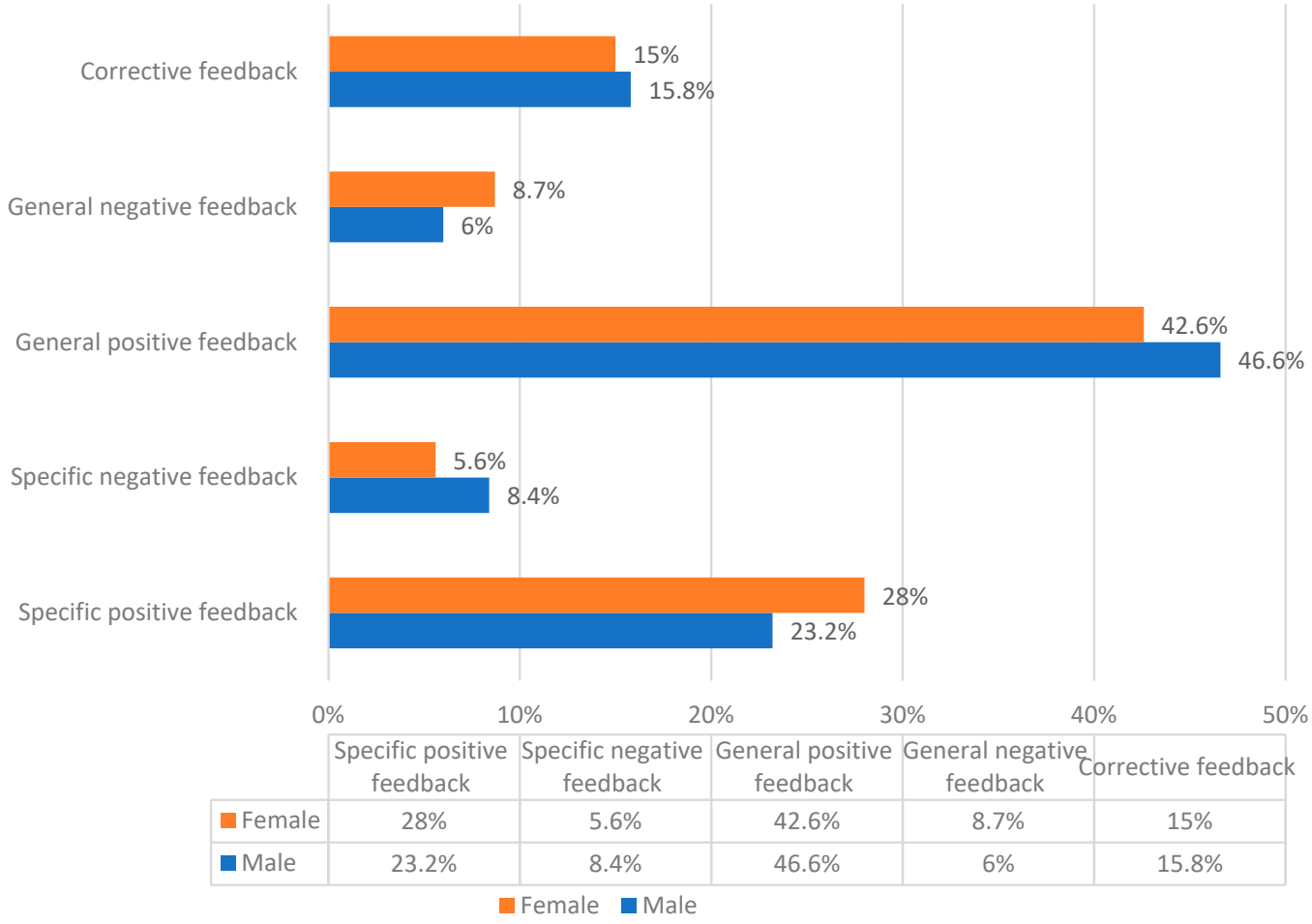
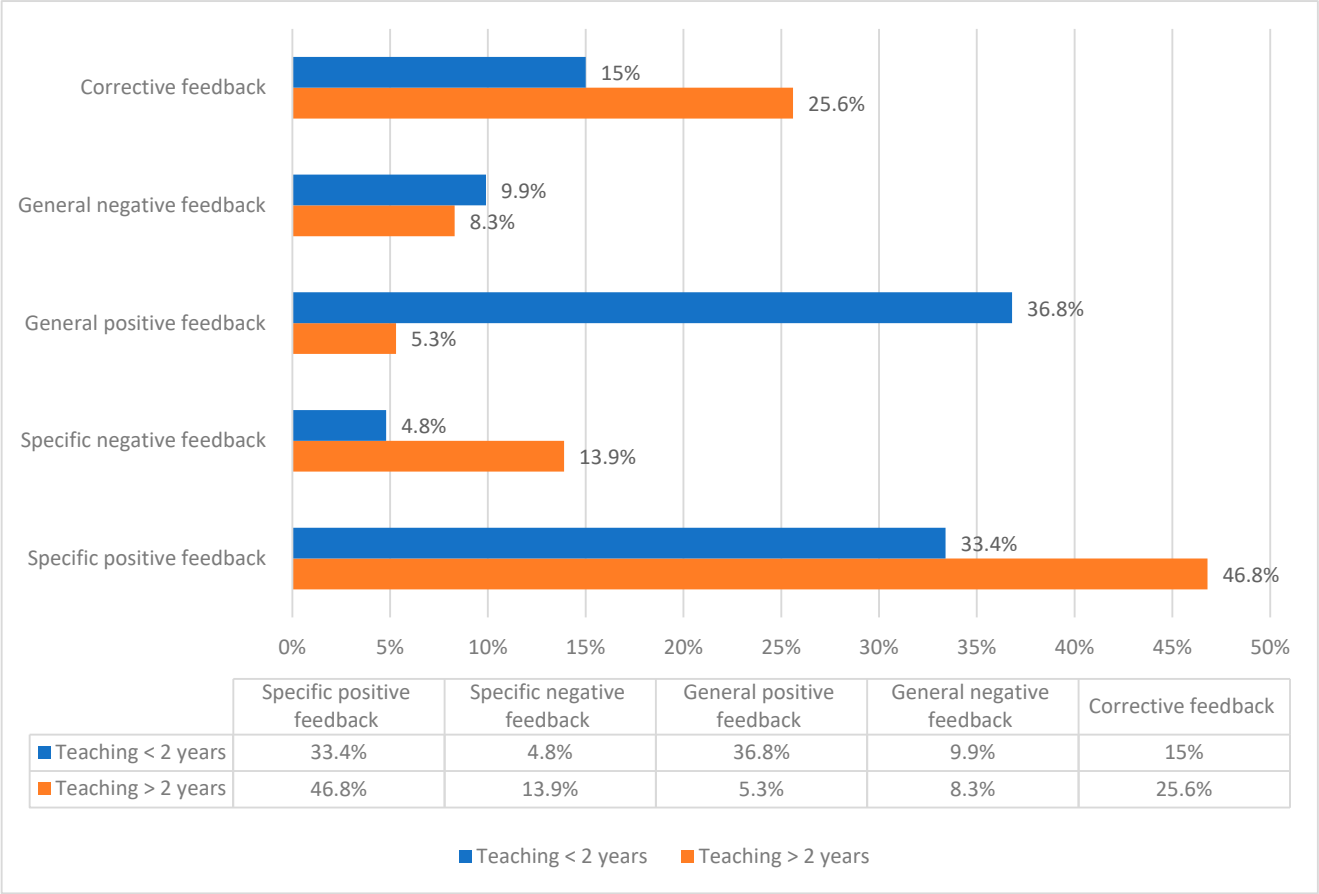


Figure 3. Comparing male and female teachers' feedback behaviours.

3.5. Do the Above Answers to 1 and 2 Differ Based on Teacher Experience?

As shown in Figure 4, the less experienced teachers gave on average more feedback (frequency = 73.9) than the more experienced teachers (53.87). Less experienced teachers predominantly used general feedback (less experienced 46.7%, more experienced 13.6%). Instead, more experienced teachers focused on providing more corrective feedback (25.6%) compared to those who had been teaching for less than 2 years (15%).



	Specific positive feedback	Specific negative feedback	General positive feedback	General negative feedback	Corrective feedback
Teaching < 2 years	33.4%	4.8%	36.8%	9.9%	15%
Teaching > 2 years	46.8%	13.9%	5.3%	8.3%	25.6%

Figure 4. Comparing teacher feedback behaviours between more and less experienced teachers.

4. Discussion

The aim of this research was to explore the frequency and preferred style of feedback used by secondary PE teachers and to assess factors influencing these practices. A total of 1473 feedback behaviours were recorded across 939 min of observation, with frequencies converted to percentages for analysis. On average, teachers provided verbal feedback 60 times per lesson, aligning with findings from Spittle et al. (2012), who reported a mean of 63.7 feedback instances per class.

General negative (7%) and specific negative feedback (7.3%) were the least observed, a favourable result given that negative feedback has been associated with increased task avoidance (Hattie & Timperley, 2007). General positive feedback was the most frequently used category (44.6%), appearing approximately 20% more often than any other feedback type, consistent with previous research (Burnett & Mandel, 2010). While praise can foster a supportive environment and enhance motivation, its effect on skill development is less clear (Hattie et al., 2017). When paired with the specific positive feedback recorded in 25.63% of instances, its impact is likely enhanced (Zhou et al., 2021), as learners are more likely to repeat successful actions when they understand what led to their success.

Corrective feedback, which guides learners toward improvement (Whitney & Ackerman, 2020), was underutilised, accounting for just 15.5% of all feedback observed. For such feedback to be effective, it must align closely with the lesson's learning objectives. Misaligned feedback such as focusing on shooting technique during a lesson centred on tactical positioning, can confuse learners and dilute instructional impact. Moreover, corrections were often repeated to individuals, such as repeatedly instructing students to extend their arm or racket when serving, where group feedback could have been more time

efficient. Fostering a safe learning environment where mistakes are viewed as valuable opportunities for growth (Mackinney, 2024) is crucial when giving corrective feedback. Without exception, all teachers used a supportive and respectful tone when delivering corrective feedback.

Interestingly, while feedback was less frequent in years 7 and 8, a greater proportion was corrective (18.7%) compared to years 9 and 10 (12.7%). This supports research suggesting that beginners, especially those in the cognitive stage of learning, benefit most from corrective feedback. However, inundating novices with information can lead to cognitive overload (Ofsted, 2023). Effective corrective feedback must consider the learner's current knowledge, needs, and readiness. For example, a novice year 7 student may benefit from foundational guidance on stance and ball toss in tennis, while a more experienced student might require feedback on swing mechanics or timing. As students gain experience and move into the autonomous stage, they become better at self-correction (Zhou et al., 2021). At this point, teachers should shift toward delayed or reflective feedback, encouraging students to analyse performance independently through video analysis or peer review. Overly detailed feedback during this phase can hinder the development of internal feedback mechanisms (Otte et al., 2020).

Feedback patterns varied across year groups. General and specific positive feedback comprised 74% of all feedback in years 9 and 10, compared to 66.7% in years 7 and 8. This disparity may reflect efforts to enhance motivation and confidence, which often decline during adolescence, particularly among girls (Youth Sport Trust, 2023). However, in contrast to this trend, negative feedback was more frequently directed at older students (8.6%) than younger ones (4.7%), possibly indicating a belief that older learners are better equipped to process criticism. Apter et al. (2020) further argue that as students gain expertise, the reliance on general positive feedback should decrease to encourage intrinsic motivation and learner independence. Together, these findings highlight the need for personalised, context-specific feedback that adapts to learners' developmental stages and experience levels.

Teacher gender appeared to have little effect on the overall use of positive feedback (Female = 70.6%, Male = 69.8%). However, female teachers gave more specific positive feedback (28%) than male teachers (23.2%), possibly as a strategy to motivate girls, who tend to enjoy PE less (Youth Sport Trust, 2023). Given that female teachers in the study taught only female students, it remains unclear whether the difference was due to teacher or student gender. This highlights a need for future research that examines mixed-gender teaching scenarios.

Teacher experience also influenced feedback style. Less experienced teachers relied more on general feedback (46.7%), whereas more experienced teachers provided more corrective feedback (25.6%). This aligns with the idea that effective corrective feedback requires deeper subject knowledge and instructional fluency (Hattie & Timperley, 2007; Coe et al., 2014). Experienced teachers may also deliver higher-quality feedback because routine teaching tasks require less cognitive effort, allowing for more attention to be paid to student needs (Tan, 1996).

To enhance feedback effectiveness, targeted continuing professional development (CPD) is essential. Existing CPD for PE teachers often lacks structure and relevance (Harvey et al., 2020; Makopoulou et al., 2019). Systematic observation and collaborative reflection such as reviewing feedback with expert colleagues can support more intentional and effective practices (Ward & Van der Mars, 2020).

5. Limitations

While quantitative research offers valuable insights, this study has several limitations that may have influenced the findings. The research was conducted in an authentic school environment; however, the sample was limited to one local school, reducing the generalisability of the results. The small, non-representative sample cannot reflect the full range of PE teaching contexts.

Additionally, in every observed lesson, the teacher's gender matched the students. This alignment was not intentional but a by-product of the school's timetabling. Consequently, it is unclear whether feedback patterns were influenced by the gender of the teacher, the students, or both. This ambiguity limits the interpretation of any gender-based findings.

Another limitation is the exclusion of non-verbal feedback. Due to the challenges in accurately coding facial expressions, gestures, and body language from video recordings, these important elements were omitted. Non-verbal cues play a vital role in communication, often reinforcing or replacing verbal instructions. Their absence likely led to an incomplete representation of the feedback environment. Future research should consider using a dual-camera setup, one focused on the teacher to capture subtle gestures, and another providing a wide-angle class view. This would enable a more comprehensive analysis of both verbal and non-verbal feedback in PE.

6. Recommendations

Initial teacher training (ITT) programmes should place greater emphasis on preparing trainees to deliver effective feedback. Structured opportunities to practise giving feedback and engage in reflective activities are essential. Video recordings of lessons can significantly support this process, enabling trainees to observe their teaching more objectively and identify aspects they may not recall from memory. However, trainees may initially lack confidence in evaluating their own performance. A scaffolded approach can help. In the early stages, expert-provided simultaneous audio feedback can be invaluable highlighting effective strategies while pointing out areas for improvement (Mackinney, 2020). As trainees' reflective abilities mature, they will rely less on external input and more on their own critical insights.

Continued professional development (CPD) for in-service teachers must be time-efficient, integrated into the working day, and focused on practical, high-impact learning. Classroom video technology offers a promising solution. Tools like IRIS Connect UK (2025) allow for the seamless integration of lesson recordings with reflective teaching platforms. AI-powered analysis can further enrich this process by pinpointing key feedback moments and identifying patterns for reflection. Nevertheless, technological solutions must be adaptable. In dynamic environments such as physical education (PE), camera setups need to accommodate outdoor pitches and large sports halls without sacrificing recording quality or ease of use.

7. Further Research

A key gap in this study lies in the disconnection between observed feedback and its impact on student learning or motivation. Future studies should combine observation with interviews to explore how students perceive and use feedback, and how teachers make feedback decisions. Student-led video reflection is one potential avenue—learners could watch lesson footage and discuss their responses to feedback how they understood it and how it influenced their performance. Similarly, teachers could reflect on their feedback delivery using recorded lessons, helping researchers understand their rationale and identify areas for professional growth. Ultimately, a deeper exploration of how feedback is received and applied by students will enable more inclusive, responsive, and impactful teaching.

8. Conclusions

This study underscores the complexity of feedback in physical education, highlighting its central role in shaping student learning, motivation, and skill acquisition. While general positive feedback was most frequently used, evidence suggests that specific and corrective feedback may be more effective in supporting learning outcomes.

Feedback practices varied by student age, teacher experience, and gender, pointing to the need for a more nuanced, context-sensitive approach. More experienced teachers were found to use feedback more effectively, focusing on corrective strategies, while less experienced teachers relied heavily on general comments.

The findings support the need for tailored professional development that helps teachers deliver more targeted and impactful feedback. Further research is needed to explore feedback's long-term effects on student learning and to better understand the interplay between teacher actions and student responses.

This study contributes to the limited literature on feedback in PE and offers a foundation for future research that can inform both classroom practice and teacher education. A broader, more diverse sample and a mixed-methods approach are recommended to advance understanding in this important area.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

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