Professional Partnership between Universities and Schools: the Use of a Diagnostic Tool to support Development of Student Teachers' Professional Skills

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Abstract

This paper describes a case study concerning a student teacher at risk of failing a teaching placement, who was supported by colleagues and university tutors through the use of a diagnostic tool in the form of a checklist. The checklist comprised a number of categories relating to aspects of teaching and learning within the classroom and was used consistently by staff to provide feedback to the student and as a basis for discussion and evaluation of his lessons. Scrutiny of the checklists, completed over a four week period, staff questionnaires and staff and student interviews indicate that the student and teaching staff found the tool user friendly and helpful in identifying areas of good practice and those requiring development. Other benefits for the student included the development of a pro-active approach to planning lessons and reflection on practice. The tool may be useful as a means of providing formative feedback and initiating dialogue relating to practice, particularly at an early stage of a teaching career.

Keywords

Mentoring; student teacher experience; feedback; reflection; checklists.

Introduction

Checklists are seen as a necessity in many professions. In aviation, checklists are crucial in ensuring safety and the smooth operation of navigation, take-off and landing (Degani & Wiener, 1993). In healthcare, checklists 'have tremendous potential to improve patient outcomes' (Winters et al., 2009:210) in areas such as surgical procedures (Verdaasdonk et al., 2009), intensive care units (Simpson et al., 2007), pre-and post-operative briefing (Paull et al., 2010) and paediatric medicine (Cheng et al., 1996). Checklists are frequently used in audits and inspections (Seoane, 2001) throughout a number of industries. Checklists appear, therefore, to play a large part in quality assurance and improvement in a variety of areas and occupations. However, it is important to note the difference between what may be described as mechanistic checklists, such as the ones above, and ones which are the basis for underpinning 'professional judgements' and which therefore require shared understanding, a common language, time for discussion and involvement of everyone involved. A quantitative/qualitative tension may arise when the move is made from more scientific areas such as aviation, medical procedures and business towards more interpretative areas such as education.

In education, checklists are used every day. School inspectors usually have a list of criteria that they use to assess the quality of teaching, learning and ethos in a school (HMIe, 2007) and which schools themselves use for self-evaluation. In the classroom, checklists are seen as vital for health and safety in certain subjects such as the sciences and technology (HSE, 2011). Checklists are often used by teachers to map pupils' achievements and provide feedback (Knipper & Duggan, 2006). Observational checklists can help develop successful literacy strategies (Hsieh et al., 2009), communication skills (Bishop & Baird, 2001) and effective assessment practices (Mintah, 2003).

DiPerna (2006) suggests that teachers use 'academic enabler' observational checklists to assist learners to manage their learning and drive up academic standards. Teachers are advised to use checklists to enhance pupils' behaviour (DfE, 2011a) and to identify particular barriers to learning. Peer and self-assessment in the classroom are facilitated by checklists (Andrade & Du, 2007; Carless, 2005) in order to involve learners in assessing their understanding and progress. In the field of Education, therefore, it could be considered that checklists form a context not only for enhancing the learning process for learners but also the professional development of teachers.

In order to become registered practitioners in the UK, student teachers must meet a set of standards which can be considered as a checklist of competences (GTCS, 2012; DfE, 2011b). In Scotland, where this study took place, the Standard for Registration comprises three overarching spheres: Professional Values and Personal Commitment; Professional Knowledge and Understanding and Professional Skills and Abilities, each of which includes a range of 'professional actions' the practitioner must demonstrate s/he has achieved before registration can take place. A number of these 'professional actions' relate to social justice and integrity; others to theory and the curriculum, while others are concerned with planning and delivery of lessons, including communication, assessment and classroom management.

However, despite awareness of the overarching levels of expertise required to be effective, there exists sometimes among student teachers a lack of understanding of how best to operate in the practical setting of the classroom to achieve the necessary standard. Supervising teachers may also experience difficulty in disaggregating the complex procedures involved in delivering a successful lesson in order to provide appropriate feedback. Although school based mentors in a study by Hall et al. (2008) stressed the need for positive feedback, they appeared to find difficulty in defining exactly what feedback and 'constructive criticism' entailed. What may be required is a tool which deconstructs the component tasks involved in teaching so that clear, achievable goals can be set and realised.

This paper describes a case study concerning a student teacher at risk of failing to meet the necessary standards while on school placement and the measures taken to address her/his areas of weakness, using a checklist as a diagnostic tool to improve feedback with a view to improving her/his performance in the classroom. The student was studying the Postgraduate Diploma of Education (PGDE), aiming to become a secondary school teacher of French. As a native speaker of French, s/ he had had some experience teaching French to adults before starting the course. S/he had also worked in a school in England as a foreign conversation assistant. S/he therefore had some experience of the UK school system. However, during her/his first placement, her/his development as a teacher of secondary aged pupils was causing concern. Departmental staff complained that feedback on her/his performance did not seem to be addressed in subsequent lessons and they were concerned about her/his lack of progress. This paper begins with a discussion of issues surrounding failing students and the support available from colleagues and mentors in school. The strategy put in place to support this student's improvement through the use of a checklist will then be described, before presentation of the results of the project.

Underperforming students: possible causes

The student's poor performance may have been because of a lack of awareness on her/his part. Many underperforming students do not realise that they are less than competent (Cleland et al., 2005). In this student's case, her/his previous experience as a teacher of adults and working in a UK school may have instilled a false confidence in her/his classroom skills. Schwartz et al. (2011) highlight the problem of overconfidence as a potential barrier to learning. It has been suggested that confident students are more likely to underperform than their less self-assured peers (Dunlosky & Rawson, 2012; Chui & Klaasen 2009). For example, Rawson and Dunlosky (2007) found that in recall

tasks students overestimated their performance 43% of the time. The qualified teachers in Kos et al.'s (2004) study substantially overestimated their understanding of a learning disability, and therefore, it is suggested, did not feel any need to enhance their knowledge further through professional development courses. In Yariv's study (2009), poorly performing teachers assessed themselves positively, perceiving themselves to be effective, while their supervisors stated they were not. Overconfidence and lack of self-awareness regarding teacher efficacy suggests that these practitioners are less able to self-evaluate (Langendyk, 2006), a crucial attribute in teaching, where the reflective practitioner (Schön. 1983; Brookfield, 1995) is seen as the model for professional development. Student teachers in particular may find it difficult to 'read' a class and thus are unable to reflect on what learners' responses are telling them (Kennedy, 2002). Consequently, at risk students are unaware of how to improve (Yariv, 2011).

At the same time, Wragg et al. (2000) question whether 'weak' teachers are adequately supported by their line managers. All teaching students are, in principle, allocated mentors while on school placement. These tend to be more experienced practitioners, whose role is to support students to evaluate their lessons, enabling reflection on their performance and identification of next steps for improvement (Danielson, 2002). In theory, mentors undergo training to ensure some degree of consistency across the sector; in reality a number of issues have been identified which mean that mentoring may not be beneficial in all cases (Hobson et al., 2009). This may be particularly relevant to the situation described in this paper, as in the Scottish initial teacher education context, there is no training programme for school-based mentors. Instead, subject specialists in schools work in close partnership with university tutors and both have equal responsibility for assessment of students' practical skills.

It is acknowledged that mentor support may be inconsistent (Hudson, 2014) and levels of support may vary (Hudson, 2010). There may be a number of reasons for inadequate support. Many teaching staff in schools are time-poor (Swaim & Swaim, 1999) and may not have the opportunity to provide immediate, in-depth feedback to students on their lessons. Duffy's study (2003) of mentoring in nursing found that workload issues meant that, in some cases, mentors passed students whom they did not consider fully competent, rather than engage in the additional time which supporting them might involve.

In addition, some teachers may have concerns about appearing too critical and subsequently undermining student teachers' confidence (Yariv, 2006; Timperley, 2001). Duffy's study (2003) indicated that mentors tended to err towards the positive if confronted with doubts about students' efficacy. Yariv (2006) describes this as the 'mum' effect, when line managers or mentors are reluctant to highlight the mentee's shortcomings. Delivering criticism is viewed as 'face threatening' (Erbert & Floyd, 2004) and mentors may be unwilling to jeopardise a working relationship by appearing to offend. In a situation where the student teacher is underperforming, student mentors may overemphasise the positive aspects of his/her practice and gloss over perceived failings, in the hope that the student will improve over time (Yariv, 2006).

Mentors may also be reluctant to judge too quickly, feeling that the student needs some 'settling in' time, particularly in the first placement (Scanlan et al., 2001), thus dedicating the first week or so to observation. School placements in the PGDE programme generally last a maximum of six weeks and it can take up to three weeks before problems can be identified, thus leaving little time to work systematically on the issue(s) identified, with the result that the student fails. This scenario, fortunately, was not an issue in the department within which the student in this study was placed. Their pro-active approach in encouraging her/him to start teaching within the first week of placement meant that by the end of the second week, their concern was based on observations of a number of lessons. It was fortunate too, that the mentor contacted the university tutors regarding

their concerns, as there exists sometimes a 'disconnect' between the two partners who support a student teacher, due to the perceived different focus of school and university (Zeichner, 2010). The mentor expressed her department's concern about the student's lack of authority in the classroom, poor organisation and lack of coherence in her/his lessons. More concerning for her/him and the department was an apparent absence of meaningful reflection on her/his lessons and perceived refusal or inability to act on the feedback he received.

The project
The university tutors met with the student to discuss her/his progress. During the meeting s/he accepted that there was a need for greater focus on her/his part. However, while acknowledging the meaningful feedback s/he was receiving from her/his mentor, s/he revealed that the mentor was only really able to comment in detail about the one class of hers/his with which the student was working. The rest of the classes on her/his timetable belonged to the three other teachers in the department, who, s/he maintained, did not provide such comprehensive feedback. S/he stated that s/he was unsure of what steps to take to improve, as feedback from the other teachers had not been specific as to which areas of practice s/he needed to work on, often characterised by brief comments such as 'That was ok, but you could have done … better'. Feedback that is unclear or non-specific can result in confusion and a lack of confidence, leading to negative outcomes (Hattie & Timperley, 2007). Occasionally the student felt that different teachers' feedback was contradictory and sometimes non-existent as s/he or they rushed to prepare for the next class. S/he admitted that s/he found it difficult to evaluate the success or otherwise of her/his lessons her/himself. Student teachers often find reflection difficult (Spalding and Wilson, 2002) and although able to identify whether a lesson is successful or not, may not be able to move from description to analysis in order to recognise causes and possible steps for improvement (Parsons and Stephenson, 2005).

The tutors and the school-based mentor met to consider a well-defined support strategy with the purpose of helping the student identify different important elements within the lesson, and permit the teachers in the department to focus their comments, so that the student was in no doubt about areas s/he needed to develop. In discussing the students' needs, it was clear that s/he required focused and immediate feedback on her/his performance in order for it to be most effective (Seeler et al., 2004). In addition, clear objectives for development were essential, so that the student was clear as to expectations regarding her/his performance (Dean et al., 2012) as well as opportunities to try out different approaches to meet the objectives. Finally, feedback   needed to be consistent and regular to underline the agreement by all the teachers in the department on the student's next steps for progress (Wiggins, 2012; Crisp, 2007). The challenge was to make the whole process manageable, so that the busy teachers were not overburdened. Since teacher time was acknowledged to be an issue, after some discussion the decision was taken to provide the student and the departmental teachers with a checklist, which could be filled in during the observation of the lesson and which would provide instant feedback to the student afterwards.

The university tutors and the mentor drew up a checklist, which was correlated to the knowledge, understanding, practices and skills required by the Standard for Registration (GTCS, 2012). The mentor then discussed the contents with the department. Further discussion took place between the mentor and the university tutors by email and telephone to finalise the list. The university tutors discussed the use of the checklist with the student who agreed to its use as a feedback mechanism and prompt for reflection. When constructing the checklist it was important that it should be not only user friendly, but that there should be a shared understanding of what was looked for in each of the categories. The department undertook to use the list systematically so that the student would have a written record of her/his performance for each lesson taught and any areas causing concern that required to be addressed. It was also envisaged that, if the student did not prove able to attend to areas necessitating improvement and subsequently failed the placement, the checklists would

serve as evidence that the department had drawn these to her/his attention. The list can be seen in Table 1.

Table 1. Student Observation Checklist

Teaching area	Good	Acceptable	Needs attention
Subject knowledge			
Curriculum knowledge			
Lesson plan			
Links to unit aims			
Coherence of lesson			
Links made to previous learning			
ICT use			
Instructions			
Variety of skills practised			
Links between activities			
Questioning			
Target language			
Classroom management			
Pupils' contributions			
Homework			
Recap			
Assessment/Feedback			
Pace of activities			
Overall Timing			
Learning intentions achieved			

The checklist covered the key skills and attributes considered by the tutors and the department necessary to be an effective teacher of French. It was designed so that positive as well as negative feedback could be transmitted, thus providing a balanced response to the student's actions in the classroom. The checklist aimed to recognise good practice in order to provide encouragement as well as providing pointers for action. The majority of the content related to generic skills, such as planning, use of ICT, instructions, questioning and pace, although all were related to the French classroom context. There were also certain elements particular to the teaching of French, for example, the variety of skills practised (listening, speaking, reading and writing activities) and the use of the target language. Supervising teachers merely had to tick the appropriate box to indicate whether they regarded an area of classroom practice as good, acceptable or needed attention. While acknowledging that there might have been some subjective differences as to what individual teachers might consider 'good' 'acceptable' or 'needing attention', the discussions about the criteria held beforehand aimed to ensure that a collective understanding was established and that the teachers applied the criteria systematically, using their professional judgement. The list was then returned to the student at the end of the lesson and was either used immediately as a basis for discussion about the lesson or, if the teacher or the student was immediately occupied after the lesson, to stimulate later discussion at a mutually convenient time. The checklist was used for the

four remaining weeks of the placement. The student subsequently passed all the practical assessments for the placement.

In order to ascertain whether the checklist had been helpful in improving the student's performance, and if so, in what ways, the tutors collected evidence from a variety of sources. With the teachers' and student's permission, copies of the completed checklists from every lesson were scrutinised, to see if a pattern emerged regarding progress through the different categories. The teachers in the department agreed to complete questionnaires, comprising closed and open questions about the use of the checklist and the mentor and the student were each interviewed about their perceptions of its usefulness or not. In a case study such as this, the importance of gathering data reflecting as many perspectives as possible means that the findings may be considered more 'trustworthy' (Yin, 2003). The multiple angles from which the effectiveness or not of the checklist were viewed could be said to enhance the credibility of the findings (Baxter & Jack, 2008).

Each tutor scrutinised the data individually, before coming together to discuss the main themes that each had identified as appearing to arise from the data. Coding the data separately aimed to ensure rigour in the process. The themes were then classified under two main categories; the teachers' and the student's perceptions of the effectiveness or otherwise of the checklist. Each perspective will now be discussed below.

Teacher perspectives
The teachers were very positive about the checklist as a diagnostic tool. They all mentioned that it was easy to use and allowed them to provide targeted feedback quickly, without the need to spend a lot of time either thinking of appropriate written expression or explaining orally to the student particular areas they wished to comment on. The ease and rapidity of use was seen as an advantage. The teachers liked the designation of the different components in the lesson and found them very useful in identifying areas of good or not so good practice. As one commented, 'Often you know that the lesson's not going well, but it's not always easy to recognise exactly where the problem is'. Teachers often act intuitively in the classroom, without always being able to explain why they have chosen a particular course of action (Fairbairn, 1999). For these experienced teachers, used to making decisions instinctively, the clear classifications on the checklist enabled them to identify the different elements of the student's lesson and provide clear guidance as to her/his strengths and development needs. One teacher also stated that the list made her more aware of her own teaching and the need to ensure that each area was addressed: 'It's made me more aware of all the things I should be thinking of when planning a lesson. Most of them I do automatically, but there are some on the list that got me thinking about just how often I do that'.

The teachers liked the written evidence the checklist provided, particularly when there was no opportunity to discuss the lesson until later in the day. As busy teachers, their attention was often distracted by concerns relating to their own classes or other events happening in the school, so that two or three hours after the student's lesson had taken place, the prompt that the checklist provided was seen as invaluable. 'It really helped to have the ticks there to remind me of what had happened in the lesson. You have so many other things happening that you forget the details quite quickly'. The visual evidence the checklist offered not only helped jog the teachers' memories, it also allowed the student time to think about the issues highlighted before the discussion took place. The teachers reported that s/he appeared more engaged with the subsequent discussion, asking questions and supplying possible solutions to issues flagged up for attention in future lessons.

The checklist appeared to mitigate the 'mum' effect mentioned earlier (Yariv, 2006), as teachers committed their concerns to paper during the lesson, although they continued to stress the positive. 'At first it was a bit brutal, as the majority of ticks were in the central and far right columns

('acceptable' and 'needs attention') and I was struggling to find good things, but when we talked about it, I helped her/him to see how s/he could move into the good column, with just some tweaks to her/his practice'. It seems that the teachers, while not relishing providing negative feedback, might also have benefited from having the greater focus on different classroom elements that the checklist provided, to engage the student in discussion of how to improve, but at the same time highlighting positive elements that they had noted.

The mentor met with the student once a week to review the feedback noted in the checklists and set targets for the coming week. Each week, the three areas most consistently observed by staff as requiring attention were designated target areas which the student was encouraged to address. The target areas were then shared with staff. This meant that the objectives the student had to meet were manageable, the whole department was aware of them and support could be focused accordingly. Explicit objectives are seen to be effective, as they focus the student's and the teachers' attention by providing a stated domain which will be the area for directed feedback (Hattie & Timperley, 2007). While not ignoring other areas requiring attention, teachers were able to address their feedback to the specific areas identified for that week.

The mentor was also convinced that the checklist had made a difference to the student's confidence by highlighting the 'good' elements of her/his lessons. 'It was good to be able to praise the progress s/he was making in certain areas. You could identify what the department thought was good about her/his lessons and make a big thing about it, so that when you came to the bits needing attention, s/he was keen to rectify them'. When students are actively involved in discussion of feedback, they are more likely to take steps to achieve the goals set for them (Locke & Latham, 1990). The apparent enthusiasm that the student evinced seemed to the mentor to stem from having a clear picture of the progress s/he was making and what s/he was trying to achieve. In all, the teachers seemed to find the checklist a useful tool to diagnose issues in the student's lessons, which then prompted valuable professional dialogue about perceived faults and how they might be remedied in future lessons.

Student perspective
The student also valued the professional dialogue that the checklist stimulated. In the interview s/he admitted that her/his confidence had been shaken in the first two weeks of the placement as a result of the department's negativity relating to her/his lessons. A loss of confidence due to adverse criticism appears to be a common occurrence for student teachers according to Murray-Harvey et al. (2000). Of the coping mechanisms of the students in their study, the most important was discussing problems and having a meaningful debrief on their lessons. The student claimed that s/he had felt confused as to how to improve her/his practice due to an initial lack of meaningful feedback from the majority of the teachers in the department. The use of the checklist had improved the feedback, despite a fairly large proportion of 'needs attention' boxes ticked initially. Perhaps because the teachers were more focused by the checklist categories, many had also written short comments to accompany the ticks, which had clarified their meaning for the student. 'It made me think about why I had done some things and how I should have done them to make pupils learn better'.

At first, s/he had found the checklist daunting, as s/he attempted to take all the elements into account when planning. However, s/he acknowledged that the items on the list contained elements that s/he had not previously considered important, such as links to previous learning and between each activity. In attempting to address all the categories listed, her/his planning had improved as a result. S/he claimed that the checklist made it easier to discuss lessons with the departmental staff, who were able to point out in greater detail areas that needed attention, both in the planning stage and after the lesson. Her/his perception was that staff were more willing to discuss her/his planning and delivery because they had a 'script' to which they could refer.

As the placement continued, s/he claimed that s/he started to enjoy the weekly meetings with the mentor, as the ticks on the checklists started to move towards the middle and left hand side of the page ('acceptable' and 'good'). Her/his confidence levels rose, based on the evidence that the checklists provided. S/he also stated that s/he used a blank checklist to evaluate the success or otherwise of the lessons s/he taught, using it as a stimulus for reflection.

Conclusions

We acknowledge that this study, the focus of which was on one student who was supported to success through the use of the checklist cannot be generalised, as it is very limited. However, the positive response from all those involved may be of interest to those with a responsibility for student teachers in similar circumstances. All the participants in the project appeared satisfied that the use of a diagnostic tool such as the checklist enabled the teachers in the department to provide focused feedback which also served as a stimulus for discussion between student and teachers and, at a later stage of the placement, as a stimulus for reflection for the student. The collaboration between the university tutors and the school staff was also viewed positively, as both had worked in partnership to introduce a mechanism to ensure that the student was aware of the areas in which s/he was performing well and those which required improvement, thus improving the effectiveness of the feedback.

It is acknowledged that there are some who may see this approach to the complex role of the teacher as reductionist, rigid and lacking in creativity or flexibility, both vital features of classroom practice (Kerka, 1998). However, these arguments may be countered if the checklist is well-constructed, as this one appeared to be, with detailed categories, with the intention of stimulating discussion, rather than a stand-alone assessment (Gullickson, 2001). A real strength appeared to be the shared understanding of what each heading meant and how improvement in practice could be achieved The student clearly stated that s/he had used the checklist as an aid to her/his planning, so that s/he was aware of all the elements noted and the importance of addressing them in her/his lessons. The checklist therefore also provided a framework which allowed her/him to prepare as fully as possible before and reflect on the outcomes after each lesson. It is envisaged that eventually, this process would become less consciously applied and more an automatic part of planning. The checklist also provides a well-defined basis for discussion between school and university tutors as both work in partnership to support student teachers.

This case study demonstrates the effectiveness of a diagnostic tool in the form of a checklist which can be used to provide a focus for teachers to provide 'instant' feedback to student teachers, which can also be employed to promote further discussion about teaching and learning practices in the classroom. Although the project concerned one student teacher at risk of failing, it may resonate with supervising teachers and university tutors, who may be faced with students or newly qualified teachers in a similar situation. Not all students may require the framework provided by the checklist, but its use can be seen as a constructive approach to providing formative feedback, while stressing the positive. Since the project took place, the checklist has been adopted within the School of Education of the university concerned for all PGDE students, although schools have the option to use their own forms of feedback.

In addition, the checklist was seen by one teacher in the school as being helpful in thinking about her own planning. Although this was an unintended consequence, using a checklist may be also helpful for teachers themselves, when sharing good practice through learning rounds or interdisciplinary observations. It seems that, if used to initiate discussion and promote reflection, a checklist may be a useful diagnostic instrument. However, care should be exercised so that it does not become a reductionist 'tick-box' inflexible procedure and the emphasis in its use should be on shared

understandings of its purpose. It is always difficult in education to get an appropriate balance between a quantitative and a qualitative system which provides meaningful feedback and this case study represents an attempt to find balance between an approach that is user friendly but not merely ticking boxes.

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