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‘Lights, camera, reflection’: using peer video to promote reflective dialogue among student teachers

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This paper examines the use of peer-videoing in the classroom as a means of promoting reflection among student teachers. Ten pre-service teachers participating in a teacher education programme in a university in the Republic of Ireland and ten pre-service teachers participating in a teacher education programme in a university in the North of Ireland participated in the study. Locating the discussion within the theoretical literature on reflective practice, the study examined the capacity for peer-video analysis to facilitate student teachers to move from focusing on the technical aspects of their practice to an examination of the theoretical constructs underpinning their practice.

Keywords: peer videoing; reflective practice; student teachers; self-evaluation

Introduction

There is widespread agreement that teaching is today more complex and demanding than ever before. Teachers are expected to work effectively with students from diverse backgrounds, promote tolerance and social cohesion, manage students from disadvantaged backgrounds, deal effectively with students with learning or behavioural problems, incorporate new technology into their teaching and keep abreast of best practice in student assessment (Organisation for Economic Co-operation and Development 2005). In the context of rapid and radically changing teaching and learning contexts, student teachers are increasingly required to become ‘adaptive experts’ who can adapt speedily and effectively to diverse classroom contexts (Darling-Hammond and Bransford 2005, 3). At the same time, student teachers are being told that they must ‘engage in disciplined experimentation, incisive interpretation of complex events, and rigorous reflection to adjust their teaching based on student outcomes’ (Darling-Hammond 2006, 11). For many student teachers, the range of complex issues they typically meet in classrooms and the demands placed upon them both by their teaching placement school and by their academic programme are often overwhelming. As a result, many retreat to the more technical and immediate aspects of their practice, failing to see the connections between the theoretical and practical elements of teacher education programmes (Barone et al. 1996; Korthagen and Kessels 1999; MacRuairc and Harford 2008). Reflective practice, the bedrock of most teacher education programmes, is one area which often falls victim to the theory–practice divide. While

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reflective practice is widely positioned at the centre of teacher education programmes, student teachers often find it difficult to see its application to their real-life teaching experience (Craig 1994; Cruickshank 1987). Furthermore, student teachers differ markedly in their capacity to engage in reflection, many lacking the requisite propensity for 'open-mindedness, wholeheartedness and responsibility' (Dewey 1933, 107). Cognisant of these complexities and of the realisation that many key pedagogical principles are 'washed out' (Zeichner and Tabachnick 1981) in the practicum, this study set out to examine ways in which student teachers can be supported in the development of their reflective capacities not only for the duration of their teacher education programme, but for their long-term professional growth. Specifically, the study examined how peer-video analysis facilitated student teachers to move from a focus on the technical aspects of their practice towards a closer examination of their theoretical constructs underpinning their practice.

Framework for evaluating student teachers' teaching in the North and South of Ireland

The development of a rigorous model for the assessment and evaluation of classroom practice has been the subject of considerable scholarship (Broudy 1972; Burke 2007; Hargreaves 2003). The most recent development in this field has come about as a result of the operationalisation of new managerialism. The manner in which this ideology has been mediated by education systems has resulted in the formulation, in a number of guises, of a list of teacher competencies. The limitations of competency models and the overall problematic nature of the ideological assumptions underpinning this new managerial paradigm are now being widely critiqued in education discourse (Dolan and Gleeson 2007; Fielding 2006; Thrupp and Willmott 2003). There are many difficulties associated with such an approach, particularly in relation to the narrowing tendencies of this type of focus on a professional domain that is complex (Fullan 1991; Hargreaves 2003), person centred (Fielding 2006) and where the whole is much greater and not reducible to the sum of the parts (MacRuairc, Ottsen, and Precey, forthcoming). Despite this, the proliferation of competency-based models continues, and increasingly the technical rational approach to teacher education is establishing a hegemonic status in many jurisdictions. There is, however, some merit in delineating the different components of effective teaching, particularly in an effort to allow for some form of appraisal and evaluation of classroom practice. This process should be managed so as not to exclude the recognition and reward of emerging practices and creative and innovative approaches (MacRuairc, Ottsen, and Precey, forthcoming). The work around competencies is being led in many countries by the respective teaching council whose remit it is to put a professional shape on the work of teachers. These competencies are increasingly impacting on the assessment of student teaching practice in the university departments within their respective jurisdictions. Different teaching councils are at different stages with respect to their response to the development of a competency framework. The teaching council in Northern Ireland has developed a comprehensive set of developmental competencies to frame teaching in four stages from initial teacher education, induction to early professional development and finally continuing professional development. The Teaching Council in the Republic of Ireland has yet to articulate a framework to be used for teachers in the Republic of Ireland. The dual site focus of this research positions both groups at different stages with respect to a competency model which may

impact on the experiential base that both groups of students bring to the discussions of their practice.

The power of peer-video analysis to promote reflection

Reflective practice has been widely espoused as the key component in education circles for decades. Dewey in *How we think* defined reflection as ‘the active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it leads’ (Dewey 1933, 118). For Dewey, open-mindedness, a sense of responsibility and wholeheartedness or dedication were central to the potential development of a reflective practitioner. Schön further emphasised the relationships between reflection and experience, differentiating between reflection in and on action. The former refers to the importance of teachers being aware of their decisions as they work, while the latter emphasises the importance of reflecting back on and critiquing one’s practice. Both emphasise the importance of experiential learning and both foreground practitioner knowledge (Schön 1983, 1987, 1991).

The power of digital video as a means of facilitating critical reflection and furthering self-evaluation has been widely documented (Harford and MacRuairc 2008; Newhouse, Lane, and Brown 2007; Rich and Hannafin 2009; Rosaen et al. 2008). Video allows for the complexities of the classroom to be brought into sharp focus, facilitating student teachers in bridging the perennial theory–practice divide (Perry and Talley 2001). It captures the immediacy of the classroom, offering detailed and rich data on the teaching and learning process, allowing students to view examples of authentic learning experiences (Newhouse, Lane, and Brown 2007). It captures the voice, the behaviour and the movement of teachers and pupils in a powerful medium (Tochon 2001). As Wong et al. (2006, 6) note, ‘by capturing the interplay of social, cultural, situational and psychological factors videos can give teachers powerful insight into what it is like to be in their classrooms.’ However, while videoing of one’s own work is hugely informative, peer-videoing can be transformative. Peer-video analysis, a process by which pairs of student teachers work collaboratively videoing and then viewing one another’s work, promotes dialogue and shared learning in a profession which has traditionally been characterised by isolation. As Glasgow and Hicks (2003, 33) note, ‘teachers working independently make few changes or refinement to their teaching. They make more changes and procedural refinements during peer evaluation ... Peer evaluation and reciprocal learning help avoid isolation and foster communication, trust and support.’

Methodology

In order to foster collaboration between universities in the North and South of Ireland, the Standing Conference of Teacher Educators North and South (SCoTENS) offered to fund this research project which examined how peer-video analysis could promote reflective skills among student teachers. The centrality of reflective practice to teacher education programmes in both jurisdictions is paramount; however, recent research carried out in the Republic of Ireland (Harford and MacRuairc 2008; MacRuairc and Harford 2008) suggests that there remains a disconnect between the theory surrounding reflective practice and student teachers’ actual real-life teaching experience. A qualitative research project based on the peer-video model was chosen as the most suitable

means for conducting the research. As Jacobs, Kawanaka, and Stigler (1999, 718) note, 'a major advantage of the qualitative approach is that it more easily allows for the discovery of new ideas and unanticipated occurrences. Such research helps focus novel questions, formulate hypotheses, develop useful measures, and produce grounded theory.'

Twenty students in total participated in the research (10 in the Republic of Ireland and 10 in Northern Ireland) which was managed by three academics, one from the North and two from the South of the country. The sample was chosen on the basis of two criteria: the pair model (whereby pairs of student teachers were located in the same school on teaching practice) and school type (co-education/single sex, etc.). Diversity of school type was considered important in providing a broader base from which students could reflect on and critique practice. In the case of the sample of students in the Republic of Ireland, all were undertaking a one-year post-graduate diploma in education and were aged between 25 and 33. Seven of the ten were female, reflecting the trend that the teaching profession in Ireland, as internationally, is highly feminised. All 10 were honours graduates, further reflecting the view that entry to teacher education programmes in Ireland is highly competitive (Harford 2008). These students were all teaching at lower secondary level (pupils aged between 12 and 15). In the case of the sample of students in the North of Ireland, all were involved in an under-graduate teacher education programme. Seven of the ten were female and the age range was 18–21. These students were all teaching at upper primary and lower secondary level (pupils aged between 10 and 14).

The support of SCoTENS allowed numerous cross-border visits at which the project facilitators were afforded opportunities to see the work of their colleagues in a separate jurisdiction and meet students from that jurisdiction to discuss their involvement and development over the course of the year. While it was hoped at an early stage of the research that the funding could also be used to allow for students from the North and South of the country to engage in dialogue and visit each other's classrooms, this proved too problematic to realise. However, discussions are currently underway examining how such a strategy could be executed.

Students in each university were allocated into tutorial groups, 10 students in each group. Divided into pairs, students were then asked to engage in peer-videoing of class teaching in real time and participate in the subsequent analysis of their teaching in a tutorial structure. They were also asked to keep a reflective diary in which they would record their thoughts and ideas as they went through the peer video and subsequent tutorial analysis process. They were asked to supply on a voluntary basis a copy of their reflective entry pertaining to the particular class which they videoed; however, they were not required to submit for evaluation the actual journal. In some cases, students wrote extensively, while in others, entries were brief. Students were assured throughout the process that it was the authenticity rather than length of the entry which was important.

It was decided from the outset that an agreed model should be used which would facilitate the systematic and developmental critique of the student teachers' classes. The existing evaluative models used by each university were analysed in the first instance. This process was important in allowing the researchers to become aware of the different contexts and evaluative frameworks used in their respective university departments. Follow-up discussions with students with respect to the model were a key component of the research process. An agreed model emerged from these discussions which was then used as a framework for examining video footage of classroom contexts and for informing the reflective journal aspect of the study. The following

model was agreed in consultation with the students as a result of a needs analysis of students' own perceptions of priorities in their teaching:

- (1) planning and preparation for differentiation;
- (2) teaching and learning;
- (3) classroom management.

For purposes of familiarisation with the system and to dispense with the understandable initial self-deprecation that appearing on video can cause, students were asked to spend some time using the video camera before recording the actual teaching episodes to be used. They were encouraged to use the video camera as often as they wished but were only asked to 'save' two sessions, each of which they had already recorded and reviewed in a self and peer evaluative manner. When all the necessary taught sessions had been recorded, reviewed and evaluated, the final piece of work to be undertaken by the students was to select a video 'clip' lasting no more than 10 minutes to bring to a tutorial which included all 10 student teachers and the tutor. This plenary group meeting was designed to give students the opportunity to view and discuss a wider selection of teaching episodes selected by their peers, to explain the reflective process as it impacted on them individually and to compare and contrast ideas across their relative range of experiences. The fact that students were simultaneously maintaining a reflective journal based on all of these activities added another important evaluative tool to the study. Again important ideas, thought processes and feelings were captured through the use of these journals. In addition students were able to track their own processes and routes of development and competence achievement through these detailed reflections, committing thoughts to paper while they were fresh in their minds and before they disappeared into the ether.

Findings

The views of the respondents fall into three broad areas: planning and preparation for differentiation; teaching and learning; and classroom management. Overall, the findings suggest that students' engagement with the peer-video process had a significant impact on the development of their reflective skills and in turn a direct impact on their classroom practice.

Planning and preparation for differentiation

For both groups of students, the analysis of the video revealed difficulties with regard to the degree of differentiation that is evident in classroom practice. Several students recognised that non-differentiation of lessons was fraught with difficulty. Some were faced with quick-finishing, higher-ability pupils who became restless and frustrated with the lack of challenge presented by some set tasks. Conversely, other pupils found the whole process too difficult because of the high expectation of achievement implicit in certain learning outcomes. As Student A (Northern Ireland, NI) stated:

I should have pre-empted the appropriate amount of time needed to complete the tasks: in a mixed-ability class, some pupils sometimes finished too early or too late, not finishing their work.

Students realised that the problem of differentiation was attributable to the model of planning and preparation that they used:

I need to plan so that I have different activities for everyone – and that is really hard – because they are all at different levels – sometimes the better ones are finished really early and sometimes they are not – while I think about it in my planning, it doesn't always mean I am ready for everything that happens. I can see on this lesson that three of them are finished and I had nothing for them – I had an activity planned but I didn't get time to explain it to them because I got caught up explaining the main activity with a few of the weaker ones. It is important to plan and have all of these things in place but it doesn't mean that you will still be able to do it in the class situation. But seeing the classes of my peers, I see that it is not just me and that it is a challenge for us all. I feel that with experience, I will use my planning better for differentiation. (Student A, Republic of Ireland, ROI).

The diversity of the students in the classroom presented quite a challenging context for student teachers. As Student B (NI) noted:

The amount of differentiation required for certain lessons was so much that it was difficult to remember everything that was going on.

The importance of planning and differentiating for a range of abilities and learning styles therefore became apparent as an outcome of the reflective process as these examples demonstrate. Because of the immediacy of the classroom situation, it is clear that students had problems keeping the entirety of the student body in their sights, whereas when they looked at it on the video, they could identify significant gaps. Moving from planning as a paper exercise to satisfy external imperatives to considering the impact of planning on actual classroom practice and learning outcomes for students was a complex process. Video provided the authentic distance necessary in order to facilitate a full analysis of what was happening at any given moment in a particular class.

Teaching and learning

A number of elements of the teaching and learning process were specifically addressed by the students in the peer-reflection process. Broadly, these fell under the headings of questioning techniques, pacing and meta-analysis.

Questioning

Questioning was a particular area where both groups of student teachers registered an awareness of a deficit in their practice, following examination of video footage of their teaching. This is an area which is examined in particular detail in the theoretical components of both courses, yet the connections between the theoretical literature and classroom practice were not always evident. An examination of the videoed classes reflected that the variety of questioning styles discussed in the university context were rarely evident in the classroom.

I used questioning during the lesson to ensure pupils understood what was happening. However, many of the questions were closed questions: more opportunity should have been given for the use of open-ended questions which would have also had the effect of stimulating a greater level of class discussion. (Student C, NI)

Similarly, Student A (also NI) noted the following:

After evaluating and discussing the first recorded teaching session with my colleague, I found that there was room for improvement in my questioning technique. I realised that I needed to develop a more varied range of question types in order to stretch the thinking skills of the pupils and get more open discussions going in the class.

It's difficult to think on your feet with questioning – sometimes I am afraid if I ask more challenging questions, they will be pitched too high and the students will not experience success – it is easier to keep student interaction going with simple questions. However I can see looking at the footage of the class that there were very obvious questions I should have asked which would have been more challenging. (Student B, ROI)

What I started to do after the last day when we discussed questions was to write my questions down before class so some of the thinking is done before I go in. This helps me to pitch the questions higher but keep the language clear. (Student D, ROI)

Pacing

Perhaps the most significant learning outcome for student teachers with the peer-video model process was the enhanced understanding of the need to pace lessons more carefully to allow for optimum learning:

I can see I spent far too much time starting the lesson off – we only have 40 minutes – and I spent way too much time setting it up – while on my lesson plan, I had indicated I would spend five minutes on this activity – when I watched it on the video, I realised I was a full 13 minutes between taking the roll, checking home-work, recapping on the previous lesson etc. (Student E, ROI)

I know the ending is very important because it ties together the main parts of the lesson – students often have difficulties understanding the home-work – because I spend too little time on it at the end – looking at the video, I can see that this is an area I really need to work on. You have to ask yourself what is important and if pulling the learning together is important then you have to make time for it – the video really showed me the importance of this. (Student F, ROI)

Reflecting on how analysing video footage from a previous class enabled him to re-structure a subsequent class and pace the lesson more effectively, a further student teacher noted:

I used the same basic structure again in another recorded lesson as I felt there were aspects of it that had worked well first time around. However, instead of giving each group as much feedback time as they wished, I decided to limit their responses to two main points. This worked much better and gave the lesson much more coherence. It also had the effect of keeping the level of children's interest much higher in that the feedback was snappy and there was little repetition of points that other groups had made. (Student E, NI)

Student D had much the same experience and used the video recordings and subsequent discussions with a colleague to good effect:

Although I maintained the attention of the class through discussion and use of questions, the review of the recorded lesson made it obvious to myself and my fellow reviewer that the lesson was too quickly paced. I felt that I should have slowed the pace a little as the smaller group took longer to adjust and stay in touch with the others and became fidgety as a result. I resolved to modify this aspect of my teaching. (Student D, NI)

Again, these illustrative vignettes described above, exemplifying the now familiar pattern of student teacher behaviour and the cyclical nature of the developmental process, demonstrate how powerful this mode of experiential learning can be as students revisit their teaching and introduce improvements on an ongoing basis. Commenting on the next recorded lesson incorporating the agreed action points, the same student noted:

I ensured that during the lesson, I maintained a steady pace that suited all the pupils. They were all given sufficient time to complete their activities and in addition, we reviewed the answers throughout together so that their interest was sustained. The pupils were easily managed during the lesson, stayed focused on the task and worked very well independently. (Student D, NI)

Meta-analysis

The video analysis session acted as a catalyst for a high-quality level of student engagement with their practice at a meta-cognitive level. There were a number of instances in the data which indicated that as a result of the discussion and analysis in tutorials, students began to consider specific evidence-based incidents in a much broader context with respect to the teaching and learning process. There are a number of examples in the data of students shifting from a focus on a specific aspect of their classroom activity to the broader implications of that activity on the quality of student engagement. One example related to the broader implications of a specific classroom behaviour on the part of the teacher on pupils' engagement patterns:

When I saw the video, I noticed that I always asked the easiest questions of the weaker pupils. This was because I needed to keep them with me and give them confidence, but kids will see that I am doing this and that's not good for either the good or the weaker pupils. All pupils need to be stretched. (Student G, ROI)

A different student, commenting in her reflective journal on the perceived constraints imposed by the teaching of literacy, noted:

Although one learning outcome for this lesson was that the pupils should use a variety of expressive adjectives and adverbs and powerful verbs to enhance the creation of their spring poems, I felt that the pupils were afraid to experiment with words that they do not normally use. (Student F, NI)

Sharing this experience with the plenary group, she decided to take what would be regarded by many teachers as a fairly bold step in order to bring down what she obviously regarded as barriers to creativity:

I rewrote my learning outcomes for the next follow-up lesson and stressed that accurate spelling would *not* form part of the children's success criteria. Furthermore I made it quite clear to the children that it was more important that they used expressive words spelt incorrectly than boring words spelt accurately. This greatly helped to boost the creativity of this subsequent lesson. I also felt that it went some way to give the children control of their own learning and allowed them to decide what their own limits were. (Student F, NI)

Classroom management

The issue of classroom management is the critical success factor for all teachers and is the subject of extensive support in both teacher education programmes. Despite this,

classroom management issues emerged as a key component in all discussions in relation to classroom practice. In many cases, students commented on the impact of the video in the classroom on overall pupil behaviour. There were certain students who clearly felt that the video recording and review exercises helped them set very useful measures and action points in place to monitor pupil behaviour. Student G (NI), upon viewing her first recorded session in which the pupils were much more restless and listless than usual and on investigating possible reasons for this, came to the conclusion that this was actually due to the pupils having just had a rehearsal for the school show, followed by craft activities and then by sports with an outside coach before returning to class. She explained the situation and future planned actions thus:

There was a continual degree of talking throughout the lesson and considerable movement around the class ... the class was not as settled as normal. In future if I am teaching a lesson after such an active day, I will ensure I employ certain strategies to help restore calm before I begin. I feel it will be beneficial to begin with the children closing their eyes and listening to soothing music or saying a contemplative prayer.

In some cases, there was a tendency for pupils to be more subdued in their engagement and students commented that the video evidence did not always provide a fully authentic picture. In these incidents, because extremes of behaviour were not a feature of the lessons videoed, it was possible to use the video footage as a focus on other aspects of teacher behaviour that contributed to a good classroom atmosphere. This was a positive dimension to the overall process. The use of humour, positive reinforcement and authentic reactions to patterns of pupil engagement were all noted by the students as contributing factors in the promotion of a positive classroom climate:

I thought you were really interested in what that boy in the Business class had to say – you seemed to take his idea very seriously – you showed a genuine engagement with his point – it seemed that because you valued what was said – others were more willing to give their opinion. (Student B, ROI)

Conclusion

The findings of this small-scale qualitative study clearly indicate the power of peer-video analysis as a tool for scaffolding and promoting reflective practice among student teachers. Research has indicated the gap between what teachers say they do and what they actually do, hence other forms of self-evaluation which have a distance between practice and the evaluative activity are not always fully representative (Charlesworth et al. 1993; Hook and Rosenshine 1979). This medium and the critical process underpinning it unequivocally captured the reality of the full gambit of the classroom context. As well as holding up a mirror from which student teachers could actually see the reality of their practice, it also enabled them to deconstruct and theorise the complexity of their practice. The synergy of perspectives between the students often contributed to this theorising and provided a range of safe lenses through which their practice was critiqued. It also afforded the opportunity for students to see a wider range of classroom contexts than they would ordinarily experience. The analysis sessions were structured in such a way that they facilitated the development of a culture of collaboration and co-operation, based on a democratic and inclusive discussion which greatly added to the quality of the reflective dialogue.

This fostered the construct of self-education and located the ownership of the process firmly within the student teacher group.

However, despite the success of the study, challenges did emerge in both jurisdictions which would impact on the ability of such an initiative to have a lasting impact on actual practice. The most significant of these was the perceived role and status being accorded to reflective practice in schools. Reflective practice as a sustainable, lifelong activity among the teaching profession is arguably being jeopardised by the culture of performativity that is increasingly becoming a part of the culture of schools and the professional discourse of the education sector generally. Although student teachers in this study were equipped with the skills necessary to engage in ongoing and critical reflection of practice, the opportunities for such reflection once they are qualified are questionable.

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A former primary school teacher and member of the Primary Inspectorate in the Department of Education and Science, Gerry MacRuaric moved to University College Dublin (UCD) to take up a position as lecturer in education with specific responsibility for developing the work of the school in the area of school leadership and management in September 2005. Gerry currently directs the Masters in Education programme and he has recently been awarded an academic leadership post in UCD in Teaching and Academic Development. Since his appointment to the staff in the School of Education in UCD he has initiated and been centrally involved in a number of research awards to the School of Education. These awards are primarily in the areas of educational leadership and educational disadvantage. His recent international work in relation to educational leadership under the Erasmus Intensive Programme has resulted in the identification of research and publication possibilities in conjunction with colleagues from the University of Oslo, the University of Christchurch, Canterbury, the University of Murcia, Spain and the University of Seluck, Turkey.

Dermot MacCartan is a Senior Lecturer in St. Mary's University College with particular specialist teaching roles in areas such as the reflective practitioner and educational disadvantage. His current research interests lie in issues associated with these teaching roles but he has also researched and published papers around issues related to in-service training in higher education while working at the University of Ulster.

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