‘Qui Docet Discet’ (Those who teach learn) – how peer teaching can help prepare student teachers for the classroom

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Abstract
This study in reciprocal peer teaching (RPT), in an English Higher Education Institution (HEI), enabled PGCE students teaching English and Modern Languages at secondary level to develop their confidence in interactive teaching methods. Students focussed on developing drama techniques, an area for improvement in both cohorts. Research centred on whether student teachers found RPT beneficial in fostering classroom skills and confidence, which was evaluated through assessing students’ self-efficacy in particular tasks. In a mixed methods study, self-efficacy for using drama techniques was measured via questionnaires based on the Teaching Confidence scale and a focus group elicited RPT data. Findings demonstrated increased confidence levels post to pre-test in using drama techniques; students highlighted the positive benefits of collaboration, application and adaptation of pedagogy. The emotional impact of the RPT process was an unexpected finding however, reinforced by the focus group, although with greater emphasis on the cognitive benefits of the process. Findings demonstrated increased self-efficacy through acknowledgment of mastery and vicarious experiences. Whilst there were limitations in view of the small scale of the project, short-term benefits were derived by students and the project will continue to be used at the HEI as an effective method of skills sharing.

Key words: peer learning; reciprocal peer teaching; accountability; self-efficacy; confidence; collaboration; drama; active learning; English student teachers; Modern Languages student teachers

Citation:
Background and context
This study emerged from an institutional ‘buddying’ link between different subject areas, designed to promote enhanced practice, through the discussion and sharing of existing good practice. When PGCE secondary English and PGCE KS2/3 Modern Foreign Languages were buddied in 2009, the dialogue centred not only on how the subject tutors might learn from each other, but also on how the student teachers might share their developing knowledge and capabilities. What emerged was far more than an exchange of ideas and knowledge, as a new approach to teaching and learning, using reciprocal peer teaching (RPT), was developed.

The subject tutors were interested in promoting varied teaching styles to students to enable them to adapt to the different learning needs of their pupils. Student teachers tend to be more conservative in their approaches and may demonstrate a lack of confidence in certain situations (Castle and Buckler, 2009, Bandura, 1997). In the major national longitudinal study by Hobson, et al., (2006), individual trainee teachers identify confidence and flexibility as some of the qualities most needed by teachers. Yet just 10% of student teachers (n= 3162) identify confidence and 4% creativity as strengths (2006:151). Student language teachers might regard their linguistic competence as being ‘in their control’ (Barnes, 2006:43) but prove less confident in other areas of classroom instruction, presentation and ideas. The aim was to provide a skills-based experience in the HEI environment which would inspire confidence in drama techniques and be directly relevant to their school experience, whilst countering the fragmentation of experience often judged detrimental by students (Hobson et al., 2006).

Having both identified a reluctance in past cohorts to transfer knowledge and skills of active strategies (such as drama) from lectures to classroom practice, the subject tutors decided to work together to develop a sequence of training sessions in drama skills. As language is elemental in communication, viewing foreign language learning and teaching as a separate subject can sometimes

Citation:
prove limiting. Pomphrey (2000: 278) alludes to ‘the isolation of MFL in the school curriculum’ and MFL has a tendency to appear distant, the ‘foreign’ in the title not serving us well perhaps. There have been studies on the use of drama activities in the languages classroom (e.g. Borge, 2007) but little on its use with beginning teachers and its impact on their confidence and capability. Working with English and MFL student teachers in a single group enabled the underlining of links between first and second languages, advocating ‘a consensual approach to language’ (Harris and Grenfell, 2004:119). It also emphasised the mutual benefits students may derive from pooling analogous knowledge and skills.

As a holistic teaching and learning approach, drama pedagogy strives to overcome the cognitive isolation that characterizes a lot of foreign language teaching. Learners are confronted with fictitious situations that require not only their intellectual — linguistic faculties but also body language, joint negotiation of meaning, and emotional understanding. These kinaesthetic, social, and empathic learning moments make for intensive and lasting experiences with the foreign language, literature, and culture (Even, 2009, online)

By building meanings together, it was hoped that students would regard one another as sources of information and skills, and actively seek one another out to support their practice in schools. Sessions were designed to promote interactive classrooms and we hoped to profit from the potential dynamism derived from putting together groups of students who were unknown to one another.

**Literature review**

The practice of students teaching students is not a new strategy. The words of the Latin writer Seneca - ‘Qui Docet Discet’ or ‘those who teach learn’ - echoed later by Comenius, attest to the time-honoured value of putting a learner in the role of a teacher (Krych et al., 2005);(Goodlad and Hirst, 1989). It is an approach used in a range of educational contexts, disciplines and countries (e.g. Ensergueix and Lafont, 2010; Longaretti, Godinho, Parr and Wilson, 2002; McKenna and French, 2010). The subject tutors, however, chose to examine the more particular aspect of peer teaching as, despite the longevity of regard for this

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Citation:
strategy, it has been suggested that ‘peer teaching is an underutilised, yet highly valuable resource for higher education’ (Krych et al., 2005:296).

As a resource, peer teaching or tutoring is a ‘system of instruction in which learners help each other and learn by teaching’ (Goodlad and Hirst, 1989:13). The learners and teachers are peers and are therefore from the same definable groups in terms of status (Goodlad and Hirst, 1989:13-14) and the process is usually systematic and structured, as opposed to an *ad hoc* or random experience (Topping, 1988). Boud (2001) distinguishes between peer *teaching or tutoring* and peer *learning*. He considers the former to be more instrumental with peers taking on a limited but fixed instructional role. Peer learning, however, is more flexible with ‘students learning from and with each other in both formal and informal ways’ (Boud, 2001:4). He emphasises the reciprocal nature of peer learning which should be ‘mutually beneficial and involve the sharing of knowledge, ideas and experience between the participants’ (Boud, 2001:3). In terms of this study, the term reciprocal peer teaching (RPT) has been adopted to indicate that the key focus is teaching – which provides a platform for student teachers to practise their teaching skills within a ‘safe’ environment. They are to be the ‘experts’ for the time when they are teaching, and should regard their peers as their class. These roles switch during the course of the project and consequently it can be seen as a reciprocal arrangement, and as Topping and Boud concur, there are ‘gains for both tutors and tutees’ (Topping, 1996:332).

The benefits accrued from peer teaching and learning have been detailed in a number of disciplines. Krych et al. (2005) report that RPT enhanced anatomy students’ knowledge of course content as well as improving their communication skills. This reinforcement of fundamental knowledge within a field, together with the meaningful application of such knowledge, is consistent with the assertion of Gestalt theory that learning is supported when the learner ‘locates’ an item in an intellectual structure’ (Goodlad and Hirst, 1989:56). Gestalt theory also underpins the benefits to the tutor in gaining better insight into the teaching process itself, a process which is significant to this study. A study involving

Citation:
student nurses saw enhanced confidence and self-reflection as a benefit of peer teaching (McKenna and French, 2010). Duran and Monereo (2005:180) highlight the constructivist nature of the process by which students co-construct knowledge ‘using the interaction generated within the framework supplied by the teacher’. Interaction and collaboration are benefits cited by Dangel, (2003: 10) amongst others, who advocates the use of meaningful learning experiences as ‘opportunities to connect conceptual understanding to classroom practice’. The process of collaboration with peers is perceived as the main benefit in a study of initial teacher education (ITE) students in Melbourne, Australia (Longaretti et al., 2002).

Whilst the process of collaboration has been the focus of the first author, the second author’s interest in student self-efficacy led to the monitoring of students’ confidence in using dramatic techniques, and consequent benefits of RPT, in a more concrete way. The definition of teacher self-efficacy subscribed to here stems from Bandura’s seminal work in 1997 and clearly enshrines a teacher’s need, and in our case a student teacher’s very particular need, to be successful: ‘teacher efficacy is the teacher’s belief in his or her capability to organise and execute courses of action required to successfully accomplish a specific teaching task in a particular context’ (Tschannen-Moran et al., 1998:233).

There is precedence for linking RPT with self-efficacy: Rittschof and Griffin’s 2001 study recognises the motivational benefits of RPT and examines the mastery of concepts through RPT and its possible connection to increases in self-efficacy, though with inconclusive outcomes. Other instances of skill development linked to self-efficacy can be seen in Atay: (2007:215) ‘[Practising Teachers] can be guided to work on developing one set of skills at a time and encouraged to develop a sense of efficacy over various contexts and skills ‘Whilst this particular study related to mentor guidance, this may be transferable to peers.

Citation:
Bandura (1997) postulates four sources of self-efficacy: mastery, vicarious experience, verbal persuasion and social/physiological affect which influence teachers’ self-efficacy to varying degrees. The current study provides the opportunity to create both mastery (successful completion of drama routines) and vicarious (watching others complete actions successfully) experiences within the safety of the HEI in a mutually supportive environment. Whilst verbal persuasion (in the form of feedback) may be limited given the timescale of the project, there is potential for the physiological affect to be examined. It was hoped that these positive experiences would encourage student teachers to undertake drama-based activities in school, thus reinforcing the experience and gaining benefit from ‘the cyclical nature of behaviour influencing self-efficacy’ (Tschanne-Moran and McMaster, 2009: 229).

The research question

This project seeks to explore the subject tutors’ initial impression that RPT may be an effective way of developing the competence and confidence of training teachers of different subject areas: PGCE English and PGCE MFL. The teaching of drama and active learning strategies are skills beneficial to both English and MFL students. These skills are also substantially practical ones, which require the development of foresight and planning if they are to work well in the classroom. Providing a platform for practical experience is a further benefit of trying out the skills prior to going into a classroom.

This study looks beyond the reciprocal teaching of drama skills. Drama skills may be the vehicle for the study but the project seeks to establish whether RPT is a particularly appropriate approach for teacher educators to employ with student teachers. Attaining considered and measurable feedback from student teachers about the perceived benefits, or otherwise, of using RPT as part of the university college programme has been a key consideration, and the main research question is:

Citation:
To what extent do student teachers regard reciprocal peer teaching as a beneficial approach to building classroom skills, and confidence, in preparation for classroom practice?

**Methodology and methods**

This project took place in January 2011, after the students had undergone their first school placement and approximately three weeks before they were to commence their next school placement. It involved 20 English and 10 MFL students. Institutional ethical approval had been secured and informed consent was sought from all students prior to the project, which took place in a number of stages over the course of one week.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Drama workshop for English students, led by English tutor</td>
</tr>
<tr>
<td>Stage 2</td>
<td>English students plan a workshop on drama skills for MFL students (from English perspective – although using the skills and strategies that might be most useful to MFL)</td>
</tr>
<tr>
<td>Stage 3</td>
<td>English students deliver the work to MFL students</td>
</tr>
<tr>
<td>Stage 4</td>
<td>MFL students plan a workshop on drama skills for English students, as though for Y7 MFL class</td>
</tr>
<tr>
<td>Stage 5</td>
<td>MFL students deliver workshop to English students</td>
</tr>
</tbody>
</table>

In this way, the students had the experience and perspective of being both pupil and teacher. They also had the opportunity to ‘use’ the skills and strategies as soon as they had been taught them, and they practised them on a live, albeit sympathetic, class. The planning aspect was important as they had to consider the logistical as well as the pedagogical aspects of using drama skills. However, working in groups provided the opportunity to talk through ideas and potential problems. Even more importantly, perhaps, they also had the opportunity to talk through and evaluate their strategies after delivering them.

The research methods used to evaluate this study were drawn from both quantitative and qualitative traditions. Using a mixed methods approach,
integrating methods from both the positivist and interpretivist paradigms, was born of what Burgess (2008:10) terms the Mechanical approach, characterised by using the ‘right tools for the job’ with methods existing on a spectrum: qualitative methods at one end and quantitative methods at the other. The methods perceived as most suitable for this study were:

- a questionnaire focusing on teacher confidence in using drama skills
- a questionnaire focusing on reciprocal peer teaching
- a focus group interview with selected students

thus accruing the benefits of a convergence model (Creswell and Plano–Clark, 2011).

A questionnaire, to evaluate their confidence in using drama techniques, was completed by the students from both subjects prior to the first workshop and after they had delivered their own workshop. The questionnaire consisted of ratings on a self-efficacy scale, adapted from the Teaching Confidence scale developed by Woolfolk-Hoy (2000) for student teachers. Our questionnaire asked students to consider their confidence in 15 specific areas including using particular drama techniques, planning active learning and providing clear explanations. Their confidence was indicated on a scale of 1 to 6. The questionnaires were anonymous, although the students were asked to provide a unique ID code. This enabled the tutors to match up the questionnaires, before and after, and also to pursue follow-up discussions with selected respondents. After all of the workshops, students completed a further questionnaire, with Likert scale responses as well as open questions, to ascertain reactions to the RPT process.

After the questionnaires had been completed, both the English and MFL responses were analysed, using SPSS for the quantitative questions and an inductive approach to the qualitative data analysis through comparison of codings. Some developing categories arose from the literature, for example, cognition and collaboration (Rittschof and Griffin, 2001; Fantuzzo et al., 1989), whilst others, ‘unpicking the collaborative process’ and ‘acknowledging
emotions’, were rooted in the interviewees’ expressions as recommended by Kvale and Brinkmann (2009). A range of responses was selected through use of the unique ID code and two respondents from each subject area were invited to participate in a focus group. This discussion was semi-structured, with questions initiated by one of the tutors, but with flexibility to pursue the discussion in other directions if appropriate. The second tutor also made notes of interviewees’ reactions to serve as triangulation data. All comments were recorded and later transcribed. The focus group meanwhile provided rich data for content analysis, its thematic nature and systematic approach (Wilkinson, 2011) dovetailing with the quantitative analysis already undertaken.

**Findings: quantitative**

The initial questionnaire, to assess levels of confidence in using different drama skills prior to the workshops, was completed by 20 English students and 10 MFL students. It showed similar patterns of confidence within both groups. The average (mean) confidence score (1=low, 6=high) was 3.7 for English students and 3.6 for MFL students. The second questionnaire, administered with the same students after the workshops, showed that the average (mean) level of confidence in using drama techniques had increased to 4.8 for English, and 5.0 for MFL.

A rise in confidence levels might be expected after any teaching on this topic, with or without RPT. In the absence of a control group (not a feasible option in this study) it is difficult to assess the precise part played by RPT in this increase in confidence. However, another questionnaire, conducted after the workshops were completed, attempted to gauge the students’ response to RPT in this project. Students were asked to rate how strongly they felt about statements relating to the use of RPT in this project. This final questionnaire was completed by two-thirds of the students involved: 11 English and 10 MFL students. There were no negative responses recorded from any student in this part of the questionnaire. In particular, student responses indicated they felt it was a positive experience and the process had helped to improve their confidence (see

Fig 1. overleaf. The indications in this small sample were that the students found it a positive and beneficial experience.

**Figure 1: Questionnaire on RPT - Responses to Likert scale questions about RPT as a teaching and learning method, giving average (mean) scores**

(Eng n=11, MFL n=10)

<table>
<thead>
<tr>
<th>Statements</th>
<th>English Average score</th>
<th>MFL Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (low) – 5 (high)</td>
<td>1 (low) – 5 (high)</td>
</tr>
<tr>
<td>improved my confidence in drama teaching</td>
<td>4.6</td>
<td>4.5</td>
</tr>
<tr>
<td>been a positive experience</td>
<td>4.7</td>
<td>4.6</td>
</tr>
<tr>
<td>developed my active/drama teaching skills</td>
<td>4.4</td>
<td>4.5</td>
</tr>
<tr>
<td>improved my understanding of the topic</td>
<td>4.4</td>
<td>4.3</td>
</tr>
<tr>
<td>improved my retention of the topic</td>
<td>4.2</td>
<td>4.3</td>
</tr>
</tbody>
</table>

**Findings: qualitative**

Whilst the modified Teaching Confidence scale enabled the tutors to gain some indication of students’ perceived self-efficacy in using drama techniques, the open-ended questions and subsequent focus group interview allowed the subject tutors, as Rittschof and Griffin (2001:325) additionally noted, to ‘tease out potentially valuable perceptions of participants that were not apparent in the quantitative performance outcomes’ The first tranche of qualitative findings from the questionnaire provided data-driven codings such as stress, excitement, sharing, practising and re-applying. These were monitored for frequency and then

Citation:
categories developed, some of which were derived from respondents’ own idioms, for example the ‘bounce’ effect, where students exchanged and developed ideas through ‘bouncing them off each other’. Three broad categories developed (see Figure 2 overleaf): collaboration, pedagogy and its adaptation or application, and emotional impact which tended to cut across all categories. Categories for collaboration supported both Fantuzzo’s and Rittschof and Griffin’s earlier findings: many students were able to voice their appreciation of the mutuality of the process in terms which were both articulate and receptive. Reference to pedagogy recognised the practical benefits of RPT, although its emotional impact was greater than expected (see Figure 2). The findings also appear to support the notion of RPT as a positive, worthwhile approach with very few voicing dissent e.g. question 3 from the RPT questionnaire Please comment on what you did not like about the peer teaching process prompted three responses of ‘N/A’, a few comments on organisation and one non-completion.

Figure 2. Categories, with underlying codings, developed from the RPT open questions. Numbers in brackets refer to occurrence in responses
The second tranche of qualitative findings derived from the focus group interview. The sample for the focus group, whilst intended to represent a keen advocate of RPT and a less interested student from both English and MFL, changed when the less interested MFL representative did not appear and another volunteered. This self-selection may have led to an imbalance: both MFL students were confident and articulate, whereas English Student 2 was less so. However all seemed keen to speak in some depth about their experience and the benefits of becoming involved in the collaborative RPT process.

A similar process of coding and categorisation was followed with meaning making producing similar themes to tranche one: unpicking the collaborative process, acknowledging emotions, recognising pedagogical applications. Once again, the affective aspect tended to cut across the different strands. However there was an additional strand at the interview stage which the tutors described as articulating the intellectual process (see Figure 3. overleaf). As the themes appear to be interlocking, we shall examine the students’ position in relation to

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Citation:
them and how they sit alongside aspects of self-efficacy theory through a series of vignettes.

**Figure 3. Categories, with underlying codings, developed from the focus group transcription**

![Diagram showing categories and codings]

*English student 1*

A confident and articulate male, his attitude was positive, as we see below:

‘and the prospect of the peer teaching was really appealing to me - because we’re all trained together but we’re actually practising our teaching very separately, aren’t we?’ (English Student 1).

‘He recognised pedagogical applications and valued the vicarious benefits of RPT.’ (English Student 1).

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**Citation:**
‘It was quite useful for me anyway to see my peers teach - and their approach and their style and that sort of thing’ (English Student 1).

**English Student 2**

Her contributions were underpinned by an emotional response: ‘my worst nightmare’ was her opening contribution, yet she was able to identify mastery experiences which provided tangible benefits for her own teaching:

‘I loved those activities and definitely saw by the end how they could help me - in teaching – and just building people’s confidence. Because I’m one of those people who, at the start, doesn’t have the confidence to be in a group like that, and put on the spot and by the end then you know it is just a bit of fun’ (English Student 2.)

**MFL Student 1**

A very confident individual, she had been active in the RPT sessions and had a tendency to dominate reflections. She had strong affective responses and professed herself “really excited” about the prospect of the drama activity. MFL student 1. was able to rationalise the experience too, seeing it as a mastery process, being not always easy or pleasant:

‘I think our peer teaching – worked – but it wasn’t stress-free - because it was done in two different stages – so there was quite a lot of tension with the group – because we were having to kind of give your ideas back to you and we felt quite awkward that – that we weren’t really giving you anything new’ (MFL Student 1).

The student here alluded to the impact of a physiological affect - stress - and also to the perceived difference in experience: MFL already appeared to regard the English as more proficient. She also articulated the intellectual process and interpreted the benefits of the RPT experience:

‘So maybe have it in one longer session – the same amount of time - but firing off each other at the same point – because I think some of the best ideas that came

**Citation:**

out of that second session were actually when we were all together anyway’. (MFL Student 1).

*MFL Student 2*
A perceptive student, she was able to unpick the collaborative process, recognising the different dynamics and difficulties:

‘Certain people have got some ideas, others are trying to do it differently’ (MFL Student 2).

and rationalise the benefits of a mastery experience:

‘it becomes like a bank of resources for everybody - you adapt to whatever situation you are [in]’ (MFL Student 2).

MFL student 2 was quieter, her responses more considered and there was little affective response in comparison with her peers.

As student observations were not possible during this study, students were invited to email reports of their actual classroom experience and seven responded (n. 30). Their comments referred to the usefulness of the techniques, their confidence in implementing them and the pupils’ enjoyment; once back in the classroom they were concerned with behaviour management and logistical issues. There was no mention of the benefits of a prior reciprocal learning and teaching process, which might have indicated a continuing deeper cognitive engagement with its implementation, as most concerns were at a procedural level. However there were some examples of more developed cognition, a continuing articulation of the intellectual process as identified in the focus group.

‘Their responses became more sophisticated and deep. They are a middle set class, who are quite shy and this really helped to bring them out of their shells’. (English student)

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**Citation:**
The implications for the practice of teacher educators in general are considered next.

Discussion

This study set out to investigate whether the RPT process was of benefit to two groups of PGCE students, considering in particular the extent to which they regarded it as a beneficial approach to building classroom skills and confidence. Both groups perceived the process as valuable; they displayed increased confidence as demonstrated by the questionnaire responses. Students were emotionally engaged and motivated by the process: ‘I definitely got something back from it’ (MFL Student 2). The social interaction with their peers and the opportunity to act as ‘expert’ underpinned the learning process, acknowledging the benefits of collaboration (Rittschof and Griffin, 2001; Fantuzzo et al, 1989).

The themes identified in the focus group interview supported findings that student teachers benefiting from mastery and vicarious experiences demonstrate high levels of self-efficacy (Bandura, 1997). Those students wanting to continue or re-visit the process appear to be recognising how these experiences can be re-enforced (Tschannen-Moran and McMaster, 2009). As expected, there was little indication of verbal persuasion, so this cannot be assessed. However, the influence of affect on confidence was greater than expected and merits further investigation. The structured nature of the drama project, as advocated by Topping, enabled confidence to be gained in a short time; however, student feedback leads us to believe that closer structuring of the process would increase confidence further.

The increase in self-efficacy through positive mastery and vicarious experiences may well have been short-term; the fact that few students provided implementation reports might indicate that they lacked confidence to continue once back in a school setting. The higher level reflections may also not have proved durable in a pressured school environment and additional studies of
observed lessons following RPT experiences would be needed to confirm the long-term benefits of the process.

The different group sizes may have affected outcomes: fewer English students attended the second session and different motivational factors may have been evident here. MFL students felt that they had more to gain as indicated in both questionnaires and the focus group; they were more cohesive perhaps being a smaller group and it may be that they felt more accountable, a key factor in successful cooperative learning designs (Boud, 2001). Indeed Duran and Monereo found that in truly reciprocal exchanges there was ‘greater symmetry and mutuality’ in interactions (2005:193) and this should be borne in mind in future course designs.

Conclusion
This study set out to assess the extent to which RPT might form a beneficial approach to enhancing classroom skills and the confidence in using these skills. The evidence gained from both quantitative and qualitative methods, in what is admittedly a small study, would seem to indicate that RPT has a positive impact on student approaches and confidence. Student responses indicated that there were benefits and gains for both English and MFL students when working cooperatively and in a reciprocal manner. Working in this way, with distinct groups of student teachers in different subject areas, highlighted the value of an HEI environment for developing skills and confidence in a demanding yet secure context. We would recommend initial teacher training courses considering similar approaches so that the isolation and fragmentation identified by students in the past might be lessened.

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