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Developing research-informed practice in initial teacher education through school-university partnering.

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Abstract

There is limited research investigating models of partnering between University and Schools in initial teacher education (ITE). This project investigated, over a ten year period, how student teachers in an English University on a one year course, draw on theoretical models, introduced in university sessions, when planning for a 'creative week' placement in schools. Working within an interpretivist paradigm drawing on data from 52 student teachers, 10 teachers and 50 children this case study explored a model of teacher education provision. Findings illuminated factors which inhibited student teachers from planning engaging lessons which challenged their learners, including poor relationships between stakeholders, misunderstandings of the purpose of the placement and under developed knowledge and understandings of how to successfully draw on theoretical models to enhance learning, together with the challenges of limited time during a one year course. Findings also uncovered the extent to which student teachers were 'allowed' by some teachers, but not by others, to take risks in their practice, and the impact this has on student teachers' sense of autonomy and confidence. Implications of the research demonstrate how findings can impact on initial teacher education course design and partnering models between University and schools.

Key words Initial teacher education, school and university partnering (partnership), theory and practice, teacher autonomy, pedagogical understanding

Introduction

This research project, now in its third phase, has sought, over the past ten years, to investigate how well two separate cohorts of PGCE (post graduate certificate in education) student teachers were able to synthesise theoretical understandings of creativity and high quality learning in a practical context, and the extent to which the school and University supported or stunted their development as professionals.

This research project has not only impacted on our own professional development as teacher educators in England but also provides, we hope, some recommendations which could be useful to other teacher educators both nationally and internationally who are also wrestling with the perennial challenge of the theory practice nexus. The English context of initial teacher education is complex with various routes into teaching ranging from the one year University based post graduate certificate in education and school direct routes, to the three or four year undergraduate degree routes which often include age phase or

subject specialisms. Some routes include Masters level qualifications and some applicants receive bursaries for shortage subjects. Our study is located within the one year post graduate qualification with Masters for teaching in the Primary phase (age 4 – 11).

Preparing all student teachers to plan and implement high quality creative and effective lessons which will 'cause learning' is no easy task for teacher educators (Hattie 2012) especially in a one year course. It is acknowledged (Boyd, Hymer and Lockney 2015, Philpott 2014, Jones and White 2013) that student teachers vary in their ability to understand the complexity of teaching and learning in the primary school. It has been claimed that some student teachers very quickly understand that insights from neuroscience, sociology, debates about inclusion, views of childhood, teacher identity and concepts of learning, can impact on how a teacher plans activities to support children's learning (Boyd, Hymer and Lockney 2015, Philpott 2014). Similarly some student teachers also appreciate that supporting the learning of a group of children is a multidimensional task. However, teacher educators also recognise that an understanding of the complicated theory practice nexus is challenging for some student teachers who consider teaching to be a 'technicist' profession particularly in our English context, given current governmental directives, which seem to suggest one 'right' approach (Winch 2017).

In phases one and two of the project (Elton-Chalcraft et al 2010; Elton-Chalcraft and Mills 2015) findings showed how ITE provision which focussed on the 'why' and 'how' of teaching encouraged student teachers to teach creatively and support children's creativity. Both cohorts of students had been introduced to the module's three stands – creative thinking, creative teaching (and teaching for creativity) and creative integration (Copping 2008). In phase 3 of the research, reported here, a case study approach (Flyvbjerg 2011; Merriam 1998) was used to investigate the roles of the university and the schools in preparing student teachers to draw on theoretical understanding of creativity in a practical context (Lave and Wenger 1991).

The sample of fifty-two student teachers in phase three were from the same University but drawn from a cohort five years after phases one and two cohort.

One of the aims of the case study was to investigate whether the students' reflections and evaluations would inform planning for their final individual block placement.

Given governmental pressure to increase school based teacher education in England, particularly through the School Direct initiative (Jones and White 2014), the research team collected data to explore how both University provision and school based opportunities, despite being limited on a one year course, provided student teachers with a context for deep reflective consideration of research informed pedagogy (Philpott 2014) and situated learning (Ellis 2010).

The paper begins with a brief appraisal of models of teacher education and partnering between universities and schools followed by a few illustrative theoretical and pedagogical examples utilized in our programme. In the methodology section we explain this case study design within the larger longitudinal project. Where phases 1 and 2 predominantly investigated the efficacy of creative teaching and learning, in phase 3 the case study focused on an evaluation of the theory/practice nexus and university /school relationship in ITE provision. In the implications section a theorisation of the findings

from all phases have culminated in the creation of a model, presented in table 5 ~~presented at the end of this paper~~, to understand school, university and student teacher partnering which might inform initial teacher education provision both nationally and internationally. We conclude by considering, in spite of time constraints on a one year course, whether student teachers can develop their practice if they have theoretical knowledge which they are able to utilise effectively because the school context provides an ideal place in which to flourish.

University /school relationship models

The case study discussed here sought to explore the role that situated learning plays within teacher education and consider what is meant by ‘partnering teacher education’ using the context of the university taught and school based module within which this research took place.

Ellis (2010) posits that whilst teacher learning is ‘situated’, nevertheless it is also a linear process (2010 p.108). One approach to teacher education has been the application of theory to practice, the notion that a student teacher learns in university and practises in school. Szplit (2017) in discussing the Polish system, which tends to favour academic knowledge over practical teaching skills, calls for a more reflective stance towards the synthesis of theory and practice. She highlights the advantages of teacher educators and teachers having the courage to engage in action research not only as a cognitive process but also a social interaction and accepting a new view which may destroy a previous perspective on one’s practice. Korthagen and Kessels (1999) describe the challenges presented by the transfer gap between theory, often chosen by university educators, and the situated contexts that student teachers have to apply it in. Philpott (2014) also questions the application of theory in practice model and he appraises other models such as Cultural Historical Activity Theory developed from Vygotsky’s work and the clinical practice models among several others.

Copping’s (2015) continuum model as shown in figure 1 below aims to conceptualise a model of partner-based initial teacher education (ITE), which is the term used throughout this paper. This model demonstrates how a teacher education programme can develop a relationship with schools which works towards a more integrated model. The phase three study discussed here sought to investigate whether student teachers were able to bridge the transfer gap as discussed by Korthagen and Kessels (1999).

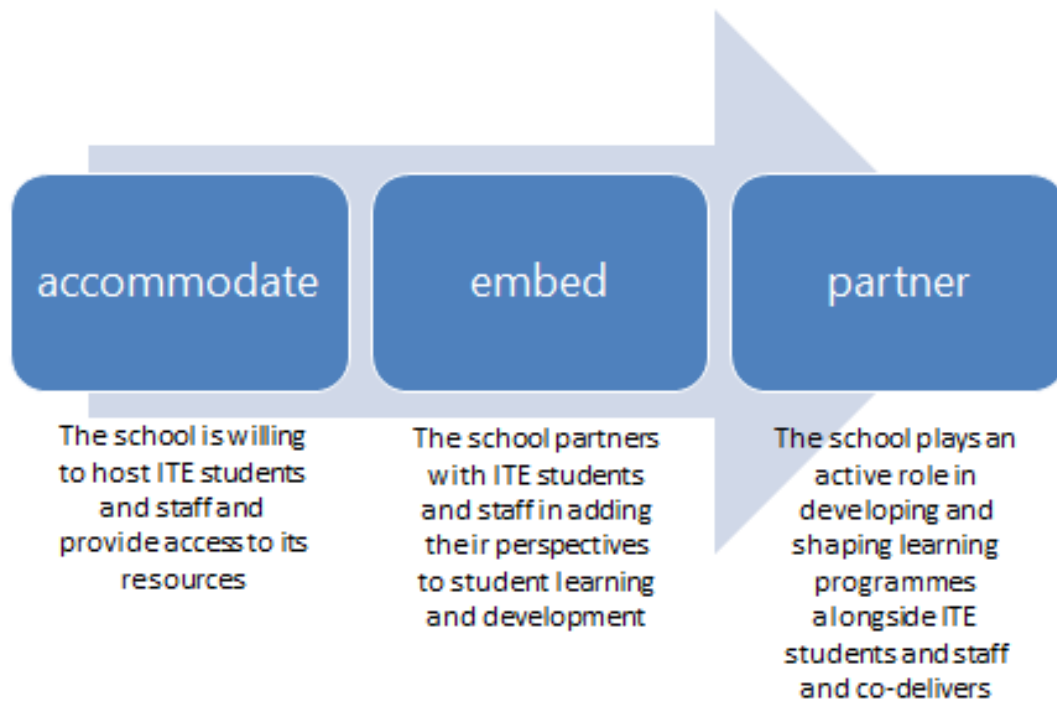


Fig 1: A continuum of school involvement in ITE

Copping (2015)

Lave and Wenger's (1991) seminal text on situated learning also focused on the idea of participation which applies to all three stages of the continuum above. In a 2003 study by Moyles and Stuart into elements of school-based education that best support student teachers, it was found that

'there appears to be a dearth of research into what schools actually do in partnership. This could be attributed to two factors. Either, there has been no in-depth research into what it is the schools actually do; or, the reality is that schools do little in the organisation and management of the partnership, apart from to provide a classroom and a supervising teacher' (Moyles and Stuart 2003 p.9).

Accommodation, where the school acts as a host, but teachers do not really collaborate or involve themselves in the student teachers' learning, is a relic of the traditional view of teacher education which purports a learn-in-university and practice-in-school model, thus not supporting the student with concept transfer. Furlong and Maynard's model (1995) is echoed in Ten Dam and Blom (2006) who posit an approach called 'collaborative school-based teacher education' (2006 p.48) emphasising the concept of situated learning which acknowledges 'an important part of learning to teach should be embedded in experiences of a school setting' (2006 p.48) but at the forefront of this is collaboration with the

University tutors. Here we move to 'more involvement'. Collaboration suggests that both school and the University are initial teacher educators, both involved in the student learning process and therefore both contribute. However, one of the challenges is gaining 'more involvement' from all staff in the school. In order to fully realise the potential of participation, collaboration between school and University in designing programmes, sharing expertise across both learning centres and professional identity as both teachers and initial teacher educators needs to be achieved. This is full integration which Ten dam and Blom (2006) call 'exchange, co-operation and collaborative construction of meaning' (2006 p.652). It does require the realisation of a 'community of practice' (Wenger 1998) where members of that community: student teacher, school staff, University initial teacher educator function as a learning community and participate in learning and practice with other members. Full integration, or as the model in figure 1 states, partnering, can only fully be achieved where there is full 'buy in' to collaborative planning, pedagogical approaches and shared understanding.

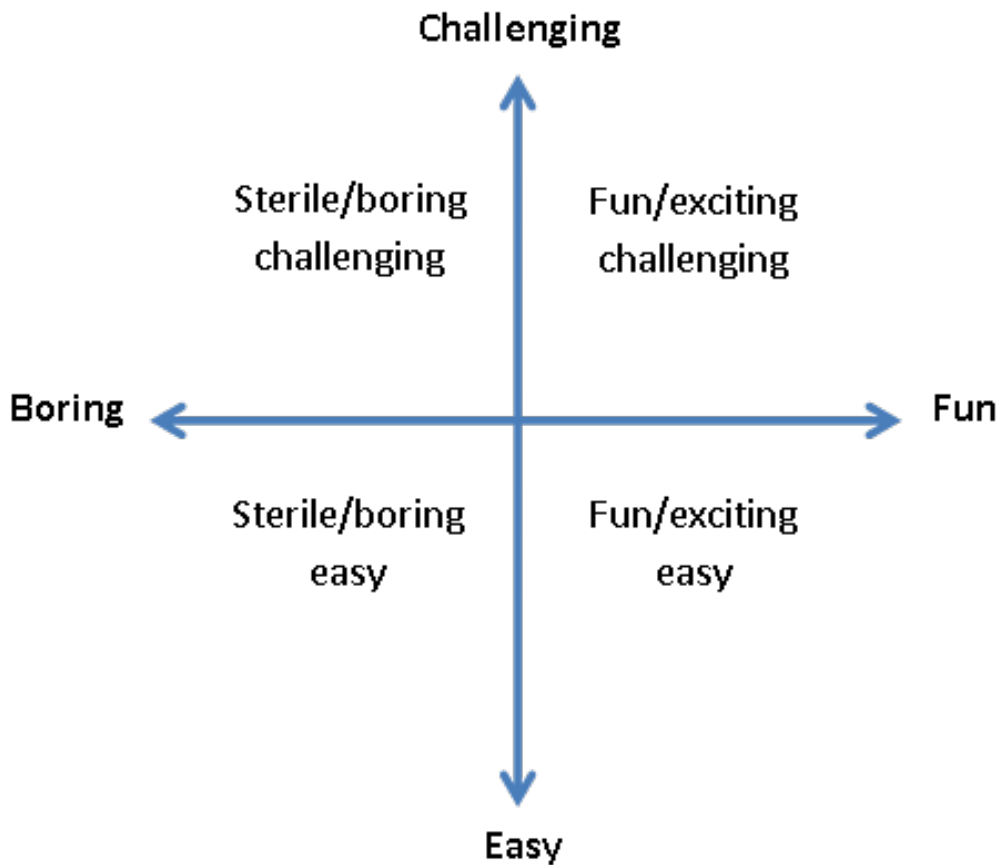
Models of partnering between school based and university based colleagues have also been discussed by Jackson and Burch (2013, 2018) in their study of third space dialogue which encourages collaborative dialogue. Jones and White (2014) ask what outstanding teacher education looks like and suggest that Schön's reflective techniques and enquiry based collaborative models of teacher education within an overarching theme of 'education' as opposed to 'training' are the preferred stances. Twiselton (2007) suggests a teacher 'training' model results in task managers or at best curriculum deliverers, whereas a teacher education model nurtures skills and concept builders, this idea is returned to with reference to the matrix in figure 5. Burn, Hagger and Mutton (2015) highlight the need for teacher educators to encourage emerging teachers to prioritise their future learning, developing expertise to reflect in 'both directions' both within the classroom context but also beyond, to draw on colleagues' ideas and evaluations of different 'kinds of research' (2015:56) some of which are outlined in the next section.

Learning and teaching theoretical and pedagogical models

In this paper 'research/ theoretical models' are defined as including policy documents, theoretical concepts in professional and academic journals and practical guidance on academic websites. Given limitations of space the list below is necessarily descriptive but offers an illustrative example of the possibly unrealistic expectation for student teachers on a one year course, in particular, to engage with such an array of theoretical perspectives.

There are a variety of models and approaches to support creative teaching and learning for example the bigger picture theories of learning, to name but a handful, from Plato through Rousseau, Piaget, Steiner, Vygotsky, Bruner and so on to Schulman, Hattie, Biesta, Dweck and so on, introduced accessibly for student teachers in text books (Cremin and Burnett 2018, Cooper and Elton-Chalcraft 2018, and Boyd, Hymer and Lockney 2015). Together with these bigger picture theories of learning there are specific approaches for creative teaching and learning in the classroom such as De Bono's thinking hats (2016), Buzan's mind mapping (2016), Csikszentmihalyi (1996) 'flow' and the 'phonometre scale' (Elton-Chalcraft and Mills 2015:3) (developed from earlier phases of this project), see figure 2, all of which student teachers can draw on to plan engaging and effective lessons which cause children's learning (Hattie 2012). Research has shown that all people are capable of creative thinking in much the same way that all are capable of critical thinking (Craft 2005, Claxton 2007, 2008). The creativity module in the case study was developed in order to provide student teachers with the rationale and understanding that would enable them to develop children's natural ability to think and act creatively (Elton-Chalcraft and Mills 2015).

Figure 2 The Phunometre scale – activities, and also learning environment



Elton-Chalcraft and Mills 2015:3

Other examples of research/ theoretical models include Fogarty's 10 ways to integrate the curriculum (Fogarty 1991), exemplified by Elton-Chalcraft and Mills (2015) in his practical examples for the primary practitioner to ensure the curriculum is coherent. Stobart's (2014) 'comfort zone, panic zone and learning zone' theoretical model encourages student teachers to challenge while not unduly stressing their learners. Burnham- West's (2016) approaches to learning as 'superficial, strategic, deep/ profound' enable student teachers to assess their learners. Claxton's (2007:123-6) 'magnificent 8 qualities of a powerful learner' provides a rationale for encouraging the characteristics of curiosity, courage to deal with mistakes, exploration, experimentation, imagination, discipline, reflection and making good use of collaboration where appropriate. Pedagogical development books incorporate such strategies evidencing how theoretical models can be translated into practical classroom activities underpinned by evidence based research for example English (Cremin 2015), Maths (Pound and Lee 2010), Geography, (Scoffman 2017) and Religious Education (Elton-Chalcraft 2015).

This phase three case study sought to investigate the extent to which students were able to draw on such theoretical concepts and pedagogies effectively during their placement. From the perspectives of student teachers and their school placement teachers and learners, the research project investigated how university and school based provision aided or hindered student teacher's professional development. Exactly how university and school professionals work together to support student teachers is an under researched area (Moyles and Stuart 2003, Furlong and Maynard 1995) and our longitudinal project has endeavoured, over a ten year period, to gain an insight from a variety of vantage points into the implementation of student teacher professional development learning.

Methodology

Drawing on the perceptions of student teachers, children and their teachers the case study was designed within the interpretivist paradigm (Savin-Baden and Major 2013), using phenomenological data collection tools including interviews, focus groups and an online survey providing qualitative data in both narrative and numerical form (Denscombe 2010, Flyvbjerg 2011, Merriam 1998).

The case study sample comprised five schools, 10 school colleagues including classroom teachers, deputy head teachers and head teachers who were interviewed after the week placement. 50 children aged between 6 and 11, participated in focus groups, two groups of about five children in each of the five schools conducted by members of the research team. Out of the 120 university based student teachers 48 chose to complete an online questionnaire post module but pre final block placement. Additionally, four student teachers volunteered to participate in a focus group post final block totalling 52 students.

Data for phase three were collected during and after the University teacher education Master's module "*the Creative and Effective curriculum*" which assessed, through both an individual 3000-word rationale and a group 2000 word annotated plan, the student teachers' analytical reflection on the children's learning as a result of their planned activities during the 'creativity week'. Each of the schools was 'saturated' with a large group of between 20 and 30 students, working in teams (between 2 and 5 in each class). A post placement final session offered students an opportunity to reflect as a group on their practice and produce an annotated plan and individual evaluative report from the week.

While it could be argued that the University tutors acting as researchers interrogating the efficacy of their own provision might result in positive bias, we would maintain that the case study approach encouraged us to rigorously challenge our professional practice. Flyvbjerg (2006) states that often case studies demonstrate a greater bias towards falsification than verification compared with many other methods of inquiry and our findings demonstrate this.

Ethical approval was granted from the research team's University, participants were not coerced and ethical procedures were adhered to throughout the project (Savin-Baden and Major 2013). By using a variety of data collection methods internal validity and triangulation of sources was achieved within the case study (Robson 2011). Each member of the research team interviewed two staff ensuring a

representative sample of teachers from key stage one (ages 4 to 7) and key stage two (ages 7- 11), head teachers, senior leaders and support staff, to discover the extent to which the week's placement had brought about effective and creative teaching and learning. Findings from phases 1 and 2 of the research project provided a list of factors perceived as necessary for effective teaching and learning (Elton-Chalcraft and Mills 2015) and this list was drawn on in the questionnaire, focus group and interview design. The research team asked school teacher participants whether the week was effective in terms of engaging the children and encouraging them to actively participate and whether the children were intrinsically motivated and able to develop their creative thinking skills. Additionally, participants were asked if the themed week was an effective way of organising the curriculum and if staff felt there was a different working relationship in the classroom between students, teachers and children or if the creative teaching approach disadvantaged any of the children.

The research team were keen to capture the child's voice and so two groups of children from each of the five schools took part in focus groups with each interviewer adopting active listening techniques (Christenson 2010) to elicit the children's perceptions of the best and worst parts of learning during the creativity week, how motivated they were and if they joined in. With reference to the phonometre scale figure 2 (Elton-Chalcraft 2015) the children were invited to assess the activities and state how much they enjoyed the activities and which aspects of learning were challenging, boring or easy.

An online questionnaire was constructed to assess the students' perceptions of the week and the extent to which they drew on research in their planning. Using survey monkey we were able to ensure anonymity and collect qualitative and numerical data which we could triangulate (Robson 2011) with the staff and children's responses, and finally four students volunteered to take part in a focus group post final block placement.

We analysed the case study data thematically using a constant comparison approach (Robson 2011, Savin-Baden and Major 2013). The data analysis provided us with a picture, from a variety of perspectives, to evaluate the extent to which particular models of Teacher Education enabled student teachers to apply theoretical understandings of creativity in a practical context.

Discussion of Findings

Analysis of the case study data raised two issues which are explored below- firstly, how the interface between theory, practice and evaluation in teacher education (figure 3) impacted on pupil learning. Secondly the partnering model, that is, the relationship between school, university and the student teacher (figure 4) is theorised.

Theoretical understanding: Theory, practice and evaluation

Analysis of our data illuminated the extent to which the 'theory, practice and evaluate' model figure 3, facilitated learning. During university sessions the students had been introduced to theoretical and pedagogical models, discussed earlier, (for example bigger picture theories of learning – Vygotsky, Dweck and so on, Cremin and Burnett 2018; through to specific approaches such as mind mapping, Buzan 2016, thinking hats, De Bono 2016). Questionnaire and focus group data revealed that students

had been encouraged to research these theoretical /pedagogical approaches in more detail and find other research-informed strategies in policy, academic and professional literature which they could draw on to plan activities for the one-week placement. Figure 3 shows this interface between theory, practice and evaluation.

Figure 3 Interface between theory and practice

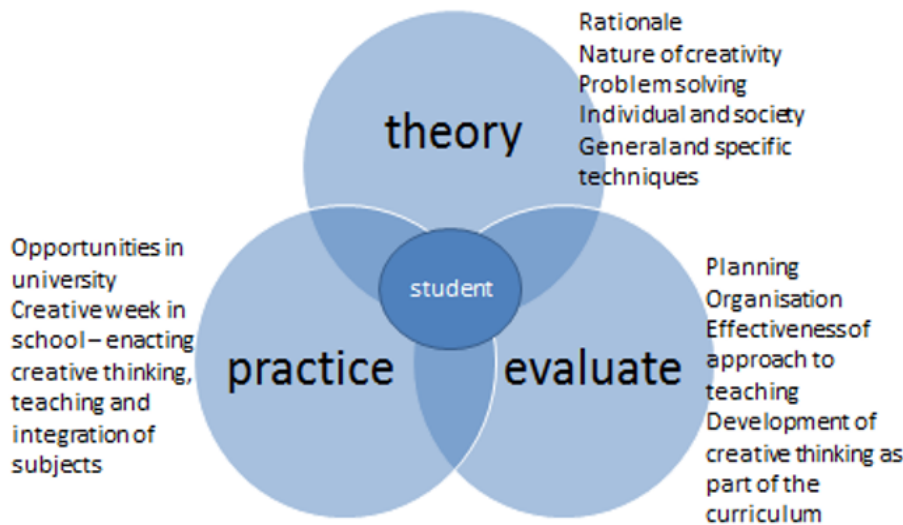


Figure 3: A component model for developing understanding of the interface between theory and practice. (annotations are our context)

77% of students who completed the online questionnaire felt that the theory and research introduced in the module effectively supported their planning “despite time restraints I engaged in the reading and research advised and this provided a good theoretical basis on which to plan the creative week” (female student teacher questionnaire). 52 % said they undertook substantial research while 26% said they read very little mainly because of time constraints. 68% of students felt the module provided guidance about creative guidance techniques yet one student commented that “there was not enough taught input” (female student teacher questionnaire). 56% said they used creative thinking approaches introduced in the module quite a lot whereas 36% said they only drew on these theoretical models a little and 8% confessed to not using them at all. However, 39% said they used theoretical models which they had discovered themselves in their own reading and research which suggests some students might have solely drawn on theories not highlighted in the module. A female student commented “I do not feel that we were sufficiently supported with regard to creative thinking approaches. For that reason, I had to do a significant amount of research in order to come up with suitable creative thinking and teaching strategies in preparation for Creative week.” The same female student bemoaned the fact that sessions had been timetabled at ‘inappropriate times’ ‘two days before the Christmas holiday’. Such are the challenges facing teacher educators trying to cram an impossible amount into a one year course. However 96% felt their creative teaching supported the children’s learning “some of the shy children in

the class come out of their shells through the week and were fully engaged.” (female student teacher questionnaire).

Partnering model: school, university, student

From the findings a partnership model, figure 4, between university, school and student was formulated to capture the process of tutors facilitating the theoretical work in university and also supported working with students during their placement which was to a lesser or greater degree supported in schools. Flyvbjerg (2006) highlights the challenges of summarising case studies and taking due regard of all data, thus the research team endeavoured to accord equal weight to both negative and positive instances. Data showed that the partnering in each of the five schools did not always run smoothly, while 55% of students felt the themed week in school was an effective way of organising the curriculum because the school ‘allowed’ them free reign, 45% felt the school constrained their attempts to integrate subject areas. Data showed students in some schools felt constrained by the requirement for children to engage in guided reading and phonics work, whereas in other schools students were given more freedom to go completely ‘off timetable’ which some relished yet other students found overwhelming especially if they were underprepared. We return to the intersection of student preparedness and school constraint in the matrix in figure 5. Teachers also reported negative instances which are discussed in the following sections.

Figure 4 Three-way partnering model

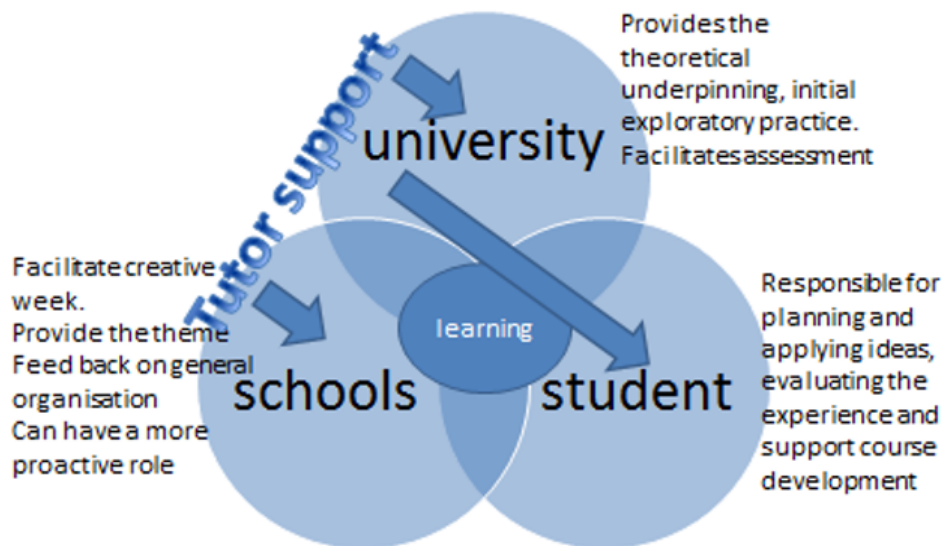


Figure 4: A component model for school engagement and partnership within a university-based module. (annotations are our context)

Findings suggested that one of the key drivers for the effectiveness of the theory practice nexus was the role of the university-based tutor as they provided support in university, in school and to the student which is captured in figure 4.

Using theoretical models in practice- the case study narrative

This section provides a narrative of the case study findings (Flyvbjerg 2006, 2011, Merriam 1998) which evaluates the models of theory/practice/evaluation nexus, and school/ university / student partnering by drawing on perspectives of children, teachers and the students themselves. The case study narrative is structured around themes raised in phases one and two of the project, namely the participants' perceived understanding of the levels of challenge of the learning; the quality of relationships; the extent to which students took calculated risks and coped with change.

ITE students' lessons : Challenging, fun and motivating?

Across the data collected via student questionnaire, teacher interview and learner focus group findings show that the students had made considerable efforts to put theory into practice and make the lessons fun, exciting and engaging, which the pupils both noticed and appreciated and students acknowledged in their evaluations of the week. Over a third of the children expressed a preference for the creative week compared with what they termed their "normal work", viewing the curriculum approach which involved creative activities and techniques adopted by the student teachers as more interesting than the regular teaching approach in the schools. For example, a key stage two focus group pupil commented that "the creative teachers actually built loads of stuff in our classroom for us like caves". However, some of the pupils regarded the fun activities as being insufficiently challenging. A Year 2 child engaged in a maths based activity stated that "The measuring was well easy" and several comments from the pupil focus groups include the words "fun" and "easy" in close proximity to one another, see figure 2. This could, of course, simply reflect the tendency, amongst younger children especially, to associate something they are enjoying with being easy in the sense that they are comfortable with it rather than being an indication of a lack of challenge. However, an alternative could be that for some children this did not have a positive impact on their progress in a given curriculum area, and a female key stage one teacher asserted, "The really bright boy in there [a Year 1 class] was bored with that", in reference to a Mathematics activity. Nevertheless, data from the student teacher questionnaire indicated that 93% of students felt that the module had helped them to plan learning which engaged and challenged the children.

One of the aims of the week was to deliver a curriculum that was so exciting and interesting that pupils would be intrinsically motivated to carry out their work which would lead to good or even improved behaviour; a female senior leader agreed this had been the case: 'Loads of the activities were exciting and really visual and, when they were engaged with those, their behaviour wasn't a problem.' A key stage two teacher said "In Year 6 where lots of our boys don't get on there was no bother at all." The children themselves reinforced this view, with one year 4 boy remarking "I wanted to join in when they said what we're gonna do over the week".

Set against these findings was the view that the lack of challenge might have demotivated some pupils, despite the engaging nature of the lessons planned. One male key stage two teacher expressed the view “Some of the activities were great fun but the differentiation just wasn’t there”. Others claimed that, in the context of this only lasting one week, the lack of challenge was masked somewhat by the exciting approach but that this may not be sustainable; a female key stage one teacher said “in time more children would grow bored if work was too easy, even if it were placed in a creative and stimulating context”. 89% of the students in the questionnaire felt that their teaching supported the children’s learning as well as motivating them. This would suggest that there may be a mismatch between students’ and their teacher mentor’s perceptions of the level of challenge provided for learners during the week. According to the focus group data the role of the university tutor was crucial in supporting the student to evaluate whether the week had in fact supported pupil progress. Similarly, all four focus group students agreed that tutor assisted preparation for the 3000-word evaluative essay provided an opportunity for the students to reflect on how well they drew on pedagogical models to plan challenging and engaging work.

Relationships and school control/ student teacher autonomy.

The case study data provided evidence to explore relationships on a number of levels, firstly student/student, secondly students/children, thirdly children/children and fourthly students/teachers and the more reflective students were able to reflect on these relationships in their essays and in comments on the questionnaire.

Data from the student questionnaire suggests that whilst the majority of students worked productively and harmoniously together there was evidence of disputes, differences of opinion and even power struggles between some of the stronger-willed members of groups. This perhaps highlights the challenges inherent in team teaching, however Boyd, Hymer and Lockney (2015:128) maintain ‘teacher learning communities’ are vital for effective learning. From the student questionnaire, teacher interviews and children’s focus groups it was evident that the relationships between student teachers and children were generally seen to be very positive. A female key stage one teacher commented that her children “really warmed to them [students]”. The children invariably used adjectives such as “kind”, “fun” and “nice” when asked about their ‘new’ teachers. The research team reflected that the school embedded experience may well have helped in this regard, as the student teachers had the opportunity to get to know the children earlier on in the school year and to familiarise themselves with the school’s routines. According to a female student questionnaire response “We got to know the children’s abilities, interests and therefore adapt our plans to suit their needs”. One female key stage two teacher did express some concern about the less formal relationship between the students and the children, commenting that “I’m almost expecting them to call them by their first name”. As there is no evidence to suggest that the children’s behaviour deteriorated significantly in this instance, it is perhaps more indicative of the fears of a teacher allowing their class to be “taken over” for a week by student teachers, (which is exemplified later in the matrix figure 5).

The relationship between the class teacher and the students could in many ways be seen as being key to the success of the week and the data reveal that the students’ experiences varied greatly. Some of the

students reported a great deal of support from their class teacher who in many cases gave them the freedom to try out new ideas and techniques. The experience of others was markedly different. One female student noted that the “class teacher [was] extremely negative and clearly did not want us in the class”, with several other students suggesting that staff were either “absent’ or ‘too busy to communicate with us’. A further finding was the reluctance on the part of some teachers to “let go” and allow the students the freedom to try out their own ideas. An interesting perspective on this comes from a senior member of staff in one school: “We are a very vulnerable school, with our results...So for us, to take a week off is just too much.” The intimation that a creative week is a “week off” perhaps suggests that the senior teacher has not embraced the importance or value of a creative approach to enhance teaching and learning and seems to indicate a clear gap in the view of the school between adopting creative teaching and achieving high standards. The concluding section returns to this discussion of the impact of relationships and school control and the implications for student teacher development.

ITE students Risk taking

The case study data revealed that there were some misconceptions amongst school mentors and some students about the aims of the creative week. Senior leaders who had read the placement documentation and who had worked with the University in previous years understood that the creative week in school was deliberately organised as being a non-assessed week and the rationale for this is to allow the students to take risks, try out new approaches and to experiment. And data showed that many students did engage in riskier or ambitious activities, a female key stage one teacher commented that “My students have been fantastic and I think the good thing about creative week is that it encourages teachers to take risks.” There were, however, constraining factors which led to some students feeling less able to take risks, for example some schools insisted on having an end product to the week. Sometimes this was in the guise of class books or models to be taken home to parents; most often it was in the form of a celebration assembly at the end of the week, to which the whole school and in some cases parents, were invited. Findings suggested that the pressure that some students felt under to “put on a good show” or “create something for the parents to see” was considered to be a dominating factor in deciding which activities or lessons would be planned, leading some to ‘play safe’ to avoid making mistakes. For example, a female student provided Year 4 pupils with a template for making a car rather than allowing them to experiment, citing “not enough time”. The attitude of the class teachers, and the autonomy they afforded the students, also played a part not just in how willing the student teachers were to take risks, but the extent to which they were allowed to. Some schools were “very flexible in letting us loose and doing what we wanted” in the words of one male student; others were less so. As a senior teacher admitted, “I think as well some of our teachers didn’t perhaps trust the students as much as they might have and so they were reluctant to let them really let go.” The lack of freedom afforded to some students was seen both as a frustration and as a limiting factor in the approaches they could take. One reason for this may have been linked to the school embedded learning experience from the Autumn term. Students attended their “Creativity” school very early on in their PGCE course, at a time when they were predominantly taking small groups and adopting the role of a classroom assistant and/or observer. Some students felt that, whilst this was beneficial in terms of

familiarity with the children and the school context, their class teacher in some cases failed to realise just how much they had progressed professionally in the time between school embedded learning and Creativity Week. In the words of a female student in key stage one, “teachers in the school remember us from week 1 in September where we had little experience, forgetting that by the end of March we had developed a lot”.

ITE students facilitating enthusiasm to cope with change

The case study findings suggest that the effect of a change in routine and approach for the children was generally portrayed positively in all four schools. A female student notes the benefits for “Children who would normally have difficulty or show a reluctance to write” and another female student claims that “using creative thinking took away their worries about there always being a right or wrong answer.” However, both questionnaire and interview findings revealed that some children found a change in routine challenging, particularly those with special educational needs. A key stage one teacher observed that not only was their “normal” week completely turned upside down but they had to cope with different “teachers” as well.

Several student teachers commented that some children struggled initially to cope with the change, asking questions such as “When is Literacy?” but the consensus was that this anxiety reduced as the week progressed and that it had not been as difficult as some of the class teachers had anticipated. Some staff as well as children were reluctant to embrace a new approach in spite of the fact that all schools had been briefed about the content of the module, the rationale of the approach and the need for students to be allowed to try out different techniques. Perhaps a factor in this was that agreement was secured with the schools’ leadership teams for the most part, who then cascaded the decision and some of the detail to the rest of the staff. Based on interview data with teacher mentors and from student questionnaires it can be deduced that the overt enthusiasm for the project demonstrated by senior staff was not always shared by every other teacher in school. Similarly, while many students implemented creative theoretical models in their teaching, based on their own research and readings, other students were less enthusiastic and committed to a creative approach. One female student described Creative week as a “gimmick” and another female student felt that lessons were “too chaotic” suggesting that these students were ill prepared and held misconceptions about the opportunities afforded them.

On the other hand, some students created elaborate scenarios but with little underpinning educational theory, as one female key stage two teacher commented “I think the students had put more effort into thinking up the activity than whether it was creative or fitted in with the National Curriculum or not.” This is supported by another member of staff who claims that she ‘got the impression that the students had planned exciting, interesting activities but that’s where they had started from. Rather than looking at the learning objective first or any creative technique.....they had thought, ‘what would be an enjoyable thing for the children?’ and then went with that rather than the other way round.’

74% of student teachers said they integrated “most curriculum subjects” and an even higher percentage felt that this “supported children’s learning”. 68% of the student teachers said they support the use of creative teaching, attesting to the benefits of creative thinking among their pupils.

Implications for practice

This section examines how, in both England and elsewhere, the models of partnering, shown in figures 1 and 4, can be used to inform teacher education programmes and we also examine the extent to which theoretical learning models, as shown in figures 2 and 3, can be successfully utilised by student teachers to support children’s learning in their final block placement.

The case study findings suggest that there was a range of competence levels in student teachers’ theoretical and pedagogical understanding of approaches to learning and their ability to implement these in the classroom. The research team attempted to capture this intersection in the nine-point matrix in figure 5 with building on Twiselton’s (2007) categories – task managers, curriculum deliverers and skills/ concepts builders.

Figure 5 Intersection of student’s theoretical understanding and their autonomy in school building on Twiselton (2007)

	<i>Basic theoretical/ pedagogical understanding</i>	<i>Emerging theoretical/ pedagogical understanding</i>	<i>Developing theoretical/ pedagogical understanding</i>
<i>Acute school control/ little student teacher autonomy</i>	TASK MANAGER Feels unprepared after university sessions, reliant on school’s requirements	feels competent in developing strategies, feels constrained by school,	Feels confident but disillusioned because unable to implement innovative strategies
<i>Partial school control/ Emerging student teacher autonomy</i>	Feels unprepared after university sessions, and defaults to school requirements	CURRICULUM DELIVERER Feels technically competent	Feels confident yet limited by opportunities to be outstanding
<i>School provides freedom/ Developing student teacher autonomy</i>	Feels underprepared and overwhelmed , feels schools should set out requirements sufficiently	Feels competent but directionless , feels school could make expectations explicit	SKILLS /CONCEPTS BUILDER Confident, reflective, autonomous, practitioner

Case study data from teachers, children and the students themselves provided evidence of student expertise which ranged from basic to developing theoretical understanding or pedagogical content knowledge (Shulman 1986, Philpott 2014). Figure 5 intersects the student’s theoretical /pedagogical understanding with the level of freedom afforded to the student teacher by the school. Some class

teachers maintained acute or tight control on the learning, whereas other class teachers allowed students more freedom to develop their teacher autonomy.

Figure 5 plots nine descriptions on a continuum which characterise how a student's pedagogical understanding interfaces with their level of autonomy and confidence. The nine points do not equate to specific student teachers rather they provide examples of the range of feelings experienced by students. The three capitalised points represent Twiselton's categories (Twiselton 2007, Twiselton and Elton-Chalcraft 2018) which are expanded in the intersection matrix, figure 5. So task managers have a basic theoretical understanding and basic pedagogical knowledge and in a controlling school context they merely 'manage' learning activities. Task managers are unable to reflect on their teaching and the children's learning because their reading and research was limited and their school context did not allow them freedom to experiment. Such students' assignments failed to meet the learning outcomes because they described what they did rather than evaluating their practice analytically and critically, see figure 3. There were very few students in this category in the case study given that the course was masters level and at interview and induction there was a clear expectation to engage in research and reading, despite the time limits of a one year course.

Our findings suggest that many students at the stage of the one week placement could be described as Curriculum deliverers (Twiselton 2007) because they had engaged in some research and reading and the school afforded some degree of freedom for trialling new ideas but their practice exemplifies Schön's 'technical rationality' (Schön 1993, in Philpott 2014:9) where strategies are 'taken off the peg' and applied in a different context, sometimes successfully, other times not so depending on the autonomy afforded by the class teacher and the student's level of reflection.

Evidence from the focus groups, student questionnaires and from the quality of some of the assignments suggests that some students could be described as skills/concept builders or reflective practitioners (Twiselton and Elton-Chalcraft 2018). These students were given complete freedom by the school and were able to put into practice theoretical ideas; they possessed a developing pedagogical knowledge which they reflected on during and after each lesson, figure 3. Activities were not necessarily successful for these students – often things did not go according to plan, but concepts builders often gained high marks in the assignment because they were able to reflect on what went wrong and why, and similarly what worked well and why with reference to the literature. One female student from the focus group felt that her creative placement and reflection on her practice afforded her confidence to excel in her final block placement.

The research team were able to identify from the findings where some student teachers have higher levels of pedagogical content knowledge and many class teachers working in the partnering model, figure 1, were able to move students on (Philpott 2014: 22). Philpott warns that pedagogical content knowledge should be seen not necessarily as a fixed body of knowledge but rather an ability to combine subject knowledge with pedagogical knowledge, following on from De Ruiter and King (1993 in Philpott 2014:22).

Evidence from students, teachers and also children shows that many student teachers relished being more autonomous, drawing on theory to inform or reflect on practice by trialling ideas from the

literature rather than cloning their class teacher's possibly entrenched practice. However, this is a complex issue and the data also shows that while many student teachers enjoyed the freedom to make mistakes, try out new ideas and give children more ownership of their learning, in some classrooms this was not the case even though these class teachers should have been aware of the requirements of the one-week placement as this female teacher bemoans:

I had no opportunity for risk. My class teacher was down my neck every minute of the day and making avid notes on what I'd teach and how I could make it better and actually when I did want to take risks I was shouted downshe would scrutinise my lesson plans until I taught them the way that she wanted the lessons taught,for the sake of getting the week done and dusted, I just felt that it was easier for me to teach what she wanted to save me having a massive headache every single night. (female student teacher, post final block placement focus group).

The student above could be described as confident but disillusioned in the matrix in figure 5 with a high level of theoretical engagement but lack of autonomy in the classroom. Whereas a male teacher from the focus group could be described as confident but limited because while experiencing some autonomy in the safe confines of the classroom, when out on school visit his teacher 'decided that she was back in charge because they were out of school it was a risky environment and she kind of took over'. In this scenario the class teacher would not permit student teachers to encourage children to think of creative ways to move from the train station to the castle because a large class of excitable skipping jumping and walking backwards children was just too much of a safety risk, which the student did appreciate on reflection afterwards- 'some risks are just too risky', he acquiesced.

Conclusion

It could be argued that our case study findings are little more than a parochial evaluation of one University teacher education module in England. However, we would agree with Flyvbjerg (2006) who refutes the accusation that case studies are not able to generalise on the basis of an individual case; and similarly, Denscombe (2010, p.54) argues that a researcher can 'illuminate the general by looking at the particular'. Flyvbjerg (2006) asserts it *is* possible to generalise from a single case because a case study can contribute to social scientific development; he also claims that formal generalisations are overvalued in any case, and 'the force of example' and transferability is underestimated (Flyvbjerg 2006: 221). Both Furlong and Maynard (1995) and Moyles and Stuart (2003) call for more empirical studies to explore how teacher education in schools and universities is worked out in practice and our findings have provided an example of this drawing on data from teachers in schools, the learners and the student teachers. The research team would argue that findings from all three phases of this project have culminated in the generation of a valid case study narrative and implications for practice, figure 5, which could inform other initial teacher education provision, both in England and other countries, by more effectively tailoring support to student teachers. This support is based on a clearer understanding, provided by the case study findings, of the impact of a student's attitude towards pedagogical advancement and progress and the context of the school setting in which they are required to draw on that pedagogical understanding.

As Teacher Educators we wanted to synthesise the academic /practical, or theory/practice divide not only for our own professional development but in our nurturing of the student teachers we work with; so that teaching is seen as an academic/ theory based profession. Swennen, Geerdink and Volman (2017), in discussing the Netherlands context argue that teacher educators engaged in academic study at Doctoral level are better prepared to increase the research evidence base of the student teachers they are educating thus benefitting the 'generations of pupils they teach' (2017:156). However, this is challenging because, like several other countries, teacher education in the Netherlands is sited in Universities of Applied Sciences which are distinct from purely academic universities in which a teacher educator, often at their own expense, must engage in doctoral study (Swennen, Geerdink and Volman (2017). We were fortunate that research and evidence based practice is valued by our University. We fear that the totally school based routes, such as School direct in England, may miss out on research based theory informing practice, but further research is needed to substantiate this claim.

In this article findings have shown that partnering models between student teachers, school based and university based colleagues, figures 3 and 4, which are rooted in theoretical evaluation are essential. Schools which afford student teachers some degree of autonomy thus provide the student with space to take risks and learn from mistakes, albeit in a controlled and safe environment, and when this is coupled with a student's developing theoretical and pedagogical understanding an outstanding teacher can be nurtured as shown in figure 5 – the skills and concepts builder (Twiselton and Elton-Chalcraft 2018).

Findings have impacted on the research team's practice and we emphasise even more strongly the importance of reading widely, taking calculated risks, translating theory into practice and evaluating practice intelligently in order to improve future learning. We have also tried to improve our relationship with schools and endeavouring to communicate more clearly with all staff the intention to develop student autonomy so that outstanding teachers can flourish, and in phase 4 of the project we hope to investigate in a more systematic way the efficacy of the matrix in figure 5. However, there are challenges for teacher educators who, through a variety of reasons, face limited choice in placing students in classes which are ideally suited to their needs. Also a major challenge is the limited time on a one year course, for introducing relevant theoretical models and provide students with the opportunity to draw on these in their school placements, reflect and evaluate to inform their future practice. Nevertheless, this research has provided an evidence base, admittedly drawn from a small sample of schools and students, which suggests that an acknowledgement of the complexities involved in effective teacher education, as exemplified in the intersection of theoretical understanding/ pedagogy and opportunities for autonomy might enable more nuanced support. When the school context is too constraining or *laissez faire* or when the severe time constraints of a one year course prevent sufficient knowledge and skills base then it will be no surprise that student teachers fail to develop into excellent teachers. However our findings also suggest that a teacher educator and school based mentor who have a shared understanding, through third space dialogue (Jackson and Burch 2013, 2018) of the needs of the student teacher, in terms of the student's pedagogical abilities and school context, should have more success in nurturing outstanding professionals.

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