Understanding teacher professional development during the field experience period using a socio-cultural view of learning

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Abstract

The field experience component in the four-year Bachelor of Education programme (Primary) at The Hong Kong Institute of Education offers a number of opportunities for students to observe or teach in a school. The aim of this paper is to analyse the learning of the student teachers and the supporting teachers during the field experience period in the second and the final years of the programme and to explain this using a socio-cultural view of learning. Student teachers and their supporting teachers in their second year of study in 1999-2000 as well as those in their final year of study in 2001-2002 were interviewed. The findings illustrate how supporting teachers and the lecturers can act as agents and describes their use of mediational means including teaching resources, and information about pupils' abilities and habits, in facilitating the learning of the student teachers. The findings also compare the sharing of intent between the lecturers and the supporting teachers. The professional development of the student teachers and the supporting teachers is then analysed with a plane of participatory appropriation which is characterized by its dynamic nature and changes among the participants. Finally, the paper summarizes suggestions on how professional development of the student teachers during the field experience may be analysed by adopting a socio-cultural view of learning. Drawing on the analysis, the paper concludes with implications on ways to facilitate the learning of the student teachers during the field experience period.

The Field Experience in the Four-year Teacher Education (Primary) Programme

The findings and analysis of this paper draw on the field experience component of the

4-year full-time Bachelor of Education (Primary) Programme [BEd(Primary)] at the

Hong Kong Institute of Education (HKIEd). According to the programme

documents (HKIEd, 1997; HKIEd, 2001), the field experience has two major

characteristics. Firstly, the component is seen as the central spine of the programme

where the different strands of the curriculum meet. Secondly, it reinforces the

Professional Studies area of the programme with its modules on pedagogy,

psychology, classroom management, etc. as well as the Academic Studies area where

the student-teachers learn about the subject that they are going to teach. According

to the Field Experience Handbook (HKIEd, 2002), the field experience is a concept

which includes not only the practice of teaching but also other forms of activity like

school attachments and visits to a variety of educational institutions, through which student-teachers may gradually develop their understanding of the school context and the role of a primary teacher.

The findings reported in this study involved students-teachers who were enrolled in the 4-year BEd (Primary) programme from 1998 to 2002. The first year students' field experience starts off with a one-week kindergarten attachment and a two-week primary school attachment. The student-teachers observe the teaching and learning of the children in school and reflect on theories about child development and classroom contexts. They are also expected to compare pre-primary and primary education. In the second year, the student-teachers are engaged in their first teaching experience, which is a three-week teaching practice period. They work in groups of two or three and conduct team teaching during this period. Both Institution tutors and the teachers in the school support their learning. The teachers assume the role of supporting teachers and they are invited to attend a series of workshops conducted by the Institute. The workshops cover themes such as lesson observation, the role of supporting teachers, current approaches to the learning and teaching of specific subjects as well as assessment of the performance of the student-teachers. In the third year of the programme, the student-teachers are expected to be more independent when they undertake a five-week teaching practice period. The roles of the supporting teachers and the lecturers are the same as for the teaching practice in the second year. In the final year, the student-teachers are expected to assume greater independence and demonstrate their competence as a beginning primary teacher as they participate in an eight-week teaching practice period.

In order to improve the field experience component, it is important to have an understanding about the learning of the student-teachers in the programme. Moreover, an understanding about the changes or development of the supporting teachers in the programme will add to the knowledge about whether this form of support may facilitate the learning of the student-teachers. This paper aims to analyse the learning of the student-teachers and the supporting teachers during the field experience component by comparing the findings in the second and the final years of the programme. A socio-cultural view of learning will also be adopted in analyzing the findings.

A Socio-cultural Perspective and the Learning of the Student-teachers

In trying to examine the learning process of the student-teachers within the teacher education programme, a socio-cultural view of learning may be adopted during which

learning to teach may be described as a process of socialization or enculturation, leading to shared professional knowledge through human interactions. professional knowledge of teachers is shared among members of the profession as an outcome of human social interactions. This is consistent with the argument that knowledge is socially shared (Resnick, 1991). Using a socio-cultural view of learning, Wertsch, Del Rio and Alvarez (1995) defined the meaning of social learning. Learning is seen as a social process and interactions between individuals are both the means for, and the results of, learning. Individual learning is a result of the active social mediation of another person who may be a teacher or a peer. Learning is contextual and effected with the help of the facilitating social agent as well as through participation. Duesterberg (1998) points out that the influence of other teachers is important in shaping how an individual teacher teaches in the classroom. In this way, the school and communities which set the context for teaching, exert an influence on what is happening inside the classroom. Applying this to the teacher education programme, the student-teachers learn with the help of the Lecturers, the supporting teachers and their peers. The interactions between these three parties both facilitate the learning process and are also the learning outcome. The Lecturers and the supporting teachers have the more important role to play as they may be regarded as social agents that help the student-teachers to reach a new understanding about

teaching. This paper attempts to describe the learning process of the student-teachers and the supporting teachers who are involved in this participatory process.

Teachers who support student-teachers during their teaching practice periods are referred to as cooperating teachers in the literature though they are referred to as supporting teachers in the Programme. In the teacher education literature, cooperating teachers are described as playing an important role in facilitating the development of the student-teachers. Osunde (1996) suggested that the student-teacher spends more time with the cooperating teacher than with any other individual instructor in their teacher education programme. With this intensive involvement during the teaching practice period, the student-teachers have many more opportunities to interact with the cooperating teacher than they do with any individual teacher educator. Thus, the role of the cooperating teacher is important (Knowles, Cole and Presswood, 1994) and the field experience component is a significant part of the programme (Berlinder, 1985). As suggested by Balch (1987), the role of the cooperating teacher may vary from being a model teacher, observer, planner, evaluator, counsellor, professional peer and friend. Abell, Dillon, Hopkins, McInerney and O'Brien (1995) suggested that cooperating teachers may function as supports,

colleagues and scaffolders. Furlong and Maynard (1995) concluded that there were many different styles of mentoring including carer or model, guide or coach and critical friend. While the role of the cooperating teachers, and how they may facilitate student-teachers to learn, is defined more understanding about their own learning or development as well as how their support interacts with that from the teacher education programme need to be identified.

This study is intended to add to the knowledge base about the process of learning to teach during the field experience when it is seen from the perspective of a socio-cultural view of learning. The findings define the meaning of support provided by the supporting teachers in the local context, delineate the intention of the supporting teachers, compare the intent of the supporting teachers with that of the teacher education prgoramme, and capture the dynamic nature of the relationship between the supporting teachers and the student-teachers by describing the professional development experienced by both parties during the field experience component.

Method

This is a cohort or longitudinal study in which the participants were involved over a

3-year period. Data were collected from the same group of student-teachers starting their teaching practice in Year 2 and the study was completed one month after their Year 4 teaching practice. Nine student-teachers were randomly sampled from the second year of the programme and were invited for interview after their teaching practice period. For each student-teacher, their supporting teacher in their major subject was also interviewed. In the final year of the programme, seven of the nine student-teachers agreed to continue their participation in the study. As with the arrangement in Year 2, the student-teachers informed the researcher about the contact details of the supporting teacher in their major subject. The findings were organised into four areas, including i) the way(s) in which the supporting teachers facilitate the learning of the student-teachers; ii) the supporting teachers' expectations of the student-teachers; iii) how the student-teachers related their studies in the Institute to their practice in the field experience; and, iv) the professional development perceived by the supporting teachers and the student-teachers. In each area, the findings in both Years 2 and 4 were compared and analysed. The findings relating to the way in which the supporting teachers facilitate the learning of the student-teachers; the supporting teachers' expectations of the student-teachers; and the perception of the supporting teachers about their own professional development (if any) they experienced in their support with the student-teachers were drawn from the interviews

with the supporting teachers. The interviews with the student-teachers were framed to find out mainly what learning they perceived they had gained in the field experience and how they related their studies in the teacher education programme with their field experience. The interviews, which were recorded, translated and transcribed, were conducted after the field experience period and were in Cantonese.

The data analysis sought to identify the social reality that the participants in the studies had constructed. The interview responses were analysed to identify themes and categories. The data were then coded according to these themes and categories. The number of occurrences of the themes among the participants was then counted and illustrative quotations were extracted to describe the findings.

Findings and Discussion

Four areas of findings are to be reported. The first two areas report on the support provided by the supporting teachers as well as their intent in facilitating the learning of the student-teachers. By comparing the second and third areas, a portrait of the extent to which the intent of the teacher education programme shares that of the supporting teachers in the field experience can be drawn. The fourth area reporting

on the professional development of the student-teacher and the supporting teachers captures its dynamic nature and the changes involved in the field experience.

The student-teachers reporting on the support provided by their supporting teachers

The student-teachers were asked to report on the kind of support provided by the supporting teachers during their field experience. This covered a wider range in Year 2 than in Year 4 (Table 1). This is not surprising as the student-teachers were undergoing their third teaching practice block in Year 4 and had developed more independence whereas they would need more support from the supporting teachers in their first teaching practice block in Year 2. The suggestions or comments about teaching included comments on teaching approaches, the content to teach, teaching pace as well as the use of teaching aids and reference books. Having some understanding about the school context and the abilities of the pupils was helpful for both the Year 2 and the Year 4 student-teachers. The supporting teachers were keen to provide such information as:

'Since the teacher had a lot of knowledge about the ability of the pupils, she gave me advice like which pupils I needed to pay attention to, and some direct

comments.' (4S3¹)

'My supporting teacher provided the background information of the pupils. ...

I could understand the way my supporting teacher got along with the pupils, and the way he/she taught. Also I noticed the problems of some pupils, and I started to remember some of their names.' (4S6)

Apart from sharing information about the school and the pupils, the sharing of personal experience was also a form of support welcomed by the student-teachers, such as:

'One thing that I really liked about this interaction is that I learned a lot from her personal experience. It was also more realistic because it really happened to her.'

(2S4)

'Actually there were different kinds of teachers. The vice principal and the head of subject teacher would tell us what they had done wrong. From their words, we would also understand what kind of social roles we should adopt, for example, what kind of clothes to wear, etc.' (4S2)

'They told me some experience of being a teacher. They also told me how I could do better as a teacher, such as changing my attitude.' (4S5)

For the Year 2 student-teachers, other forms of support were reported which included

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¹ The first digit 4 stands for the year of study, S means student-teacher and 3 is a code for the individual. Therefore, this is a quotation from student-teacher 3 in Year 4.

helping them to solve problems in their teaching:

'When we talked to her, we would tell her what our problems are. Then she would try her best to answer our questions. In fact, she gave us some answers to help solve the problems.' (2S2)

Four Year 2 student-teachers also identified their supporting teacher as their model:

'I think the supporting teacher has already been working for more than 10 years. But she doesn't have the attitude of a retiring teacher. Although she is already quite old, she still thinks of new teaching methods to apply to her work. I know of other teachers who just stick to the rule, even if they know that it doesn't help with the teaching and learning in the classroom. She looks like a model teacher to me.' (2S2)

As first-timers in teaching practice, the Year 2 student-teachers found the psychological support from the supporting teachers particularly helpful:

'Maybe because this was my first time to teach, I was a bit nervous at the very beginning. It was the supporting teacher who helped and provided moral support to me rather than the lecturer from the Institute. ... S/He also gave me a lot of emotional and psychological support.' (2S6)

Table 1 The support provided by the supporting teachers as reported by the student-teachers

Support provided	Number of respondents in	Number of respondents
	Year 2	in Year 4
Suggestions / comments about	11	5
teaching		
Providing information about	5	4
the school and the pupils		
Sharing of personal experience	3	2
Providing tips on classroom	1	0
management		
Problem solving	4	0
Acting as a model	2	0
Emotional and psychological	3	0
support/		
encouragement		

The supporting teachers played an important role in helping the student-teachers learn to teach in the school context. Their support ranged from professional to personal areas, covering different aspects from teaching, managing the class, helping pupils with different needs as well as facilitating student-teachers adapt to the school context and emotionally adjust to the frustrations in their first field experience.

Supporting teachers reporting on their expectations on the performance of the student-teachers

In order to identify the intent of the supporting teachers, they were asked to relate their expectations of the competence of the student-teachers during the field experience period in Years 2 and 4. The supporting teachers in both Years 2 and 4 expected the student-teachers to be enthusiastic and committed to teaching as well as being familiar with the pedagogy in classroom teaching (Table 2). Two Year 2 and one Year 4 supporting teachers described their expectations of the attitude of the student-teachers,

'They should be motivated and dedicated to what they are doing.' (2T2²)

'They should take the initiative, be more daring, committed and responsible, caring and sensitive to the needs of the students.' (2T3)

'They should really like the job of teaching instead of being attracted by other things (i.e. monthly salary). This is because teaching is a profession and is not merely a job. When one person is devoted to teaching, they must know that they need to take responsibility for their pupils' learning processes.' (4T5)

Their expectation of having student-teachers who are devoted and take responsibility of their pupils' learning is explicit. Another common expectation for Year 2 and 4

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² The first digit stands for the year of study. T means supporting teacher and the last number is a code for the individual. This is a quotation from supporting teacher 2 in Year 2.

supporting teachers is the familiarity with the pedagogy of teaching, as one from the Year 2 group describes:

'I think they should be familiar with the basic teaching skills. ... I just want them to know one thing: familiarize themselves with the steps of teaching, and try to be innovative and flexible.' (2T5)

This expectation for a Year 2 student-teacher is not demanding as the supporting teacher is more concerned with familiarization and would expect innovation to occur at a later stage. The expectation of Year 2 student-teachers' competence in classroom management was, however, more demanding comparatively. The supporting teachers in Year 2 emphasized their expectation of classroom management skills though this was not mentioned by the Year 4 supporting teachers. This may be due to the fact that the student-teachers in Year 4 were generally more competent and this was no longer an area of concern.

In Year 4, the supporting teachers regarded subject matter knowledge with great importance as all of them mentioned this as an area of concern while two teachers mentioned the ability to communicate with other teachers in the school. All six supporting teachers interviewed in Year 4 emphasized subject matter knowledge, for example:

'In general, I think that a student-teacher should have knowledge of the subject he/she is teaching. Take the subject I teach, Chinese, as an example, they should be familiar with grammatical structure and explain clearly to their pupils.' (4T1) Communication is an ability emphasized by the supporting teachers in Year 4, one of the teachers suggested:

'I think that a good relationship between colleagues is very important for effective communication in school.'

This suggestion reflects the supporting teacher's expectation of the student-teacher to become a member of the school and be able to work well with other colleagues.

Table 2 A summary of the supporting teachers' expectations of the student-teachers

Expectations of the supporting teachers	Number of	Number of
	respondents	respondents
	in Year 2	in Year 4
Motivated and committed to teaching	4	3
Familiar with teaching skills and objectives	3	3
Classroom management skills	4	0
Basic knowledge of the subjects	0	6
Active in communicating with their peers	0	2
and other teachers in the school		

Having an enthusiastic attitude for teaching is important as mentioned by the supporting teachers in Years 2 and 4. Apart from having this devotion for teaching, the focus of attention of the supporting teachers had changed, on comparing the interview findings for Years 2 and 4. In Year 2 the supporting teachers emphasized having student-teachers who were competent as individual teachers in the classroom, like being able to manage the class, and being familiar with teaching skills. In Year 4, the supporting teachers expected the student-teachers to be innovative, be conversant with their subject matter and be able to socialize within the school context.

Student-teachers reported on how they relate their learning in the teacher education programme with their field experience

The third area of findings investigates how the student-teachers relate their learning in the teacher education programme with their field experience. The opinions from the student-teachers were mixed. In Year 2, two student-teachers reported that what was learnt in the programme was applicable, five found that the materials had to be adapted to the school context, and two student-teachers found the learning was not applicable. In Year 4, four student-teachers suggested that the field experience was related to their learning in the programme while three thought otherwise. Those (2)

student-teachers in Year 2 and 4 in Year 4) who found the learning in the programme related to their field experience suggested:

'I think there is a relationship, but whether it is direct or not, I don't know. Like I said, the time is very limited for us to apply what we've learned from the Institute to the classroom setting. Maybe I was only able to apply the information that I learned from the module 'Professional Studies'. ... I also applied certain principles, like to how deal with the students, how to motivate the students, how to prepare good lesson plans and so on. But I can't specify which module it was from. I think they are a combination of what I learned and what I think should be done.' (2S1)

'Yes, there is a relationship between the two, particularly with the professional subjects because you can directly apply them to the situation.' (2S9)

'There were really a lot of teaching methods for each subject. The materials for teaching from the HKIEd were also very useful. So it was possible for me to try them out during the field experience.' (4S2)

These student-teachers reported a direct application of their learning in the Professional Studies and Methods module. Others could relate theory and practice not in a direct way but still found their learning in the programme applicable, for example:

'Through the theories and principles from the lectures, I was able to relate to the actual situation at school. The field experience was also a good experience for me, because I was exposed to the situation at school. The experiences teachers shared with me were also helpful. In fact, they are very valuable because I could never learn them from the books. So I can see a really direct relationship between them.' (2S3)

'I learnt about school based teaching and educational reform and could see the effect of it during the experience.' (4S3)

'The knowledge I learnt in HKIEd is more theoretical, but I can learn more when I experience it personally.' (4S4)

These student-teachers saw theory in action and found that the field experience was an extension of their learning in the programme. Moreover, four Year 2 student-teachers reported on how they modified what was learnt in the programme during the field experience. For example:

'What was taught at the Institute was more theory-oriented, but in reality, you have to adjust the situation according to the needs of the pupils. Different groups of pupils require different classroom management, and this is one thing I've learned from the field experience.' (2S6)

'To some extent, yes. But sometimes I had to modify my approach. Sometimes I

also worried about the effect of using the different teaching methods. With such a limited time of 30 minutes per lesson, I could afford to try new teaching methods at the expense of the pupils. It might create some problems in the classroom, and I didn't know whether I was able to bear the responsibility or not. That's why I didn't actually apply all the information that I'd learned from the Institute. Sometimes you simply don't have the choice... The curriculum is so packed that there is no room for you to try something new. And if you do, there is no extra support for you to do so.' (2S3)

These student-teachers adjusted their teaching method according to the needs of the pupils, the classroom context, time constraints, and the curriculum of the school. In this process, they faced difficulty, bore the risks of classroom management, experienced frustration and would hope for some support from the school or the Lecturer. These tensions and difficulties can also explain why two of the student-teachers in Year 2 and three of the student-teachers in Year 4 found that they could not relate the learning in the programme with their field experience. They reported on their frustration and difficulties:

'I don't think so. ... As I said, most of these modules are very theory-oriented.

But when you go to schools, you have to make it very realistic. Sometimes they are two different things.' (2S4)

'I think the knowledge could not be directly applied to the field experience. It can help me picture out the conditions in a classroom or method of teaching. However, when I really taught in the school, I would not refer to the notes or think back on what I had been taught in the HKIEd.' (4S6)

'I think they are not very related. Firstly, HKIEd does not have many lessons about teaching skills. Secondly, when we really try out teaching ourselves, the situation is very different. Often we need to rely on ourselves, by taking the initiative to learn from the senior teachers (in the school) and discussing with them.' (4S7)

These student-teachers were unable to relate the theories learnt with their field experience. They lacked the ability to apply the methods to the classroom or school context, or required a lot of support in order that they could achieve this adaptation.

Drawing on the findings about the supporting teachers' expectations of student-teachers and the perception of the student-teachers on whether they can relate their learning in the programme with the field experience together, a difference in the intent of the supporting teachers and the teacher education programme is evident. While teacher educators would hope to see the student-teachers relating, adapting, applying or testing out their learning in the programme during the field experience,

the supporting teachers were more concerned with the basic skills of classroom management and familiarity with teaching skills in Year 2. It was not until Year 4 when the supporting teachers would expect to find student-teachers being innovative. However, comparatively speaking, the supporting teachers were more concerned with subject matter knowledge than relating theory and practice for the student-teachers. The adaptation of the theories learnt to the classroom or school context is not an easy matter, the student-teachers experienced much difficulty and frustration, and would hope to find more support from the supporting teachers or the lecturers.

The professional development of the student-teachers

The student-teachers were asked to describe what they had learnt during their field experience, all of them in Year 2 and 5 out of the 7 student-teachers in Year 4 reported that the field experience had helped them to gain a better understanding about the role of a teacher (Table 3). For example,

'I learned how to work with real pupils, I learned how a school operates, and I learned about the different roles of a teacher.' (2S3)

'I think I felt like a teacher more this time compared to last field experience because this year the school thought that a student-teacher should experience

what a teacher does in his daily life.' (4S1)

'This year, I had a happier experience in the school. It is because since the duration of the field experience period is longer, I became more involved in school activities. Also, I became more mature as a teacher. I also had a more satisfactory performance in preparing my lessons and in teaching.' (4S5)

These student-teachers had developed a good understanding of the school context and the role of a teacher. The Year 4 student-teacher (S5) had become more involved in the school activities and felt she had matured professionally. Other student-teachers reflected that their sense of responsibility had increased during the field experience:

'I think that this time I accepted my own failure at first and understood my abilities more thoroughly. I know that being able to adapt to the atmosphere of the school is very important.' (4S4)

'We could see more compared to last year. The field experience period lasted longer this year, and (we) had a chance to try out our teaching and adjustment. I had a longer time to teach and could grasp the concepts better. It was already my third time of practice teaching, my sense of responsibility had increased and others' (the school's) expectation also increased.' (4S2)

'My teaching experience also increased a lot. As this field experience was longer,

I had to be responsible for my own teaching. ... On the whole, I think I became

more mature. The only person that could help me was myself, not others. I would reflect more. For example, if students did not understand what I taught, or what was the reason behind it, then I needed to think of some methods to solve the problem. In the past, I would not think that way.' (4S3)

These student-teachers developed a better understanding of their own ability to teach and the expectations of the school. They were more able to reflect and improved their own practice. Another student-teacher mentioned being psychologically prepared to become a teacher:

'I learned a lot about teaching, about the students and about the school. I learned not only the teaching aspect, but also the emotional and psychological aspect of being a teacher. I was able to see a 'real picture' of what schooling means and what teaching means.' (2S7)

On the whole, understanding the role of being a teacher involved developing an understanding about the school context, the expectations of the school, taking up the responsibility to teach well or improve teaching practice and being psychologically prepared to become a teacher.

Table 3 Professional development as perceived by the student-teachers in the field experience

Answers	Number of	Number of
	respondents in	respondents in
	Year 2	Year 4
Develop more understanding about the role of	9	5
a teacher		
Develop more understanding about the school	5	1
context		
Develop interpersonal and communication	5	2
skills		
Develop competence in classroom	3	2
management and ability to handle pupils with		
different needs		
Develop competence in time management	1	0
Develop competence in applying different	0	2
teaching strategies		
Develop competence in school administration	0	1

Five Year 2 and one Year 4 student-teachers regarded developing their understanding about the school context as a form of professional development in their field experience.

'I learned that apart from just delivering the topics, you also have to consider the feelings and emotional behaviour of the pupils. This is very important. Also, whenever you plan the teaching aids or teaching styles, you have to consider the

learning ability of the students. It must not be beyond what they can do.' (2S8) 'The field-experience this year was very real for me. This is because I faced many situations that are very likely to happen when I become a teacher, such as having a lot of lessons in a week and at the same time taking up some positions in school.' (4S4)

These student-teachers pointed out the importance of understanding the needs and abilities of their pupils. Their experience of facing different challenges in the school also contributed to their professional development. However, this need for obtaining knowledge about the school context was mentioned more frequently among the Year 2 than the Year 4 student-teachers. Similarly, the development of communication skills and classroom management strategies were more frequently mentioned by the Year 2 than the Year 4 student-teachers. The Year 4 student-teachers added two elements to their list of professional development namely, applying different teaching strategies and the development of competence in school administration.

'I could learn a lot of knowledge about methods of teaching. ... This year since I had the chance to observe my supporting teacher's lessons, I regard him as a model for comparison.' (4S6)

'I have refined my own teaching method. ... This year, I could use more teaching methods and become more familiar with them because I have accumulated my

experience from the previous years. Also, I used more IT teaching this year so I could try more ways to teach.' (4S7)

The ability to teach competently is an achievement for these student-teachers. In Year 4, they focused their attention on refining their strategies, comparing them with other teachers in the school and attempting to include IT elements in their teaching. The student-teachers also began to expand their competence into other areas of work – school administration, for example,

'I learnt things about the school's administration. For example, if the school was undergoing some reform, I could see how it was proceeding. And in the future when I find a job, I would know what to say. ... The effect of the reform depends on the leadership of the principal and the teachers.' (4S3)

'I have gained more understanding about different kinds of primary school since this is already the third school I have been to. When I go out to work this year, I think I can manage the work.' (4S7)

The experience of teaching in different schools and observing the education reform in action contributed to the professional development of these Year 4 student-teachers.

These findings suggest that both the Year 2 and the Year 4 student-teachers experienced professional development in the field experience. Though their focus of attention was sometimes different, they achieved different forms of gains in their

professional competence during the field experience period.

Supporting teachers reporting on their professional development

When the supporting teachers were asked if they experienced any gain in professional development in the field experience, four supporting teachers in Year 2 and two in Year 4 gave positive responses. They reported that this was a chance to obtain more up-to-date information about teaching,

'Being in this field for quite a while, I agree that I don't know much about what's going on outside. That's why this is a good experience for me to learn. It is also for this reason that I think teachers should constantly be developing themselves to become professionals.' (2T1)

'....being a supporting teacher actually helped to re-evaluate my teaching methods and have a chance to learn from new teaching styles. After all, we (supporting teachers) are quite old and we are not as creative as the younger ones. By letting them teach in our school for a while, it could bring some new methods and new ideas to our school.' (4T2)

'I thought that they could let us learn new teaching methods because we did not have time to learn ourselves. As we become older and older, we tend to adopt our

traditional teaching style I think that it is good to accept the student-teachers into our school.' (4T6)

Other supporting teachers found the teaching methods adopted by the student-teachers to be innovative:

'In fact, I think their teaching methods are more flexible and innovative. I don't mind using them in my future class lessons.' (2T1)

The experience provided the supporting teachers an opportunity to reflect on their own teaching method. As they observed the student-teachers, or provided suggestions to the student-teachers, they reflected at the same time about their own practice. For example:

'When I observed them, I realised that they are using newer and more innovative teaching strategies. From this observation, I tried to choose the ones that are quite effective. I also reflected on my own practice to see whether I needed to improve myself. Actually the whole the field experience was a good chance for me to self-reflect as well as compare myself with them.' (2T3)

'It's a good collaboration experience for me, especially with the lesson plans.

The student teachers can really come up with good lesson plans. And when I have a look at them, I see that there is a need for my lesson plans to be updated.

So in a way it is a good chance for me to reflect on my own teaching practice. Sometimes I do accept their ideas and integrate them into my teaching.' (2T4) 'You have to confirm that what you are doing is correct or not before you can actually tell them. If you are unsure of what you are doing, then it is very awkward to tell them to do it.' (2T2)

These supporting teachers were ready to reflect and even change their practice with their exposure to the innovative methods adopted by the student-teachers. As a result of their participation in the field experience, the supporting teachers experienced professional development and changed their own classroom practice.

Taking the findings on the professional development of the student-teachers and the supporting teachers together, both parties benefited from their involvement in the field experience. Their classroom practice had changed and for the student-teachers they developed better understanding about the school as well as the profession. While teacher educators would expect to observe professional development among the student-teachers in the field experience, the professional development among the supporting teachers is equally important. Their change in attitude or even practice towards innovative teaching methods will enable to them to be better agents of facilitating learning for the student-teachers. The supporting teachers will also then

be able to share the intent with the teacher educators.

Discussion and Conclusion

The findings are now compared with the literature on teacher education as well as analysed from a socio-cultural view of learning. The nature of knowledge in teaching is first identified. Secondly, the role of the supporting teachers is analysed. Finally, professional development opportunities for the supporting teachers are summarized and explained.

The findings suggest that the student-teachers were concerned about ways of adapting the theories learnt in the programme to their own teaching context. Two Year 2 student-teachers and four Year 4 student-teachers succeeded in finding a direct relationship between theory and practice. Others (five Year 2 student-teachers) saw the need for continual learning, and of modifying or adapting the theories to the context. This confirms the status of the theories of knowledge about teaching. The process of adaptation or tailoring gives rise to 'practical knowledge' or 'craft knowledge' that teachers acquire and accumulate in practice (Calderhead, 1996). The process of learning to be a teacher involves both a personal and a social component. Perkins (1993) described learning as involving a person-plus system.

In the learning process of the student-teachers, in the teaching practice situation, the supporting teacher and the peers constitute the system supporting the individual or the 'person' learning. At the personal level, student-teachers reflect on their own learning experiences, integrate the learning from the teacher education programme, and their experiences as classroom teachers (Sutton, Cafarelli, Lund, Schurdell, & Bichsel, 1996). They also need to reflect on the influence of their own perspectives on their teaching. At the social level, the social agents are important in facilitating the student-teachers to develop this socially shared and contextualized knowledge. Hence, there are two ways to support the student-teachers who reported that they could not relate their learning in the programme with the field experience. Firstly, the student-teachers themselves need to accept the responsibility of reflecting on and integrating their learning at the personal level. Secondly, the social agents, meaning the supporting teachers and the lecturers, need to facilitate this integration and adaptation. In fact, the findings suggest that the supporting teachers had fulfilled their role in supporting the learning of the student-teachers.

The supporting teachers and the lecturers are the social agents. They have different contributions to make to the process of learning to teach. The findings suggest that the supporting teachers:

- provided advice about teaching, classroom management and information on pupils' learning needs;
- shared their teaching experience; and,
- provided moral support.

These roles of the supporting teacher coincide with the literature on the role of cooperating teachers (Abell, et.al. 1995, Fish, 1995; Grimmett and Ratzlaff, 1986) which reported mainly on the provision of resource materials, support in planning and evaluation; advice and previous experience. Moreover, the provision of psychological support is important, as researchers have found that the teaching practice period is one of great emotional stress (Caruso, 1977; Harrington and Sacks, 1984). Echoing these findings from earlier research, Beckand Kosnik (2002) point out the importance of emotional support like collaboration, modeling a sound approach to learning and teaching, and providing feedback to the student-teachers from the cooperating teachers.

From a socio-cultural view of learning, the supporting teachers and the lecturers are the social agents. They socialize the novices into the culture of teaching. This process involves the use of tools and signs including language which are referred to as 'mediational means' and Werstch (1991) described these as products of 'cultural,

historical and institutional forces'. The provision of resource materials, advice on teaching and sharing of experience may be seen as mediational means. These mediational means carry cultural meanings and help to socialize the student-teachers into the context of teaching. The findings of a study conducted by Weasmer and Woods (2003) illustrated how the support from cooperating teachers may be influenced by cultural meanings. They suggest that the perception of the role of a cooperating teacher provides a framework which guides the support provided. This argument was illustrated by an observation that cooperating teachers may hold a strict formula of classroom behaviour for the student-teachers and are not aware of alternative possibilities of helping the student-teachers. Hence, whether cooperating teachers are aware of alternative approaches that may facilitate the learning of student-teachers and how they perceive their role shapes the quality of support they provide and constitute the contextual and/ or cultural influences. Moreover, findings suggest that the intention of the supporting teachers may not be congruent with that of the teacher education programme.

The supporting teachers achieved some degree of professional development through the field experience. Other teacher educators have also reported on the professional development of cooperating teachers. Gonzalez and Carter (1996) suggested that the

cooperating teachers and the student-teachers may 'capitalize on their common awareness of classroom events and thus learn from each other'. Kerry and Farrow (1996) reported hearing from mentors that being a mentor is good professional development as it requires analysis of one's own practice. This development caused the supporting teachers to reflect on and improve their own teaching which, in turn, will influence their intention and actual support for the student-teachers. These changes arose from their exchanges or interactions with the student-teachers and the lecturers in the field experience. The changes are continual and past experiences will inform future practices or support. Having confirmed this from the teacher education literature, the professional development of the supporting teachers may also be explained using a socio-cultural view of learning. In the present study, both the student-teachers and the supporting teachers achieved some form of professional development as a result of the field experience. This is best explained with one of the three planes of analysis as proposed by Rogoff (1995). The three proposed planes of analysis included apprenticeship, the plane of guided participation and the plane of participatory appropriation. Rogoff (1995) pointed out that the three planes were inseparable and mutually constituting, but that each one could be the main focus while the other two would constitute the background for the analysis. The most relevant plane for explaining the professional development of the student-teachers and the supporting teachers is the plane of participatory appropriation. This plane emphasizes the changes in the participants during the process as they are involved in an activity. In this case, the activity is a learning activity. The participatory appropriation plane is helpful for explaining their relationship as it is characterised by the dynamic nature of their interactions and the fact that past experience may inform and transform the activity. The roles of the participants change with the active interactions between them.

This socio-cultural view of learning is consistent with Palmer's (2002) suggestion in the field experience literature. The study (Palmer, 2002) reflects the dynamic nature of student teaching experience, which is constantly changing and challenging for both the student-teacher and other participants. This change or professional development for the student-teachers and the supporting teachers occurred in a similar direction in that the supporting teachers became more innovative in their own teaching. This development will help the supporting teachers to develop a more congruent view of classroom teaching practice to that of the teacher educators and, therefore, share the intent of the teacher education programme. In order to facilitate this sharing of intent to occur, teacher educators will need to focus on identifying ways to facilitate the development of the supporting teachers as well.

To conclude, teacher educators may adopt a socio-cultural view of learning to analyse the professional development of the student-teachers in the following aspects:

- The knowledge of teaching is socially shared and contextual.
- The supporting teachers and the lecturers are the social agents, who may or may
 not share their intent, in facilitating the socialization of the novices to the
 profession.
- The interactions between the supporting teachers and the student-teachers may be explained with the plane of participatory appropriation due to its dynamic nature and changes occurring throughout the process.
- Professional development among the supporting teachers may help to change their intent to be more congruent with that of the teacher educators.

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