ABSTRACT
          This study sought to determine how student-teachers
perceived their competence as they proceeded through a 2-year certificate
program and to identify what changes occurred in their perception during the
first year of teaching. The subjects were student teachers in a new
Certificate of Education Program (in primary education) at the Hong Kong
Institute of Education who were followed from the beginning of the second
year through their first year of full-time teaching. Both student teachers
and beginning teachers perceived themselves as having higher competence in
the classroom domain and lower in the school, community, and professional
domains. Teachers appeared to have acquired competence in the classroom, but
remained challenged by school situations and relations with administrators,
peers, and parents. These results confirm the importance of school experience
as part of teacher education. Results support the value of such student and
beginning teacher induction provisions as seminars and mentoring
arrangements, which have not been widely used in teacher education in Hong
Kong but are now part of the new program. The results also suggest the need
for continuing professional education throughout the teacher's career.
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Perception of Teacher Competence:
from Student to Teacher

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Abstract

Student-teachers in a two-year Certificate of Education Programme (in Primary Education) have been followed from the beginning of the second year to their first year of full-time teaching. The study aims to find out how student-teachers perceive their competence as they proceed in the programme and to identify the changes of their perception in their first year of teaching. The study reflects the development of the student-teachers in Teacher Education Programmes and relates this to the experience of the beginning teachers.

In theoretical terms, the study seeks to draw implications on the development of student-teachers and beginning teachers. In practical terms, through the identification of enabling and constraining factors, teacher educators can design better initial teacher education and induction programmes that are tailor made for the need of the novices.

Background

Teacher Education and Beginning Teachers in Hong Kong

In Hong Kong, a major change in teacher education occurred in 1994 when the Institute of Education was established to replace the Colleges of Education. The Teacher Certificate Course, which was started in the 1960s, was replaced by the new Certificate in Education course. Initial teacher education, both at the primary and the lower secondary level has been restructured. With such a major change for the first time in 30 years, teacher educators are looking forward to new innovations and quality in the programmes offered. The present study is one of the projects funded by the Institute with an intent to understand more about teacher development in the local context.

In Hong Kong, induction provision is not widely arranged in schools. As reported in a recent study on secondary schools (Cooke and Pang, 1991) only 15% of the teachers have experienced some form of induction provision. Education Commission Report No. 5 has recommended the inception of a systematic induction programme in the secondary schools and with one of the assistant principals in the school responsible for arranging support for the novices. The situation in the primary schools is quite different and the new induction policy did not include these schools. Mentoring is still at an experimental stage in the primary schools (Chan, 1996). It can be expected that novices are left on their own and support from schools is limited.

Given the situation that the experience of beginning teachers in primary schools in Hong Kong is largely unexplored and that teacher education programmes have recently

been restructured, it is important that teacher educators understand more about this transitional period in the local context. This will have direct implications on, firstly, the formulation of induction policy at the primary level, secondly, the quality of teaching in primary schools and, thirdly, the design of pre-service initial teacher education programmes.

Teacher Competence

From the literature, three models of competence are evident. These models have different implications for the understanding of teacher competence, and for making basic assumptions about assessment and teacher education. The first is a behaviourist approach using statements of desired behaviours (Taylor, 1949), which are the results from a task analysis that breaks down competence into its constituent elements. The second is a process model in which the concept of generic competence is included. It focuses on the role of teachers as results from functional analysis.

The third model, which takes knowledge and understanding into account, is deemed to be more accurate and holistic in analysing teacher competence. This is an interactive model as described by Hodkinson (1992) or a cognitive model (Reynolds & Salters, 1995) in which knowledge and understanding underpinning competent action are important. While competence is the ability to do what is required and to do it well (Brezinka, 1988), it is also important to consider the personal dimension of knowledge, which allows the individual to recognise and act in different situations (Wolf, 1989). In terms of teacher education, it implies that not only the behaviour is considered but that the underlying principles of performance are stressed as well. This involves taking competence as a level of capability, which can be "insufficient". This sufficiency indicator may fluctuate because it involves a value judgment.

In an attempt to summarize the different models of teacher competence, Edmund Short (1985), clarifies the confusion and presents four different conceptions of competence:

· competence as behaviour or performance, the doing of particular things independently of purpose or intent.
· competence as command of knowledge or skills, involving choosing and knowing why the choice is appropriate.
· competence as a level of capability which has been 'insufficient' through some judicious and public process; this sufficiency indicator may fluctuate since it involves a value judgment.
· competence as a quality of a person or state of being, including more than characteristic behaviours: performance, knowledge, skills, levels of sufficiency, and anything else that may seem relevant, such as intent, or motives, or attitudes, or particular qualities".

According to Short, the fourth definition implies that many theories about teacher competence can exist, all of which can be justified.

Teacher Competence and Teacher Development

As the public demand for accountability increases, schools of education are asked to identify the qualities of effective teachers and planned curricula to ensure that prospective teachers demonstrate those qualities prior to certification (Taylor et al., 1990). In Australia, the University of Sydney has developed an elaborate set of generic competencies for beginning teachers (Eltis and Turnery, 1992).

Apart from accountability and quality concerns, teacher competence can also reflect various stages of teacher development. The idea of teacher competence is dynamic. Reynolds (1992) described "competent teaching along a continuum of experience". As Ashburn (1987) suggested, competence is dependent on a number of aspects: the length of time in teaching, the conception of the teacher's role and the context for teaching including the school characteristics. The difference in the perception of teacher competence across time can reflect the development of a teacher.

The definition of competence adopted in the present study has taken into account the work of Short (1985) and the interactive model proposed by Reynolds and Salters (1995). Teacher competence is defined as possessing the necessary skills and abilities in the context of primary schools. Competence is not only seen as a set of behaviour but also seen as the quality of a person at a certain stage of development. Comparison at different stages of the teacher education programme reveals a pattern of development.

Student-teacher Development and the Teaching Practice

In the present study, the student-teachers were asked to complete the instrument measuring their perceived teacher competence before and after the teaching practice. The importance of field experience in teacher education programmes is well documented in the literature. Marso and Pigge (1987) revealed that classroom teachers typically indicate that college courses are too theoretical and too impractical. The strongest influence on learning to teach is the student teaching experience (Koehler, 1983).

Sacks and Harrington (1982) also identified six stages of development from student to teacher. Before students begin to work in the classroom, stage one (Anticipation) starts, which is characterised by eagerness, excitement and great anxiety. In stage two (Entry), students are excited to begin the experience but worry that the challenge is too great. Students often rely on teacher-like behaviours, learn from others and feel satisfied simply to get through each lesson in this stage. Students in stage three (Orientation) feel themselves inadequate and incompetent, now painfully aware of the complexity of teaching. Stage four (Trial and Error) is a longer stage when student-teachers struggle to find the right way to teach and to manage pupils. They are learning to assert power in the classroom and to develop to be an independent, autonomous teachers. In stage five (Integration / Consolidation), students experience effectiveness more consistently and begin to concentrate on the needs of pupils rather than their personal needs. Few students can attain stage six (Mastery), which indicates an understanding of self as person and teacher, an awareness of strengths and weaknesses, and a recognition that there are many ways to reach the goal of effective teaching.

Dispoto (1980) found that student-teachers' attitudes toward teaching and school became less favourable after student teaching. Sacks and Harrington (1982) also

found that after the field experience, students express more concern for the emotional needs of their pupils than for classroom control. The above studies reflected that the student-teachers experience much conflict and stress during their field experience. The strain to learn to teach may result in feelings of incompetence and has many implications on the confidence, attitude, behaviour and performance of the student-teachers.

Though much research has been conducted concerning the development of student-teachers, there has been little work on their experiences in the initial teacher education programme. Huberman (1993) commented that there is a lack of research on subsequent teacher development. Based on a study, Huberman (1993) proposes a model on the professional life cycles of teachers. The professional life of the teacher is taken as a career development as in other professions and 'sequences', 'phases' or 'maxicycles' are used to describe development. These 'phases' are not necessarily taken as stages but rather as a set of spirals, cycling at different 'elevations'. Characteristic themes of teacher development are identified, namely, "survival and discovery", "stabilization", "experimentation/ activism", "taking stock, self-doubts", "serenity", "conservatism" and "disengagement". Among these themes, "self-doubts", "conservatism" and "disengagement" are negative developments. The study also established that later development directions could be predicted based on experience in earlier developmental phases. In conclusion, various influencing factors are evident: chances for collaboration with colleagues and staff development activities that include actual experimentation over time and institutional conditions. The above literature review has reflected that both the teaching practice and beginning teaching has much impact on the subsequent development of a teacher. Potentially influencing factors arise both from the teacher him/herself and the school context.

Method

The present study identifies the perception of teacher competence of the student-teachers before and after they experience the teaching practice. The study extends also into the first year of teaching and investigates changes (if any) in the perception of teacher competence among the beginning teachers. Factors influencing their perception at the various points of measurement are found. From the findings, implications for teacher development, design of teacher education programmes and arrangement of induction provisions are drawn.

Subjects

Subjects included student-teachers of the 2-year Full-time Certificate Education (CE) in the Primary Education Course in the Hong Kong Institute of Education. The study was conducted when the student-teachers had their field experience in the final year of study and when they started to teach in the first assignment.

The instrument

The instrument adopted in the present study is principally based on "Generic Competencies for Beginning Teachers" (Etlis & Turney, 1992). The competence

indicators are divided into four domains, viz. classroom, school, community and profession. Each domain is further subdivided into areas and perceived competence in each area is represented by a number of items which capture the diversity of the teachers' work. The items are chosen with reference to local context and modifications are made based on other research studies on teacher development (Adams, 1982), teacher competence (Taylor Middleton and Napier, 1990; Walker and Richardson, 1993; Reynolds, 1992) and teacher evaluation (Stolworthy, 1990).

The instrument contains 60 items, 42 of which focused on the Classroom Domain. Such an arrangement is based on the fact that student-teachers focus on classroom teaching in their teaching practice and it is where they get the chance to have perceptions on their teacher competence.

Each evaluative item in the instrument is based on a rating scale of 1 to 7, with 1 indicating incompetence, 7 indicating total competence and 4 indicating satisfactory level of competence. A column of NA is also included in case the respondents find the item not applicable to teacher competence, or if the student-teachers have not had the opportunity to demonstrate that competence.

A Chinese version of the instrument is used to minimize misunderstandings resulting from the English language proficiency of the respondents.

Data sources

Student-teachers were asked to complete the evaluative instrument three times in their final year of study, that is, before and after the teaching practice (in October, 1995 and January 1996), and at the point of graduation (June, 1996). The instrument was then sent to the student-teachers after their graduation (November, 1996) and when, they are teaching in their first assignment. Special emphases were put on the teachers perceived competence in the teaching of General Primary subjects, namely, Chinese, Mathematics, Social Studies, Health Education and Primary Science in local Primary schools. Random sampling is employed to select 150 (35%) scripts for data analysis. The data obtained are then analyzed quantitatively in descriptive statistics and one-way analysis of variance to determine if there are significant differences.

The qualitative part of the study consists of structured interviews with ten student-teachers. These interviews were conducted twice, once at the exit point of the programme (June, 1996) and once in their first assignment (January, 1997). The interviews reveal the factors influencing the changes in perceived competence during the programme and in the first year of teaching.

Findings and Discussion

From the quantitative data

In the present study, student-teachers rated themselves highly in terms of perceived competence. Items highly rated occur mainly in the classroom domain and the lower rated ones fall mainly into the professional. school and community domains. At the four points of measurement, the items with the highest ratings are very similar (Table 1).

Though the measurement in the first term of teaching reveals slightly different items with the highest rating, among the ten items most highly rated, seven were in the classroom domain and three were in the professional domain. Those common with the other points of measurement are shown in Table 1.

Student-teachers' perceived competence changes significantly from a satisfactory level (above 4 in mean value) in the measurement before the teaching practice to an unsatisfactory level of competence (below 4 in mean value) in the evaluation after the teaching practice within the school, community and professional domains. As shown in Table 2, six out of fifteen items with a mean rating of less than 4 occurred both in the evaluation before and after the teaching practice. Unlike the items that received the highest ratings, these are more dispersed. Among the fifteen items, one is in the classroom domain, six in the school domain, three in the community domain and five in the professional domain. In the measurement at the point of graduation, mean values were higher and all the items received a rating higher than 4. In the evaluation in the first term of teaching, the five items that received the lowest ratings coincide with those in the list. These items are also dispersed, occurring in the classroom, school and professional domain. These results reflect that the novices lack confidence in planning collaboratively with colleagues in curriculum development, being an active member of committee groups in school and contributing to professional associations.

From these data, it can be seen that student-teachers or the beginning teachers perceive themselves to be more competent in the classroom domain than in the other three domains. Though there was a lowering of the confidence after the teaching practice, as reflected by lower mean values in perceived teacher competence, they perceived themselves to be confident again at the point of graduation. On entering the school for their first teaching assignment, the novices experience some decline in the confidence. This decline was however not as significant as the drop seen in the post teaching practice evaluation. The school experience thus paved the way for the first assignment. These novices no longer experience the "reality shock" in the first assignment as they did in the teaching practice.

On comparing the characteristics of the subjects at the point of graduation and in the first term of teaching, the findings (Figure 1) show that the percentage drops in the following categories: taking teaching as the first choice in their career, suitable to teach and being an enthusiastic teacher. Further analysis revealed that perceived teacher competence was also affected by these variables (Table 3). A one-way ANOVA calculating the F value was employed to explore their difference. Both at the measurement after the teaching practice and at the point of graduation, perceived teacher competence in the classroom, in the school and in the professional domains were affected by the career choice and perceived suitability to teach. Whether the student-teacher perceived himself/herself as an enthusiastic teacher affected his/her perceived competence in all the four domains. In the first term of teaching, the ratings in the classroom and school domain were affected. At the same point of measurement (Table 4), the type of school and whether the school offers an induction provision and a mentoring arrangement has some influence on perceived teacher competence. These variables influence the perception in the classroom and the professional domain.

The identification of the above influencing variables has direct implications on both the design of initial teacher education programmes and induction provisions in school. The data shows that teacher characteristics like career choice, perceived suitability to teach and enthusiasm are important in the pre-service education whereas school factors like induction provisions and mentoring arrangement are more predominant after the graduates started teaching.

From the interviews

The General Situation: workload, school and pupils

Drawing together the data from the quantitative analysis and the interviews, it can be shown that the workload of the beginning teachers were the same as the experienced teachers and they were facing unfamiliar teaching situations. As in Figure 1, 90% of the novices were class mistress or class masters, 16.9% were teaching in whole-day schools. The latter percentage is expected to increase as more schools are switching from half-day to whole-day schedules. However, the percentage of student-teachers that have taught in whole-day school in their teaching practice is lower, with only an approximation of 10%. (The proportion of whole-day schools amount to less than 10% of all the primary schools in Hong Kong.) This means that novices are teaching in unfamiliar situations and this phenomenon is on the increase.

From the interviews (Table 8), five cases have reported that they were teaching three or more than three different levels, seven cases were teaching three or more than three subjects. In addition to teaching, these teachers have to coordinate extracurricular activities and some are also subject coordinators. Hence, the beginning teachers faced the same full workloads as experienced teachers and, in addition, were challenged with unfamiliar teaching situations.

Among the schools where the interviewees taught, three of them offered some form of induction provision. These were government or religious schools where induction seminars were held jointly by associated schools. Mentoring arrangements are uncommon and only one interviewee reported that she had a mentor for the first week.

Though all the interviewees reported that they have good relationships with their colleagues, their relationships with the pupils were more difficult to handle. Five out of eight cases reported that their pupils had low ability and/or complicated family background.

Changes in perceived teacher competence

From the responses at the exit point of the programme, the graduates perceived themselves to be more competent in areas associated with the classroom and the pupils (Table 5). Positive influences on teacher competence identified by the graduates at the exit point are categorized in Table 6. The more frequently reported reasons were: having improvement in classroom management, having acquired more teaching experience and seeing improvements in pupils' responses and learning outcomes.

The responses in the interviews after the novices entered the school reflects a more complicated situation. The perception of their changes in teacher competence can be categorized into three domains, those concerning: the classroom, the colleagues (school) and the parents (community). In the classroom domain (Figure 2), four cases reported an increase in their confidence, three reported no or little change and one reported a decline in their confidence. Among the interviewees who reported no change, one suggested that this was after an adjustment period when there was a decline followed by an increase. The interviewee that reported a decline attributed this to the heavy workload. Among those reporting an increase in their perceived teacher competence, one suggested that this was mainly because she was teaching one level and two subjects which she was very familiar with. As she explained, "I am not confident enough to teach upper primary and in particular science-related topics which are quite difficult. Now, I am fortunate to teach only one level and two subjects." Other interviewee who reported an increase suggested that this was due to an accumulation of teaching experience and less time was necessary in lesson preparation.

In the school domain concerning relationships with colleagues (Figure 3), all the interviewees reported having positive adjustments. They described their colleagues as willing to help. Two interviewees (case 1 and case 8) have described their relationships more explicitly. They reported that their relationship with the school principal and the teachers were different when compared with the teaching practice. As one interviewee suggested, "other teachers and the school principal treat you as a student and you feel more like a student than a teacher in the teaching practice. Now, it is different, you are equals. When there is a problem, I will now talk to the school principal directly. This is very seldom in the teaching practice."

In relating with parents, all the interviewees reported that they lack confidence in this area, although four out of eight respondents found that their confidence increased as they had more contact with parents. Their problems include: gaining trust from parents, answering queries, handling non-supportive or unco-operative attitudes. This is an area that the novices have not experienced in the teaching practice.

In summarizing the factors influencing the perception of teacher competence (Table 9), four main categories are found: pupils, school principal, parents and further study. Those factors concerned with pupils refer to pupils' academic problems and emotional problems similar to those they experienced in the teaching practice. However, the latter three categories did not occurred in the previous interviews. One interviewee suggested, "the principal has placed important emphasis on teaching English and has a high expectation for the pupils. This has created a lot of pressure on me as the academic ability of the pupils is low." Another explained that, "there are parents calling to the school and criticizing my teaching, I am worried about that. I do not know what their requirement is and I am always concerned about what I have done is appropriate." These are undue pressures experienced by the novices which did not occur in the teaching practice. Though the first three categories are negative influences, engaging in further study has a positive influence on the perception of teacher competence as reported by case 8.

The above situation can be contrasted with the scenario at the point of graduation. In the interviews at the exit point, the graduates suggested negative influences on their

perceived teacher competence (Table 7). On comparing these influences, some are resolved once they start their first assignment whereas some continue to affect the beginning teacher. The former includes: those factors concerning teaching performance, feeling helpless, being unable to adapt to administrative arrangement. The latter includes: workload, pupils' problems and having insufficient academic knowledge. This implies that some problems can be resolved as the novice gains more experience in teaching and relationships with schools can be better established when they are "teachers". However, teacher educators and the school should look into the problems that cannot be resolved and ameliorate the situation.

Influences of the Teacher Education programme

The beginning teachers were asked to identify the influences of the teacher education programme on their teacher competence (Figure 5). More positive than negative comments were made. All the crucial areas of the programme-the professional studies modules, the modules on teaching method, the modules on academic studies and the practicum-were found to be helpful. There were comments that the treatment on pupils' problems were too idealistic or too theoretical and that there was a lack of discussion on handling parents. Both teacher educators and the schools should rethink what the programme should offer and what the competencies are that should be acquired in the school context.

Conclusion

The present study has identified student-teachers and beginning teachers' perceptions of teacher competence at the primary school level. The findings revealed a picture of development from student-teacher to beginning teacher. Factors influencing the development in the two phases are found. These influences originate both from the teacher education programme and from the school context. Some influences persist during the different stages whereas some are resolved once the beginning teachers start teaching. Drawing from the findings, the following conclusion is made and will be focused in three areas: stages of teacher development, the teacher education programme and school induction provisions.

Stages of teacher development

Both the student-teachers and the beginning teachers perceived higher teacher competence in the classroom domain and those with lower rating fall mainly into the school, community and professional domains. This result corresponds closely with other studies in perceived teacher competence. Dastoli, Kovacevich, Richardson, Adams and Knott (1987) found that student-teachers perceived themselves to be exceptionally or considerably competent in areas concerning classroom instruction, knowledge of the curriculum and the use of teaching aids. Items of low perceived competence also correspond with the low rating ones in the present study, which include: knowledge of the school law, pursuing professional development and working with parents.

As the novices start their first assignment, their confidence in teaching or the classroom is affected by the workload and pupils' problems and in some cases a decline in confidence is experienced. Though the novices have much improvement in establishing a

good relationship with their colleagues when compared with the teaching practice, they are facing a new challenge: working with parents.

On identifying the factors influencing the perception of teacher competence before and after the student-teachers graduate, the findings reveal that influences concerning teaching, feelings of helplessness and an inability to adapt to the school administration are resolved as the novices start their first assignment. Influences concerning workload, pupils' problems and having insufficient academic knowledge persist.

In conclusion, the student-teachers have acquired the competence in the classroom domain at the exit point but when challenged with the school situation, some may experience a decline in their confidence. Their concern also moves into two other domains, the school (in relating and working with colleagues) and the community (in relating with parents). Having this knowledge of the development of the novices, both the teacher educator and the school should work together to facilitate the growth of the beginning teachers. Initial teacher education, induction and further teacher development should be seen in a continuum. Teacher education or development do not cease after graduation from the pre-service programme. There are developments that must occur in school when a novice takes the full responsibility of a teacher. When initial teacher education programmes are preparing student-teachers mainly in the classroom domain, induction and further programmes should aim at helping teachers to develop their confidence in the school, community and professional domains. The following discussion will consider the roles of the teacher education programme and induction provisions at greater depth.

Initial Teacher Education Programme

The Teacher Factor

The present study shows that among both the graduates and the beginning teachers, whether the individual perceives him/herself as having enthusiasm affected the rating of teacher competence in the classroom and school domains. In addition, measurements before graduation revealed that perceived teacher competence in the classroom, school and professional domains were affected by the career choice and perceived suitability to teach. These show a strong influence exerted by the personal or self factor of the student-teachers in the perception of competence.

The importance of the teacher factor is well supported by research studies. Mahlios and Maxson (1995) find that the belief student-teachers hold concerning children and schooling has an impact on their teaching. They note that as the teacher education faculty know little about these views, the way how these characteristics interact with the dominant concepts incorporated within respective teacher education programmes cannot be estimated. Calderhead (1991) holds a view that student-teachers differ in how they conceptualise the process and have expectations for their own learning, which in turn influences how they attempt to structure and make sense of their training experiences.

The importance of the teacher factor has two implications: the setting of selection criteria for the teacher education programme, understanding the views that student-

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teachers hold and hence orientating the "desirable" attitudes in the programme. The use of applying personality assessments to screen for emotional stability and personality characteristics deemed as necessary for a teaching career have been called for (Webster, 1988; Walters & Strivers, 1977; Twa & Greene, 1980). However, the method of conducting such assessment and the correlation between success in selection and in-course performance is not established. Secondly, raising the self-awareness of student-teachers will be beneficial in helping them to analyse their relationship with children, their efforts in facilitating children's development, the way they manage disruptive behaviour and, above all, their interaction with their colleagues. The knowledge of these views will also help teacher educators to estimate the impact of the programme on the student-teachers and to understand classroom events. With more understanding of issues concerning the teacher factor, the impact of teacher education programmes can be better estimated and the selection of individuals that will likely succeed in the programme can be conducted.

The Components of the Initial Teacher Education Programme

The present study confirms the importance of the school experience component in the teacher education programme. Though the confidence of the student-teachers declines after the teaching practice, the student-teachers perceived themselves to be confident again at the point of graduation. The second decline in confidence occurred as they started their first assignment. This drop was however not as significant as the previous one that occurred after the teaching practice. The school experience has thus reduced the "reality shock" encountered by beginning teachers. Beginning teachers find that their experience as a student-teacher was very different and that unexpected constraints are influencing their performance. They may react to this "reality shock" by adjusting their performance in a way that lowers the quality of teaching. Berliner (1985) has noted that there is an increase importance in the school experience and the student teaching component in teacher education programmes. This component in the present programme in Hong Kong is structured such that student-teachers will have a more accurate view of the professional role in the school context and at the same time be ready to adjust their performance in a constructive way.

As suggested by the beginning teachers in the interviews, the present programme has offered adequate coverage concerning teaching, professional studies and academic studies. The findings show that the beginning teachers experienced many problems in working with parents. There are components in the teacher education programme to be strengthened: working and relating with parents, introduction on professional issues like meeting legal obligations and contribution to professional associations.

The present findings have also suggested that there are developments and competence that could only be acquired in the school context. Interviewees have suggested that course components on pupils' problems were theoretical. This implies either that there is a problem of transfer of learning from the institute to the school context or that such learnings has to be done in the school context to be meaningful. Another interviewee has suggested that by pursuing in further study, she has a better perception of her teacher competence. These point to the fact that continuing professional development in the school is essential and teacher education is in a continuum.

Induction and Further Teacher Education Programme

The present findings suggest that induction provisions in Hong Kong primary schools are limited, taking the form of one-off seminars and mentoring arrangements are nearly non-existent. When graduates of the teacher education programme and the beginning teachers perceived themselves to be less competent in the school, community and professional domains, induction provisions should aim at helping novice to develop in these areas. To enhance such development, the school should organise long-term development programmes jointly with other schools or the teacher education institute. These programmes should range from the form of experience sharing groups, for example in handling pupils' problems or relating with parents, to more structured courses on educational issues.

Apart from helping novices to develop their competencies in various domains, another direction is to maintain the individual's confidence in the process of teaching and learning. The interviewees have suggested pupils as a main reason for their decline in confidence. School administrators should recognise the importance of pupils as a major socializing agent for beginning teachers. Lortie (1975) observed that the psychic rewards of teaching come largely from one's pupils rather than from those with formal evaluative power over one's performance. In a recent study, Su (1992) found that the student-teachers rated pupils' reaction, feedback and performance as the most important indicator of their effectiveness in teaching. In practical terms, the school administrator should take into account the ability of the pupils in the time-table arrangement. This might mean assigning better or less difficult classes for novice teachers and also providing them with more information about the learning styles of the pupils in particular classes. This information may be provided by the mentor or more experienced teachers. If possible, a mentoring arrangement with regular lesson observations and sharing of teaching experience is helpful.

In the present study, it is also evident that learnings related to pupils' problems and relating with parents are not only essential but should also be developed in the school context in order to be meaningful. Induction provisions that allow novices to discuss their situations with experienced teachers or teacher educators should be arranged. In addition, beginning teachers should be encouraged to pursue continual professional development through participation in in-service programmes. In this way, continual development in both academic and professional areas can be maintained.

Directions for further study

As it is evident that individual characteristics or the teacher factor have important implications for perceived teacher competence, teacher educators must have more understanding on how individuals' view of teaching interact with the programme and hence make estimates on the impact of the course on the student-teachers. Further work needs to be carried out in order to understand these issues concerning selection and course-work performance, the desirable teacher characteristic and how individual dispositions interact with the course.

On the other hand, handling pupils' problems and relating with parents were found to have prominent influences on the perception of teacher competence among the beginning teachers. Further investigations can focus on the identification of the influence of the pupils and parents on the teaching of the novices and their perception of teacher competence. Above all, experiments in induction provisions in the local context are urgently required such that the support provided can be tailor-made for the needs of the beginning teachers.

The present study has portrayed the development from student-teacher to beginning teacher and has revealed significant changes as well as their influencing factors. Further development after the beginning teaching phase needs to be explored. Whether perception of teacher competence will improve as expected by the interviewees in future and whether participation in teacher education programme will positively influence the perception as suggested by both the interviewees and Huberman (1993) are interesting aspects to be unveiled. As teacher education is in a continuum, in-service programmes should be designed based on the knowledge of the development of teachers in the remaining years of the professional life. There is an urgent need for research on teacher development. As Huberman (1993) pointed out there is a lack of research on teachers' professional life cycles. Most teacher education research has emphasized pre-service training, which seems to suggest that the ensuing forty years are a less meaningful unit of analysis.

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Table 1 Ten items with the highest rank in the four points of measurement

	Domain	Area	Before Teaching Practice	Mean / S.D.			
				Pre-TP	Post-TP	Exit-point	1st Term
1	Classroom	Initiating and guiding learning	Use instructional equipment and other teaching aids besides the chalkboard	5.83 / 0.93	5.77 / 1.10	6.00 / 0.82	
2	Classroom	Initiating and guiding learning	Provide learners with opportunities for participating in group activities	5.53 / 1.02	5.42 / 1.11	5.70 / 0.91	
3	Professional	Enhancing the status of the profession	Demonstrate enthusiasm for teaching	5.42 / 1.18	5.54 / 1.36	5.79 / 1.02	5.50 / 1.33
4	Classroom	Demonstrating and enhancing curriculum expertise	Presenting students with subject content at a level which relates to the required curriculum	5.40 / 0.90	5.17 / 1.16	5.63 / 0.82	5.47 / 1.01
5	Classroom	Initiating and guiding learning	Ask clear questions that yield correct answers from students	5.39 / 0.90	5.34 / 0.93	5.71 / 0.76	
6	Classroom	Initiating and guiding learning	Able to use students' interest and ideas to motivate learning	5.39 / 1.04	5.54 / 1.00		5.44 / 1.17
7	Classroom	Initiating and guiding learning	Use responses and questions from learners in teaching		5.18 / 1.14		5.28 / 1.27
8	Classroom	Planning for learning	Prepare lesson content based on an adequate base of prerequisite knowledge	5.34 / 0.96	5.17 / 1.05	5.58 / 0.86	
9	Classroom	Fostering interpersonal relationships and student welfare	Assign homework of appropriate level of difficulty and relevant to the subject matter	5.27 / 1.09	5.21 / 1.01	5.58 / 0.86	5.31 / 1.23
10	Classroom	Initiating and guiding learning	Introduce new ideas and information by using clear explanations and explicit language	5.17 / 0.99	5.15 / 0.98	5.53 / 0.85	

Pre-TP: Before teaching practice

Post-TP: After teaching practice

Exit Point: At the exit point or the graduation of the programme

1st term: The first term of teaching in the first assignment

Upper values are the mean. lower values are the standard deviations.

Table 2 Items with a mean competence level lower than 4 (or in the 1st term of teaching: 5 items with the lowest ratings) .

Domain	Area	Items	Pre-TP	Post-TP	1st Term*
Community	Promoting information exchange	Seek from relevant colleagues specialist advice on the backgrounds and needs of students		3.95 / 2.17	
Classroom	Demonstrating and enhancing curriculum expertise	Suggest improvements on the curriculum		3.94 / 1.32	4.18 / 1.06
School	Knowing and administering school policy procedures	Understand school policies, including the school' strategic/management plan and be aware of the responsibilities of the individual teacher		3.61 / 2.15	
Professional	Meeting legal obligation	Know and follow appropriate legal procedures in all matters of student discipline		3.50 / 2.12	
Professional	Pursuing professional development	Seek possible avenues for professional development, including professional reading, attendance at in-service courses		3.49 / 2.42	
School	Identifying resources	cooperate with colleagues and with such support staff as the librarian, school counsellor and clerical staff in improving the teaching-learning process	3.81 / 1.76	3.33 / 2.10	
Professional	Pursuing professional development	Collaborate with colleagues in ways of improving classroom practices and developing new approaches		3.25 / 2.39	
Professional	Meeting legal obligations	Follow established procedures when arrangement excursions and field trips		3.09 / 2.63	
School	Organizing and pursuing co-curricular activities	Plan and implement, often with colleagues, activities which extend the regular classroom curriculum and provide opportunities for theoretical learning	3.82 / 1.80	2.88 / 2.27	4.20 / 1.46
School	Participating in school-wide development programmes	Participate in strategies at the school level which are designed to initiate change and improvement in the school		2.82 / 2.46	
School	Co-operating in curriculum development	Contribute collaboratively with colleagues the development of an integrated curriculum for the school	3.73 / 1.91	2.81 / 2.23	4.09 / 1.31
School	Participating in school-wide development programmes	Be an active member of committees and planning groups in the school	3.91 / 1.84	2.78 / 2.33	4.24 / 1.54
Community	Promoting information exchange	Able to discuss with parents on significance aspects of the home situations which impinge on the students' work		2.73 / 2.51	
Community	Promoting information exchange	Foster community involvement in various tasks in school and classroom	3.40 / 1.92	2.30 / 2.32	
Professional	Pursuing professional development	Make a contribution to professional associations and/or meetings of teachers	3.30 / 1.89	2.07 / 2.16	3.24 / 1.54

* At the exit point mean values were higher, with no item having a mean lower than 4.

Note   Those were items on the list of low perceived competence items in the Pre-Tp evaluation

Pre-TP: Before teaching practice   Post-TP: After teaching practice   1st term: The first term of teaching in the first assignment

Upper values are the mean, lower values are the standard deviations.

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Table 3 One way ANOVA F test on students' perceived competence by domain and by areas

Domain	Area	Career Choice			Suitability to teach			Enthusiasm		
		Post-TP	Exit point	1st term	Post-TP	Exit point	1st term	Post-TP	Exit point	1st term
Classroom	a				10.47***	4.0576*		3.97*	4.9888*	4.0013*
	b				10.79***					4.1668*
	c	8.96***			13.4815***	6.6189*		14.23***		
	d								6.6506*	
	e				6.98**					7.0361*
	f				8.47***					7.4703***
	g		4.3409*			7.2149**				6.0712*
	h									
School	i		4.8763*			5.6491*			6.8347*	4.9251*
	j					4.6955*				
	k					4.5564*			9.5734***	
	l					4.2857*				
	m								7.9016**	
Community	n								6.8630*	
Professional	o	11.23***				5.6735*		15.73***	14.2343***	
	p					5.9010*			14.2109***	6.3449*
	q					8.5346***			12.5921***	

*** p < 0.005
** p < 0.01
* p < 0.05

Area in Classroom Domain
a Demonstrating and enhancing curriculum expertise
b Planning for Learning
c Developing and integrating theoretical knowledge
d Initiating and guiding learning
e Fostering interpersonal relationships and establishing appropriate standards of behaviour
f Responding to individual needs of students
g Managing the learning environment
h Assessing student learning

Areas in School Domain
i Identifying resources
j Co-operating in curriculum development
k Organising and pursuing co-curricular activities
l Knowing and administering school policy procedures
m Participating in school-wide development programmes

Area in Community Domain
n Promoting Information exchange

Areas in Professional Domain
o Pursuing professional development
p Meeting Legal Obligations
q Enhancing the status of the profession

Post-TP: After teaching practice
Exit Point: At the exit point or the graduation of the programme
1st term: The first term of teaching in the first assignment

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Table 4 One way ANOVA F test on beginning teachers' perceived competence by domain and by areas at the 1st term of teaching

Domain	Area	School	Induction Programme	Cooperating Teacher / Mentor
Classroom	a	5.3378*		
Classroom	b		5.8386*	
Professional	o			5.2654*

Table 5 . Areas which graduates perceived themselves to be competent

Area	Perceived Competent item	Frequency
Classroom	Task within the classroom	9
	Teaching	7
	Classroom Management	4
	Applying different teaching methods	1
	Managing pupils' discipline	1
Pupils	Establishing good relationships with pupils	2
	Dealing with pupils' problems	1
	Helping pupils to solve problems	1
	Counselling pupils	1
	Dealing with pupils with undesirable behaviour	1
School	Administration (expected)	4
	Conducting extra-curricular activities	3

Table 6 Positive Influencing factors on the perception of teacher competence among the graduates

Category	Reason	Frequency
Teaching	Improvement in classroom management	4
	Acquired more teaching experience	5
	Improvement in communication skill	1
	Able to apply reflective teaching	1
	Able to design teaching activities	1
	More effective in classroom discipline	1
	Improvement in teaching method	1
	Able to deal with pupils' problems	1
Course	Able to put into practice the theory learnt in the programme	1
	Learnt from tutor's advice	1
Teacher	More confident	2
	Have more understanding on the different roles of a teacher	1
Pupil	From pupils' response and learning outcomes	3

Table 7 Negative Influencing factors on the perception of teacher competence among the graduates

Category	Reason	Frequency
Teacher	Teacher characteristics that are not suitable for teaching	3
	Lack of confidence	3
	Unable to improve own weakness in teaching	1
	Feel helpless	1
	Perceived insufficient knowledge in oneself	1
	Lack of patience	1
	Worry that one cannot bear the work pressure in future	1
	Unsatisfactory grading in the teaching practice	1
Teaching	Unable to deal with problems in class	2
	Too much work, pressure is serious	1
	Activities designed cannot meet pupils' needs	1
	Unsatisfactory teaching performance	2
School	Unable to adapt to new government policy	1
	Unable to adapt to the administrative arrangement in the school	2
	Unable to cope with tasks other than teaching	1
	Pupils are difficult to handle	3

Table 8 General Situation of Cases 1 - 8

		Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Teaching and related duties	Level taught	3-5	2,4	3	1,2,5	1,2,4,5,6	2.3.	1,2,4,5	1 to 5
	Subject taught	Chin Maths	Chin,Maths, AD	Chin,Maths, GS, AD	Chin, Maths,GS	Chin, AD, Eng, Bible	PE, Maths, Chin, AD, reading	Chin, GS, Putonghua	Chin, Maths,PE
	Other duties	CYC Coordinator, Basketball team	Boy scout, On duty at lunch	on duty	on duty	Extra-lessons, Badminton team	Badminton team, SMI committee	CYC, Ping Pong Ball School team	PE coordinator, Badminton team
Pupils		New Immigrants Low Learning ability Poor in English	Mixed background; - low academic achievement - others receive much attention from parents	Low income status, low learning ability, whole day school, attentive in class	Active lower ability than average	Poor behaviour, bad academic achievement and conduct, not attentive, complicated family background, need psychological guidance	Quite good, only one or two are naughty, lower than average family background	Quite good, average family background	Quite good, only one or two pupils with some problems in class
Relationship with Colleagues		Very good, little competition among colleagues, kind school head	quite good, willing to help and offer advice	quite good	quite good	good with a few of them	very good, very willing to help	very good	very good, most are very nice
Induction provisions	Induction programme	E.D.	Half-day, Catholic schools	Nil	E.D.	Lunch gathering	Nil	Nil	Short course
	Mentor	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1st week

Note: Primary schools in Hong Kong are divided into six levels, Primary 1 to Primary 6 (P.1 to P.6) and children are aged 6 to 12.

Chin - Chinese; Maths- Mathematics, AD - Art and Design, GS- General Studies, PE- Physical Education

CYC - Community Youth Club, E.D.- Education Department, Hong Kong Government

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Table 9 Factors influencing the perception of competence among beginning teachers

Influencing Factor	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Pupils	*	*	*	*		*	*	
School Principal					*			
Parents							*	
Further Study								*

Figure 1 Characteristics of 2PC Graduates and when they are in the 1st term of teaching

Item	2PC Graduates (%)	1st term teaching (%)
Teaching as first Choice	85.0	78.1
Not taking teaching as first choice	15.0	21.9
Suitable to teach	98.2	96.9
Not suitable to teach	1.8	3.1
Enthusiastic teacher	95.6	87.5
Not an enthusiastic teacher	4.4	12.5
Whole Day School	Not applicable	16.9
Half Day School		81.4
Government school		13.6
Subsidized school	Not applicable	84.7
Private school		1.7
Class Master	Not applicable	90.0
Not a class master		10.0
Induction Programme provided	Not applicable	22.0
No Induction Programme		78.0
Cooperating Teacher / Mentor Arranged	Not applicable	22.0
No Cooperating Teacher / Mentor		78.0

Figure 2 Changes in perceived teacher competence in the Classroom Domain

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Classroom	■ Less time in lesson preparation ■ rehearse the lesson in my mind	Little change	■ Increase a little bit ■ Still manage the P.3	No Change	No change now ■ Confident when graduate ■ Start to teach, pupils are difficult to handle, feel sad ■ more confident when improvements seen	■ Lower confidence, much heavier workload when compared with teaching practice ■ Gain confidence as understand pupils more	■ Increase ■ Lower before, worried about difference in pupils' abilities	Increase with more experience, more opportunity to teach when compared with teaching practice

Figure 3 Changes in perceived teacher competence in the School Domain

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Colleagues	In the teaching practice, feel like a student. As a beginning teacher, colleagues as equals and attitude is different. Talk to school principal more often	Better, provide feedback, willing to help	Good, willing to help	No change	■ No confidence at first, find many things unreasonable ■ Later learnt what not to say	More confident, because colleagues are helpful	Has worried about cooperating with colleagues	■ Increase ■ In teaching practice, little contact with teachers and some do not agree with teaching approach

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Figure 4 Changes in perceived teacher competence in the Community Domain

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Parents	In the teaching practice, no contact, become more confident.	Little confidence, hard to handle, cannot accept that the children are having bad behaviour	■ Very worried at first, later become more confident	Confidence is low, parents are difficult, don't know how to handle	Not confident at ■ first ■ Later gain trust from parents and become more confident	■ Little confidence ■ don't know how to answer their questions	More confident with more contact.	Some increase, not as great as in teaching ■ Give little ■ thought on this before graduation

Figure 5 Perceived influence of Teacher Education Programme among the beginning teachers

Comment	Teacher Education Element	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Positive	Professional Studies	Pupils' behaviour	Child Development				Classroom management, psychological development	Psychology	PS modules applicable in teaching
	Teaching Method		Teaching and planning a lesson	Teaching method	Teaching method			Practicum	Practicum, real problems in teaching discussed
	Academic Studies					Chinese modules, increased interest in the subject. Science modules, apply the knowledge in teaching			
Negative				Pupils' problems, too idealistic	Pupils' problem, too theoretical, lack discussion on handling parents				

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