
Title	Motivation, competence, and confidence to teach: An exploratory study of the impact of an initial teacher preparation (ITP) programme on beginning primary school teachers
Author(s)	Suat Khoh Lim-Teo, Ee Ling Low, Angela F. L. Wong and Sylvia Chong
Source	<i>KEDI Journal of Educational Policy</i> , 5(2), 41-61
Published by	Korean Educational Development Institute

This document may be used for private study or research purpose only. This document or any part of it may not be duplicated and/or distributed without permission of the copyright owner.

The Singapore Copyright Act applies to the use of this document.

Copyright

The Korean Educational Development Institute (KEDI) copyrights all of its publications to protect authors and journals against unauthorized reproduction of articles. Rights and permissions regarding the use of KEDI-copyrighted materials are handled by KEDI. Authors who wish to use materials must obtain written permission from KEDI.

Motivation, competence, and confidence to teach: An exploratory study of the impact of an initial teacher preparation (ITP) programme on beginning primary school teachers

Suat Khoh Lim-Teo

NIE, Nanyang Technological University, Singapore

Ee Ling Low

NIE, Nanyang Technological University, Singapore

Angela F. L. Wong

NIE, Nanyang Technological University, Singapore

Sylvia Chong

NIE, Nanyang Technological University, Singapore

Abstract

Initial teacher education programmes are seen as the first step in the professional development of teachers. The overall goal is the improvement of teachers' practice. This goal can be achieved through enhancing the motivation, competence, and confidence of (student) teachers in teacher education programmes. Research has shown that the extent to how well prepared teachers feel (motivated, competent and confident) is correlated with the sense of teaching efficacy and responsibility for student learning. This study examines the changes in perceptions (if any) of graduating student teachers' motivation level to be a teacher, teaching competencies, and confidence as a teacher at the exit point of the initial teacher preparation programme.

Key words: beginning teacher, initial teacher preparation, teacher motivation, teacher competence, teacher confidence

Introduction

Research literature on teacher education has shown that beginning teachers acquire initial conceptions of the profession from personal past experiences of their own educational experience in school and the initial teacher education programme. Tabachnick, Popkewitz, and Zeichner (1979-1980) suggest that the beliefs and attitudes of teachers are primarily impacted by initial teacher education programmes. However, there has been much controversy over the impact that teacher education programmes have on the competence and confidence of graduating student teachers as they enter professional settings. This issue of education programmes has resulted in many research studies (Ruhland, 2001, 2002; Rots, Aelterman, Vlerick, & Vermeulen, 2007). The controversy continues over two main issues. First, the question of whether or not there are significant and systematic differences between schools and teachers in the abilities to raise achievement. Secondly, how important are any differences in teacher quality in the determination of student outcomes.

This study aimed to examine the changes in perceptions (if any) of the motivation level of graduating student teachers to be a teacher with regard to teaching competencies and confidence at the end of the initial teacher preparation programme. It is important to study this because research has shown that the extent to which teachers feel prepared (motivated, competent and confident) is significantly correlated with the sense of teaching, efficacy, responsibility for student learning, and plans to continue teaching (Darling-Hammond, Chung, & Frelow, 2002).

Background to the study

The teaching profession has come under considerable pressure since the mid-80s. Teacher training, one key area of policy intervention has been in a state of flux worldwide (Delannoy, 2000). This flux is further aggravated with education reforms and school-restructuring initiatives taking place worldwide. The preparation of beginning teachers and the ongoing professional development of those in the current teaching force are imperative to educational improvement. (Cobb, Darling-Hammond, & Murangi, 1995). Studies have shown a correlation between teacher preparation and quality teaching (Cobb et al., 1995; Hobson & Malderez, 2006). These studies stress that no other intervention can make the difference that a knowledgeable and skilful teacher can make in the learning process (Davis, 1999)

Initial teacher education programmes are seen as the first step in the professional development of the teacher. Contemporary literature challenges how receptive students are to the knowledge and perspectives of teacher

educators and how these may change and develop (Wilke, 2004). However, it is crucial to acknowledge that initial teacher preparation or development must not end once the student teacher graduates from tertiary initial teacher education programmes. The overall goal of preparation, training, and professional development is the improvement of teachers' practice. This goal can be achieved through enhancing the motivation, competence, and confidence of student teachers to teach while undergoing teacher education programmes (Krainer & Goffree, 1999).

In a longitudinal study, Hobson and Malderez (2006) interviewed student teachers about how prepared they were to do the job. The study found that the majority of the case study student teachers felt that they were well prepared to take up a teaching post upon completion of the initial teacher preparation programmes (Hobson & Malderez, 2006). Those case study participants who stated that they felt 'very well prepared' often talked about how far they had come (or had developed) during the initial teacher preparation programmes. This study showed a proportion of those from university-based Post Graduate Certificate in Education (PGCE) programmes feeling 'very confident' that the initial teacher preparation programmes had prepared them to be effective teachers. In a follow up study on newly qualified teachers, Hobson, Malderez, Tracey, Homer, Mitchell, and Biddulph (2007) reported that nearly 97% of the respondents were very or fairly confident that the initial teacher preparation programmes had prepared them to be an effective teacher. In addition, student teachers who received explicit feedback on teaching qualities felt more confident about teaching which in turn enhanced the motivation for the teaching profession (Rots et al., 2007).

Whitbeck (2000) investigated beliefs of student teachers at the pre-service level (specifically about the motivation to teach) and what they received from the coursework. A total of 14 student teachers in the fourth year of teacher education were informally interviewed three times during the semester. Three categories of findings emerged from the study by Whitbeck (2000): a motivation to teach as a calling, an early identification with teachers as role models, and a self-perception about being a teacher. Many of the participants stated that they viewed themselves as teachers even before they started formal professional preparation. The beliefs by student teachers in teaching as a calling has broad implications for the way in which these student teachers imagined the future roles as teachers. This calling was shaped by identification with the educators of student teachers, their parents as teachers, and reinforced through a positive feeling of acting within the teaching role themselves.

The early experiences of student teachers determine the long-term performance and the later decisions about whether to remain in teaching (Kardos, Johnson, Peske, Kauffman, & Liu, 2001). The possible inadequate preparation in areas like classroom management and discipline (Giallo & Little, 2003), have been identified as some of the reasons responsible for beginning teachers leaving

the field. Past studies revealed that personal achievement and feelings of satisfaction determined whether beginning teachers remained or left the profession. The literature also suggests that motivated teachers who are competent and confident are more likely to remain in the profession (Knobloch, 2001). It has been found that those who regard teaching as a calling display significantly more enthusiasm, commitment, and willingness to accept sacrifices and extra duties compared to their average counterparts (Wang & Fwu, 2001).

Beginning teachers were also found to believe that events affecting competence, self-confidence, student respect, personal satisfaction, and student success had a major impact on teaching (Knobloch, 2001). According to Darling-Hammond et al. (2002), the feelings of preparedness were found to be significantly related to a teachers' sense of competence and confidence about the ability to achieve teaching goals. The sense of self-efficacy by teachers has been shown to be related to behaviour that affect student learning, including the willingness of teachers to try new instructional techniques, the attitude toward students, and the persistence in trying to solve learning problems. In addition, it is also related to the level of planning, organization, and practice. The study found that the sense of confidence and competence by teachers are related to the feelings about teaching and the intention to stay in the profession. This has also been linked to the enthusiasm and teaching commitment held by the teacher (Darling-Hammond et al., 2002).

Student teachers believe that the practicum (field experience) provides an opportunity for practising and gaining experience (Wideen, Mayer-Smith, & Moon, 1998). From the perspective of student teachers, the practicum experience is the most valued component of the preparation to be a teacher (Booth, Abdulla, Lingham, Singh, Wilson, & Armour, 1998; Güven, 2004). The preparation for the practicum and the experience consequently became very important in helping to develop confidence and a positive attitude towards the professional development of prospective/beginning teachers (Booth et al., 1998). Careful planning, structuring, and supervision are required in order to make practical experiences meaningful (Korthagen, 2001).

According to Cole and Knowles (1993), most student teachers start a practicum with hope, vision, and expectations that are the result of both initial preconceptions and the beliefs developed in the initial teacher preparation period. During the teaching practice, student teachers often undergo a process of shattering those images as they are exposed to school and classroom realities that do not match expectations and previous experiences (Mattheoudakis, 2007). Student teachers who withdraw from the programme are most likely to do so during the teaching practice. It is during this period that student teachers realise that their dispositions are not suited to teaching (Edmonds, Sharp, & Benefield, 2002).

As reviewed in the literature, student teachers often struggle with a host of experiences that challenge the motivation, competence, and confidence to teach.

Earlier experiences as students in schools have a significant impact on how confident they will be as teachers (Anderson & Piazza, 1996; Ross, McDougall, & Hogaboam-Gray, 2002). As student teachers are exposed to a variety of teaching methods, they enter a multi-layered learning process through 'doing and learning' and making meaning about what teaching is all about. Issues about teaching in ways they had not experienced may surface to challenge competence and confidence. This is complicated by the desire to use a range of teaching tools and resources (such as technology) to facilitate student understanding. These combinations of challenges impact the initial level of motivation, competence, and confidence of teachers in teaching upon graduating from initial teacher preparation programmes. The current study sets out to examine the changes in perceptions (if any) of student teachers'

- a) motivation level to be a teacher,
- b) teaching competencies, and
- c) confidence as a teacher

at the exit point of the initial teacher preparation programme, in addition, it explores the possible reasons for these changes.

Methodology

Sample

A total of 258 out of 284 student teachers enrolled in the Post Graduate Diploma in Education (PGDE) (Primary) programme participated in this study. The response rate was 90.8%. These student teachers were not taught by the researchers and the responses collected from the participants were unbiased. The PGDE (Primary) programme is a one year programme and the main purpose is to prepare graduate teachers for careers in the Singapore primary school system (grades 1-6). All those admitted into this programme must possess a minimum of a bachelor's degree from a university recognized by the Ministry of Education in Singapore.

The PGDE (primary) student teachers are required to read courses in two major subject groups, Education Studies and Curriculum Studies (methods courses). Education Studies comprise the core courses in Educational Psychology, Teaching and Classroom Management, Individual Differences, Social Context of Education, and Information and Communication Technology. Each student teacher also specialises in three Curriculum Studies courses that prepares them in the pedagogical methods of teaching specific subjects, namely, The Teaching of English Language, The Teaching of Mathematics and either The Teaching of Science or The Teaching of Social Studies. In addition, all student teachers undergo a 10-week Teaching Practice in the final semester.

Instrument

This paper is part of a longitudinal study that began with the July 2004 intake of the PGDE programme. The instrument used in the main study was divided into three parts: Part A comprised open-ended questions which examined the perceptions of student teachers as teachers and the teaching profession; Part B investigated the feelings, opinions and beliefs of student teachers about teaching and the teaching profession via a series of statements rated on a 5-point Likert scale; and Part C consisted of statements that elicited the perceptions of student teachers about the level of knowledge about teaching and skills in teaching. A 5-point Likert scale was also used in Part C. The instrument used a mix of objective-type and open-ended questions, specially crafted by the researchers to explore issues that they were interested in. The objective-type questions enabled data to be gathered from a large group efficiently and more objectively, while the open-ended questions helped generate a diverse spectrum of data. The instrument was administered to the student teachers when they began the initial teacher preparation and when they exited from the programme.

For the purpose of this paper, only data collected at the exit point for one of the open-ended questions in Part A was examined, namely question 4. It asked the student teachers whether the perception of the

- a) motivation level to be a teacher,
- b) teaching competencies, and
- c) confidence as a teacher

had changed upon completion of the PGDE programme and the reasons for the answers.

Methods of data analysis

For each perception area (motivation, competence, and confidence) the responses were divided into three groups, namely, an increase in levels, no change and a decrease in levels. For example, for confidence, the three possible responses were "more confident, no change, and less confident." The possible reasons were not pre-determined for student teachers to choose but remained open-ended. Based on the answers, both broad and narrow categories of reasons were generated to accurately accommodate the wide spectrum of reasons given. The categories reflected the reasons given to explain the changes in each perception area (motivation, competence, and confidence). Next, the researchers coded all the responses according to the category to which the reason belonged. Since the areas of perception are different, the sets of codes may differ across the perception areas.

Each statement was coded by at least two raters to ensure inter-rater

reliability. Where disagreements occurred, the statement was re-examined and an agreement was made after a lengthy discussion. A summary of the categories, codes, and representative responses for each category for each perception area are given in Appendix 1. Finally, the frequency count for each category was computed to find which were the main reasons for the responses.

Findings

This section reports the findings of the survey. In each of the perception areas, motivation, competence and confidence, the responses were divided into three categories: those who found their motivation, competence and confidence levels increased, those who found their levels unchanged, and those who found their levels decreased. Table 1 is a summary of the three categories of responses for each perception area.

Table 1. Changes in responses for each perception area

Perception area	Increased	No change	Decreased
Motivation	152	94	12
Competence	245	11	2
Confidence	258	37	6

Within each category the frequency counts for each of the reasons coded are given. However, a substantial proportion returned irrelevant reasons or gave no reasons at all. Both these kinds of responses were also considered as categories of reasons. Irrelevant reasons included those that did not answer the questions directly or had nothing to do with the change.

Motivation

Of the 258 student teachers, 152 (58.9%) felt that the motivation level to be a teacher had increased compared to when they entered the programme, 94 (36.4%) felt that the motivation level remained unchanged whereas 12 (4.6%) perceived the motivation level to have decreased. This is represented in Figure 1 below.

Table 2 shows the frequency count of the various reasons given by the student teachers regarding motivation level after undergoing the initial teacher preparation programme. The sum of the frequency counts in Table 2 could exceed the total number of student teachers in the group because some respondents gave answers that were actually a combination of two or even three reasons.

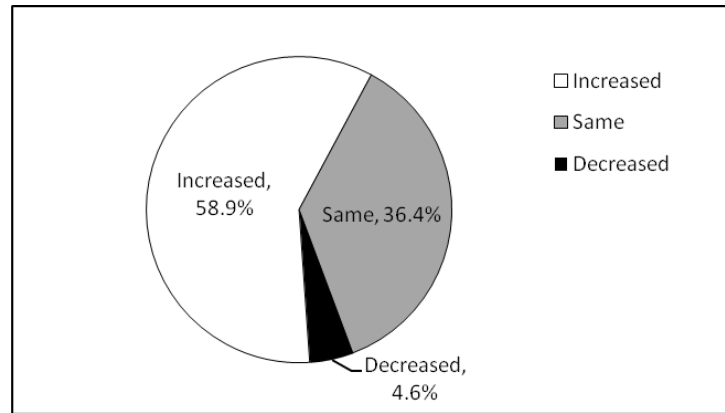


Figure 1. Motivation levels of the student teachers after NIE programme

Table 2. Frequency count of reasons for changes in motivation level to be a teacher

Code	Reason	Increase in motivation (n = 152)	Same motivation (n = 94)	Less motivated (n = 12)
1	Intrinsic motivation	2	33	0
2	NIE programmes in general	70	13	5
3	Desire to meet student needs	18	0	0
4	Experience with students	11	1	0
5	Practicum	15	1	0
6	Inspired by tutors, senior teachers or peers	18	3	0
7	Clarity of purpose	14	4	0
8	Situational factors in schools	7	5	7
77	Other	0	5	0
88	Irrelevant reasons	1	3	0
99	No reason given	8	29	0
	TOTAL	164	97	12

Of the 164 reasons given by those who perceived an increase in motivation level, the highest cited reason (42.6% of the total number of reasons given) was the effect of the teacher education programme. Student teachers felt better motivated because they believed that they were better prepared or equipped to teach. In addition, the skills and knowledge acquired also gave them greater confidence that increased motivation.

A substantial number of reasons for increased motivation level could be aggregated under "interaction with significant people" in the course of the year. This cluster of reasons which included being affected by interaction with pupils, being motivated by the needs of pupils, and being inspired by tutors, peers, or senior teachers accounted for 47 (28.7%) of the 164 reasons given.

Among the 94 student teachers who perceived no change in motivation level, 29 gave no reasons, 3 gave irrelevant reasons. Among the remaining 65 reasons given, the reason that had the highest frequency count of 33 was that the student teachers were already motivated or passionate about teaching before entering the teacher education programme and had no change. There were 13 student teachers that mentioned the teacher education programme in explaining why there was no change in the motivational level, 4 felt better equipped with teaching skills to a certain extent, 3 mentioned that the heavy programme tended to be taxing and stressful while the remaining 6 noted that the programme did not motivate them to be teachers.

There were only 12 student teachers out of the 258 who felt that their motivation level had decreased, and five of them cited the programme as the reason. Of these, 4 felt the programme was too demanding with too many assignments and one stated that it was too theoretical and not reflective of reality in schools. The remaining 7 all gave the reality of the myriad of tasks expected of a teacher (such as administrative duties and school programmes not related to teaching) as the reason for the lower motivation. One can almost sense the frustration in one the comment by one student teacher, "after my practicum, I realised that in being a teacher, a lot more other administrative responsibilities seem to come before the students' learning!"

Competence

The 258 student teachers were divided into three groups: (i) the overwhelming majority of 245 (95.0%) student teachers who felt that their teaching competence had increased, (ii) the 11 (4.2%) who felt that the competence level remained unchanged and (iii) the 2 (0.8%) who felt that the competence level had fallen. This is shown in Figure 2 below.

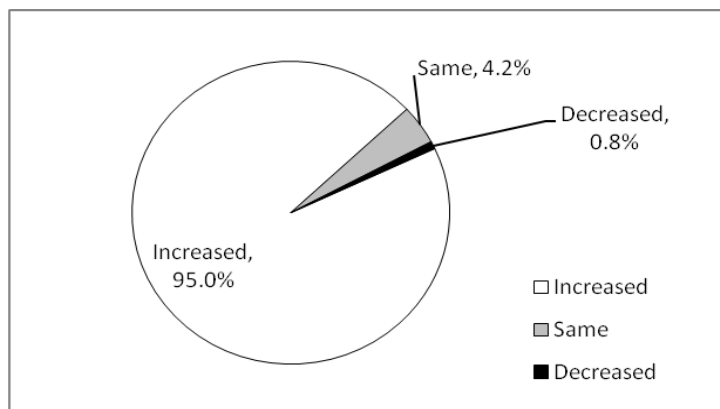


Figure 2. Competence levels of the student teachers after NIE programme

The frequency counts of the various reasons given by the respondents for the change in competence level are shown in Table 3.

Table 3. Frequency count of reasons for changes in teaching competencies

Code	Reasons	Increase in competence (n = 245)	Same competence (n = 11)	Decrease in competence (n = 2)
1	Pedagogical skills, techniques, strategies	133	0	0
2	Psychology	3	0	0
3	NIE programmes in general	48	4	0
4	lesson preparation and planning	5	0	0
5	Content knowledge	15	0	0
6	Practicum	9	0	0
7	Classroom management	21	0	0
8	Situational factors in schools or students	1	1	0
9	Cooperating teachers	5	0	0
10	Assessment of own capabilities	1	0	1
11	Experience	8	0	0
12	Length of structure of programme	0	2	0
13	Loss of confidence, lack of content	0	0	1
14	Loss of motivation			
77	Other	1	0	0
88	Irrelevant reasons	2	1	0
99	No reason given	17	3	0
	TOTAL	269	11	2

With several respondents giving multiple reasons for the increase in competence, there were 269 reasons given by the 245 student teachers. The most cited reason for the increase in competence level had a frequency count of 133 that accounted for 49% of the 269 reasons. This reason was to do with the acquisition of teaching skills, strategies, or techniques during the one year of teacher education and that such skills equipped them to teach more effectively. The second highest count of 48 (17.8% of the reasons) came from reasons attributed to the increase in competency to the teacher education programme in general without specifically mentioning any particular area. The other categories of reasons were not cited by any significant number of student teachers except for classroom management skills acquired (7.8% of the reasons) and increase in content knowledge (5.6% of the reasons). The theoretical aspects of classroom management are covered in a course in the teacher education programme but for the practical experience, student teachers were helped to acquire the skills during the practicum.

Although the proportion of those citing increase in content knowledge is small, the point is significant since the only content knowledge covered in the programme is for those specializing in Chinese. The PGDE (primary) programme (Chinese Language specialization) has additional courses in Chinese Language compared with the general PGDE (primary) programme where there are no content courses. It is significant that some of the student teachers have specifically mentioned improvement in personal content knowledge (with one of them even stating knowledge in mother tongue, i.e., Chinese Language) as a reason for raising the level of competence.

Although only 11 (4.3%) of the 258 student teachers perceived no change in competence, it is of interest to note the reasons for this. Among these, three of them felt that they did not learn much from the teacher education programme while a fourth student teacher felt that some courses were useful while others were not. One of the 11 thought that while the programme had equipped her with pedagogical knowledge, the reality of practicum made her realise how practical classroom management skills that she lacked may influence her competence in imparting knowledge. Two of the 11 felt that the short duration of the programme was insufficient to internalize what was taught. One student teacher who felt her competence had improved also qualified that there was only a slight improvement and, while she thought the reason for the improvement was due to what was taught in the courses, she felt that "competence comes with more experience."

There were only 2 student teachers who felt that their competence level had decreased. In one case, this was due to comparing herself with experienced teachers and finding herself lacking in classroom management and teaching methods. In the other case, her confidence was shaken because of the negative assessment of her teaching abilities given by her mentors during the practicum.

Confidence

Of the 258 student teachers, 215 (83.3%) perceived that their confidence level increased, 37 (14.3%) felt that their confidence level remained unchanged while 6 (2.3%) felt that the confidence level decreased as shown in Figure 3 and the frequency counts for reasons within each group are given in Table 4 below.

Among the 231 reasons given for an increase in the confidence level, 118 (51%) attributed the increased confidence to the teacher education programme, with the student teachers often mentioning being "equipped with pedagogical skills and strategies" or simply stating that they are better prepared. Many also linked the increase with corresponding increase in competence that was in turn due to being equipped with teaching strategies and methods. There were 32 (13.9%) reasons specifically attributing increased confidence to the practice acquired due to practicum.

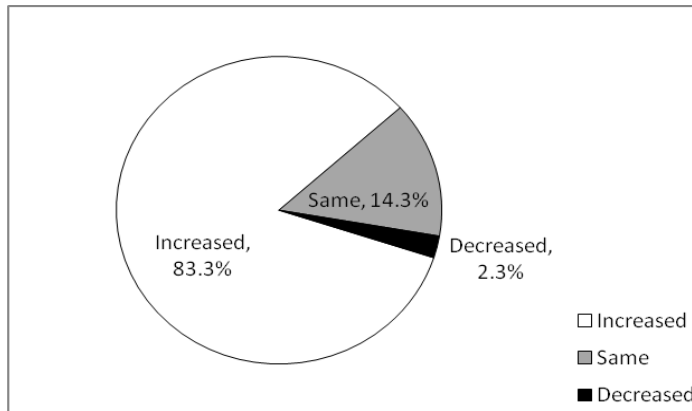


Figure 3. Confidence levels of the student teachers after NIE programme

Table 4. Frequency count of reasons for changes in confidence as a teacher

Code	Reasons	Increase in confidence (n = 215)	Same confidence (n = 37)	Decrease in confidence (n = 6)
1	Realistic view of profession	6	3	1
2	Intrinsic quality	2	7	0
3	NIE programmes/courses	118	4	0
4	Affirmation of ability to teach	5	0	0
5	Content knowledge	4	0	0
6	Practicum	32	1	0
7	Classroom management	11	0	1
8	Situational factors in school or students	6	0	2
9	Cooperating teachers	1	0	1
10	Assessment of own capabilities	11	1	0
11	Experience	9	1	0
12	Length or structure of programme	1 (negative)	0	0
13	Multitasking or job demands	0	2	0
14	Need time to develop	1	5	2
77	Other	0	0	0
88	Irrelevant reasons	4	2	0
99	No reason given	18	11	0
	TOTAL	231	37	7

The other reasons had smaller frequency counts, if classroom management and content knowledge are included, a total of 165 reasons for improved confidence were attributable to the teacher education programme, forming 71% of all the reasons.

Of the 258 teachers in the sample, 37 of them (14%) felt that their confidence had remained unchanged. About a third of these (13 student teachers) gave no reasons or irrelevant reasons. Seven of them gave the reason

that they had an intrinsic confidence that was there before they began the teacher education programme and as they all indicated that their competence level had increased, it was clear that to them, their innate confidence was not affected by the change in competence.

Other reasons (all with rather low frequency counts) include the teacher education programmes that did little to raise the levels of confidence or competence, the feeling that confidence needed to be developed with more time and experience and the realities of the scope and range of demands of the profession.

There were only six student teachers that reported a lower confidence level after the programme. All the reasons given were linked to the realities of the profession: the clearer understanding of what the expectations of good teaching were, the reality in class with respect to managing students, the realization that there was much to learn and that they needed more time to develop individual skills. There was one student teacher that was strongly affected by the negative assessment of her teaching by the mentors during practicum. She felt that her competence level had decreased along with her confidence level.

Summary

The majority of the student teachers increased in their motivation level (58.9%), competence (95.0%) and confidence level (83.3%). The responses indicated that the teacher education programme was largely responsible for increasing the competency level and indirectly the confidence level. In the area of motivation, the majority was not very large and a sizeable 36% saw their motivation level as remaining unchanged. While many did not give reasons for this lack of change, 12.8% of the group felt that they were originally very motivated to be teachers and that this had not changed through the programme. As for increased motivation levels, while the teacher education programme was the most cited reason, it is also noteworthy that human factors (interaction with students, teacher educators, mentor teachers and peers) form an important cluster of reasons accounting for 28.7% of the reasons for increasing motivation levels.

Discussion and conclusion

The results of the study reported a positive impact of initial teacher preparation programmes on the levels of motivation, competence, and confidence to teach by student teachers. This is of significance since previous research asserted that a pre-service programme can either set in place the process for developing teacher professionalism and equip the teacher with appropriate skills and knowledge, attitudes and expectations or it can hamper

the ability of beginning teachers to cope with school realities (Russell & McPherson, 2001). The initial teacher preparation reported in this study of the PGDE (primary) programme had a positive effect on beginning teachers' levels of motivation, competence, and confidence to teach. Beginning teachers are likely to have been equipped with the appropriate skills and knowledge to face workplace realities.

This was an exploratory study attached to the main study on the perceptions of student teachers of attitudes and knowledge. Only general changes in the student preparedness in terms of motivation, confidence, and competence were asked for and the reasons for them sought. With the results from this study, future research could modify the instrument for more precise measures of the impact of different components of the initial teacher preparation programme on the levels of motivation, competence, and confidence by student teachers. Further research should also include the results gathered from the PGDE (secondary) programme to compare with that found in this study.

Areas for further research are to compare the differences between responses given by various subgroups e.g. by gender or by performance in the practicum or in the programme. Further comparisons can be made with the results found in this section of the questionnaire (part A of the survey tool) with part B which investigated the feelings, opinions, and beliefs of student teachers about teaching and the teaching profession and Part C which consisted of statements that elicited the perceptions of student teachers about the level of knowledge of teaching and skills in teaching. Of interest would be to investigate whether student teachers who perceived an increase in their knowledge and skills in part C correlated with those who were perceived themselves to be more confident about teaching in part A of the survey. All the suggestions for further research would require a quantitative approach to the Part A of the study for correlations to be made.

Previous research showed that the practicum was viewed to be the most valued component of the experience for student teachers (Booth et al., 1998). Only a minority specifically gave the practicum field exposure in this study as being responsible for the increase in levels of motivation (9.1% of the reasons), competence (3.3% of the reasons), and confidence (13.8% of the reasons). However, this does not imply that the practicum component did not play a large part in increasing the levels of motivation, competence, and confidence of student teachers to teach because (as practicum is part of the pre-service programme) the respondents could have included the practicum when they attributed the increases in levels to the programme in general. It should be noted that the practicum experience (as practiced by the National Institute of Education, Singapore) relies on a successful partnership between the teacher education institute and the quality of professional learning experiences that the student teacher gains from the school settings (Hogan & Gopinathan, 2008).

For future research, questions focusing on the practicum experience could be asked to obtain a better understanding of the effect of the practicum on the levels of motivation, competence, and confidence held by student teachers.

A key criticism of a campus-based teacher preparation model such as the one reported in this study is the tendency to emphasise theory over practice and the inability to balance the relationship between disciplines of study and application in actual pedagogical situations (Aldrich & Crook, 1998; Darling-Hammond, 1999). Cochran-Smith and Zeichner (2005) assert the need for research to focus on the links between methods courses in the initial teacher preparation programmes with the practicum component in terms of influencing the teaching performance, attitudes, and beliefs of beginning teachers. Further research should find the interactions between the theoretical components of the programme and the practicum component.

Preparing teachers for the 21st century must include current key elements that include globalisation, the knowledge-based economy, the digital age, the dominance of English as a global language, and the increasingly borderless world. Future research should find how student teachers are adequately prepared with the skills, competences, and drive to succeed in a competitive global workplace.

Research shows that there are key considerations about the preparation of primary school teachers in the consideration of the range of competencies required by the primary school teacher (Feiman-Nemser & Buchmann, 1986; Brownlee, 2003). Considering that the competencies required by the primary school teacher are different from the secondary school teacher, it is necessary to conduct a comparison of the teacher preparation programme for the preparation of primary versus secondary school teachers. The two programmes that allow for this comparison are the PGDE (primary) versus the PGDE (secondary) programmes. A starting point are results from the entry survey of this same group of student teachers: for example, when compared to the PGDE (secondary) student teachers, the "love of children/young people" was a far more important reason for PGDE (primary) student teachers to choose teaching as a career (Lim, Low, Ch'ng, & Goh, 2005). It is possible to investigate whether the motivation, competence, and confidence of student teachers to teach as impacted by the programmes differ depending on whether they are enrolled in primary or secondary programmes. The results of such a comparative study can help inform programme developers about specific areas of the programme that require enhancement in order to better prepare student teachers for a specific primary or secondary teaching track. Areas that cannot be sufficiently covered within a one-year PGDE initial teacher preparation programme will serve as the guidelines to what in-service professional development can focus on.

The results from the present study show that the initial teacher preparation programme has had a positive impact on the following aspects: levels of

motivation, competence, and confidence of student teachers to teach. Further research will elucidate the development of the professional identity of teachers as they grow as a beginning teacher to an experienced one.

Address for correspondence

Angela F. L. Wong
National Institute of education
Nanyang Technological University
1 Nanyang Walk
Singapore 637616
Tel: 65 67903228
Fax: 65 68969110
Email: angela.wong@nie.edu.sg

References

- Aldrich, R., & Crook, D. (1998). Education as a university subject in England: An historical interpretation. *Paedagogica Historica, Supplementary Series III*, 121-138.
- Anderson, D. S., & Piazza, J. A. (1996). Changing beliefs: Teaching and learning mathematics in constructivist preservice classrooms. *Action in Teacher Education, 17*(2), 51-62.
- Booth, E., Abdulla, S., Lingham, G., Singh, G., Wilson, M., & Armour, L. (1998, December). *Student teachers' perceptions of teaching and learning conditions in Fiji and Maldives*. Paper presented at the annual conference of the Australian Association of Educational Research, Adelaide, Australia.
- Brownlee, J. (2003). Changes in primary school teachers' beliefs about knowing: A longitudinal study. *Asia-Pacific Journal of Teacher Education, 31*(1), 87-98.
- Cobb, V. L., Darling-Hammond, L., & Murangi, K. (1995). Teacher preparation and professional development in APEC members: An overview of policy and practice. In L. Darling-Hammond & V. L. Cobb (Eds.), *Teacher preparation and professional development in APEC members: A comparative study* (pp. 1-16). Washington, DC: U.S. Department of Education.
- Cochran-Smith, M., & Zeichner, K. (2005). *Studying teacher education: The report of the AERA panel on research and teacher education*. Mahwah, NJ: Lawrence Erlbaum.
- Cole, A. L., & Knowles, J. G. (1993). Shattered images: Understanding expectations and realities of field experiences. *Teaching and Teacher Education, 9*(5/6), 457-471.

- Darling-Hammond, L. (1999). Educating teachers for the next century - Rethinking practice and policy. In G. A. Griffin (Ed.), *The education of teachers: The 98th National Society for the Study of Education (NSSE) yearbook (Part 1)* (pp. 221-255). Chicago.
- Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education*, 53(4), 286-302.
- Davis, P. C. (1999). What is teacher development? *Humanising Language Teaching*, 1(1). Retrieved Dec. 22, 2008 from <http://www.hltmag.co.uk/feb99/mart1.htm>.
- Delannoy, F. (2000). Teacher training or lifelong professional development? Worldwide trends and challenges. *TechKnowLogia*, November/December, 10-14.
- Edmonds, S., Sharp, C., & Benefield, P. (2002). *Recruitment to and retention on initial teacher training: A systematic review*. Slough, UK: National Foundation for Educational Research.
- Feiman-Nemser, S. & Buchmann, M. (1986). The first year of teacher preparation: Transition to pedagogical thinking? *Journal of Curriculum Studies*, 18(3), 239-256.
- Giallo, R., & Little, E. (2003). Classroom behaviour problems: The relationship between preparedness, classroom experiences, and self-efficacy in graduate and student teachers. *Australian Journal of Educational and Developmental Psychology*, 3, 21-34.
- Güven, I. (2004). A qualitative study of perceptions of prospective social studies teachers towards school practices. *Educational Sciences: Theory & Practice*, 4(2), 291-300.
- Hobson, A. J., & Malderez, A. (2006). *(BaT)-Becoming a Teacher: Student teachers' experiences of initial teacher training in England*. (Report). University of Nottingham, University of Leeds & Ipsos MORI Social Research Institute, UK.
- Hobson, A. J., Malderez, A., Tracey, L., Homer, M., Mitchell, N., Biddulph, M., Giannakaki, M. S., Rose, A., Pell, R. G., Roper, T., Chambers, G. N., & Tomlinson, P. D. (2007). *Newly qualified teachers' experiences of their first year of teaching. Findings from Phase III of the (BaT)-Becoming a Teacher Project*. (Report). University of Nottingham, University of Leeds and Ipsos MORI Social Research Institute, UK.
- Hogan, D., & Gopinathan, S. (2008). Knowledge management, sustainable innovation, and pre-service teacher education in Singapore. *Teachers and Teaching*, 14(4), 369-384.
- Kardos, S. M., Johnson, S. M., Peske, H. G., Kauffman, D., & Liu, E. (2001). Counting on colleagues: New teachers encounter the professional cultures of their schools. *Educational Administration Quarterly*, 37(2), 250-290.
- Knobloch, N. A. (2001). The influence of peer teaching and early field experience on teaching efficacy beliefs of preservice educators in agricultural

- ture. *Proceedings of the 28th Annual National Agricultural Education Research Conference, Ohio State University, USA*, 119-131.
- Korthagen, F. A. J. (2001, April). *Linking practice and theory: The pedagogy of realistic teacher education*. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- Krainer, K., & Goffree, F. (1999). Investigations into teacher education: Trends, future research, and collaboration. In K. Krainer & F. Goffree (Eds.), *On research in teacher education* (pp. 223-242). Osnabrueck: Forschungsinstitut für Mathematikdidaktik.
- Lim, S. K., Low, E. L., Ch'ng, A., & Goh, K.C. (2005). *Student teachers' reasons for choosing teaching as a career*. Paper presented at the Re-designing Pedagogies: Research, Policy & Practice Conference, Singapore.
- Mattheoudakis, M. (2007). Tracking changes in pre-service EFL teacher beliefs in Greece: A longitudinal study. *Teaching and Teacher Education*, 23, 1272-1288.
- Ross, J. A., McDougall, D., & Hogaboam-Gray, A. (2002). Research on reform in Mathematics education, 1993-2000. *The Alberta Journal of Educational Research*, 48(2), 122-138.
- Rots, I., Aelterman, A., Vlerick, P., & Vermeulen, K. (2007). Teacher education, graduates' teaching commitment and entrance into the teaching profession. *Teaching and Teacher Education*, 23, 543-556.
- Ruhland, S. K. (2001). Factors that influence the turnover and retention of Minnesota's technical college teachers. *Journal of Vocational Education Research*, 26(1), 56-76.
- Ruhland, S. K. (2002, April). *An examination of secondary business teachers' retention factors*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Russell, T., & McPherson, S. (2001, May). *Indicators of success in teacher education: A review and analysis of recent research*. Paper presented at the 2001 Pan-Canadian Education Research Agenda Symposium: Teacher Education/Educator Training: Current Trends and Future Directions, Université Laval, Quebec City, Canada. Retrieved June 20, 2007 from <http://www.cmec.ca/stats/pcera/symposium2001/indexe.asp>.
- Tabachnick, R., Popkewitz, T., & Zeichner, K. (1979-1980). Teacher education and the professional perspectives of student teachers. *Interchange*, 10(4), 12-29.
- Wang, H. H., & Fwu, B. J. (2001). Why teach? The motivation and commitment of graduate students of a teacher education programme in a research university. *Proceedings of the National Science Council, ROC(C)*, 11(4), 390-400.
- Whitbeck, D. A. (2000). Born to be a teacher: What am I doing in a college of education? *Journal of Research in Childhood Education*, 15(1), 129-136.
- Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the

research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research*, 68(2), 130-178.

Wilke, R. A. (2004). *How content area influences choice of instructional methods: An examination of one component of preservice teacher belief*. Unpublished master's thesis, Florida State University, Tallahassee, USA.

Appendix 1. Categories, codes, and sample responses of perception areas

Motivation to be a teacher		
Code	Category	Sample response
1	Intrinsic motivation	• Motivation to be a teacher comes from within.
2	NIE programmes in general	• My motivation level increases with my knowledge and skills needed as a teacher.
3	Desire to meet students' needs	• Children really need our help and guidance.
4	Experience with students	• Having had experience working with pupils during practicum, I find that I do enjoy being around and teaching them.
5	Practicum	• After going through the practicum, I felt more motivated as I knew my students had learnt something from me.
6	Inspired by tutors, senior teachers or peers	• Some of the tutors who were teachers before were truly inspiring and motivating.
7	Clarity of purpose	• I am more aware of my role as an educator.
8	Situational factors in school	• During the Practicum the full meaning of what it takes to be a teacher in Singapore hit me. I want to teach but I don't want to be burdened with the 101 responsibilities that teachers have.
Teaching competencies		
1	Pedagogical skills, techniques, strategies	• I acquired some strategies and structures in conducting and delivering lessons
2	Educational psychology	• I've learnt more about child psychology and classroom management which would be useful to me in future.
3	NIE programmes in general	• I feel that I am better equipped to teach through the training.
4	Lesson preparation and planning	• Learned a lot about lesson planning and delivery in NIE.
5	Content knowledge	• Acquired more academic knowledge
6	Practicum	• Through practicum, I've learnt and applied appropriate skills and techniques to better suit different students
7	Classroom management	• NIE has equipped me with relevant skills like classroom management
8	Situational factors in school or students	• Questions from higher ability pupils challenges me to find out info I have never known.
9	Cooperating teachers	• Class observations and CT's guidance benefits me.
10	Assessment of own capabilities	• After witnessing better teaching methods and classroom management from experienced teacher, personally feel that there is much more to "catch up" and improve.
11	Experience	• I've learnt from my mistakes during practicum.
12	Length or structure of programme	• Course is too short for us to internalise. Did not have a chance to see these theories in real situations until the practicum which was at the end of course.

13	Loss of confidence, lack of content	<ul style="list-style-type: none"> • It was made known to me by my mentors that I was incompetent in my teaching. I was made to feel that I had no ability to be in the teaching profession.
14	Loss of motivation	<ul style="list-style-type: none"> • It is difficult at times to balance out your emotions after a bad day with a class and start anew with another class, and also to interest a class throughout the lesson.

Confidence as a teacher		
1	Realistic view of the profession	<ul style="list-style-type: none"> • Knowing what to expect from a school setting.
2	Intrinsic Quality	<ul style="list-style-type: none"> • My CTs and supervisor gave me some positive feedback and the one which struck out the most was my confidence displayed in the classroom.
3	NIE programme in general	<ul style="list-style-type: none"> • NIE has equipped me with more skills and knowledge and more importantly, the network (other trainee teachers and lecturers). This has subsequently increased my confidence compared to when I first entered.
4	Affirmation of ability to teach	<ul style="list-style-type: none"> • I have found my niche during the practicum and this boosted my confidence as a teacher.
5	Content knowledge	<ul style="list-style-type: none"> • I feel that I am well-prepared now mentally and in terms of content knowledge. I am now more confident.
6	Practicum	<ul style="list-style-type: none"> • After going for the practicum, I have a feel of the real situation. Thus, I feel more confident to teach and pass on my knowledge.
7	Classroom management	<ul style="list-style-type: none"> • In terms of classroom management, I feel I had a taste during practicum and the management skills were put to use and I had a gauge of my handling of the pupils.
8	Situational factors in school or students	<ul style="list-style-type: none"> • Through contract teaching and practicum, I found that I can relate to primary school children. I can influence children.
9	Cooperating teachers	<ul style="list-style-type: none"> • Confidence level was lowered during practicum due to difficult cooperating teachers. CTs can sometimes put trainees down.
10	Assessment of own capabilities	<ul style="list-style-type: none"> • I used to be afraid of speaking in front of many people but I am now a lot more comfortable.
11	Experience	<ul style="list-style-type: none"> • Through gaining experience, I felt that I am better prepared.
12	Length or structure of programme	<ul style="list-style-type: none"> • ... not totally confident as the 1-yr course was too short and many essential areas on classroom management and syllabus content not touched or thoroughly covered.
13	Multitasking or job demands	<ul style="list-style-type: none"> • The more I know, the more I feel that there are many things that I do not know.
14	Need time to develop	<ul style="list-style-type: none"> • I feel that one needs to improve skills as we grow. With skills, knowledge and experience, I think I may be more confident in the future.