Career preparation: Identification of student teachers’ needs in the school-to-work transition

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Abstract

Teachers were important figures to inspire and help shape their students’ education. The essential time preparing them to be the professional teachers was in the student teachers’ periods. This study aimed to identify student teachers’ needs for career preparation by using mixed methods. In order to align with the real-life context, qualitative data were collected by interviewing the stakeholders (parents, students and teachers) and delineated by using content analysis. The results found that there were eight components of the characteristics of professional teachers. In addition, quantitative processes were used to test the construct validity of the results from qualitative data by using confirmatory factor analysis. The finding revealed that the model fitted the data. Moreover, based on the needs assessment findings, student teachers had needs for preparing them to have knowledge of subject matter, to be role models, to have teaching skills. While the needs assessment with criterion from stakeholders found that student teachers should work hard for school. All findings lead to suggestions for career preparation processes.

1. Introduction

The quality of teachers was the important factor affecting to students’ achievement (Hattie, 2009), so the processes to prepare teachers were essential. These should occur at the time that they were student teachers. In line with, Stringer et al. (2012) explained that when adolescences altered from teens to adulthoods, it was the critical time to create professional identity affecting to commitment in career. Consequently, later career satisfaction and many chances were increased. In fact, however, students in Thailand remained to have low achievement. According to, statistic from National Institute of Educational Testing Service (NIETS, 2012) showed that secondary students had scores lower than 50 percent in every subject except Health education. Furthermore, the scores from PISA 2009 indicated that Thai students had scores lower than means (IPST, 2010). These were the problem how to prepare student teachers to be professional in order to help students not only they had high achievement but also had good habits. Although they had research showing preferable characteristics of teachers composed of 4 factors (1) teaching skills (2) personality (3) moral and ethics and (4) knowledge (such as Buaraphan (2012)), we didn’t know what was the needs of student teachers must prepare or improve. This research must fill this gap as well as...
results could be practical. We used mixed methods (exploratory design) to discover these problems. That had objective to identify student teachers’ needs for preparing them to have characteristics of professional teachers.

2. Career preparation and needs assessment

2.1. Career preparation

As the literatures, Studies about career preparation could divide out two parts. One is studied in the field of psychology. Career preparation was viewed with two or three factors that overlapping with career adaptability includes career decision, career confidence career exploration and career planning (Porfeli & Savickas, 2012; Stringer et al., 2012; Stringer et al., 2011; Hirschi, 2011). Another was viewed by specific fields. In education, career preparation was studied about processes to develop teachers (Celik, 2011; Chingos & Peterson, 2011; Chong, 2011).

2.2. Needs assessment

Completely needs assessment research composed of three steps (needs identification, needs analysis and needs solution). The key of needs assessment was priority setting that has many ways to do. MDF and PNI were the methods of priority setting ordering needs for dual respond questionnaire form. The concept involved “What should be” (I = Importance) and “What is” (D = Degree of success) but two methods had the different calculation. MDF = I-D, PNI = (I-D) x I (Hall, 1983 as cited in Wongwanich, 2007).

3. Methodology

This research was the needs assessment using mixed methods with exploratory design. The needs were assessed by perception of student teachers and defined by stakeholders (parents, students and teachers). The processes of research had two phases consisting of (1) to develop indicators that indicated characteristics of professional teachers and (2) to identify student teachers’ needs involving characteristics of professional teachers.

3.1. Phase I: Developing indicators of characteristics of professional teachers

The processes of this phase began with collected data by interviewing stakeholders (2 parents, 2 students and 3 teachers). Topics for interviewing were the same in each group with two questions. These were the questions for teachers (1) If your school had a novice teacher, what were the characteristics that you need new friend to have? (2) What were the problems when you worked with your friends? These questions could help to know what the characteristics that professional teachers should have been. Second, analyzed the content of data from the first step and extracted indicators that indicated characteristics of professional teachers. Third, created items from indicators and tried out. Fourth, confirmed the indicators by using confirmatory factor analysis. The results from this phase were used to developed questionnaire (dual respond form) to assessed student teachers’ needs.

3.2. Phase II: Identifying student teachers’ needs

Participants of this phase were 88 student teachers who were passed the first professional teaching practices from Faculty of Education Chulalongkorn University (85.2 percent were females and 62.5 percent had GPA 3.50-4.00). In order to identify student teachers’ needs, this step was used discrepancy model and priority setting by MDF (Mean Difference Method) and PNI (Priority Needs Index). Moreover, there were compared the priority setting between student teachers’ perception and criterion from stakeholders (what should be = 5).

4. Analysis and results
This part was presented the results from two phases. Details were described three parts according to processes of research methodology (1) Indicators of characteristics of professional teachers (2) Confirmatory indicators and (3) Identifying student teachers’ needs.

4.1. Indicators of characteristics of professional teachers

Results from interviewing stakeholders found that characteristics of professional teachers had 8 indicators include personal characteristics, teaching skills, role model, knowledge of subject matter, take care of students, kindness with friends, learn and obey senior teachers and working hard for school. The indicators were created 28 items and tried out. Internal consistency of each indicator was between 0.389-0.724 but the total was 0.8923.

| Code                       | Frequency | Example of interviewing                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal characteristics   | 14        | - Person who is to be a teacher must smart because the future of our country is in children’s hands. Not to tell students to apply any job in order to have the high wage or prestige, for example, Physician or Engineer. You must tell them could do any job that make them happy and help to develop the country. You must aware to have accountability for your country.  
- Character of teacher must be warm and endure because students have the different backgrounds.  
- Teacher must have art … student think … for example, my cousin says “When my teacher comes in class, she complains about everything except about students must learn. Consequently, students don’t want to study and think their teacher looks like dinosaur.” |
| Teaching skills            | 6         | - I need angelic teachers and teach everything easy for me. Moreover, they must be humour and not serious. Give a little homework and understand what students want.  
- Must have intention to teach, if teachers have intention, the performance in teaching must be excellent. Teachers have homework, too. When you prepare yourself, student can perceive your inspiration and you are trusted and believed by students. Students must say “Oh! teacher you are terrific” |
| Role model (MODEL)         | 5         | - I use to see some teachers smoke and drink in the school. I think these behaves are not appropriate. If you want to drink, it should be at your home.  
- Teachers are the person who create and shape the student. They should use sweet words and can’t revile student. The smile world is created for students in everyday. |
| Knowledge of subject matter| 4         | - Novice teachers like a new generation children. I confirm …. confirm. Students don’t like to study. Their teachers don’t like to study, too. In my local school, students don’t like novice teachers, they say “I don’t want novice teachers I want expert teachers.” |
| Take care of students      | 4         | - Teacher is a good person. Uhm… Some students are clever; however, others use many times to study. Teacher should take care of individual students step by step. Moreover, please ask students “Do you understand?” |
| Kindness with friends      | 3         | - Teachers don’t ignore their friends’ work and they must concern the work with thoughtfulness. |
| Learn and obey senior teachers | 3       | - In the day that has standardize testing, I caution novice teachers that don’t wear t-shirt because it is informal but they don’t believe. In addition, when they make a mistake, they contradict and defend themselves with unreasonable as if this error they don’t make. Although they don’t argue, they disregard what happen. |
| Working hard for school    | 2         | - Every teacher should have the same goal and direction for developing the school. |

4.2. Confirmatory indicators
The next, confirmatory factor analysis was used to verify indicators. The finding revealed that the model fitted the data (chi-square (14) = 9.370; p = 0.807; RMSEA = 0.000; GFI = 0.974; AGFI = 0.933). The unconditional model didn’t have irregularities and detail of correlation showed in table 2.

Table 2. Bivariate correlations, means and standard deviations among the indicators (N = 88)

|       | M    | SD   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|-------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| SELF  | 3.750| 0.523| 1.000|     |     |     |     |     |     |     |
| TEACH | 3.776| 0.560| 0.604| 1.000|     |     |     |     |     |     |
| MODEL | 3.739| 0.620| 0.316| 0.446| 1.000|     |     |     |     |     |
| KNOW  | 3.722| 0.611| 0.709| 0.732| 0.534| 1.000|     |     |     |     |
| CARE  | 4.344| 0.548| 0.483| 0.453| 0.352| 0.456| 1.000|     |     |     |
| FRIEND| 4.182| 0.532| 0.434| 0.399| 0.181| 0.414| 0.414| 1.000|     |     |
| LEARN | 4.142| 0.492| 0.600| 0.591| 0.438| 0.649| 0.671| 0.614| 1.000|     |
| SCHOOL| 3.742| 0.687| 0.465| 0.553| 0.177| 0.521| 0.375| 0.539| 0.520| 1.000|

All were significant at 0.05 level except correlation between model and friend, model and school KMO = 0.860; Bartlett’s test of sphericity sig = 0.00

4.3. Identifying student teachers’ needs

The last result was shown needs identification of student teachers. Priority setting with MDI and PNI methods gave the same result. First, student teachers must have knowledge of subject matter. Second, student teachers must be role models. Third, student teachers must have teaching skills but there had a little different result between needs from student teachers’ perception and criterion from stakeholder that student teachers must work hard for school. (As seen in table 3)

Table 3. Identifying student teachers’ needs compared between MDI and PNI methods

| Indicators                        | MDI rank | PNI rank | MDI rank | PNI rank | MDI rank | PNI rank | MDI rank | PNI rank |
|-----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Personal characteristics           | 4.69     | 3.75     | 0.94     | 4        | 4.39     | 4        | 5.00     | 3.75     |
| Teaching skills                   | 4.74     | 3.78     | 0.96     | 3        | 4.58     | 3        | 5.00     | 3.78     |
| Role model                        | 4.76     | 3.74     | 1.02     | 2        | 4.87     | 2        | 5.00     | 3.74     |
| Knowledge of subject matter       | 4.85     | 3.72     | 1.13     | 1        | 5.45     | 1        | 5.00     | 3.72     |
| Take care of students             | 4.86     | 4.34     | 0.52     | 8        | 2.48     | 8        | 5.00     | 4.34     |
| Kindness with friends             | 4.77     | 4.18     | 0.59     | 7        | 2.79     | 7        | 5.00     | 4.18     |
| Learn and obey senior teachers    | 4.77     | 4.14     | 0.63     | 6        | 3.01     | 6        | 5.00     | 4.14     |
| Working hard for school           | 4.62     | 3.74     | 0.88     | 5        | 4.04     | 5        | 5.00     | 3.74     |

5. Discussion

The research findings were as follows (1) Indicators of characteristics of professional teachers composed of personal characteristics, teaching skills, role model, knowledge of subject matter, take care of students, kindness with friends, learn and obey senior teachers and working hard for school (2) Student must have knowledge of subject matter, to be role models and to have teaching skills while stakeholders considered working hard for school being important. All topics were discussed.
First, findings from interviewing stakeholders were in line with Buaraphan (2012) that explained characteristics of desirable teachers. But there was a new topic to concern “Learn and obey senior teachers” because this characteristic was appropriate with Thai culture realizing seniority. Second, student teachers must have knowledge of subject matter. This topic could describe by information of samples. Most of samples were student teachers having high achievement (3.50-4.00) therefore they were aware in knowledge and needed many contents. In accord with the five-year teacher training program policy in Thailand was designed to add more emphasis on subject contents (Wongwanich et al., 2011). As well as factor loading of this indicator was higher than others. Third, stakeholders needed student teachers working hard for school but they didn’t assess themselves working hard for school because they weren’t true teachers. So they didn’t thought about the organization or school like parents or master teacher.

6. Limitations and future directions

This study had some limitations. (1) Samples were quite small for analysis with CFA. Although, samples were adequate for measurement model, the appropriateness should be more than 100 samples. (2) Some factors had low reliability because indicators came from the interview. The next time should improve quality of each factor. (3) Completed needs should be done in order to have solutions for preparing student teachers.

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