
Title	A study of practicum-related stresses in a sample of first year student teachers in Singapore
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Source	<i>ERA - AARE Joint Conference, Singapore, 25-29 November 1996</i>

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A Study of Practicum-Related Stresses In A Sample Of First Year
Student Teachers In Singapore

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ABSTRACT

This study describes the stresses experienced by 397 student teachers during their first Teaching Practicum. The respondents completed the "Survey of Practicum Stresses", a 29-item survey questionnaire which comprised a list of experiences related to their Practicum. The student teachers were asked to indicate if each of the experiences reflected in the list was stressful. For experiences that were stressful, the respondents were also asked to indicate how often those experiences were stressful. Differences with regard to gender, level of classes taught and the type of school attached to, are presented. Implications of these findings on the Practicum and recommendations for effective coping strategies are discussed in the paper.

Paper presented at annual conference of the Singapore Educational Research Association and Australian Association for Research in Education, Singapore, 25-29 November 1996.

Introduction

Often acclaimed as the most useful component of a teacher education programme, the Teaching Practicum has also been described as a challenging experience for most. This study examines the stresses faced by 397 first year student teachers during their first practicum. It is hoped that the findings will be used to advise future planning of the practicum.

Research Questions

Four research questions were investigated in this study. They are the following:

What are areas of stress for first year Dip Ed and BA/BSc student teachers in Singapore?

Are there gender differences in areas of stress among first-year student teachers in Singapore?

Are there differences in areas of stress experienced by first-year student teachers teaching at different class levels?

Are there differences in areas of stress experienced by first-year student teachers teaching in different types of schools?

Method

Sample

The sample consisted of 397 first-year student teachers from two teacher education programmes at the National Institute of Education - the Diploma in Education (General) programme (n = 231) and the BA/BSc with Diploma in Education programme (n = 166). The former is a two-year teacher education programme for 'A' level graduates and prepares student teachers for teaching in the primary school. The latter programme is a four-year undergraduate programme and prepares students to take up teaching positions in both primary and secondary schools.

The student teachers in the Dip Ed and BA/BSc programmes undergo two

Practicums in the primary school, one in their first year of study and the second in their second year of study. Practicum I is of a non-evaluative nature, where the supervisor plays a more helping role. The supervisor makes 3 formal observation visits while the cooperating teacher(s) observes them formally for a total of 3 times. At the end of the 5 week stint, the student teacher is given only a Pass or Fail grade. However, Practicum II is evaluative in nature and the student teacher is awarded a letter grade (A, B, C, D or F) at the end of a 6-7 week period. This final grade is based on an average of 4 observational visits by the supervisor and 4 by the cooperating teachers(s). For this study, the student teachers were asked to assess their stresses a few weeks after they returned from Practicum I.

As is characteristic of the student population on campus, there were more females (n = 343) than males (n = 54) in the sample. The majority of the student teachers were posted to government schools (n = 312) for their first practicum, while a smaller proportion went to government-aided (n = 55) and Special Assistance Plan [SAP] schools (n = 30). The latter school type is typified by students who are proficient in both English and Mandarin and study both these subjects at the First Language level.

While the majority spent their practicum teaching both in the lower and upper primary levels (n = 259), 62 students taught only lower primary (grades 1-3) levels while 76 students taught only the upper primary (grades 4-6) levels. The ethnic composition of the sample approximated that of the national ethnic composition of Singapore. The sample comprised 265 Chinese, 40 Indian, and 76 Malay student teachers, with 16 from the Eurasian and other ethnic groups.

Dependent and Independent Measures

The Survey of Practicum Stresses (henceforth referred to as SPS) was designed and used to collect information on stresses experienced during the practicum. This questionnaire formed the dependent measure in the study. Demographic data comprising the following: birthdate, sex, race, school type and level (s) taught were also collected, and these formed the independent variables in the study. Only the variables of gender, school type and level(s) taught will be discussed in this paper. A copy of the SPS is attached for your reference.

Instrumentation

The SPS comprises a list 29 statements describing experiences which student teachers may have faced during their practicum. Students were first asked to decide if each statement described an experience which had been stressful to them. They were then asked to indicate how often the experience may have stressed them. Respondents were asked to answer on a 1-5 Likert scale where 1 = not applicable, 2 = never stressed me, 3 = stressed me some of the time, 4 = stressed me most of the time and 5 = stressed me all the time. The questionnaire also included an open-ended question on how they coped with practicum-related stresses. This question read, "How did you cope with any stress that you may have encountered during the practicum?"

To ensure validity of items, an "item construction" activity was conducted prior to writing the 29 SPS items. Sixty student teachers from the BA/BSc Year 1 programme were asked to indicate on pieces of paper, experiences which were stressful to them during their recent 5-week practicum. Each student was given one to three slips of paper, each of which read, "One thing that was stressful for me during my recent 5-week practicum (teaching practice) was" and students were asked to complete the sentence. Spontaneous answers were encouraged. Each student was allowed to use as many slips of paper as they wanted, but asked to record only one stress per slip of paper. A total of a hundred slips of paper were returned. These were categorised and from the categories made, representative statements were constructed to describe stressful practicum experiences. Twenty-nine items resulted from this exercise. The authors then re-categorised the items into seven broad categories as they saw fit: Expectations (Items 1, 3, 4); Communicating with and Relating to New Colleagues (Items 7 - 11); Supervisor (Items 12 - 14); Workload (items 2, 5, 6, 15 - 17, 28, 29); Teaching (18 - 21); Managing (Items 22 - 24) and Helping (Items 25 - 27). A factor analysis was later conducted with the data collected from the 397 student teachers in the study to establish the factorial validity of the 29-item scale. The findings of the factor analysis is reported in the following section.

Factor Analysis

The responses to the 29 items of the SPS for the sample were subjected to separate principal components factor analysis (with varimax rotation) involving the individual student teacher's score as the unit of analysis. Table 1 shows the factor loadings obtained for the 397 student teachers in the Dip Ed and BA/BSc programmes. The percentage of the total variance extracted and the eigen value associated with each factor are recorded at the bottom of the table. The only factor loadings included in this table are those greater than or equal to the conventionally accepted value of 0.30 for analyses involving the individual as the unit of analysis. When an item has a factor loading of 0.30 or more in more than one scale, only the higher factor loading is reported in Table 1.

Table 1 : Factor Loadings for the Survey of Practicum Stresses (SPS)

Factor loadings smaller than 0.30 have been omitted for these analyses involving the individual as the unit of analysis.

The factor structure that evolved replicated closely to that initially assigned by the researchers. Hence, the evidence from the factor analysis lends support to the factorial validity of the 29-item, seven scale SPS. The factor analysis, however, did result in some changes in scale names and scale composition. The resultant SPS scales are as follows: Overall Performance (Items 1, 2, 3, 4, 6); Workload (Items 5, 15, 16, 17, 28, 29); New Colleagues (Items 7, 8, 9); Cooperating Teacher (Items 10, 11); Supervisor (Items 12-14); Teaching and Managing (Items 18-24); and Helping (Items 25-27). A description of these scales is presented in Table 2.

Table 2: Description of the SPS Scales

Internal Consistency Reliability

Internal consistency (alpha reliability coefficient) statistics were generated for the sample in the present study as an index of scale reliability. A summary of the alpha reliability obtained for each scale is reported in Table 3.

On the whole, the statistics obtained were acceptable. The internal consistencies generated for the sample ranged from 0.59 for the Overall Performance scale to 0.85 for the Cooperating Teacher scale.

Table 3 : Internal Consistency Reliability (Cronbach Alpha Coefficient) for Survey of Practicum Stresses (SPS)

Statistical Analyses and Findings

Four research questions were investigated. The first sought to identify areas of stress for first-year Dip Ed and BA/BSc student teachers. The next question examined whether there were gender differences in areas of stress among first-year student teachers. The third and fourth questions focused on whether areas and levels of stress varied with school type and class level respectively.

First, response frequencies (in percentages) of each item of the SPS were computed. The results of this analysis are presented in Table 4. Percentage frequencies for items rated '4' (Stressed me most of the time) and '5' (Stressed me all the time) were considered collectively as being representative of stressful life experiences and are reported here.

The findings show that 67 % of the student teachers found coping with their overall teaching workload (lesson planning, marking, schemes of

work) stressful either most of the time or all the time, while an equally large percentage (62.7 %) found writing detailed lesson plans equally stressful. Being observed (42.8 %) and evaluated (46.6 %) by their supervisor also often stressed them. Other areas of stress reported were high personal expectations of their teaching performance (39.8 %); managing the class and enforcing discipline (38.3 %); selecting appropriate content for lessons (36.6 %); managing time (35.8 %), marking pupils' written work (34 %); preparing resources for lessons (32 %); managing groupwork (31 %); and managing pupils with learning difficulties (30.5 %).

Table 4 : Response Frequencies of SPS Items

The means and standard deviations of each scale were computed and a comparison of means analysed to establish if there were significant gender, level, and school type differences in areas and levels of stress experienced. The means and standard deviations of the seven scales of the SPS by gender, school type and level(s) taught are presented in Tables 5, 6 and 7 respectively.

Table 5 : Means and Standard Deviations of the Seven Scales of the SPS by Gender

Table 6 : Means and Standard Deviations of the Seven Scales of the SPS by School Type

Table 7 : Means and Standard Deviations of the Seven Scales of the SPS by Level(s) Taught

Next, 2 (gender) x 3 (school type) x 3 (level) multivariate analyses of variance (MANOVA) were conducted with the seven scales of the SPS as dependent variables. The results of these analyses are presented in Table 8.

As is evident in Table 8, there are significant gender effects (Hotelling's $T^2 = 0.02$, $p < 0.05$); and level effects (Hotelling's $T^2 = 0.048$, $p < 0.05$) in student teachers' experiences of practicum-related stresses. Univariate analyses of variance (ANOVA) on each of the seven SPS scales were conducted to assess the extent to which these individual variables contributed to the significant multivariate effects. The results showed that female student teachers experienced significantly more stress with issues related to their overall performance [$M = 14.59$, $SD = 2.95$ vs $M = 14.35$, $SD = 2.8$, $F(7, 374) = 3.948$, $p < 0.05$] than male student teachers did. Also, in the area of 'Workload', female student teachers tended to experience significantly more stress than their male counterparts [$M = 20.77$, $SD = 3.65$ vs $M = 20.76$, $SD = 4.88$, $F(7, 374) = 3.948$, $p < 0.05$].

The findings also showed that student teachers teaching with teaching loads across both lower and upper primary levels, as well as those teaching only the lower primary classes experienced significantly more stress regarding their overall practicum performance. Also, in the area of 'Workload', more stress was expressed by student teachers teaching across the two primary class levels as well as by those who were teaching only the younger children (that is, in the lower primary classes).

The results of the multivariate analyses of variance also indicate the presence of two-way interaction effects for the scales, "Overall Performance" and "Workload". Figures 1 and 2 illustrate the significant two-way interaction effects between gender and school type; and between gender and level (s) taught in the "Overall Performance" scale respectively.

Table 8 : Multivariate Analysis of Variance of the Seven SPS Scales by Gender, School and Level

Figure 1 shows that male student teachers, although experiencing relatively less stress when they were teaching in SAP schools, experienced significantly more stress when teaching in government-aided schools. It was also evident that men teaching in government-aided schools experienced even more stress than their female counterparts, whereas men teaching in both the government and SAP schools seemed to be experiencing less stress experiences. The figure also points out that student teachers teaching in SAP schools tended to experience less stress in their perceptions of their overall performance during the practicum when compared to student teachers in both the government and government-aided schools.

Figure 2 illustrates that male student teachers, although tending to experience significantly less stress in their overall performance during the practicum, tended to express a higher level of stress when they were teaching both lower and upper primary classes than female student teachers teaching this level.

Figures 3 and 4 illustrate the significant two-way interaction effects between gender and school type; and between gender and level (s) taught in the "Workload" scale respectively. Figure 3 shows that males seemed to be more stressed in workload-related issues when teaching in government schools, but significantly less stressed when teaching in SAP schools. The opposite was true for the women who tended to feel more stressed in workload-related issues when teaching in SAP schools when compared to when teaching in both government and government-aided schools. Figure 4 illustrates that male student teachers tended to be more stressed regarding workload issues when teaching at the lower primary level and when teaching a combination of both lower and upper primary classes. In contrast, the female student teachers tended to experience more stress related to workload when they were teaching in the upper primary level classes.

Discussion

The findings show that female student teachers tend to have experienced more stress than their male counterparts. Women tended to experience stress with regard to their overall practicum experience as well as

from workload-related issues. Women seemed to be more stressed than men when it came to certain levels of classes taught, too. They seemed more stressed when teaching in the upper primary levels, that is teaching older students and teaching classes including examination classes, Primary Four and Primary Six. The results also tend to point to the fact that women experienced more stress when they were teaching in SAP schools, which, as has been mentioned before, are schools where students are proficient in both English and Mandarin--usually high-achieving students.

Why should female student teachers experience more stress? Could it be that they lack self-confidence? Could it be they have higher personal expectations of themselves? Do they perceive that others have higher expectations of them being 'good' teachers as teaching has traditionally been associated with their gender? These are interesting questions which the researchers would like to follow up on by interviewing small groups of female student teachers.

Teaching across both the lower and upper primary levels seemed to have been stressful for both male and female student teachers. This seems reasonable as when one teaches across different classes, it means having to be familiar with different syllabi, plan for many different lesson topics and also requires competence in teaching across different age groups. The findings also showed that teaching at the lower primary level was also stressful, especially for the men. This also seems reasonable as special skills and experience is required to teach the younger children, and perhaps during the first practicum, student

teachers are still unable to adjust to the learning styles and needs of younger children.

Although the findings across school type were not significantly different, it was evident from a comparison of means, that both male and female student teachers did not experience as much practicum-related stress when they were teaching in a SAP school compared to when teaching in either government or government-aided schools. Perhaps this is due to the fact that students in these schools are academically independent and self-motivated.

Implications for practice

How could the self-confidence of female student teachers be enhanced? Should more training be given in lower primary methods? Would time management and stress management workshops or even courses be run to prepare student teachers better for the practicum? How have the students coped with stress?

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