Practicum Student Teachers’ Reflectivity, Practicum Performance and Clinical Supervision

Toh Wah Seng

Batu Lintang Teachers College

93200 Kuching, Malaysia

email: wtoh@pd.jaring.my
Practicum Student Teachers' Reflectivity, Practicum Performance and Clinical Supervision

Abstract

The purpose of the study was to investigate practicum student teachers' reflectivity and to examine its relationship to their performance and clinical supervision. The participants consisted of 223 student teachers from a teachers' college in Malaysia who were undergoing their first phase of their student teaching practicum of six weeks. Data on student teachers’ reflectivity was sourced from their journal writings and the level of reflectivity of each participant was assessed through the use of a revised reflective pedagogical thinking rating scale adapted from the literature. Data on student teachers’ practicum performance was sourced from the college records. Clinical supervision was measured in terms of the degree of clinical supervisory behaviours exhibited by the supervisors as perceived by the student teachers. Results of the analyses indicate that student teachers were hardly reflective, exhibiting very low levels of reflectivity based on van Manen’s classification of levels of reflectivity. There were no indications that reflectivity was related to practicum performance and clinical supervision. However a significant relationship between clinical supervision and practicum performance was detected. Student teachers’ gender, academic qualifications and coursework performance were also examined in terms of their relationships to reflectivity and practicum performance. Interpretations of the results and recommendations are discussed in relation to the context of the study.

Introduction

The literature on preservice teacher education is permeated with two common themes about change. Concurrent with the shift in focus towards a school-based teacher education approach is the change in the epistemological paradigm in teacher education which sees the growing influence of the reflective pedagogy movement sparked off by Schon's model of the 'reflective practitioner' (1983, 1987). It has become one of the most popular issues in teacher education (Copeland, et al., 1993). Some have reported the effect of reflection in changing and improving practices (examples, Bolin, 1988; Munby & Russell, 1989). Others reported the incorporation of reflection in programs (examples, Korthagen, 1988; Elbaz, 1988; Tabachnick & Zeichner, 1991). There are also many calls for reform towards a reflective pedagogy in teaching (Zeichner, 1983; Copeland, et al., 1993). However, there is little evidence to support the assumptions about its efficacy in practice (Copeland, et al., 1993).

Whereas changes towards more field practice in the developed countries have been criticized for lacking empirical basis, changes in the theoretical conceptions for practice have produced mixed results about their efficacy. Changes in the developing countries, on the other hand, have been criticized for importing foreign models (Leavitt, 1991, 1992). Tabachnick (1988) warns about the dangers of transferring research findings across different national contexts. O'Donoghue's (1994) case study of the use of the concept of reflective thinking in Papua New Guinea illustrates the inappropriateness of transferring a Western education concept to the developing world. The argument for importing, of course, is that adopting and adapting educational practices from elsewhere is both economical and precludes the need to reinvent the wheel. In the case of Malaysia, reforms in teacher education have moved towards a more school-based model that emphasizes an inquiry-
oriented reflective practicum and the use of mentoring incorporating the clinical supervision approach to supervision. These changes have been the result of the increasing influence of international trends in teacher education.

Reflectivity

Schon’s framework of reflection-in-action and reflection-on-action involve the idea of professional practice based upon knowing-in-action and knowledge-in-action (Munby & Russell, 1989) derived from the construction and reconstruction of professional experience. van Manen’s (1977) proposal of three hierarchical levels of reflection derived from Habermas (1973) has been influential in providing a framework for much of the research into reflectivity. These three levels are similar to those described by Zeichner and Liston (1987). The first level is technical reflection which is concerned with examining the efficiency and the effectiveness of means to achieve certain ends. The second level, practical reflection, involves examining not only the means but also the ends, questioning the assumptions and the actual outcomes. The third level is critical reflection, which considers the moral and ethical issues of social compassion and justice along with the means and the ends, encompassing the first two levels.

Sparks-Langer, Simmons, Pasch, Colton and Starko (1990) have conceptualized the construct of reflective pedagogical thinking derived from three sources of influence: Van Manen’s three levels of reflection, cognitive psychology and Kolb’s (1984) experiential learning theory. Their framework for reflective thinking consists of seven levels of reflective pedagogical thinking. The procedure for assessing pedagogical reflective thinking involves an interview and interviewee’s responses are then assessed using the framework as criteria. The seven levels within this framework are shown in Figure 1.

Figure 1 Framework for Reflective Thinking

<table>
<thead>
<tr>
<th>Level Description</th>
</tr>
</thead>
</table>
1 No descriptive language
2 Simple layperson description
3 Events labeled with appropriate terms
4 Explanation with tradition or personal preference given as the rationale
5 Explanation with principle or theory given as the rationale
6 Explanation with principle/theory and consideration of context factors
7 Explanation with consideration of ethical, moral, political issues

Source: Sparks-Langer et al., Reflective Pedagogical Thinking: How Can We Promote It and Measure It? *Journal of Teacher Education* V41, N4, 1990.

The levels in this framework reflect Gagne’s (1968) hierarchy of thinking and van Manen’s (1977) idea of critical thinking (Sparks-Langer, et al., 1990). Levels 1 to 6 encompass cognitive reflection while level 7 is critical reflection. The progression of levels indicates a growing sophistication in teachers’ schemata, from technical rules and concepts to contextual and ethical thinking (Sparks-Langer & Colton, 1991). This framework has also been used to measure student teachers’ reflective thinking in another study by Siens and Ebmeier (1995). Findings from these studies indicate that student teachers seldom progress beyond level 5 and 6. Among the assumptive factors that contribute to student teachers’ reflectivity are supervisor coaching and peer coaching in a developmental approach utilizing the procedures of clinical supervision (Siens & Ebmeier, 1995), and appropriate field placement contexts (Gipe & Richards, 1992).

It has been argued that the process of reflection helps to bridge the gap between theory and practice, reconcile prior beliefs with theory and practice, and reconstruct professional knowledge from situational knowledge (Calderhead, 1988; Fosnot, 1996; Schon, 1987; Wubbels, 1992). It has therefore been assumed that there is a positive link between teachers’ reflectivity and growth in their abilities to effect quality learning in their students. While some studies have reported about its efficacy in promoting change and improvement to practice (Bolin, 1988), there is however little evidence to link reflection to teacher effectiveness. The assumptive link between reflectivity and novices’ teaching abilities was explored by Gipe and Richards (1992) who concluded that this assumption is appropriate although somewhat still premature to suggest that the more student teachers reflect the more their teaching abilities will improve.

**Purpose of the Study**

Apart from the lack of empirical evidence linking reflectivity and teaching performance and the presumptive link between clinical supervision and reflectivity, there has been few studies
on reflectivity in the context of the Malaysian student teaching practicum, particularly within the teachers colleges. Subramanian (1997) studied the journal writings of ten participants from a college in Malaysia. Using the grounded theory’s strategy of the constant comparative method, his findings indicate that student teachers were unable to reflect beyond van Manen’s (1977) second level of reflectivity. The purpose of this study was therefore to further investigate practicum student teachers’ reflectivity and examine its relationship to their practicum performance and clinical supervision in the context of a Malaysian student teaching practicum.

Method

Participants consisted of 223 student teachers from a teachers college in Sarawak, Malaysia. These student teachers kept weekly journals during the practicum for the purpose of reflecting on their teaching experience. Each participant was supervised by a college lecturer and a cooperating teacher from the placement school. Supervision was based on the clinical supervision approach and supervisors were trained to employ this approach. The participant’s practicum performance was also assessed by their supervisors based on a uniform rating scale. Data on student teachers’ reflectivity, practicum performance and clinical supervision were collected at the end of the practicum.

Reflectivity

Initially, attempts were made to use the Reflective Pedagogical Thinking Scale of Sparks-Langer et al. (1990) as the criteria to rate each journal entry based on the seven levels of reflective pedagogical thinking. However it was soon found that the criteria described in the scale were somewhat not suited to the data obtained and a revision of the descriptive criteria in the scale had to be done without affecting the conceptual framework of the scale. In order to revise the scale, it was necessary to identify the types of entries and categorize them into conceptual categories.

Twenty journals were randomly selected for content analysis and the method involved the use of open, axial and selective coding so that data could be broken down, examined, compared, conceptualized and categorized. This procedure resulted in reducing the number of types of entries into four main categories of entries, which are descriptions of: (a) events that occurred; (b) problems; (c) supervisor’s comments; and (d) personal suggestions for future actions. These were further hierarchically categorized into three levels, ranging from the lowest level where the description was non-judgmental, to description that was judgmental but without reasons or justifications, and description that was judgmental with reasons or justifications. Using the Reflective Pedagogical Thinking Scale of Sparks-Langer et al. (1990) as the basis, the third level was further hierarchically subdivided into four levels based on the nature of the reasons or justifications given for the description of the event, problem, supervisor’s comments, or personal suggestion for future action. Table 1 shows the final revised scale used to rate the journal entries.

Table 1. Revised Reflective Pedagogical Thinking Scale

(Adapted from Sparks-Langer et al., 1990)

<table>
<thead>
<tr>
<th>Level</th>
<th>Description / Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-judgmental report/description/narration of</td>
</tr>
</tbody>
</table>
The revised scale, though retaining the conceptual framework of the original scale by Sparks-Langer et al. (1990) has six instead of seven levels. Level 3 in this scale is the equivalent of level 4 in the original scale and levels 4, 5 and 6 are parallel to levels 5, 6 and 7 in the original scale. The first three levels in the original scale have been replaced with only two levels in this revised scale. This was necessary due to the ambiguity of the original scale’s criteria. For instance, the criteria for level 1 in the original scale is "No descriptive language" which is non-applicable in the case of journal entries. As for levels 2 and 3 in the original scale, it was difficult to discriminate between "layperson description" and "events labeled with appropriate terms" especially when journal entries were written in the Malay language where it becomes difficult to differentiate between "layperson" and "appropriate pedagogical" terms.

The revised scale was then used by two independent raters to rate five journals containing a total of thirty entries. Each rater was given the scale with explanatory notes and examples together with similar copies of the thirty entries. The inter-rater agreement was computed using the percentage of agreement in the ratings and was found to be 73% for a total of 30 ratings. The differences in ratings were all found to differ by one level, notably between level 3 and 4 where raters had difficulty deciding whether the justifications given for the explanation of an event was based on personal preference/belief or based on principle/theory. Again, this ambiguity is mainly due to the use of the Malay language where the terms used may not accurately indicate the presence of the use of a principle or theory in the explanation of an event.

Given the above limitations, it was decided that a single rater would rate all the journal entries to ensure a high degree of consistency. A single rater therefore rated all the journal entries using the following procedure. Firstly, all the journals were numbered from 1 to 223 and the rating followed this numbering from 1 to 223. Once all had been rated, a second round of rating starting from the first number till the twentieth were rated again. The results of the second rating were then compared with the first rating to find out the percentage of agreement between the first and the second rating. The percentage agreement was found to be 86% for the first twenty journals. The next twenty journals from number 21 to 40 were then rated a second time and the percentage agreement with the first rating was found to be 94%. At this degree of agreement it was unnecessary to continue the second rating for the rest of the journals and the second rating of the first forty journals were taken as the final score for analyses. This procedure was used to ensure a high degree of consistency in
ratings. The total score for the six weekly entries constitute the score for reflectivity for each participant.

Clinical Supervision

The revised clinical supervisory behaviors scale adapted from Whitehead (1984) consist of 20 items. The scale was administered to the participants at the completion of the practicum. The items encompassed supervisory behaviors consistent with the principles, beliefs, and assumptions underlying clinical supervision. Half of the items were worded negatively and respondents indicate the frequency of each of the behaviors displayed by their supervising lecturer and their cooperating teacher on a five-point scale ranging from Almost Always to Never. Respondents indicate the frequency of supervisory behaviors for each of the two supervisors, one for the supervising lecturer and one for the cooperating teacher. The aggregate score for both supervisors constitute the score for clinical supervision in this study. The revised scale was analyzed for internal consistency and the Cronbach Alpha was found to be .64 for supervising lecturers’ clinical supervisory behaviors and .62 for cooperating teachers’ clinical supervisory behaviors, and a mean of .63 for both groups.

Practicum Performance

Practicum performance was based on the ratings of the supervising lecturer and the cooperating teacher. Six ratings were performed by the two supervisors: two ratings by the lecturer and four ratings by the teacher. The mean score for the six ratings was used as the final score for practicum performance. The rating scale, a common scale used by all the teachers colleges in Malaysia, consists of four sections which are: (a) Lesson Planning (6 items); (b) Lesson Implementation (7 items); (c) Reflective Practice (2 items); and (d) Personality and Attitude (4 items). However, only ratings on Section B (Lesson Implementation) were used for the purpose of this study given the large amount of missing values on the other sections. Each item is rated on a four point scale ranging from a score of 1 (Some weaknesses that need attention), 2 (Average performance, still needs improvement), 3 (Good in most aspects) and 4 (Very Good, distinction in most aspects).

Results and Discussion

Levels of Reflectivity

Data on reflectivity revealed that the weekly mean level of reflective pedagogical thinking based on the scales used for assessing reflectivity, was at level two, that is merely making judgemental report or description of events, problems, supervisor’s comments, or suggestions for further action with no reasons, justifications or rationale given. This represents a very low level of reflective pedagogical thinking. Table 2 shows the frequencies and percentages of each level of reflectivity for the total number of 1338 journal entries (223 participants x 6 entries).

Table 2. Frequencies and Percentages of Journal Entries by Level of Reflectivity

<table>
<thead>
<tr>
<th>Level</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The data reveals that 73.7% of the participants were at Level 2 or below, while 21.5% were at Level 3 and only about 4.8% of the participants were able to reflect beyond Level 3. In other words, majority of the journal entries did not articulate beyond mere description of events, their supervisors’ comments, problems, or suggestions for future action, with some evaluative remarks but did not give reasons, justifications or rationale for these entries. Only about 25% of the entries provided reasons or justifications for the entries, of which a mere 5% was at Level 4, giving reasons based on pedagogical principles or theories. Given that Levels 1 to 4 in this scale represent van Manen’s lowest level of reflective thinking which is at the level of technical rationality, the data shows very little evidence of reflectivity beyond this level.

A possible explanation for the low level of technical reflection during practicum teaching may be viewed from a developmental perspective. Student teachers entering initial teaching have been found to focus most of their concerns and energy on tasks related to management and teaching. This perhaps explains their preoccupation with technical rationality rather than reflecting beyond these immediate concerns. Time and duration of practice and support are important factors for progressing to higher levels of reflectivity (Clift, Houston, & Pugach, 1990; Journal of Teacher Education, 1989; Gore & Zeichner, 1991; McNamara, 1990; Sparks-Langer et al., 1990; Cryns & Johnston, 1993) but given the six weeks of practicum in this study it is strongly suspected that not enough time and experience were allowed to effect higher levels of reflection.

Relationships between Reflectivity, Practicum Performance and Clinical Supervision

Data on the three variables were screened for outliers and their distributions examined through the use of histograms and normal probability plots before correlation analyses were performed. These results did not indicate serious departure from normality that will violate the assumption. Table 3 presents the Pearson product-moment correlations matrix of the variables.

Table 3. Pearson Product-Moment Correlation Matrix of Variables

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Qualif</th>
<th>GPA</th>
<th>Clinsup</th>
<th>Perf</th>
<th>Reflect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualif</td>
<td>0.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>0.23**</td>
<td>0.30***</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinsup</td>
<td>0.08</td>
<td>0.03</td>
<td>0.06</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perf</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Reflect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>
Table 3: Significant Correlation Coefficients (r) and Variance Explained by Reflectivity

<table>
<thead>
<tr>
<th>Variable</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perf</td>
<td>0.07</td>
<td>0.18***</td>
</tr>
<tr>
<td>Reflect</td>
<td>0.33***</td>
<td>0.17*</td>
</tr>
<tr>
<td>Mean</td>
<td>1.67</td>
<td>1.44</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.47</td>
<td>0.50</td>
</tr>
</tbody>
</table>

* p < 0.05 ** p < 0.01 *** p < 0.001

Legend

Qualif Academic Qualifications (SPM or STPM)

GPA Grade Point Average (academic performance in college)

Clinsup Clinical Supervision

Perf Practicum Performance

Reflect Reflectivity

Results from Table 3 indicate that reflectivity is not related to either practicum performance or clinical supervision but there is a significant relationship between practicum performance and clinical supervision (r = 0.24, p < 0.001). Within the context of this study, the finding here does not support the claim that more reflective student teachers are necessarily more skillful in their performance. The absence of a link between reflectivity and performance has also been reported by Peters (1985) and Cook et al. (1989). However, this observation must be treated with some caution in that, as indicated earlier, there was little evidence of reflectivity among the participants and this restricts the interpretation of the results regarding this issue. The lack of evidence of reflectivity beyond van Manen’s first level of technical reflection must be treated with consideration of findings reported elsewhere. Other studies on student teachers’ reflectivity have generally also found little evidence of reflectivity beyond technical reflection (Gore & Zeichner, 1991; Wodlinger, 1990; Subramanian, 1997).

As Table 3 indicates, student teachers’ reflectivity is also significantly related to their dispositions of gender, qualifications, and course work performance (GPA). Gender has a positive correlation (r = .33, p < .001) with reflectivity indicating that female teachers were more reflective than their male counterparts. Those with higher qualifications, that is those with the STPM (equivalent to the Cambridge ‘A’ level) also tended to be more reflective given the correlation coefficient of .17 (p < .05). Performance in course work (GPA) is also positively related to reflectivity (r = .22, p < .01). The results indicate that student teachers’ reflectivity, within the program studied, were affected mainly by their dispositions of gender, qualifications, and course work performance. More specifically, female student teachers tend to be more reflective. Those with higher qualifications or higher course work performance tend to be more reflective. A stepwise regression on reflectivity with gender, qualifications, GPA and clinical supervision as predictors revealed gender and GPA to be the significant predictors. The model explained about only 13% of the variance in reflectivity. Gender accounted for 11% (F[1,221] = 28.00, p < .001) while GPA accounted for only 2% of the variance (F[2,220] = 16.94, p < 0.05). These results indicate that there is still much to understand about the correlates of reflectivity.
Table 3 also shows that besides clinical supervision, student teachers’ dispositions of qualifications and their performance in course work were positively correlated to practicum performance, with correlation coefficients of .24 ($p < .001$), .18 ($p < .005$) and .35 ($p < .001$) respectively. The results here indicate that the strongest influence among the independent variables was their course work performance. Student teachers with high course work performance tend to be assessed higher in their practicum performance. Student teachers awarded higher grades also tend to perceive to have received higher frequency of clinical supervisory behaviors. A stepwise regression analysis on practicum performance with clinical supervision, qualifications and GPA as predictors revealed two significant predictors, which were GPA and clinical supervision. The model accounted for only 17% of the variance in practicum performance. Performance in course work explained about 12% ($F[1,221] = 30.37, p < .001$) and clinical supervision explained 5% ($F[2,220] = 22.19, p < .001$) of the variance in the dependent variable.

Conclusions

Within the context of this study and the usual limitations of the methodology, a few indicators that suggest success or failure of the program can be inferred from the findings. The positive effect of clinical supervision on student teachers’ outcome dispositions indicates success of this approach to supervision. On the other hand, clinical supervision per se had no effect on student teachers’ reflectivity and neither did reflectivity have an effect on their performance. Furthermore, the low level of reflectivity found among student teachers indicates little success of the program to promote reflectivity. Success is therefore limited only to the use of clinical supervision but the program has failed to foster reflectivity among the student teachers. Taken together, the evidence suggests that the program’s impact on student teachers has been less than desirable and disconcerting, which suggests the need for program designers to consider further changes in terms of prepracticum preparation and supervision strategies.

The practice of clinical supervision should be continued given its positive effect on practicum performance. However, efforts should be made to ensure its link to reflectivity. Supervisors should be trained not only in the practice of clinical supervision but more importantly in a role that could ensure the enhancement function of the supervisor to promote reflection. The use of journal writing in the format used in this program which focuses on the reflection of aspects related to teaching and learning seems theoretically sound. However, without the encouragement and the deliberate role of supervisors to promote reflection, reflectivity tends to remain at the lowest level of technical reflection. Reflective practice requires much change, much support, and much patience (Vaughan, 1990).

The evidence here shows that their course work preparation has an impact on their performance and that their qualifications and gender make a difference to their reflectivity and performance. It seems to suggest too that female student teachers, higher qualifications and better performance in course work are linked to better performance and higher reflectivity. This has implications for intake policies. It supports the reform to raise the entry qualifications of teacher candidates. More attention should also be given to finding ways to enhance the experience of the male student teachers and those with lower qualifications so that these differences can be marginalised.
References


Cook, P. F. et al. (1989, October). The effect of structured training vs less formal journal writing on performance, and attitudes toward reflective teaching during preservice training. Paper presented at the annual conference of the Northern Rocky Mountain Educational Research Association, Jackson, WY.


Review, 46(1), 73-86.