

The Development of Reflectivity in Student Teachers in Papua New Guinea

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Abstract

In 1991 community (Primary) school teachers' colleges in Papua New Guinea changed from a two-year to a three-year pre-service course. A major objective of this move was to produce a more 'reflective' teacher. With Van Manem's analysis of 'levels of reflectivity' providing a framework, ethnographic data are used to illustrate the manner in which and the extent to which lecturers have responded to this challenge through their interactions with students.

Introduction

In 1990 efforts to improve the quality of education at the community (primary) school level in Papua New Guinea (PNG) entered a new phase. After a decade of concentrating on in-service education and the production of suitable textbooks and pedagogical material, the emphasis shifted to teacher education. One of the major policies of the National Education Board (NEB) now is that the overall quality of education is to be improved by improving the quality of teacher education. Accordingly, in February 1991 each of the nine teachers' colleges in the country replaced their two year programme with a three year one.

Teacher education in PNG has its origins in the work of the various Christian missions which trained indigenous pastors and teachers in basic literacy and Bible-teaching skills beginning in the late 19th century. Under this system there was very little professional content. From the mid 1960s to the mid

1970s, teacher education went through what has been termed an 'academic stage' (Penias and Quartermaine, 1981: 10) but it proved to be inappropriate for a student body with a very low level of general education. Restricted by the fact that they could only offer a two year course, colleges decided to emphasise methods at the expense of content knowledge, in order to develop survival skills.

During the 1970s government priorities dictated that energy and limited funds were channelled into improving access to community school education and into the localisation of community school and teachers' college staff. A step forward was taken in the late 1970s when a national set of course objectives for teachers' colleges was formulated. Throughout the 1980s, these largely behavioural objectives were developed and enlarged upon and there is consensus that they were most appropriate for a staff who were mainly mission personnel or volunteers with only initial teacher training qualifications.

The horizons of the nation were enlarged greatly during the 1980s as a result of great developments in mining and the expectation that there would be a significant increase in the flow of wealth into the government's coffers. In 1985, the government, through the NEB, directed the Secretary of Education to investigate the best means of introducing a three year programme into teachers' colleges. The Teacher Education Division (TED) and the Research and Evaluation Unit of the National Department of Education (NDOE) jointly supported a Teacher Education Research Project to generate background data. In 1989 a task force was established to suggest appropriate cost-effective courses of action to improve the quality of community school teacher education (McNamara, 1989). The introduction of the three year programme was a major outcome of this activity.

During 1990 the NEB announced the establishment of an Association of Teacher Education (ATE) to develop structures for a new programme. A uniform course for all colleges was not prescribed. Rather, each college had to design its course according to a set of guiding principles (Department of Education, 1990). These principles were aimed at producing teachers who would no longer need to rely on traditional methods, i.e. teacher oriented; mass directed; leisure style; pupils listening or looking at work on the

chalkboard. A common theme was that there is a need to produce a reflective teacher. Accordingly, the terms 'reflection' and 'reflectivity' permeate the three year programmes which each college submitted to the ATE and which were subsequently sanctioned. However, the meaning of the term was largely unexplored. Furthermore, by devoting no time to staff development prior to the introduction of the three year programme, the assumption was made that lecturers have the knowledge, skills and attitudes necessary for promoting reflection. In this paper observations from the lecture-room and other aspects of college life are presented to demonstrate that such an assumption was unwarranted.

The development of the reflective teacher

Teacher education in PNG under the old two year programme was based on an apprenticeship model. This is a conservative approach characterised by an accumulation of sameness and imitation in teaching (Mouton and Blake, 1984) and by the promotion of the student teacher into the logic of the existing social and educational climate. It views teachers as passive learners and little is done to stimulate reflection. As a result, student teachers learn to view teaching as being all about getting through a lesson in the 'correct' manner. The danger is that they may learn to view set curricula and set methods as the upper and outer limits of what is possible (Tinning, 1985) and create structures and habits of thought which retard continued learning from teaching.

It is arguable that a major precondition for improving the overall quality of community school education is that a greater awareness of teachers' subjective beliefs about teaching and its contexts needs to be developed. In particular, there is a need to develop teachers' capacities for reflective action (Dewey, 1933) and to move them away from a perception of the everyday reality as given, clearly defined and in need of no further verification beyond its simple presence (Zeichner, 1981: 5). In contrast to 'routine action', namely, action which is prompted by tradition, authority, official pronouncements and circumstances, 'reflective action' incorporates active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further consequences to which it leads (Dewey, 1933: 9).

Van Manem's (1977) analysis of 'levels of reflectivity' provides a helpful framework for examining the manner in which and the extent to which lecturers in teachers' colleges in PNG adopt such a critical orientation. He has identified three levels, each one of which describes different criteria for choosing among alternative courses of action. Level One is termed 'technical rationality'. The primary emphasis here is on the efficient and effective application of educational knowledge for the purpose of attaining given ends. Reflection at this level is concerned with questioning the appropriateness of various courses of action in the classroom but never enquires about purpose. Level Two is that of 'practical reflection'. At this level what is involved is the clarification of the assumptions that are the basis of practical action.

The concern is with moral, ethical and value considerations in the educational enterprise. Level Three is the level of 'critical reflection'. This level focuses upon the way in which goals and practices become systematically and ideologically distorted by structural forces and constraints at work in various aspects of society including educational settings.

The Study

The research reported here took the form of lecture-room observations, observations on practice teaching and formal and informal discussions in three of the nine teachers' colleges in PNG. Two of the colleges were visited regularly throughout the five-month period from January to June 1991. A more intensive approach including participant observation was possible in the third college as the author was a member of the lecturing staff there. Because the three colleges are within 20 kilometres of each other on the Gazelle Peninsula in East New Britain Province, there were no geographical barriers to regular access. The fact that the author was working as a 'volunteer' on a national salary rather than as a contract officer made him 'acceptable' to the national lecturers who were more 'open' than might otherwise have been the case.

The fact that the author regularly sat in on lectures was in no way disturbing to the lecturers, since the PNG system of accountability in teacher education demands that they have regular visits from the inspectors of the TED, their heads of department and their principals. Specific attributes of the lecturer

and student interaction were not predetermined prior to college visits. The intent was to document them as episodes whose complexities are diminished by breakdown. However, the author was acutely aware that while TERP produced a wide range of very useful data of a quantitative nature, it failed to generate any data about teaching as conducted in the colleges; data which is vital if there is to be any hope of achieving the ambitious aims of the new three year programme. This awareness shaped the interpretation of events emerging from the experience of observer and out of it arose the question of the promotion of 'reflection' in the 'curriculum as received' in the teachers' colleges. While it is recognised that one cannot generalise with any degree of certainty for all nine colleges from the staff of three of them, it seems reasonable to conclude that lecturing in all of them is largely along the same lines since the teachers who are produced have up until now been very much in the same mould (Avalos, 1989: 104).

The development of technical rationality

Reflection at the level of technical rationality is concerned with questioning the appropriateness of various courses of action in the classroom. Amongst the major areas within the teacher education programme through which the development of such reflection can be promoted is the post-lesson conference during practice teaching. Within this area the emphasis in what was observed was on the one 'correct' way of teaching, rather than on encouraging the student teachers to consider the appropriateness of particular methods.

One of the main duties of the practice teaching supervisor is 'to communicate to student teachers, verbally or through examples, information, ideas and practices related to their teaching needs' (Turney, 1982: 83). It is also important that the supervisor be firm and authoritative in giving directions to student teachers where the welfare of the pupils might be in danger or there is a tendency to violate school rules. Within such parameters, however, the supervisor can facilitate student teachers' critical analysis of their teaching plans and practice teaching, thus encouraging them to be autonomous in their decision making about their teaching and in accepting responsibility for their decisions. Amongst the major pedagogical means which can be used to promote such reflection are questioning, pausing and suggesting.

In general, the practice teaching supervisors tend to feel more secure in their dominant and direct instructor role in post-lesson conferences and rarely adopt the role of collaborative colleagues studying teaching and solving its problems. The conference normally takes place immediately after the lesson and lasts about five minutes. The following excerpt is typical.

L You must discourage the children from calling out. A firm but gentle reminder that there is no need to call out is necessary. Have you got that?

S Yes.

L O.K. Now, you must also avoid questions which require a Yes/No answer. You've got that?

S Yes.

L Good. Right. Also, try to vary your responses from always saying 'good boy/good girl'. You can say 'well done', 'good try', 'good effort' and others. Understand?

S Yes.

L Now, I don't know if you noticed but some children tended to get restless. With small children it is important to remember that their attention span is short. Do not spend too long talking. Vary your activities.

We hear a similar approach with another lecturer, again, as is usual, speaking non-stop:

L Your demonstration was very well done and your directions were clear. Also your discipline was friendly but firm. The children were very involved in their art work. However, take your time when you are talking. Even though you are speaking a language (English) that you know well try to slow down the speed of your speech. Also, the explanation of the story was not well done. You should have drawn a picture of the family on the chalkboard.

A notable feature of these conference extracts is the tendency on the part of the lecturer to 'tell' the student what is right and wrong with his or her teaching. There can, of course, be little criticism of the following type of advice:

- 1 L *When planning a lesson ensure that the teaching aids will be on hand at the time of executing the method.*
- 2 L *Give up the habit of teaching with a big ruler in your hand.*
- 3 L *Learn to sing the song properly yourself.*

Rather, the criticism is of the use of this approach even where the advice being given is more open to question. Furthermore, the use of questions such as 'You've got that?', 'Have you got that?', and 'Understand?' are used to maintain the flow of speech rather than as genuine probing questions. Lecturers seldom pause after such questions in an effort to promote student reflection.

In their lesson plans students are required to produce careful outlines sometimes on pre-printed forms which divide the lesson into small elements. This format is viewed as being rigid rather than as something that can be adapted on the day. Both the lecturers and the students see the lesson in terms of its parts. Under the heading 'motivation', for example, students are directed to write what they plan to do to motivate the children for the lesson. The students' interpretation of this is that some kind of gimmick or trick or fanciful short story is called for and some lecturers promote this idea. It is definitely a distinct part of the lesson to both parties and while they might be able to say that there should be a link between the motivational event and the actual lesson, this is not often so in practice.

Lecturers in their conferences with students and in their written assessments of lessons, generally make comments on the basis of students' performance in the separate sections of the lesson as noted in the lesson planning, and students are regularly reprimanded for being three-to-four minutes over or under time in a lesson and for deviating from the time planned for the various segments of the lesson. During staff meetings similar views as to what constitutes a lesson became evident. Lecturers complained that demonstration lessons taught in the demonstration schools attached to the colleges were not clearly structured and that 'correct' amounts of time were not devoted to each section of the lesson. The expectation was that in every lesson one should clearly be able to see the 'basic teaching skills' of 'motivation', 'reinforcement', 'variability' and 'questioning' being executed and that the

demonstration teachers' sample lesson plans for these lessons should clearly indicate where in the lesson the example of each of these skills would be brought into play. Accordingly, it is unlikely that one of the major aims of the new three year programme is being met to any degree, namely:

Teacher education programs need to encourage students to analyse a wide range of teaching and learning situations, provide opportunity for students to develop strategies for developing appropriate learning environments, encourage students to reflect on these strategies and on their own performance, and, on this basis, learn to modify teaching strategies for different contexts (McNamara, 1989: 6).

The preoccupation is with procedures and steps rather than with a more holistic approach. In an attempt to break away from this orientation one college planned to give students an opportunity in the early stages of Year One to teach whole lessons every week in a non-threatening environment to help develop an overview of the teaching situation before progressing to the practice of individual teaching skills. A number of lecturers, however, became totally frustrated with this approach and sought a return to strict observation using detailed schedules. This attitude was symptomatic of a general failure on the part of many lecturers to readjust their thinking to the less intense approach of a three year programme and to adopt a more reflective stance themselves.

It might be argued that so little conference time is available due to the high student-lecturer ratio, that lecturers are displaying a correct order of priorities by concentrating on providing instruction. However, there is some scope for the promotion of student reflection through the comments in the written assessments of students' lessons. Again, however, there is an overwhelming preference for providing instruction. When questions are posed for students they are usually aimed at reprimanding them as in the following examples:

- 1 L *Why did you miss your group activities?*
- 2 L *Did you see all of the children's books when you went around supervising their work?*
- 3 L *When you talk in the classroom do you talk to the chalkboard or to the children?*

An understanding of the experience of shame for Papua New Guineans and the sense of failure that often follows (Epstein, 1984), especially as a result of the conveying of 'personal inadequacies' through the medium of impersonal written comments, leads one to conclude that such an approach could be quite destructive. In general, however, most of the information and ideas that are communicated are given as directives and very rarely is a series of alternative ideas or strategies presented from which to choose. As a result, there is very little stimulation of creativity amongst the student teachers and little promotion of self-analysis in their professional development.

The development of practical reflection

The focus of this aspect of reflection is the anticipation and clarification of the assumptions that are the basis of practical action. In the lecturer-student interactions observed, situations frequently arose which held the potential for initiating student teachers into the process of deciding the worth of competing goals and experiences rather than just harnessing energies for their attainment. However, the potential was seldom fulfilled.

A major strategy which could contribute to the development of this dimension of reflection is the questioning of assumptions. It is arguable that only lecturers with a solid grasp of their subjects can promote such questioning. However, McNamara (1989: 60) has noted that many lecturers' formal education in their subject specialty is only up to Grade Ten.

In general, the interest of the lecturers appears to be in student ability to formulate and demonstrate answers rather than general critical questions. The question and "correct" answer exchange is particularly favoured especially at the beginning and end of lectures. The following excerpt is the opening section from a Year Two Health Education (content) lecture:

- L *Yesterday we discussed what body system?*
S *The Digestive System.*
L *What happens to food when it gets into your mouth?*
S *It is chewed up.*
L *What helps the food to be chewed up?*
S *The teeth.*
L *Anything else?*

- S *Saliva.*
L *What does saliva contain?*
S *Enzymes.*
L *What are enzymes?*
S *Chemicals that break down food.*
L *Where do they come from?*
S *The salivary glands.*

This pattern of exchange can go on for ten minutes and is quite common in most subjects. Rarely are questions posed requiring lengthy responses and a high level of cognitive functioning. Furthermore, while extensive use during this section of lectures is made of plans, diagrams, pictures and paragraphs on the chalkboard, what is usually sought is simply naming and labelling.

An associated feature of lectures is the high frequency of chorus answers elicited by the lecturers. Most obvious is the habit of stopping one word short of the end of a sentence so that the class can chorus the missing word. This is used not only to reinforce something taught but on all kinds of occasions. For example, a lecturer preparing to take a class for physical education was heard to say: 'I want you all to stand and go outside the....'. The class responded with a chorus of 'room'. In a science lecture the lecturer was reading aloud from a handout he had just distributed to the class: 'A cloud is a mass of small water droplets that float in the ...'. Students chorused 'air'. In this case they were following the words on the paper and did not have to consider a suitable response.

Overall, students' cognitive abilities are hindered by lecturers' inability or unwillingness to promote student-lecturer interactions. In particular, there is a great lack of usage of such strategies as building on students' responses. Also, while lecturers regularly check to see that students have at least heard what they are saying, student-initiated clarification is very rare and student creativity and spontaneous responses are constantly discouraged.

What is usually presented is factual, with very little explanation and questioning of the lecturer is rare. Quite often lectures can be taken up almost totally with note-taking with the lecturer writing on the chalkboard and the students copying it down furiously without receiving any explanation.

Given the lecturing style as outlined so far, it is not difficult to understand that there is very little promotion of practical reflection. Yet there are many areas which hold the potential for initiating students into this process. Within professional studies, for example, each of the colleges in the study have a course entitled 'Education in PNG'. However, what was observed was concerned simply with describing the reality of the existing situation. There was no questioning of the tendency by the NDOE to prescribe curricula which are programmed to the extent that the lessons for each day of each week over the six years of schooling are pre-planned. Neither was there any questioning of the fact that schools are required to follow a rigid timetable, with the weekly allocation of time to each subject and its constituent parts being nationally prescribed. The curriculum itself was also viewed as being non-problematic. Yet these and other issues are the subject of much debate within the country. Deutrom I (1990: 24), for example, has commented as follows:

Over the years the system has accorded a hugely important role to achievement in English, Mathematics and Science, calling them by such names as nationally prescribed subjects, core subjects, basic skills etc. None of these are basic to survival in the communities where most of our children will live. Those subjects which are basic to life in our communities are those which teach vocational skills and encourage social and spiritual development. At present these subjects are accorded a low status.

Such thinking, however, is rarely promoted in the lecture room.

Even when a community school subject undergoes a major change there is very little debate with the students on why such a change is considered necessary. During the period of the study a new 'functional' approach to the teaching of English was introduced to replace the former 'structural' approach. The Year Two students, having spent the previous year learning how to teach using the old approach, went about learning the new approach without being engaged in any discussion on the relative merits and demerits of each and on the evaluation undertaken of the old approach.

Overall, there is a great deal of 'telling' in lectures and the tests set each five or six weeks on the work undertaken in all subject areas demand recall of what has been told. These tests are easy to construct and easy to mark.

There is very little real opportunity for students to think for themselves and to question things they have been told. Most students seem conditioned by previous schooling to expect information to be poured over them and there is very little attempt made to break them out of this mould.

The development of critical reflection

This aspect of reflection looks for opportunities for the uncovering of taken-for-granted assumptions in social practices and a willingness to consider alternative practices. It focuses upon the way in which goals and practices become systematically and ideologically distorted by structural forces and constraints at work in various aspects of society, including educational settings. Rowell and Prophet (1990: 23) take up this matter as follows:

Schooling takes place in a specific context, with social, economic and political waves contributing to the shaping of a national curriculum..In looking at themselves within their communities, students are guided in a critique of the patterns of social relationships and institutions in an endeavour to heighten awareness of their sociocultural reality.

It was felt that social science and professional studies in particular held the potential for the development of such 'reflection' and observations centred mainly on these areas of the teacher education curriculum.

The teaching of social science is along the same lines as that for other subjects. It is concerned with 'question and "correct" answer' exchange; there is an unwillingness to promote student-lecturer interactions and the level of cognitive functioning is low. The following excerpts from a variety of Social Science lectures go some way towards illustrating this:

- 1 L *O.K. now. Here you see Greenland on the map of the world. It is not as big in reality as it appears on the map. Somehow when it was drawn they spread it out.*
- 2 L *The islands region of New Guinea is shaped like an arc. Why is the shape like this?*
 S *Because of the changes in the earth's crust.*
 L *Yes, because of the changes in the earth's crust.*

- 3
- L *Can the leader of the first group give a summary of the first paragraph in the article which you have been reading and discussing together?*
- S *All of the mountains in PNG were covered by glaciers during the Pleistocene.*
- L *During what?*
- S *During the Pleistocene.*
- L *The Pleistocene. Yes. A very interesting word. O.K. now, next group.*

Again, one is faced with the fact that lecturers, as they have readily admitted themselves (O'Toole, 1988: 25; McLaughlin, 1989: 7) have a great need for increased content knowledge of their teaching discipline. The highest level of qualification amongst the staff is a BEd and those with this qualification are very critical of the policy of the Staff Development Division of the TED. They feel that the unit is neglecting them by placing all of its effort on upgrading the remaining lecturers to the basic bachelor's level. There is very little information made available to them on any short courses they might take, on professional organisations overseas and on journals to which they might subscribe, and there is no encouragement to engage in research and set up a network of professional contacts.

In view of this situation it is hardly surprising that social science lecturers do not utilize approaches which could contribute to the development of critical reflection amongst the students. By concentrating on PNG, the South Pacific and South-East Asia in their lectures and not portraying totally contrasting environments, they fail to rescue social life from being taken-for-granted. Also, there is no probing of assumptions underlying many of the concepts used. 'Europeans', for example, is the term which is constantly used by lecturers and students for white Caucasians and the impression is created and maintained that there is a contemporary European culture which corresponds to the English-speaking, sexually liberal American and Australian stereotypes portrayed in the media. Also, the historical dimension is greatly neglected and there are very few opportunities for students to enhance their awareness of their social reality through explorations of the diverse links between past and present. Pre-independence life is portrayed simply as that of a homogeneous indigenous people being totally dominated by the colonial powers. Furthermore, while students are given plenty of opportunities to

express their diverse values and beliefs, they are rarely encouraged to delve into the origins and interests which shaped them.

The 'professional studies' lectures also held many opportunities for probing and questioning the socio-cultural reality within the education domain. The 'backwash effect' of the Grade Six examinations which are used to select students for high school is a case in point. So also is the unequal opportunity provided by the presence of high fee paying 'international' schools frequented largely by children of the PNG elite. The injustice of such a system has been the topic of much debate amongst academics and educationalists, but in the lectures on 'Education in PNG' observed in this study, the existence of the schools while mentioned was not questioned.

In an attempt to develop students who would become 'elaborators of culture rather than mere reproducers of it' (Zeichner and Teitelbaum, 1982: 107) and who would become open to considering the range of possibilities that exist beyond what has become institutionalised in their immediate settings, the present author assembled a series of readings on issues in education in PNG for use in tutorials in one of the colleges. Each reading was accompanied by a set of questions aimed at promoting student dialogue to explore and extend their social and educational worlds and engage in problem formulation, problem solving and critical inquiry. Most of the issues held the potential for promoting 'critical reflection', particularly those entitled 'Thinking about the Curriculum in PNG', 'Teaching', 'Language and Education', 'Corporal Punishment' and 'Women in Education'. However, despite the fact that they were given a short in-service course on the conducting of tutorials, lecturers dominated the tutorial sessions. They engaged mainly in asking questions, giving directions and evaluating, and very little meaningful dialogue took place. They did not help students to extend and elaborate their own ideas. Instead, they tended to guide the discussions towards the 'correct' responses.

Discussion

The principal intention behind the move from a two-year to a three-year pre-service course in teachers' colleges in PNG has been to improve the quality of teacher education. The development of 'reflectivity' has been seen as a major ingredient of a quality approach. However, the meaning of the term has been

largely unexplored. Furthermore, the interactions from the lecture room and other aspects of college life documented in this study indicate that such development is not being actively promoted. Lecturers perceive students as passive recipients of information. Learning is promoted through lecturer-talk, repetition and drill and is regularly assessed through the use of simple-recall test questions. Students are also perceived as apprentices in the acquisition of both 'general' and 'subject-specific' teaching skills. They are not encouraged to question the appropriateness of such methods and to experiment with any which their imagination might suggest to them.

The lecturers in this study were aware of their own lack of content knowledge and the restrictions which that places on them in the lecture room. They also pointed to the fact that the standard of those who enter the teachers' colleges is low in comparison to that of those who go on to national high school and university and argue that students must be 'spoonfed' with basic information. However, the quality of the 'spoonfeeding' is not very creative.

There are probably additional factors contributing to the maintenance of lecturer-centred instructional patterns in the colleges. For one thing, the adoption of a formalistic style of lecturing rather than an open-ended one may be necessary for survival in the lecture room in an authoritarian society like PNG (Larking, 1974) where lecturers and students come from semi-educated communities in which the teacher is expected to know everything and where repeated failure, to answer difficult questions could threaten his prestige. Associated with this is the fact that teachers and lecturers are seen as authority figures and within PNG culture people in such a position are not to be questioned. While lecturers keep excellent order in the lecture room, students are rarely given cause to believe that there is a higher level of understanding which the lecturers do not have and which they themselves might aspire to.

In the interest of balance it is important to note that student life at teachers' colleges in PNG is certainly not dull and uninteresting. Weekends are generally taken up with music and dancing. To observe the manner in which lecturers and students become totally absorbed in expressive arts periods and to witness the quality of their expression is a rare experience. The student participation and skill demonstrated in physical education classes is of a very

high level. Students also take great delight in beautifying their surroundings by planting and maintaining colourful flowers and shrubs. Their creative urges find full expression on such occasions as religious festivals and graduation day when they use 'bush' materials to create giant bamboo arches and adorn them and anything else that is upright with orchids, bougainvillia and hibiscus. Nevertheless, the fact is that the promotion of 'reflectivity' is neglected. In April 1991, Queensland University of Technology, under an Australian government aid programme to PNG, began the first of a series of in-service programmes within the country for serving lecturers. So far, this project would appear to be progressing very successfully. On its own, however, it is hardly sufficient if there is to be any hope of meeting the new ambitious aims for teacher education within the country. At the very least the Staff Development Division of the TED should become much more involved in the process. Furthermore, short courses should be made available at various centres throughout the country so that lecturers can be given the opportunity to up-date their subject-matter knowledge. Only then can the promotion of 'reflectivity' become more of a reality.

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