

Definitions of Pre-Service Teachers' Preconceptions of Teaching and Learning

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My findings (Kukari, 2003&2001) with secondary school pre-service teachers in Papua New Guinea show that they enter their teacher education programs with prior beliefs of teaching, learning, a teacher's role(s), students as learners, and knowledge. These pre-service teachers perceived teaching as the transmission of prescribed knowledge from the teacher to the learners, learning was viewed as the absorption and the memorization of prescribed knowledge, and a teacher's main role was to transmit prescribed knowledge to the learners who were perceived as "empty" vessels. Knowledge was perceived as something that was possessed by the teacher and useful for personal and society's growth. These preconceptions of teaching and learning are often not recognized, acknowledged or fully understood by both the pre-service teachers who hold them and their lecturers at the commencement of the teacher education program and in the process of learning-to-teach. The impact of these preconceptions on the process of learning to teach may not be seen or clearly understood by the pre-service teachers and the lecturers who teach them in their teacher education program.

Notwithstanding some awareness that pre-service teachers in Papua New Guinea enter their teacher education programs with preconceptions of teaching and learning, not much was known about how these preconceptions were constructed, how they manifested themselves in different socio-cultural contexts, and how these contributed towards defining for pre-service teachers what teaching and learning meant prior to teacher education. In order to develop an in-depth understanding and meaning of the preconceptions of teaching and learning that pre-service teachers hold, it is important that we should also focus on how these views were constructed and played out in different socio-cultural contexts prior to teacher education. This is particularly significant in the education of a heterogeneous and a culturally diverse population of pre-service teachers, such as exists in Papua New Guinea.

This study focused on the interaction and the relationship between indigenous

cultural and modern religious practices of teaching and learning and how these factors contributed towards the construction of Papua New Guinean secondary school pre-service teachers' preconceptions of teaching, learning, a teacher's role(s), students as learners, and knowledge in the cultural and religious contexts prior to the pre-service teachers enrolling in their teacher education program.

Discussion of Literature

The manifestation and the construction of pre-service teachers' prior beliefs of teaching and learning have been the main focus of a plethora of previous studies. These studies, for example Britzman (1991), Calderhead and Robson (1991), Hollingsworth (1989), and Knowles and Holt-Reynolds (1991), focused primarily on the influences of the formal school system. For example, Britzman in an in-depth study with two pre-service teachers reported that both entered their teacher education program with beliefs of teaching and learning constructed through their school experience. Similarly, Ross (1987) reported from his study with 21 pre-service teachers majoring in social science education at a large mid-western public university in the USA, that pre-service teachers' perspectives were shaped by their experiences as pupils in school. Extensive literature reviews by Calderhead, (1991), Pajares (1993), and Richardson, (1996) supported the findings of the aforesaid studies. Richardson, for example, suggested from his review of the literature on learning-to-teach that pre-service teachers' preconceptions of teaching and learning come through personal experiences, schooling and instruction, and formal knowledge.

A number of previous studies, for example, Bolin (1990), Hollingsworth (1989), Knowles and Holt-Reynolds (1991), and Weinstein (1990), focused on pre-service teachers' experiences of growing up in their families and communities. Knowles and Holt-Reynolds for example, asserted that the typical formative influences on the image of self as a teacher include, amongst others, those of the family. Other studies have attributed the construction of the pre-service teachers' preconceptions of teaching and learning to the pre-service teachers' interactions with the cultural contexts (e.g., Britzman, 1991; Joram & Gabriele, 1998; Wideen, Mayer-Smith, & Moon, 1998). Furthermore, Wubbles (1992) asserted that these preconceptions and theories of teaching and learning were manifested and located in particular worldviews, orientations, personal histories, or paradigms.

While formal schooling experiences have been thoroughly examined, described and ascertained as a significant source of influence on the construction of pre-service teachers' preconceptions of teaching and learning, cultural, specifically indigenous cultural, and modern religious genesis of these preconceptions have not been sufficiently examined, described and ascertained. This study builds on the assertions by Britzman (1991), Joram and Gabriele (1998) and Wideen, Mayer-Smith, and Moon (1998) that pre-service teachers' preconceptions of teaching and

learning were also constructed on the basis of their interaction with their cultural contexts. The study also endeavoured to enrich the dialogue on the nature of pre-service teachers' preconceptions by exploring the religious influences on these preconceptions. This study focused especially on indigenous cultures and the modern religious experiences and their shaping of pre-service teachers' preconceptions of teaching and learning. It is hoped that, in describing in detail how religious and indigenous cultures shape pre-service teachers' preconceptions in multicultural and multilingual contexts this research would illuminate, as well as vividly explain, how these preconceptions were constructed, played out and reinforced in the two contexts prior to teacher education. Such a detailed description is needed to further our understanding of the nature and the origins of pre-service teachers' preconceptions of teaching and learning in both the cultural (secular) and religious contexts.

My Study

This study was carried out at the University of Goroka, one of six universities in Papua New Guinea. The University of Goroka is the only educational institution in Papua New Guinea educating teachers for post-primary and post-vocational educational institutions. Students who enrol in its teacher education programs come from different provinces of Papua New Guinea. The students hail from different cultural backgrounds and speak at least one of more than 800 languages, and are members of various religions in operation in Papua New Guinea.

Methods Employed

The case study approach (Merriam, 1998; Patton, 1990) was employed in this study to enable the author to focus and develop an in-depth understanding of the essences of Papua New Guinean secondary school pre-service teachers' lived experiences of teaching and learning in both cultural and religious contexts. It enabled the author to also make sense of how cultural and religious experiences interact, define and fashion pre-service teachers' meanings, perceptions and realities of teaching, learning, a teacher's role(s), students as learners, and knowledge from pre-service teachers' emic perspectives.

Semi-Structured Interview

The qualitative data was collected through the use of semi-structured interviews. The interview questions focused on the participants' life histories, lived experiences and emic perspectives, and their meanings of teaching, learning, a teacher's role(s), students as learners, and knowledge and how these were constructed and got played out in the cultural and religious contexts.

Procedure

Pre-service teachers enrolling for the first time in their teacher education program at the University of Goroka were given an open invitation to participate in the study. Only three students responded and volunteered to participate. The purpose of the study was thoroughly explained and the three participants were given an opportunity to make comments and raise questions about the study. The interviews were conducted using prepared semi-structured interview questions with each of the participants. Opportunities were provided for participants to add additional comments and for clarifications and meanings to be ascertained from participants' responses. Each interview was audio-taped and transcribed immediately after it was completed. Pseudonyms were used to protect the privacy and the identity of the three participants throughout the study.

Participants

Participants in this study were three secondary school pre-service teachers who were beginning their four-year teacher education program at the University of Goroka. Two of the participants were males and the other one was a female. The participants came from three different provinces in Papua New Guinea. They were trilingual and were committed Christians. Although they had similar formal schooling experiences, due mainly to a standardised curriculum, they differed in terms of their belief systems, perceptions, ontologies, and epistemologies. Like many Papua New Guinean children, they grew up mostly in their villages under the care of their parents, and learned a lot of things from them, which were essential to them as members of their tribes. Two of the participants, that is Imale and Anowan, had at least one of their family members in the teaching profession.

Data Analysis

The constant comparative method of data analysis was used to analyze and interpret the data (Bogdan & Biklen, 1992; Goetz & LeCompte, 1984). This method of data analysis allowed for the participants' responses to be continuously compared with each other and to construct categories for the data. Tentative themes or categories emerging from the data were noted and the consistencies in the participants' responses were looked for to ensure that there was coherence in the data. As tentative categories emerged from the data, special attention was given to further evidence that either challenged or supported these categories. Through the constant comparison of the data, the emerging themes and categories crystallized. Time was taken to re-examine and refine the categories. Segments of data were constantly double-checked and compared within and across categories to make sure that all segments of the data were assigned appropriately and made sense, until a satisfactory closure was achieved.

Results and Discussion

Preconception of Teaching

The three pre-service teachers in this study generally believed that teaching is the transmission or the transference of prescribed knowledge to the students by the teacher, as well as telling students what to do and what not to do. William's elaboration of his preconception of teaching typifies the views of teaching held by the three pre-service teachers prior to enrolling in their teacher education program.

I viewed teaching basically as . . . the transferring of what is prescribed or written in the syllabus and textbooks to the learners. I [also] viewed teaching basically as the transmission of knowledge and skills to students about what to do and how to do it, and how things happen . . . by the teachers.

I asked each of them whether how they or children were taught in their cultural context contributed towards the construction of their own preconceptions of teaching. Each of the participants described how knowledge and skills were transmitted to the children in a very similar way, as well as the nature of the interaction with the transmitter of knowledge and the learner. The learner was to sit, listen, absorb and not to question what was transmitted to him or her. They were individually convinced that the experience of growing up in their own cultural contexts had an influence on their view of teaching before enrolling in their teacher education program. Anowan, for example, said:

In the culture where I am brought up in, children are transmitted knowledge, skills, values, and ideas by the older people or the elders. You know, . . . children do not question what the elders tell them or the knowledge they get from them.

How teaching was practiced in the religious context played an important role in shaping the three pre-service teachers' preconceptions of teaching. There was a general view from the three participants that there was little or no difference between the way teaching was conducted in their cultural and religious contexts. This is a strong indication that the three participants' preconceptions were reinforced in the two contexts. Imale's lived experiences of teaching in the religious context exemplify the experiences of teaching of the three pre-service teachers and how these experiences had shaped their preconceptions of teaching.

I believe my religious experiences have also contributed in shaping my view of teaching. But, then, I would say that . . . my culture is more or less a mixture of religion and culture. I cannot really separate my culture from my religion. Like, what I have said about . . . teaching from my cultural experiences would, to me, be the same in my religious experiences. We do not question the elders or what the preachers preach.

The three pre-service teachers' experiences of how teaching was carried out in the cultural and religious contexts were instrumental in shaping the way they perceived and made sense of teaching as the transmission of prescribed knowledge

and as telling. These lived experiences of teaching provided powerful images and illustrations of the way their preconceptions of teaching were played out and reinforced in the cultural and religious contexts. What is perhaps more compelling is the strong view held by the participants that there was no difference between the way teaching is conceived and manifested in both the school and the cultural contexts.

Preconception of Learning

Before entering their teacher education program, Imale, William, and Anowan generally believed that learning is the absorption and memorization of prescribed knowledge transmitted by the teacher. Imale's illustration of her view of learning is characteristic of the preconceptions of learning held by the three pre-service teachers.

To me, learning was for students to sit in the classroom and listen, hear, and receive what . . . the teachers were delivering without actually taking part. Learning was the absorption of skills, values, and knowledge passively by the students that are delivered to them by their teachers in the classroom.

The three pre-service teachers were certain that the preconceptions of learning they held prior to commencing their teacher education program were shaped by their cultural experiences. Learning involves listening, doing, and absorbing knowledge and skills transmitted by adults. Learners were not permitted to question nor critique what was learned. Anowan's experience exemplifies the experiences of the three pre-service teachers.

We children sit, listen, and acquire what adults give or what the adults are saying. That is how we obtain . . . or acquire knowledge from our elders. We never question the knowledge, skills, and ideas given to us by our elders. We absorb and memorize what the elders tell us or transmit to us because . . . the knowledge they transmit or give us is considered important for our own growth.

The three participants' cultural experiences were not dissimilar to their experiences of how learning was viewed and practiced in the religious context. There is a high degree of consistency between the three participants' experiences of learning in their traditional cultural context and the modern religious context. William's experience is typical of the experiences of the three participants.

In my religion we are expected to sit, listen, and memorize a lot of Bible verses so that, for example, . . . if somebody comes and asks us about particular preachings of Jesus and where they are located in the Bible, we will be in a better position to quote the verses in the Bible where this particular passage is located and not make a mistake. You know, this has also contributed greatly to the way I learned in the classroom, in school, at home, in my culture, and so on. Like, in culture we do not question our church elders . . . not even if you disagree with what they are teaching.

The three pre-service teachers have described and demonstrated in powerful ways their experiences of how learning was viewed and practiced in the cultural and

religious contexts and how this had contributed to the construction and interpretation of their preconceptions of learning. They also showed that their experiences of learning in different contexts were interrelated and connected. This has been powerful in shaping their views of learning that they possessed prior to enrolling in their teacher education program.

Preconception of a Teacher's Role(s)

The respondents assumed that a teacher's main role was to transmit prescribed knowledge to the learners. Apart from that, they also viewed the teacher as a role model, a counsellor, an advisor, a helper, an organizer, a coordinator, a supervisor of students' activities, a disciplinarian and a guide. These roles were tacitly viewed as supporting the main role of the teacher. Anowan's view of a teacher's role(s) typifies the preconceptions held by the three pre-service teachers prior to becoming students of teaching.

My view of a teacher's role or roles was that the teacher's main role is to tell students what to do and transmit to them the subject content that is prescribed in the syllabus and textbooks. I also viewed a teacher's role as an organizer, coordinator, and supervisor of student activities outside of the classroom. I also viewed a teacher as someone who . . . is responsible for guiding the students, advising them, and counselling them when they have problems.

The three respondents, when interviewed and probed individually, on whether or not their cultural experiences and growing up in their villages influenced their perception of a teacher's role(s), indicated that elders, parents, and relatives main role in the education process was to transmit the required skills, values, beliefs, and knowledge to the learners. They also saw their elders and parents as playing multiple roles, similar to a teacher in the formal school context. William, for instance, said:

In my culture teachers are normally the elders or adults. One of their roles is to transmit or transfer to the children knowledge, ideas, values, and skills of how to go hunting, making gardens and fences, trade, make bows and arrows, set game traps, fight in tribal wars, and other cultural activities. This is their main role . . . but they also play other roles in the village.

The three participants ascribed the construction of their preconceptions of a teacher's role(s) also to their experiences of how a teacher's role(s) were executed in the religious context, which they observed resembled that experienced in their cultural context. Imale for example, was positive that her experiences of how pastors and church elders performed their roles in the religious context contributed towards the construction of her preconception of a teacher's role(s). Her experiences were typical of the three pre-service teachers' experiences of the role(s) that teachers played in the religious setting.

One of the church elders' or pastors' roles is to deliver or transmit the religious values and beliefs to its members to keep them loyal and bonded to the church. You know, they guide church members, counsel them, and make sure . . . they stay committed to the preachings of the church, you know, about the death and resurrection of Jesus and so on. Their job is to preach and share with us what the Bible says about, . . . for example, how to live a good life, what to do and not to do, and so on.

William, Imale, and Anowan's experiences of the role(s) that teachers play in their cultural and religious contexts are complimentary and strongly reinforced each other. Thus, legitimatising and enabling the preconceptions to be further entrenched into the pre-service teachers' views of what the roles of the teachers were and how these were to be played out when they become teachers themselves.

Preconception of Students as Learners

The three respondents generally viewed students as "empty vessels" in terms of students possessing or not possessing prescribed knowledge, and their failure to use acquired knowledge in acceptable and beneficial ways. Anowan's preconception exemplifies the views held by the three pre-service teachers.

Personally, I viewed students as empty baskets that were to be filled by the teachers with knowledge. Students did not possess any knowledge . . . so, in order to have the required knowledge, they had to acquire it from the teacher.

The three pre-service teachers indicated that their cultural experiences and perceptions of learners were instrumental in shaping the beliefs they held about students before enrolling in their teacher education program. They stressed that culture plays an important role in the way students are perceived and related to in the formal classroom and in religion. Imale for instance, invoked a metaphor shared with her by her mother to describe how children were viewed in the cultural context and to demonstrate how cultural experiences have shaped hers as well as the other two pre-service teachers' views of students as learners.

I can remember my mother saying something about children . . . as leaves. There are particular types of leaves in my area, you know, . . . when the sun comes up they open up and are really looking good, as the sun sets the leaves close up and go to sleep. And that, my mum used to say . . . they are like small children, at one stage they are born as babies and look good, they become adolescents and adults in their lives, and die at the end. My mother was trying to illustrate to me that, you know, children do not possess the knowledge, skills, and ways of doing things that our society or clan believed was important for them to have. What I am trying to say is that . . . parents viewed children as, you know, like new comers to the clan or the society or empty containers, with a brain that needs to be developed.

The three pre-service teachers ascribed the way they made sense of what it meant to be students as learners not only to their cultural experiences, but also to their religious experiences of how learners were viewed in the religious context, which

they strongly believed were similar to their cultural experiences. Anowan's experience was typical of the three pre-service teachers' experiences.

Like, in terms of learning . . . there is a tendency for children and people to just sit down, listen, and obtain what is being said by the church elders or the superiors and . . . only respond in the manner the instructor or the church elder expected them to respond. So, in that sense, like, children are viewed as empty baskets or as knowing nothing about say . . . the Bible. Like, this is similar to the way students and children were viewed in school and in culture. I believe my school, cultural, and religious experiences are like, similar.

It is apparent that the three pre-service teachers' lived cultural and religious experiences were instrumental in shaping their preconceptions of students as learners. Students were viewed both as newcomers to society and as "empty vessels" or not possessing the required or accepted knowledge, skills, values, and beliefs. This view was prevalent and a given in the cultural context as well as the religious context. There is an obvious dialogical relationship between the pre-service teachers' experiences of students as learners in both the cultural and the religious practices and perspectives.

Preconception of Knowledge

The three pre-service teachers generally perceived knowledge as prescribed, as something that was useful for personal and society's growth, and as something that teachers possess. Anowan's view exemplifies the views held by the three pre-service teachers.

I viewed . . . like, everything that we learned in school, such as the different subjects, you know, English, Social Science, Science, and so on as knowledge. These subjects were decided by people in the Ministry of Education and . . . given to the teachers to teach to the students . . . I viewed knowledge simply as . . . the skills, concepts, ideas, processes, and facts that . . . you learn from the teacher in class or from what you read in books.

Knowledge was viewed in the same way in the three pre-service teachers' cultural contexts. Knowledge was the facts and skills, as well as the know-how that the children were expected to acquire and the parents were expected to teach them to fulfill one of their fundamental roles sanctioned by society. William's experiences are similar to those of the other two pre-service teachers.

In my culture, knowledge is facts that need to be learned, for example, . . . in the making of bilums [string bags] the mother has, I mean, possesses the knowledge of making bilums and her daughter does not. If the mother wants her daughter to know how to make bilums, . . . then the mother will transmit the knowledge and skills of making bilums to her daughter . . . These are facts that are already there, I mean defined . . . which elders and society believe are important and require children to know and learn.

The three pre-service teachers believed that knowledge is perceived the same

way in school, culture, and the religious context, thus reinforcing the view held that knowledge was a body of facts, which comprised skills, values, and the know-how. The three participants shared similar experiences as Anowan's. He said:

Knowledge, from my religious experiences, is viewed as a possession that is passed on to the people in the church. For example, young children and newcomers to the church are passed on the knowledge that the church requires them to have in order to become useful members of the church . . . Knowledge was viewed as facts.

The three pre-service teachers attributed the construction of their preconceptions of knowledge to their lived experiences in their cultural and religious contexts. Knowledge was viewed and acquired in very similar ways in the three respondents' cultural as well as in the religious context. The perception of knowledge in both contexts and the similarities in the definition of knowledge provided the basis in which the three pre-service teachers experienced first hand and assimilated the definition of knowledge in both contexts. This was instrumental in reinforcing and legitimising the three pre-service teachers' prior notions of knowledge.

Conclusion

It was explicit from the vignettes of the lived experiences of the three pre-service teachers that their preconceptions of teaching, learning, a teacher's role(s), students as learners, and knowledge were constructed and emanated from a powerful interplay between their cultural and religious experiences. This finding is somewhat consistent with similar findings by Ross (1987) and Britzman (1991). The study revealed that a dialectical and a mutually constitutive relationship existed between the religious and indigenous cultural practices and experiences of teaching and learning. This strong relationship defined for the three pre-service teachers what teaching, learning, a teacher's role (s), students as learners, and knowledge meant in the religious and indigenous cultural contexts. Such a relationship enabled the pre-service teachers to assume that those were the only realities of teaching and learning and these were omnipresent, and would also become their realities when they become teachers themselves.

This study also revealed that the three pre-service teachers' preconceptions, realities, and meanings of teaching, learning, a teacher's role(s), students as learners, and knowledge were simultaneously reinforced and validated in both the indigenous cultural and religious contexts. This continuous process of the legitimatising and reinforcing of the three pre-service teachers' preconceptions ensured that these were further engrained in the definition of what it meant to teach, to learn, to be a teacher, to be a student, and to consume knowledge. These realities of teaching and learning were constructed for the three pre-service teachers through the practices and the beliefs of teaching and learning in both the cultural and the religious contexts. This phenomenon of the legitimisation and reinforcement of pre-service

teachers' preconceptions of teaching and learning in different socio-cultural contexts could provide a plausible explanation as to why pre-service teachers' preconceptions of teaching and learning were difficult to change during the process of learning to teach. It is very clear that their preconceptions or realities of teaching and learning were pervasive and continuously reinforced and legitimatised by everyday life experiences, hence making it quite difficult for teacher educators to effectively address their stereotypes in teacher education courses. This dissonance between the goals of their program and their deeply held convictions perhaps explains why their views persist and do not alter despite efforts to change them.

The findings of this study are significant and point to the need for teacher educators to make every attempt to not only understand the preconceptions of teaching and learning that pre-service teachers bring to their study of teaching, but also how these were constructed and were played out in different socio-cultural contexts prior to teacher education. Efforts must be made to enable students to become cognizant of the concepts of teaching and learning imposed on them by their cultural, religious, school, and other experiences and practices, and simultaneously, provide opportunities that will empower them to commence the critical process of constructing their own definitions.

Ignorance and lack of attention on the part of teacher educators will see these pre-service teachers entering the teaching profession with these preconceptions, which are more likely than not to become detrimental to their own development as professional teachers as well as their students' personal and intellectual growth. This is because the preconceptions of teaching and learning that pre-service teachers enter their teacher education programs with are too simplistic in nature. These preconceptions emanate from a power relationship in which the teacher is seen as the powerful, based on the perception that he or she possesses the required knowledge, and the learner as powerless, based on the perception that he or she does not possess the required knowledge. In order for the learner to acquire the prescribed knowledge he or she had to have it "piped" to him or her by the teacher, who was perceived as in possession of the prescribed knowledge. This was a one-way, uncritical process of teaching and learning which was omnipresent in school and in everyday life. This power relationship between the teacher and the learner would make the learner become dependent on the teacher for information and for the teacher to think and solve problems for him or her, thus arresting any opportunity for the learner to construct his or her own knowledge and define for himself or herself his or her own reality.

The teacher, on the other hand, becomes comfortable with the subject content and teaching pedagogy possessed, and continues to utilize the simplistic beliefs of teaching and learning held prior to teacher education as a basis for his or her decision-making in teaching and learning contexts. Which in most cases, are not subjected to any form of critical examination and reflection, hence remain intact. This effectively means that teaching and learning practices remain static and status

quo is maintain throughout the teacher's teaching career and the learners entire time in school. The perpetuation of the status quo means that there is a real possibility of the vicious cycle being reproduced through the formal education system and in everyday life through the pre-service teachers that teacher education programs educate and feed the teaching profession, if their prior notions of teaching and learning were left unexamined during the entire process of becoming a teacher.

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