# The formalistic education paradigm in Papua New Guinea

## Gerard Guthrie

#### Abstract

A major issue generating classroom problems for some 50 years in Papua New Guinea (PNG) has been a continual series of confusing curriculum reforms that have failed to replace formalistic classroom teaching with progressive teaching. Failures included Outcome-Based Education (OBE), which was condemned in Vision 2050 and the Development Strategic Plan 2010-2030. The underlying curriculum and teaching issues involve continuities between the traditional formalistic education paradigm in PNG, its long history of cultural epistemology, its similarities with the classroom formalism introduced during the colonial period, and their influence on modern schooling. Formalistic teaching is not an intermediary step on the path to progressive education. It is likely to remain embedded in classrooms because it is consistent with traditional and on-going cultural practices, which the progressive Western paradigm is not. Rather than adopting yet another round of confusing curriculum-driven progressive 'reform', teacher training and curriculum to replace OBE would do better to build on existing classroom formalism.

**Key Words:** Curriculum, epistemology, formal education, formalism, Papua New Guinea, paradigms, teaching styles

#### Introduction

One of the major issues that has generated classroom problems in Papua New Guinea (PNG) for some 50 years has been a continual series of confusing curriculum reforms. Curriculum-driven progressive reforms, such as outcomebased education, have failed to replace formalistic classroom teaching. One consequence reported in *Papua New Guinea Vision 2050* was that,

Extensive consultations throughout the country indicated that there is an overwhelming dissatisfaction with the newly introduced Outcome-Based Education (OBE) curriculum. Parents and teachers have revealed that the quality of learning and teaching has been greatly compromised by OBE. ... It was also revealed that teachers are currently overworked because of the demands imposed on them by the teaching methodology prescribed by OBE. It is imperative that OBE is immediately replaced with a curriculum that offers a balanced education. ... The quality of teacher education with subject specialisations needs to be improved in order to deliver quality education (NSPT, 2010, p. 34).

Likewise, the PNG *Development Strategic Plan 2010-2030* asserted that in primary and secondary education,

Standards of numeracy and literacy are ... low due to under-trained teachers and a poor quality curriculum ..... Across all levels of schooling, curriculum reform is needed to promote student activities that facilitate understanding of key subject matters (DNPM, 2010, pp. 54 & 55).

The Strategic Plan implied that with better teacher training the curriculum might have been more successful, especially with progressive methods to promote student activities; but is this really so?

In analysing the underlying curriculum and teaching issues, this article will discuss the formalistic educational paradigm in PNG, its long history of traditional cultural epistemology (ways of structuring knowledge), the similarities with the formal educational practices brought to PNG during the colonial period, and their influence on modern primary and secondary schooling. The article explores in depth isssues arising from overwhelming evidence that eight major child-centred progressive curriculum and teaching reforms (including OBE) since the 1960's all failed, in considerable part because they were incompatible with the stronger teacher-centred formalistic paradigm that they were seeking to overturn (Guthrie, 2014). The present review draws draws from, updates and expands on previous material (Guthrie, 2003; 2011; 2012) to examine in greater depth the underlying cultural reasons why the progressive curriculum reforms failed. As will be seen, the implication of the analysis is that teacher training and curriculum to replace OBE would do better to work at improving the quality of existing classroom formalism rather than adopting yet another round of curriculum-driven progressive 'reform'.

## Paradigms

A compelling explanation of the depth of cultural background in education comes from Tabulawa (1997), who used the Kuhnian concept of paradigms to help explain social and educational constructs found deep in communal cultural traditions. The competition between formalistic and progressive paradigms has since become an internationally contested arena of educational debate about the types of curriculum, classroom teaching and teacher education that are appropriate for developing country classrooms. In particular, there is growing concern about the appropriateness of progressive education in parts of the world with different epistemological and pedagogical traditions than the English-speaking countries in which child-centred progressivism mainly originates (Bowers, 2005; Guthrie, 2011; Tabulawa, 2013).

Tabulawa (1997) noted that the concept of *paradigms* has been applied in education as a worldview or mind-set that views phenomena differently from other paradigms. One of the weaknesses of educational debate, Tabulawa also noted, has been a failure to recognise that teacher-centred and learner-centred classroom methods are informed by distinctive and particular paradigms. Their

assumptions about the social world, the nature of reality and the learner are opposed diametrically because their positions on the constitution, transmission and evaluation of legitimate knowledge are based on incompatible epistemological assumptions and cultural values. In cultures with *revelatory epistemology*, such as in PNG tradition, important knowledge comes from deities and the ancestors rather than from human inquiry. Commonalities among *formalistic paradigms* in education include this basis in revelatory epistemology, preferences for formalistic teaching, and incompatibilities with the basic tenets of learner-centred methods. In contrast, in contexts where scientific epistemologies prevail, the *progressive paradigm* emphasises individualistic values and primarily equates classroom quality with enquiry methods where the student is the focus rather than the teacher, and knowledge is to be discovered not transmitted (Guthrie, 2011). Progressive primary and secondary curriculum reforms in PNG have failed to replace formalism.

Not uncommonly, lack of understanding of the depths of culturally derived constructs and the paradigms of which they are a part has led to teacher conservatism being blamed for failure to innovate. A consequent supposition is that teacher 'resistance' can be overcome by technical inputs such as training and curriculum resources. Rogers' (2003) approach to attributes of innovations provides understanding why deeply held, culturally-based constructs can provide a rational basis for teachers to reject complex progressive innovations. These innovations fail in PNG and elsewhere because they offer little comparative advantage over formalistic styles for teachers targeted for change in schools, are not compatible with existing methods, and offer no observable outcomes for clients such as parents concerned with examination results (Guthrie, 2011). In effect, the cultural, social and educational environments in which teachers operate influence their constructs and perceptions, and can subvert the intentions of administrators and change agents who assume falsely that teachers will passively implement curriculum directives and that time and money will lead to success.

PNG has seen these cultural issues play out over some 50 years since attempts to introduce 'modern' curriculum began in the 1960's. The outcome has been a failure of paradigm shift to occur from formalistic to progressive methods (Guthrie, 2014). A fundamental part of the explanation lies in the depths of traditional formalism, to which we will now turn.

#### **Traditional formal education**

The 1986 Matane Report provided what Guy (2009, pp. 134-135) has called "an important prologue for much of the policy documentation and literature on education in PNG today". The Report recommended radical approaches to comprehensive classroom teaching and to greater equity and social justice. It contained a fond but false belief that in essence education in traditional cultures in PNG was a gentle art of cultural transmission through childhood socialisation. A related belief was that the colonial period introduced a new, authoritarian, formalistic teaching style that is not compatible with traditional socialisation practices. Progressive change derived from the beliefs

encapsulated in the Matane Report encompassed the whole of elementary, primary and secondary schooling, including through OBE.

The Matane Report erred by comparing traditional socialisation practices with modern classroom formalism. Actually, traditional Papua New Guinean societies contained several long-recognised types of education, and still do. One type is *informal education*, through which much knowledge is passed, usually from an older person to a younger one within the family or clan, but also among peers, and often through story-telling. This childhood enculturation and socialisation shapes the identity of young children, defining who they are and what it means to be a member of their particular group. A second type of education is non-formal education, where knowledge is passed from experts in a particular field – gardening, fishing or tribal warfare, for example – to others who are learning these skills on the job (McLaughlin, 1994). A third and less well-recognised type in traditional societies is formal education. The anthropological literature describes a millennia-old paradigm providing a basis for formalistic instruction through which particular forms of highly valued knowledge were, and still are, passed from one generation to another in systematically structured ways. Logically, the Matane report should have compared modern formal education with traditional formal education and not with informal education.

PNG contains many different cultures, but there are many similarities in their approach to formal knowledge. A key anthropological work has noted that traditionally people dismissed the principle of human intellectual discovery except in minor matters (Lawrence, 1964). Instead, myths were accepted as the sole and unquestionable source of all important truth. These myths told that all the valuable parts of the culture were invented by the deities, who taught people both secular and ritual procedures for exploiting them:

The body of knowledge was conceived to be as finite as the cosmic order from which it was contained. It came into the world ready made and ready to use, and could be augmented not by human intellectual experiment but only by further revelation by new or old deities. There was no need – in fact, no room – for independent human intellect (Lawrence, 1964, p. 33).

Traditional knowledge thus had a unified epistemology going back to the ancestors and the deities. Its sacred elements were normally available only to select initiated males through formal education as adulthood approached and later in adult life. This sacred knowledge was revealed by the gods or through instruction from those who already possessed it. It was pragmatic and finite, to be accepted not challenged. The task of the learner was to look and to listen to people who were known to be trustworthy (Carrier, 1980; 1984). New knowledge came from initiation, dreams, purchase or ritual – it was not self-generated, nor was it critically assessed. The purpose of the paradigm was human survival and transmittal of the culture, and it was controlled and regulated to these ends.

Formal education in this paradigm was elaborate and varied (McLaughlin, 1994). The process often required separation for extended periods from the rest of the community and an extraordinary amount of time and effort could be put into elaborate ceremonies and rituals. Ritualism, sacred rite and sorcery were also important aspects. The institutionalised role of leaders was acknowledged and they played an important personal role in teaching initiates, whether individually or in groups. These teachers often gave didactic verbal instruction based on a 'core curriculum' of esoteric, sacred knowledge. Learners had to master this knowledge; it could not be newly generated, but could only be passed to initiates by those who already possessed it. Among the Bundi, for example, boys' passage to manhood required a period of strict formal instruction starting with a flute ceremony when they were some 10-14 years old. Learning involved much practice of skills and recitation of instructions, with beatings for bad behaviour and punishment by fire that could verge on brutality. Correct behaviour, however, could generate respect and earn praise and other rewards. Completion of the boys' learning was marked by another initiation ceremony involving exchange of pig meat, after which they were men capable of taking part in tribal warfare (Fitz-Patrick & Kimbuna, 1983).

Another false belief embedded in the Matane Report was that traditional societies in PNG were marked by notable degrees of equality, the absence of which in modern times was blamed on colonialism and a formalistic school system. Carrier (1985, p. 97) refuted this view of equality in relation to Ponam Island in Manus:

The crucial element of this belief, the element that gives it particular poignancy and moral force, is the construction of the pre-colonial condition, the assertion that life was one of substantial equality, consensus and communalism ... a fair body of evidence, gathered both retrospectively and at the time of early contact ... seems to suggest that the pre-colonial system had substantial elements of inequality, dissensus, and coercion.

Similarly, Mel (2002, p. 411) has pointed out that a "picture of organic bliss can be misleading". The existence of chieftain systems in some part of PNG and of tribal warfare was allied to the fact that people traditionally had to fend within competitive terrains. Indeed, the very existence of formal education in traditional society meant educational inequality existed too. After all, not all men were educated in specialist fields, women were excluded from secret men's knowledge and vice versa, and not all people gained knowledge equally well. The effect was that traditional formal education was an intricate part of an unequal distribution of power and prestige. Colonialism added new inequalities rather than generated them for the first time.

#### **Colonial formalism**

Numerous elements of traditional pedagogy actually anticipated the formalistic teaching introduced predominantly by the missions in the colonial period that began in the 1870's (Carrier, 1985; McLaughlin, 1994; Guthrie, 2003).

Europeans brought to PNG a new variety of formal education that took place in schools (Weeks & Guthrie, 1984). The role of the predominant mission schooling was to convert Papua New Guineans for a limited role as Christian church members, clerks and labourers, with academic training limited to basic literacy and numeracy (McNamara, 1979; Smith & Guthrie, 1980). Considerable similarities in teaching and teacher education existed in different parts of the country during colonial times, as shown by studies in Manus (Pomponio, 1985), Papua and the adjoining Torres Strait in Australia (Williamson 1985) and elsewhere in Papua (Smith, 1985). Smith's historical research into Catholic education by the Sacred Heart Order in the first half of the 20<sup>th</sup> century, detailed how the Order promulgated formalistic curriculum and teaching methods. School teachers' main role was to facilitate evangelisation through instructing children in Christian doctrine and way of life. Teachers were required to prepare their lessons well, be punctual, keep regular hours for the school, ensure that discipline and order were kept, ring the bell early, keep the children silent and in good order, maintain rolls and to be strict. Mission policy banned corporal punishment, but teachers commonly used it anyway. In teaching catechism, teachers were to use repetition and question and answer until the material was learned off by heart. The Order's teaching style was typical of the formalistic schooling that dominated across PNG during the colonial period.

Having education in schools was new, but formalistic colonial teaching was thus different from pre-colonial formalism in degree not kind (Guthrie 2003; 2011). In traditional PNG, the learner's job was to find people who have knowledge and will teach it, which schools came to institutionalise. Leaving schooling in mission hands meant that the revelatory epistemological base of Christianity was compatible with the way knowledge was understood in traditional cultures. Too, colonial instructional methods had major commonalities, especially the underlying assumption that teachers know and transmit, and students do not know and receive. Both traditional and colonial formal education required students to play passive roles in receiving ordained knowledge through memorisation of a curriculum of basic facts and principles. There is no indication that colonial educators deliberately sought to reinforce traditional teaching styles, so that the coincidence between traditional and modern was fortuitous. Nonetheless, the underlying similarities in epistemological and pedagogical principles do help explain why formalistic teaching in schools was (and still is) congruent with the pre-existent cultural paradigm.

## Practical theory of formalism

To bring the story forward another step, there was also a great deal of continuity between colonial mission schooling and later requirements for teachers under the formalistic primary and secondary inspectorates in the National Education System, which was first established in 1970. The most detailed research since Independence on the workings of modern formalism appears to remain my own mixed methods evaluation of the secondary teacher

training programmes, which was conducted from 1978 to 1981 (Guthrie, 1983a; 1983b).

The inspectorate was the keeper of school standards, a body of senior professionals trusted by its own seniors to evaluate teachers and schools, and allowed considerable authority to do so. Its approach to rating teachers was underpinned by an informal theory of formalism (Guthrie, 1983b). This pragmatic theory placed the teacher firmly in control of whole-class processing of fixed syllabuses and textbooks, with the main emphasis on knowledge of basic facts and principles. Teachers were expected to have dominant roles and students generally to be passive, although limited overt teacher-student and student-student interaction was encouraged under conditions controlled by the teacher. Students were expected to have individual work and, on occasion, group work. Additionally, formalistic syllabuses, inspections, examinations and administration set the tone for schools and classrooms. The inspectorate had not expressed its formalistic construct in writing, but the underpinning could be inferred from the statutes, official notices, handbooks, inspectorial conference minutes, and procedures circulars detailing the inspectorial system, as well as from observation in schools and conferences over a four year period, and analysis of written reports on teachers and schools. Their approach constituted what Elbaz (1983) called practical knowledge. Inspectorial formalism recognised that unsureness lay at the base of many teachers' professional activities and attempted to generate confidence from understanding of educational routines with clear outcomes. The teacher, isolated in the classroom and often in a remote school, was linked to the system outside the school by the inspector and few other individuals with whom the teacher had direct contact. Undoubtedly, the inspection system restricted some teachers, for example by insistence on the keeping of full daybooks for three years after graduation. However, for most teachers, the inspectors were not restrictive of classroom behaviours because their orientation was to diversify and improve teachers' skills.

The inspectorate's procedures made formal, written, professional judgements through a range of observation methods, standardisation of report requirements and strong peer review (Guthrie, 2004). Discipline for teachers was largely external to the schools, and the inspectorate was the agent for this. Such discipline could be considered in two ways. First, there was discipline of the type that inspectors preferred: compliance with formal routines, which - even when not fully understood by teachers – provided a standard for assessing and improving performance. In their continual emphasis on lesson planning, daybook keeping, programme preparation, roll keeping, records maintenance and so on, the inspectors constantly tried to establish a disciplined approach to teaching. Teachers who followed the routines were likely to receive positive reinforcement in the form of promotion but, more importantly, their students were likely to benefit from a more thorough and systematic approach to schooling both in and out of the classroom. Teachers who did not follow the routines were likely to be the recipients of the second side of discipline: punishment for failure to follow requirements. Failure to be registered or promoted was a serious matter not taken lightly by the inspectors. Their

inspections were designed to ensure that, within the available resources, teachers were assessed as systematically as possible, and that the assessment had built-in checks and balances.

The research still retains relevance because the inspectorate's formalistic theory continues to be the best-tested approach to teacher registration and promotion on ability in PNG schools. Schooling has continued to change since the early 1980's, and the inspectorial system was modified along with the rest of the education system during the 1980's and early 1990's (Boorer, 1993; Thompson, 1993). However, its fundamental principles remain entrenched as the means by which the Department of Education maintains operational stability and professional standards in schools (Mel, 2007). The teaching style embedded in the inspectorate's formalism maintains continuity with traditional formal education and with mission schooling, a central aspect in all periods being the role of teachers in transmitting knowledge.

## **Cultural context**

Today local knowledge systems still remain an important component of the deep cultural inclinations that teachers and students bring to the classroom and which continue to affect strongly the type of pedagogy that teachers use and students intuitively accept (Lindstrom, 1970). Inside the classroom, "there are cultural meanings and sensibilities which mediate the activity structures of classroom practices, which also require acknowledgement if post-colonial teaching and learning are to be better understood" (Pickford, 1998, p. 6). While such beliefs do alter, their essence carries with the students through secondary school and teacher education (Ope, 2003; Kiruhia, 2003; Kukari, 2011). A formalistic construction of classroom behaviour helps link classroom pedagogy with the broader formalism of the education system as a whole, as well as with traditional culture. This formalist paradigm also affects the types of change teachers and students do and do not accept.

There are close parallels with Tabulawa's (2013) research in Botswana, where he found formalism deeply anchored in traditional cosmology in a society that emphasised domination and subordination of children to their elders. Children and teachers were exposed to this from earliest childhood, so that the formalistic paradigm was part of the culture they brought to the classroom. Like PNG, missionary education brought to Botswana a classroom style that resonated with traditional pedagogy and interacted with it, and which was further reinforced by post-independence educational planning that focused on labour market requirements using an objectives-based curriculum (pp. 91-154). However, ethnographic investigation brought out a very interesting aspect of classrooms that were seemingly teacher-dominated (pp. 71-89). Students were not just passive recipients of teacher dominance. Teachers and students coconstructed meanings attached to pedagogical practices, such that students overtly and covertly sought to keep teachers in an information giving role in a teacher-centred ambiance, for example by not asking questions. The implication was that a wider understanding can be required of teacher and student roles under formalism:

a view of teacher-centredness as co-construction re-defines 'teacher centredness' – it is not an ambience created by teachers acting *on* the students ... [it] is constructed *jointly* by the teacher and students acting on one another ... (p. xx, his emphases).

Co-construction has not been researched in PNG as far as I am aware, but it does open some interesting avenues for investigation into the lack of connection between progressive Western constructs about student-centred learning and PNG students' own constructs about classroom behaviour.

The community context of schooling can be very complex, and culturally relevant changes are not necessarily easy or successful, as demonstrated by Vernacular Pre-Schools. Vernacular schooling has a basis in research on cultural context that found the vernacular can provide a more effective base for learning of a foreign language and of mathematics, and is more efficient than spending the whole of primary schooling learning the language in which lessons are to be given (Downing & Downingm, 1983; Esling & Downingm, 1986; Clarkson, 1994; Siegel, 1997). However, in practice, schools struggled for several widely acknowledged reasons, including conflict between the nonformal vernacular approach and the formal elementary system, with effect on community support (Siegel, 1997), and an absence of vernacular texts in a country with some 830 languages; training enough vernacular teachers (Gould, 2004). Additionally, many primary teachers do not know the vernacular of the locations in which they are posted and therefore have difficulties with language transition because they cannot use examples from the vernacular in which pupils have been schooled (Siegel, 1997; Guy, Paraide, Kippel & Reta, 2006; Kale, 2006). The outcome was that the Strategic Plan 2010-2030 announced that the National Government would no longer fund elementary education in the vernacular (DNPM, 2010). None of this affects the issue of paradigms, however. Vernacular schooling is neither inherently formalistic nor progressive and its logistical problems are not inherently related to teaching styles; nor is vernacular schooling an example of progressive reform. Its relevance is the magnitude of operational problems that can arise even when a reform is apparently culturally appropriate, let alone one (like OBE) that is not. The lesson is that major changes to schooling need to be approached with caution: incremental change is likely to be more effective in the long term than revolutionary change, such as attempted by the Matane Report.

#### The on-going prevalence of formalism

Given the long history of traditional formal education and colonial schooling, it is no surprise that widespread and on-going professional agreement exists in PNG that formalism has prevailed in schools for a century:

- formalism predominated in the colonial period (Pomponio, 1985; Williamson, 1985; Smith, 1985)
- was pervasive in the 1960's and 1970's (Beevers, 1968; Coyne, 1973; Donohoe, 1974; Larking, 1974; Musgrave, 1974; Guthrie, 1983; 1983b)

- remained pervasive in the 1980's and 1990's (Matane, 1986; McLaughlin, 1990; 1995; Pearse, Sengi & Kiruhia, 1990; Ross, 1991a; Avalos, 1993; Burke, 1993; Guy, 1994)
- has continued to prevail in primary and secondary schoolrooms in the 21<sup>st</sup> century (Monemone, 2003; Wallangas, 2003; Agigo, 2010; Le Fanu, 2011)
- has been reinforced by formalistic
  - teacher training (Guthrie, 1983b; McNamara, 1989; Avalos, 1993;
    Guy, Haihuie & Pena, 1997; Kiruhia 2003)
  - inspections (Guthrie, 1983b; Weeks, 1985; Boorer, 1993; Thompson, 1993; Guy, 1994; Mel 2007)
  - examinations (Townsend, Guthrie & O'Driscoll, 1981; Ross 1991b; Mel 2007).

Widespread agreement has also existed, even among commentators who sought to replace it, that formalism has been remarkably difficult to change, even at tertiary level (Guy, Haihuie & Pena, 1997; Boorer, 1999; Nongkas, 2007).

Formalism, as we have seen, is not new. It is a pedagogy, originally from precolonial times, grounded in epistemological constructs based on transmission of traditional knowledge. One implication of the material reviewed in this article is that educational reformers in PNG cannot reject formalistic teaching as a colonial or inspectorial artefact. Numerous elements of traditional education, especially formal education involving sacred knowledge, anticipated the formalistic classroom teaching that was introduced in the colonial period in PNG. One key element was that the traditional paradigm was revelatory. This is consistent with an underlying element in modern formalism, where the assumption also is that the teacher knows and transmits and the student does not know and receives. A second key element was that the learner's job was to find people who had knowledge and would teach it, which schools now institutionalise. Similar views of knowledge in both traditional and modern times help explain the dominant role of teachers in traditional formal education and also the acceptability of teachers as the source of knowledge in modern formal education. Both traditional and modern formalism require students to largely play passive roles in receiving the ordained knowledge. Both share an emphasis on memorising a curriculum of basic facts and principles. One major difference between old and new is that traditional formalism is part of an oral bush culture, unlike the emphasis on literacy inside that institution of modern formalism, the school. The content is very different too.

The effect is that PNG has a long cultural tradition of formal education that is far more consistent with formalistic teaching than with progressive Western alternatives. Progressivism is based primarily in a very different paradigm of knowledge construction, intellectual enquiry, and the generation of new scientific knowledge:

The conceptual framework for Melanesian knowledge processes is inspirational, revelationary and transmissional, while western

knowledge is characterised by enquiry, reflectivity and creativity (McLaughlin, 1994, p. 67).

As Guy, Haihuie and Pena (1997, p. 36) put it,

Western education systems value questioning, creativity and problemsolving behaviours. In an inspirational system, the problem is to find the right source or text, rather than engaging with the source or text in a creative fashion ... [and] ... learning is, above all, a social construction based on relationships with teachers that are immediate, dialogical, and hierarchical.

The lack of emphasis on enquiry, reflectivity and creativity in traditional epistemology has meant considerable incompatibility with more recent progressive educational theories that gained currency after the transference of formalistic school teaching during the colonial period.

#### Conclusion

Progressive critics of formalism - who these days tend to be aid-funded expatriate curriculum specialists and overseas-trained teacher educators influenced by progressive approaches - have two major dilemmas. One dilemma is that the formalistic approach (as found in the secondary inspectorate's work) remains highly appropriate to the teachers and the system. Alternative theories of teaching require systematic demonstration that they are more appropriate if they are to be taken seriously, and this has not happened. Indeed, eight major progressive reforms during the last 50 years all failed in considerable part because they underestimated the strength and cultural depths of the traditional paradigm (Guthrie, 2014). This fifty years of well-funded failure undercuts any argument that more time and resources will generate progressive success. The second dilemma is that the long pre-colonial cultural roots of formalism in PNG mean that to reject formalism is to reject the deeper culture. Indeed, to be anything other than respectful of such traditions opens critics of formalism to political and cultural attack for having viewpoints scarcely compatible with the post-colonial rhetoric in which their criticism is sometimes wrapped. Whether Papua New Guinean critics will mount any sustained and well-reasoned challenge to formalism remains to be seen.

The way forward is methodology that elicits teaching and its improvement as culturally-embedded acts, thus providing a constructive path for the development of teaching styles grounded in PNG culture (Guthrie, 2015). It is no longer appropriate to consider that formalistic teaching is an intermediate stage on the path to progressive educational development. Formalism is a likely to remain embedded in PNG classrooms because it is compatible with traditional and on-going cultural practices. No amount of progressive curriculum reform will change that fact. Rather than adopting yet another round of confusing curriculum-driven progressive 'reform' intended to fundamentally change teaching styles, the clear implication is that teacher training and curriculum to replace OBE would do better to work at improving existing formalistic classroom practice.

#### References

- Agigo, J. (2010). Curriculum and learning in Papua New Guinea schools: A study on the Curriculum Reform Implementation Project 2000 to 2006. *Special Publication No.57*. Port Moresby: National Research Institute.
- Avalos, B. (1993). Ideology, policy and educational change. In C. Thirlwall & B. Avalos (Eds.), *Participation and Educational Change: Implications for Educational Reform in Papua New Guinea* (pp. 99-124). Port Moresby: UPNG.
- Beevers, R. (1968). Curriculum change in developing countries. Unpublished Master of Education thesis. Leicester: University of Leicester.
- Boorer, D. (1993). School inspectors as agents of change within the Papua New Guinea school system. In C. Thirlwall & B. Avalos (Eds.), *Participation and Educational Change: Implications for Educational Reform in Papua New Guinea* (pp. 195-201). Port Moresby: UPNG.
- Bowers, C. (2005). The False Promises of Constructivist Theories of Learning: A Global and Ecological Critique. New York: Peter Lang.
- Burke, C. (1993). From basic skills to reflective practice. In C. Thirlwall & B. Avalos (Eds.), Participation and Educational Change: Implications for Educational Reform in Papua New Guinea (pp. 219-236). Port Moresby: UPNG.
- Carrier, J. (1980). Knowledge and its use: Constraints upon the application of new knowledge in Ponam society. *Papua New Guinea Journal of Education*, 16(2), 102-126.
- Carrier, J. (1984). Education and society in a Manus village. *Report No.47*. Port Moresby: Educational Research Unit, UPNG.
- Carrier, J. (1985). Education and the transformation of traditional inequalities in Manus province. In M. Bray & P. Smith (Eds.), *Education and Social Stratification in Papua New Guinea* (pp. 86-97). Melbourne: Longman Cheshire.
- Clarkson, P. (1994). Language and mathematics: A comparison of bilingual and monolingual students of mathematics. *Educational Studies in Mathematics*, 23(4), 417-429.
- Coyne, G. (1973). Education in Papua New Guinea schools. *Papua New Guinea Journal of Education*, 9(1), 17-21.
- Donohoe, D. (1974). Monitoring educational development in a foreign culture spotlight the problem areas. In *Educational Perspectives in Papua New Guinea* (pp. 30-44). Melbourne: Australian College of Education.
- DNPM (Department of National Planning & Monitoring). (2010). *Development Strategic Plan 2010-2030*. Port Moresby.
- Downing, J. & Downing, M. (1983). Metacognitive readiness for literacy learning. *Papua New Guinea Journal of Education*, 19(1), 17-40.
- Elbaz, F. (1983). *Teacher Thinking: A Study of Practical Knowledge*. New York: Nichols.
- Esling, J. & Downing, J. (1986). What do ESL students need to learn about reading? *TESL Canada Journal*, Special Issue 1, 55-68.
- Fitz-Patrick, D. & Kimbuna, J. (1983). Bundi: The Culture of a Papua New Guinea People. Nyrang: Ryebuck.
- Gould, S. (2004). Purposeful reading in elementary schools: From 'learning to read' to 'reading to learn'. *Papua New Guinea Journal of Education*, 40(1), 43-54.
- Guthrie, G. (1983a). An evaluation of the secondary teacher training system. *Report No.44*. Port Moresby: Educational Research Unit, UPNG.
- Guthrie, G. (1983b). The secondary inspectorate. *Report No.45*. Port Moresby: Educational Research Unit, UPNG.
- Guthrie, G. (2003). Cultural continuities in teaching styles, *Papua New Guinea Journal of Education* [Special Issue on Formalism], 39 (2): 57-78.

- Guthrie, G. (2004). Typology of educational knowledge. *Papua New Guinea Journal of Education*, 40(1), 1-11.
- Guthrie, G. (2011). The Progressive Education Fallacy in Developing Countries: In Favour of Formalism. New York: Springer.
- Guthrie, G. (2014). The failure of progressive paradigm shift in Papua New Guinea. *Papua New Guinea Journal of Education*, 41(1), 1-28.
- Guthrie, G. (2015). Culturally-grounded pedagogy and research methodology. *Compare*, 45(1), in press.
- Guy, R. (1994). Reconstructing teachers as reflective practitioners in Papua New Guinea. Papua New Guinea Journal of Education, 30(1), 45-59.
- Guy, R. (2009). Formulating and implementing education policy. In R.J. May (Ed.), Policy making and implementation: Studies from Papua New Guinea. *Studies in State and Governance in the Pacific No.5* (pp. 131-154). Canberra: State, Society and Governance in Melanesia Program, Australian National University.
- Guy, R., Haihuie, S. & Pena, P. (1997). Research, knowledge and the management of learning in distance education in Papua New Guinea. *Papua New Guinea Journal* of Education, 33(1), 33-41.
- Guy, R., Paraide, P., Kippel, L. & Reta, M. (2006). Review of the catch-up bridging to English workshops – CRIP Impact Study 2. In P. Pena (Ed.), Sustainable Curriculum Development: The PNG Curriculum Reform Experience (pp. 112-122). Port Moresby: Department of Education.
- Kale, J. (2006). Bilingual schooling in Papua New Guinea: A sharp tool easily blunted.
  In P. Pena (Ed.), Sustainable Curriculum Development: The PNG Curriculum Reform Experience (pp. 201-213). Port Moresby: Department of Education.
- Kiruhia, J. (2003). The practicum as experienced in the student teacher role. In A. Maha& T. Flaherty (Eds.), *Education for 21<sup>st</sup> Century in Papua New Guinea and the South Pacific* (pp. 109-116). Goroka: University of Goroka.
- Kukari, A. (2011). Cultural construction of indigenous pre-service teachers' identities prior to teacher education. *Contemporary PNG Studies*, 15, 134-145.
- Larking, L. (1974). Some difficulties in improving the quality of teachers in Papua New Guinea. In *Educational Perspectives in Papua New Guinea* (pp. 130-137). Melbourne: Australian College of Education.
- Lawrence, P. (1964). Road Belong Cargo. Melbourne: Oxford University Press.
- Le Fanu, G. (2011). The transposition of inclusion: An analysis of the relationship between curriculum prescription and practice in Papua New Guinea. Doctoral dissertation. Bristol: University of Bristol.
- Lindstrom, L. (1990). Local knowledge systems and the Pacific classroom. *Papua New Guinea Journal of Education*, 26(1), 5-17.
- Matane, P. (Chairman). (1986). A Philosophy of Education for Papua New Guinea: Ministerial Committee Report. Port Moresby: Department of Education.
- McLaughlin, D. (1990). A curriculum for teacher education: Some preliminary considerations. *Papua New Guinea Journal of Education*, 26(1), 29-35.
- McLaughlin, D. (1994). Through whose eyes do our children see the world now? Traditional education in Papua New Guinea. *Papua New Guinea Journal of Education*, 30(2), 63-79.
- McLaughlin, D. (1995). Teaching for understanding: The Melanesian perspective. *Papua New Guinea Journal of Teacher Education*, 2(1), 7-15.
- McNamara, V. (1979). Some experiences of Papua New Guinea primary schools, 1953-1977. Papua New Guinea Journal of Education [Special Issue on the Community School], 15, 10-26.
- Mel, M. (2002). 'Ples bilong mi', Shifting cultures and the learner in relation to identity in Papua New Guinea. In P. Ninnes & L. Tamatea (Eds.), *Education in the Asia-Pacific Region: Critical Reflections, Critical Times* (pp. 410-422). Armidale: Australian & New Zealand Comparative & International Education Society.

- Mel, M. (2007). Quality assurance and assessment in education in Papua New Guinea. Educational Research for Policy and Practice, 6(3), 219-228.
- Monemone, T. (2003). Formalistic teaching is not imposed, it is indigenous to Papua New Guinea. Papua New Guinea Journal of Education [Special Issue on Formalism], 39(2), 91-95.
- Musgrave, P. (1974). Primary schools, teacher training and change: Beeby reconsidered – Some data for the Pacific. *Papua New Guinea Journal of Education*, 10(1), 42-47.
- Nongkas, C. (2007). Leading educational change in primary teacher education: A Papua New Guinea study. PhD research thesis. Australian Catholic University.
- NSPT (National Strategic Plan Taskforce). (2010). Papua New Guinea Vision 2050. Port Moresby.
- Ope, D. (2003). The implications of educational beliefs of early adolescents on their learning goals, motivational orientations and achievements: A case study of early adolescents in Port Moresby North schools. In A. Maha & T. Flaherty (Eds.), *Education for 21<sup>st</sup> Century in Papua New Guinea and the South Pacific* (pp. 117-127). Goroka: University of Goroka.
- Pearse, R., Sengi, S. & Kiruhia, J. (1990). Community school teaching in the Central Province: An observational study. *Papua New Guinea Journal of Education*, 26(1), 69-84.
- Pickford, S. (1998). Post-colonial learning: Classroom rituals as social and cultural practice. *Papua New Guinea Journal of Teacher Education*, 5(1), 6-14.
- Pomponio, A. (1985). The teacher as key symbol. Papua New Guinea Journal of Education, 21(2), 237-252.
- Rogers, E. (2003). Diffusion of Innovation (5th Ed.). New York: Free Press.
- Ross, A. (1991a). The teacher education research project. In B. Avalos & L. Neuendorf (Eds.), *Teaching in Papua New Guinea: A Perspective for the Nineties* (pp. 73-91). Port Moresby: UPNG.
- Ross, A. (1991b). Examination performance and internal assessment in school certificate science in Papua New Guinea: A secondary analysis of published examination data. *Papua New Guinea Journal of Education*, 27(2), 1-7.
- Siegel, J. (1997). Formal vs. non-formal vernacular education: The education reform in Papua New Guinea. *Journal of Multilingual and Multicultural Development*, 18(3), 206-222.
- Smith, P. (1985). 'Labouring with us in the gospel': The role of Papuan teachers of the Sacred Heart Mission before the Pacific War. *Papua New Guinea Journal of Education*, 21(2), 151-161.
- Smith, P. & Guthrie, G. (1980). Children, education and society. In G. Guthrie & P. Smith (Eds.), *The Education of the Papua New Guinea Child: Proceedings of the* 1979 Extraordinary Meeting of the Faculty of Education (pp. 5-21). Port Moresby: UPNG.
- Tabulawa, R. (1997). Pedagogical classroom practice and the social context: The case of Botswana. *International Journal of Educational Development*, 17(2), 189-194.
- Tabulawa, R. (2013). Teaching and Learning in Context: Why Pedagogical Reforms Fail in Sub-Saharan Africa. Dakar: Codesria.
- Thompson, P. (1993). The performance of the secondary inspector. *Papua New Guinea Journal of Education*, 29(2), 97-109.
- Townsend, G., Guthrie, G. & O'Driscoll, M. (1981). Criterion-referenced measurement: Towards a new school assessment policy. *Research Report No.37*. Port Moresby: Educational Research Unit, UPNG.
- Wallangas, G. (2003). Formalism is both indigenous and imposed. Papua New Guinea Journal of Education [Special Issue on Formalism], 39(2), 96-100.
- Weeks, S. (1985). The teachers' role: Research, inspections and standards. *Papua New Guinea Journal of Education*, 21(2), 197-204.

- Weeks, S. & Guthrie, G. (1984). Papua New Guinea. In R. Thomas & T. Postlethwaite (Eds.), Schooling in the Pacific Islands: Colonies in Transition (pp. 29-64). Oxford: Pergamon.
- Williamson, A. (1985). Comparative notes on the role of the indigenous teacher in Papua, New Guinea and the Torres Strait Islands, 1871-1942. *Papua New Guinea Journal of Education*, 21(2), 163-172.

## Author

**Dr Gerard Guthrie** has some 40 years of experience involving PNG. He was a Lecturer in Social Science at Goroka Teacher's College and a Senior Lecturer in the Educational Research Unit of UPNG between 1975 and 1983; consulted on educational activities in PNG during the 1980's and 1990's (part of which time he was a Counsellor and Director in AusAID); was Foundation Professor of Education at the University of Goroka in 2002-03; and was Director of a major series of crime victimisation surveys from 2004-09. He is a former Editor of the *Papua New Guinea Journal of Education*, and has over 130 publications and papers on education, crime and research methods in PNG. He is the author of *The Progressive Education Fallacy in Developing Countries: In Favour of Formalism* (New York: Springer, 2011) and, with Karina Guthrie, of *Basic Research Methods for PNG* (Port Moresby: UPNG Press, 2012). Email: gerardguthrie@hotmail.com