# Teachers' perspectives on classroom practice in Botswana: implications for pedagogical change

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Attempts to improve the quality of education in Botswana have, *inter alia*, included an emphasis on a learner-centered pedagogy. Attempts at implementing this pedagogy have been made within the ambit of the technical rational model of curriculum development. The attempts, however, have produced inconclusive results, and these results have often been rationalized in technicist terms, e.g., as being due to lack of resources and poorly trained teachers. Overlooked in this technicist model are the teachers' perspectives on the innovation. Using the case-study approach within the rubrics of the qualitative research paradigm, this study sought to establish the perspectives of geography teachers in a senior secondary school in Botswana vis-à-vis the learner-centered pedagogy advocated in *Education for Kagisano* (*Social Harmony*), a report produced by the 1977 Commission on Education. The findings indicated that teachers' classroom practices were influenced by many factors other than technical ones: these included the teachers' assumptions about the nature of knowledge and the ways it ought to be transmitted, their perceptions of students, and the goal of schooling. It also emerged that their assumptions were incongruent with the basic tenets of the learner-centered pedagogy. The findings, then, are an indictment of the technical rational model of change implementation applied in Botswana. They indicate that disregarding what teachers know and think about their taken-for-granted classroom practices when effecting change can lead to disappointing results.

## Introduction

Since attaining independence from Britain in 1966 Botswana has made great strides in the provision of education. The 1980s formed the watershed in this provision of education since the decade witnessed the implementation of the recommendations of *Education for Kagisano* (*Social Harmony*), a report produced by the 1977 Commission on Education, which was undertaken to investigate ways and means of improving both the qualitative and quantitative aspects of the country's education system. A special feature of the desire to improve the quality of secondary education has been the emphasis upon a shift from a teacher-centered pedagogy to a participatory, learner-centered one. The reason for this change is that Botswana is a democracy whose development is guided by the four national principles of *democracy*, *self-reliance*, *unity*, and *development*. Put together, these principles, along with the concepts of social justice, interdependence, and mutual assistance, produce the national philosophy of *Kagisano* (social harmony).

The government, thus, makes an attempt to infuse these principles in most of its development projects as a way of nurturing the relatively nascent democracy. Furthermore, the Botswana Government firmly believes that education has a role to play in the democratization process. It was for this reason that the 1977 Commission on Education recommended that any features of the education system (its structure, organization, curriculum content, or teaching methods) that appeared to militate against the realization of the national principles had to be changed. A learner-centered

pedagogy was, therefore, seen as one way of extending democratic practice to the micro-level of the classroom.

It is now official policy of the Ministry of Education that teaching/learning should emphasize learner-centered education. And there has not been a shortage of resources to implement this mode of education. Botswana attained political independence from Britain as one of the poorest countries in the world. However, the subsequent discovery of high-quality diamonds and copper-nickel deposits has since transformed the country into one of the richest in sub-Saharan Africa. In the 1980s Botswana experienced one of the fastest rates of economic growth in the Third World, thanks to the relatively stable world diamonds market and to the generosity of Western donor agencies. This has enabled the country to, among other things, make attempts at reforming education. Teachers have, consequently, been specially targeted in this reform agenda. Their pivotal role in the implementation of a learner-centered pedagogy has been acknowledged, and significant amounts of resources have been committed to improve teacher quality. For example, in-service programs have been established for teachers, and programs in teacher training institutions have been revised to reflect the government's emphasis on learner-centered education.

It is now more than a decade since a learner-centered pedagogy was introduced in schools. However, all research indications are that not much has changed in terms of the quality of teaching; teaching in schools is still didactic and authoritarian with little or no recognition of the learner's potential to actively construct classroom knowledge (Chapman, Snyder, & Burchfield, 1993; Fuller & Snyder, 1991; Fuller, Snyder, Chapman, & Hua, 1994; Prophet & Rowell, 1990). Various reasons have been advanced to explain this lack of change. The most common explanations are those related to technical issues normally associated with the innovation delivery system. These include lack of resources, poorly trained teachers, large class sizes, and the examination-oriented educational system.

Equally indictable – but often overlooked – is the model of pedagogical change employed by curriculum developers in effecting pedagogical change in Botswana. I argue in this paper, then, that the model that has been used is faulty and condescending towards teachers. It completely disregards the teachers' "voices," and it is technicist in approach. Following the arguments of the literature on teacher thinking, I argue that disregarding what the teacher *knows* and *thinks* about his or her own classroom practice when effecting change may lead to disappointing results. There is, then, a need to understand the existing realities of the teachers (Fullan, 1991, p. 44) in the change process if we are to predict the feasibility of any change.

Teachers attach subjective meanings to what they *know* and *think* of classroom practices. These subjective meanings have implications for pedagogic change, and understanding those meanings may provide us not so much with answers to problems of change as with a more comprehensive picture of pedagogic change. It was this perceived importance of teacher thinking and knowledge that guided this study, whose broad objective was to establish the perspectives of geography teachers in a senior secondary school in Botswana in relation to their classroom practice and then to extrapolate the implications of the teachers' perspectives for the current attempt in the country to shift pedagogic practice from teacher-centeredness to learner-centeredness. Specifically, the study sought to map out the nature of geography teaching and learning patterns in a senior secondary school in Botswana, to find out how teachers made sense of those patterns, and to extrapolate how the participants' perspectives on those patterns were

likely to impinge upon their classroom practice. The term teacher perspectives in this paper is used to refer to:

> ... ways in which teachers [think] about their work, e.g., purposes, goals, conceptions of children, curriculum) and the ways in which they [give] meaning to these beliefs by their behavior in class. (Tabachnik & Zeichner, 1984, p. 28)

This study explored the pedagogic assumptions held by geography teachers about school knowledge, schooling (and its goals), and teaching and learning, and it explored the ways the teachers' assumptions were likely to impact on the teachers' classroom practical knowledge. The basic assumption of the study was that teachers attach assumptions and meanings to their day-to-day classroom activities. These meanings and assumptions coalesce to constitute teachers' perspectives, and the latter may be translated into classroom practice wherein they inform the teachers' classroom practical knowledge. It is this knowledge that structures classroom interactions and, precisely for this reason, has implications for pedagogic change.

## Understanding pedagogical change

Traditionally, the dominant framework for understanding pedagogical change has always been the technicist framework. There has always been a tendency to explain teachers' classroom practices in terms of technical issues. Consequently, measures that have been taken to address problems of teaching have also tended to be technicist in nature. The technicist approach implies that teaching is a value-free, objective activity whose problems are solvable through the application of the rigorous procedures of the scientific method. For example, Schon (1983) refers to technical rationality as the "view that ... professional activity consists in instrumental problem-solving made rigorous by the application of scientific theory and technique" (p. 21). This approach is deeply rooted in technical rationality, an epistemology of practice based on the empiricist/positivist tradition (McNiff, 1988; Schon, 1987; Smyth, 1991). Furthermore, technical rationality has had a pervasive impact on curriculum development in general and pedagogic change in particular. The technicist approach, with its stress on value-neutrality, for instance, tends to ignore the role of agency (e.g., that of teachers) in pedagogical change, hence its implicit assumption that educational change takes place in a sociological vacuum. In addition, on the basis of its value-free assumption, technical rationality holds that there is "no value conflict and that there are no competing paradigms to practice" (Pearson, 1989, p. 28).

It is not surprising, then, that the process of pedagogical change in Botswana is anchored in technical rationality. The Curriculum Development Division in the Ministry of Education is responsible for developing curricular and teaching strategies with little or no input from the practicing teacher (Maruatona, 1994). The latter's role is simply to adopt and implement teaching strategies "developed" by the bureaucrats. To ensure implementation, inputs (in the form of resources and in-service programs) are mobilized, the expectation being that these will then lead to change in teachers' practices. Exactly how these inputs are subsequently translated into teacher action in the classroom is never made clear, though.

Furthermore, because of the way in which it hierarchically structures the practice of curriculum planning, this model has been termed the "top-down" model, the "centre–periphery" model, the "input–output" model, and what Hoyle (1988) terms

the "maintenance paradigm." With its emphasis on educational change as a rational technical process the model typically conceptualizes pedagogical change as a process that is:

> ... initiated at the macro level from a central position and passed down to the micro level of classrooms where deficiencies in curriculum materials can be remedied which leads to improvement in teachers and teaching styles. (Prophet, 1995, p. 129)

Thus, in this model of change management, the teacher essentially plays a passive and dependent role and can change his or her practice only by adopting teaching practices and curricula "mandated by those who are external to the setting in which the teaching is taking place" (Richardson, 1994, p. 6).

Though the rational technical model (with its roots in the ideology of technical rationality) has dominated the management of pedagogical change for the past two decades, it has not led to any significant improvement in teaching. Consequently, alternative frameworks have been sought to understand the process of teacher change. The present study is anchored in the "classroom ecology" research paradigm (Shulman, 1986, p.18) that is closely associated with qualitative and interpretive studies. This paradigm argues that understanding classroom practice from teachers' own perspectives may facilitate teacher change. This paradigm is closely related to the constructivist perspective that perceives teachers as purposeful sense-makers who constantly construct ideas in order to understand situations and events.

Teachers bring to the classroom their existing knowledge and prior experiences, and these interact with their current observations and interpretations to give shape to their classroom practice. By according significance to the personal knowledge that teachers bring to the classroom, the constructivist perspective implies an active role for the teacher rather than a passive one as is the case with the technicist stance. This perspective on teaching thus recognizes that meaningful change in teachers' practices cannot come about if the latter continue to play a passive and dependent role in practice. It thus becomes imperative to understand the knowledge and beliefs that guide teachers' practices. At the methodological level this involves getting "inside teachers' heads" (Feiman-Nemser & Floden, 1986, p.506) to describe their knowledge and beliefs about their teaching practices. The interpretive approach seems to be the one best suited for this task. This approach, Erickson (1986) states, refers to "the whole family of approaches to participant observational research" (p. 119). It has, then, as its central interest, the meanings of actions for the actors.

It is this theoretical perspective that has informed research on teacher thinking since the 1980s. The research is premised on the assumption that teachers' thoughts, beliefs, judgments, and decisions guide their classroom behavior (Richardson, Tidwell & Lloyd, 1991; Stern & Shavelson, 1983). This assumption implies a view of teachers as active and autonomous agents whose role is shaped by their classroom experience (Elbaz, 1983). Thus, in opposition to the sterile and dependent view of the teacher promoted by the technicist approach, research on teacher thinking views the teacher as capable of mediating ideas and constructing meaning and knowledge.

Research on teacher thinking has, however, expanded since the 1980s and has developed into separate, albeit interconnected, branches. Some have investigated the nature of teachers' practical knowledge (Elbaz, 1983); others have studied knowledge-in-action (Schon, 1983), while still others have focused on images (Clandinin, 1985) or frames (Barnes, 1992). All these studies acknowledge the existence of a relationship

between teacher beliefs and theories, on one hand, and teachers' classroom actions, on the other, and all share "the focus and ideological commitment to viewing teachers as active agents in the development of educative events" (Pope, 1993, p. 22). As Pajares (1992) rightly points out, all these studies are premised on the assumption that "teachers hold beliefs, however defined and labeled, about their work, their students, their subject-matter, their roles and responsibilities" (p.314), and these beliefs influence their teaching practices. Thus, seeing the practice of teaching from the practitioners' perspective is an important consideration in research on teacher cognition. To accomplish this in this study, "naturalistic" methodologies (e.g., participant observation and in-depth interviews), closely associated with ethnographic research (Spradley, 1979), were adopted to yield an understanding of the ways that teachers made sense of their settings and actions and of the implications this had for the current attempt in Botswana to shift from teacher-centered pedagogies to learner-centered ones.

There has, in fact, recently been keen interest on researching classroom teaching/learning processes from the perspective of qualitative research in Botswana. This shift in research focus was pioneered by Robert Prophet of the University of Botswana and Patricia Rowell of the University of Alberta in the late 1980s. This shift reflects the general international trend in research on teaching to switch from the process–product research paradigm that informed studies on teachers' actions and their observable effects (sometimes called "teacher effectiveness" research) in the 1970s to the classroom ecology paradigm that, since the 1980s, has been informing studies on teacher thought processes or cognition.

Studies documenting life in Botswana classrooms have steadily increased ever since. However, these studies have not gone beyond this classroom focus into the realm of teachers' perspectives and their relationship to pedagogic change. International literature, nevertheless, points to the importance of this relationship. For example, Richardson, Tidwell, and Lloyd (1991) avert that ignoring teachers' perspectives in implementing change could lead to disappointing results. Other studies (e.g., Hollingsworth, 1989; Munby, 1984; Richardson, 1990, 1994) suggest that teachers' adoption of innovations or new practices depends on the degree to which the assumptions inherent in the innovation are congruent with the teachers' beliefs. Richardson (1994) states that teachers' adoption/implementation of new practices is related to:

> ... whether they fit within the teacher's set of beliefs about teaching and learning, engage the students, and allow the teacher the degree of classroom control he or she feels necessary. If the activity does not work, it is quickly dropped or radically altered. (p.6)

Also, Hurst (1981) points out that teachers are most likely to adopt/implement an innovation that is consistent with their internal cognitive styles and strategies. Thus, we need to first know what teachers *think* and *know* about their own practices for us to know what they are likely to accept or reject, and it is this that is grossly under-researched in Botswana.

## Methodology

The qualitative study reported in this paper is a small part of a broader study carried out by the author in a large secondary school in Botswana in 1993 (see Tabulawa, 1995). The study, which was carried out using a case-study approach, employed a

combination of qualitative and quantitative research techniques but with more weight given to the former. For example, in an attempt to map out the nature of classroom practice in geography lessons, structured questionnaires (for students) were used in addition to unstructured classroom observations. To arrive at the teachers' perspectives in-depth interviews were employed.

This paper reports the findings of the qualitative aspect of the study that pertained to teachers. Since the major focus of this aspect of the study was the teachers' actions, feelings, beliefs, understandings, thoughts, and perceptions of their own classroom practice, ethnographic research methods, such as participant observation and in-depth interviews, were employed. These have the advantage of giving an accurate portrayal of the realities of teaching in its natural or conventional setting, something that cannot be attained in studies largely adopting quantitative research methods. The meanings of teachers' actions were then interpreted within the wider societal context (Erickson, 1986). In the analysis of the data special attention was paid to the language teachers used to describe their own actions and thought processes.

### *Context and setting of the study*

Botswana's education system is centralized with a core curriculum followed by all students. The entire schooling system is structured on a 7-3-2 year cycle of primary, junior, and senior secondary education, and students sit for selective external examinations at the end of the last two levels. The structure of the system is hierarchical. This in turn is reflected in the internal organization of the schools, the classrooms, and the curriculum. For example, in the school where this study was carried out, the structure was pyramidal: the Principal occupied the topmost part of the pyramid and students occupied the bottom part. In such a structure, power and authority decrease as one moves down the hierarchy. Also, the curriculum was highly compartmentalized.

The main study was carried out in a public senior secondary school located some 300 km from the city of Gaborone. This school was chosen basically for three reasons. First, having been a teacher at the school for one year, I was quite familiar with its setting and staff, including the headmaster. Gaining access into the school, therefore, was smooth. Second, at the time of the study the school was one of the largest senior secondary schools in the country, with a student population of 1,300 and a staff of 73. For this reason I envisaged that the Geography Section (which was the content area of the study) of the Social Studies Department would be large enough to warrant studying. Third, and as already mentioned, the school was typical of public senior secondary schools in the country in its setting, structure, staffing, student intake, etc. Wolcott (1973) argues, though, that in a case study the typicality of the phenomenon under study or the extent to which it may be compared and contrasted along relevant dimensions with other phenomena in the same class increases the external validity of the findings. However, the smallness of the sample in the study affected the generalizability of the findings. Perhaps this is an inherent weakness of the case-study approach.

### *Data gathering*

As already mentioned, data collection was mainly through classroom observations and in-depth interviews with teachers. Classroom observations were not structured. Working as a semiparticipant observer, I would simply walk into the class with the

teacher to be observed and take a seat at the back of the classroom but always next to one or a group of students. One reason for doing this was to make students feel that I was one of them and not take me for just another "fly on the wall." Three teachers (there were only three geography teachers in the school, and all were male with degree qualifications in geography) were observed over a period of 2 months. Each teacher taught an average of eight geography classes. Altogether 70 classroom observations (46 hours) were made. These observations focused on classroom control measures employed by the teachers, the classroom physical setting, student–student and student–teacher interactions, the teachers' teaching strategies, content covered, and nonverbal modes of communication. However, observations were not confined to the classrooms. Staff gossip and the daily routines of the teachers' and students' lives were also recorded. Notes collected during the lesson observations were, later in the evenings, fully written up in notebooks. Data collected were descriptive and so had to be interpreted. However, description and interpretation are inextricably intertwined in qualitative case studies (Merrian, 1988; Patton, 1990). In addition, the classroom observations provided the context or frame (and generated more questions) for the in-depth interviews.

Interviews were designed to provide further insight and information on teachers' classroom practices and to provide meaning to the observed practices. Emphasis was on how they interpreted their classroom world (and its social milieu) and on how these interpretations informed their classroom actions. Both informal and formal in-depth interviews were carried out with the three geography teachers and four other teachers in the department. Of the other four teachers, two were trained as geography teachers although they did not have geography classes at the time of the study. The other two were history teachers without any training in geography. Initially I had intended interviewing the three geography teachers only, but later decided to include other teachers in the department in order to broaden the scope of the study. This was not seen as a problem since most of the interview questions were not specific to the subject of geography. Of the seven teachers interviewed only one was female. On average each interview lasted for 1 hour 30 minutes. The interviews were carried out using a semistructured interview schedule. Generally, the questions asked covered the areas of pedagogy, schooling, classroom organization, teacher–student relationships, and the nature of knowledge and of the processes of teaching and learning. All formal interviews were tape-recorded and later transcribed.

Data were analyzed inductively following the grounded theory approach of Glaser and Strauss (1967). Analysis of the observation data enabled me to describe the nature of the teacher–student interactions and the teaching strategies used in the geography lessons. The ways teachers structured the content were also described in detail. In the process of analyzing the observation data, questions on why teachers conducted their lessons the way they did arose. These were noted and added to the semistructured interview schedule. Analysis of the interview data involved coding the data on the basis of the broad categories of classroom practice (nature of knowledge, goal of schooling, nature of learning/teaching, conceptions of students, etc.) that formed part of the semistructured interview schedule. The iterative coding of the data led to the generation of specific themes that in turn formed the basis for further analysis. As the analysis deepened, it became possible to link the teachers' emerging perspectives on the various categories mentioned above to the pedagogical practices observed in their classrooms (Tabulawa, 1995). This enabled me to isolate the tacit assumptions that appeared to give shape to the teachers' classroom practices.

## Observed lesson patterns: a brief overview

### *Lesson progression*

The pattern of classroom practices of the three teachers showed little variation. To start the lesson all the three teachers would recapitulate on the main points of the previous lesson. Basically, this was done in two ways: either the teacher enumerated the main points of the lesson or used a question–answer sequence. The latter, though, was the most frequently used. The following excerpt from a lesson on "Weathering" illustrates the point being made:

Teacher: What factors did we say influence weathering?
Student 1: Time. (The teacher writes the point on the chalkboard)
Teacher: What else?
Student 2: Climate. (Teacher writes point on the board)
Teacher: What else?
Student 3: Relief.
Teacher: Correct, but what is the other term for relief?
Student 4: Topography.
Teacher: What is the fourth factor?
Student 5: The nature of the rock.

The dominant feature of the lesson, however, involved the teacher lecturing at the students and writing brief notes on the board. Few questions came from the students, who for the majority of the lesson sat quietly and orderly, listening "attentively" to the teacher. The three teachers usually had their lessons summarized at the end of the lesson period. This was carried out in the same manner as the lesson introduction, either by the teacher going over the main points or by asking students questions. Thus a typical geography lesson would follow the sequence: lesson introduction largely by way of question–answer sessions; lesson progression, mainly through lecturing; and lesson conclusion, either through teacher recapitulation of the main points or, again, through question–answer sessions.

### *Mass teaching*

One other feature that appeared predominant in geography lessons was mass teaching, or the processing of students *en masse*, as a single collective (Everhart, 1983). Teachers made very minimal contact with individual students. For this reason very little verbal interaction or dialogue could be observed between the teachers and their students. The only form of verbal interaction that occurred in the lessons was in the form of question–answer sessions, and these were highly formalized with the teacher deciding who spoke and when. Consequently, formalizing speaking and listening tends to center most of the interactional activities on the teacher (Edwards & Furlong, 1978). By managing classroom interaction in this way, then, the teacher is able to effectively remain in control of most classroom activities.

Except in group discussions, student–student interactions were conspicuously absent. Perhaps such interaction would not have been in tune with the teachers' understanding of a classroom atmosphere most conducive to learning. When asked to comment on what they considered to be a classroom atmosphere most conducive to learning, two of the teachers had this to say:

First teacher: This a classroom atmosphere in which there is maximum concentration and where the teacher has as much control as is possible to make sure that the students do not get out of hand.
Second teacher: First of all, a friendly one where there is no fear. In terms of control it all depends. When you break them into small groups, you should allow them to talk among themselves. But if you are teaching, you are not going to allow them to chat among themselves. That must stop.

Thus, any form of student-to-student talk was only considered purposive so long as the classroom activity for that time allowed for it, as, for example, during group discussions. As the teachers' comments show, there seems to exist a difference between group discussions and teaching. Group work, it appears, is not teaching proper. Teaching proper seems to be when the teacher is talking or when activities in which the teacher has full control are taking place.

One other aspect of this mass teaching was the conspicuous absence of a differentiated pedagogy. All students had to be involved in one activity at a time before moving on to another, *en masse*. Indeed, the teachers did not see the need for a differentiated pedagogy. In the words of one of them, "there is no point in having each student working at his/her own pace. After all they are going to sit for the same examination at the same time and on the same day."

Activities, therefore, tended to be routinized, and this routinization of classroom activities inevitably leads to predictable patterns of behavior. Once this is achieved, it becomes easier for the teacher to manage the class, thereby enforcing and re-enforcing his/her authority. Teaching and classroom management, thus, become almost indistinguishable from social control. Furthermore, this may only lead to a further entrenchment of asymmetrical power relations and, subsequently, to a congruent classroom pedagogical style.

### *Right-answerism*

Lessons emphasized "right answers." Teacher questioning style was geared towards eliciting from students what the teachers considered to be "right" answers. The excerpt below illustrates this point:

Teacher: What is weathering?
Student: The erosion of rocks.
Teacher: No, you are confusing weathering with erosion. Who can give us the correct definition?
Student: It is the breaking up of rocks.
Teacher: Correct. But who can put it in a more sophisticated geographical language?
Student: It is the breaking up or the disintegration of rocks by chemical or mechanical processes.
Teacher: Good. (He writes the definition on the board)
[I later found out that this was a verbatim recitation of the class textbook definition of "weathering".]
The teacher then continued:
Teacher: How many types of weathering are there?
Student: Two.

Teacher: Which are they?
Student: Chemical and mechanical.
Teacher: What is the difference between the two?
Student: Chemical weathering changes the chemical composition of the rocks unlike in mechanical weathering.
Teacher: Good. (Writes the answer on the board)

From this excerpt it would appear that when the teacher asked questions, he already had preconceived "right" answers that he expected students to mention. This interrogative style of questioning also exhibited two other characteristics. First, answers that were perceived as incorrect were ignored, and, second, the questions were closed-ended. All this tended to work towards the reproduction of an authoritarian pedagogical style. For example, by stressing the production of right answers, the teachers ignored the perceived incorrect answers. On the surface this might appear as a trivial observation. At a deeper and hidden level, however, the teachers' ignoring of "incorrect" answers may be viewed as a strategy to define, legitimize, and augment the prevailing classroom power and authority relations in which (s)he plays a dominant role.

By unwittingly allocating "turns at speaking" and asking closed-ended questions, which demanded definite and precise answers, the teachers made sure that they always remained in control of the interactional situations. The danger with open-ended questions is that they may yield unpredictable answers that may put the teacher "off-balance," resulting in a possible loss of classroom control. Thus, the strategy of asking closed-ended questions and allocating students turns at speaking helped the teachers to "shape the meaning of what [was] said in the desired direction" (Edwards & Furlong, 1978, p.17), and it also helped them to maintain a strong grip on interactional processes. (This emphasis on correct answers in Botswana classrooms has also been reported by Prophet and Rowell, 1993; and Prophet, 1995).

*Classroom control*

It appeared control was at the center of the teachers' classroom activities. Teachers emphasized attentiveness, formality, and orderliness in their lessons. Although the three geography teachers were at no point observed administering corporal punishment in their lessons, this mode of control was, nevertheless, common in the school. However, the three teachers employed a number of subtle strategies that were built into their day-to-day classroom routines to affect control. I have already made mention of some of these strategies, such as the emphasis on right answers and the asking of closed-ended questions.

The main concern of the teachers seemed to be the efficient transmission of knowledge. Their activities seemed to revolve around this concern. To accomplish this, the teachers structured their lessons tightly, made impressive presentations of their lessons' contents, and demonstrated good mastery of subject-matter. This, it appeared, made their lessons interesting, resulting in fewer control problems. It appeared that classroom control was necessarily dependent upon good lesson preparation and presentation. Students responded positively (thus reinforcing the teachers' behavior) by listening attentively. Being well prepared ensured that the teachers were always "ahead" of their students and had to demonstrate this by lecturing "at" them. Covertly, this teaching style worked well in defining and maintaining the authority relations in the classroom. So for the teacher, lecturing as a teaching strategy was also

a coping strategy (Pollard, 1982). Through their pedagogical practices, then, these teachers created classroom atmospheres that rendered it unnecessary for them to apply overt control measures in their classrooms.

### *Student–teacher relationships*

If the pattern of school work was centered around the teachers with control being of primary concern to them, then only paternalistic student–teacher relationships could be expected. Teachers clearly expected traditional respect from students. They made it clear in their staffroom gossip that they expected deference from their students. This made their relationships with students formal. For example, the three teachers insisted upon students addressing them by their titles of "Mr." and "Sir." Also, the staffroom was a "no-go" area for students. Waller (1965) associates formality with impersonality and social distance as well as with relationships between superiors and juniors. Thus, formality implies hierarchical relationships. The teachers' insistence, then, on formality was a way of maintaining social distance between themselves and their students. However, the formality was further necessitated and compounded by the hierarchical nature of the school structure. By formalizing most social and learning aspects of classroom practice, the teacher is able to remain in control of the learning situation. Once again formality sustains asymmetrical classroom relationships and an implicit authoritarian pedagogy.

Having established the patterns of classroom practices in the school, I now turn to establishing how the teachers made sense of these practices. In the next section I report on the narratives of the participants about their observed classroom practices in order to reveal the practical knowledge they used to guide their classroom practices. As already mentioned in the methodology section, special attention in the interviews was paid to the language teachers used to describe and explain their classroom practices. The teachers' verbal expressions became, therefore, the main focus of analysis. For this reason the teachers' narratives are quoted liberally in the presentation of their views. Narratives of students are quoted only where they are needed to corroborate the perspectives of teachers.

### *The teachers' narratives*

The first thing I wanted to establish was whether the department (or the geography unit) was officially committed to any particular pedagogical approach(es) as a matter of departmental policy. In response, all the teachers mentioned that all that they had in common as members of the department were the "Schemes of Work" that they organized in such a way that teachers of the same subject, teaching different classes in a single form, covered the same content for each term and covered it at a more or less similar pace: "As a department we agree on the syllabus outline and use a single scheme of work. With regard to teaching approaches, generally everything is left to the individual teacher."

In view of the absence of any explicitly stated pedagogical approach(es) to which the teachers were officially committed, what, then, gave their classroom practices the "likeness," "sameness," and the coherence that were observed? In other words, what homogenized their practices? One would have expected that in a situation where teachers were left to approach content in any manner that they deemed most

appropriate they would display colorful variations in their teaching practices. Interviews with these teachers revealed, however, that they held implicit assumptions (about the various categories of classroom practice, such as classroom organization, learning/teaching, school knowledge, and schooling) that coalesced to give a similar shape to their classroom practices. I now turn to these assumptions with respect to some of these categories to establish the teachers' perspectives.

*Teachers' views on schooling/education*

Teachers had a positive view of schooling. They all stressed a utilitarian view of schooling: "Schooling prepares our students for the future, for different vocations in society. The whole aim of schooling is for one to have a brighter future, live better and find a job." Because of this vocational view of schooling, all the teachers had one main future expectation of their students– for them to pass their Cambridge Overseas School Certificate (COSC) examinations and go for further education, which would then "guarantee" them good paying jobs in the labor market. The teachers' classroom activities, therefore, revolved around preparing their students for the COSC examinations, which were perceived as the gateway to a brighter future. In the teachers' view the school possessed that necessary "commodity," the curriculum knowledge, that the students needed in order to pass the examinations. Their main duty as teachers, then, was to ensure that the students acquired the curriculum knowledge. The teachers expected the students to acquire the knowledge by "reading and listening to the teacher in class" and "coming to class to receive instruction."

The teachers felt that students were "doing school work" when they were "asking and answering questions," "writing assignments," "taking down notes," and, as one of the teachers put it, "when students are giving you what you require out of them". It also emerged that most of the activities teachers regarded as constitutive of "doing school work" indicated a teacher-directed process. This is not surprising considering that lesson observations also indicated the predominance of activities associated with reception-learning in geography lessons.

The teachers' strong utilitarian view of education or schooling is not surprising. Ever since its introduction in Botswana, modern Western education has always been viewed as a gateway to a better life since it guarantees employment in the formal sector. Agriculture, another source of income, is less dependable, as the rains are highly erratic. Also, migrant labor to South Africa has been dwindling since independence. This leaves employment in the formal sector as the only realistically viable option, an option that has become quite attractive but one that has also become tied to the possession of educational certificates. This has led to an increased demand for certificates, which are only obtainable after sitting for examinations. Thus, the latter become the focal point of school work. The "backwash" effects of examinations on teaching and learning are, however, well known and need no further elaboration here; teaching and learning become geared towards examinations with emphasis on factual information that can be communicated to the students in a didactic fashion (Tabulawa, 1997).

*Teachers' views on teaching and learning*

It also became clear during the interviews that the utilitarian view of education impacted on teachers' understanding of *teaching and learning*. Most of the teachers interviewed were at pains to explain what they understood by "school knowledge."

Perhaps expectedly so, most described it as the syllabus content that was to be acquired by students. What they were clear on, though, was the sources of school knowledge – themselves and textbooks. We can now understand why to these teachers *doing school work* meant students listening to them and reading textbooks. In relation to the students, therefore, this knowledge was external to them. It existed as a "commodity" that they had to acquire. Students also seemed to confirm this when they described their own classroom role, which was essentially that of *receiving* the teachers' knowledge. It was described in terms of:

> First student: Listening to the teacher, reading and asking questions where I don't understand, doing my homework and handing it in on time.
> Second student: Cooperating with our teachers and whenever they ask us questions we should always try to answer.
> Third student: Giving the teacher the feedback to show that I understood his teaching.

In the light of this view of knowledge as a commodity to be acquired by the learners, *teaching* was defined by one teacher as "giving out knowledge in a systematic way to enable the learner to adapt to the situation." Another one defined it as the process in which "the teacher imparts knowledge to the students and ensures that they understand what you have imparted to them." Learning was also defined in similar terms: "A process in which students acquire knowledge and understanding." And, finally, "For students learning is when the teacher comes to class and imparts knowledge."

What is of interest in these definitions is the kind of language used to differentiate between "teaching" and "learning." The former is described in terms of "giving out" and "imparting" knowledge, and the latter is defined in terms of students "acquiring" and "assimilating" knowledge. These terms describe a relationship, and they describe one that indicates the direction of the flow of information in the classroom – from the teacher to the students. Furthermore, these conceptions of the twin processes of teaching and learning informed the teachers' definitions of their own and their students' roles and responsibilities in class:

> First teacher: My foremost responsibility is to impart knowledge and to manage the class, making sure that there is order.
> Second teacher: My role is to deliver the goods to the students. I have to make sure that I give them notes, and I have to test their understanding by assessing them.

Conversely, the students' role was perceived as that of "receiving" and "assimilating" knowledge from the teacher. This relationship, then, in which the teacher "imparts" knowledge and students "assimilate" it, is in perfect harmony with the teachers' perspective on the nature of school knowledge vis-à-vis the learner. At no point did the teachers describe knowledge in terms of it being something that can be constructed in the classroom. The relationship was straightforward; the teachers possessed the knowledge that they imparted to the students who did not possess it. It was this understanding that structured the teachers' and students' classroom practices in the ways reported in the preceding section. Naturally, this understanding tended to promote the transmission–reception pedagogical style (Mac an Ghaill, 1992). The teachers also confessed that this was the teaching style most popular with students:

> First teacher: They believe that it is the teacher who is supposed to teach them, and all they have to do is take down notes. To them the teacher is supposed to

> impart knowledge. Theirs is to sit there, listen, write notes, and answer a few questions from the teacher.
> Second teacher: To them learning is when the teacher comes into class and imparts knowledge.

From the tone of these comments, it would appear as if this was a situation the teachers did not approve of and would have wanted changed. However, on the contrary, they viewed this teaching style as the most efficient one:

> First teacher: It is possible to complete the syllabus in time. It is not time consuming like methods such as the discussion method.
> Second teacher: The geography syllabus is quite broad, and once you embark upon a lot of these new methods of teaching, you may never finish the syllabus. This will tend to limit students' choice of questions in their final examinations. They will then start complaining that they were not taught the right things.

Some of the teachers stated that students resisted alternative teaching methods, such as group work, forcing the teachers to lecture:

> You know, it's not easy to get students who ask questions here. Most of the students just wait for the teacher to come in and teach them, deliver the goods, you see.
> Even if you give them group work, they don't have the motivation to do the group work. Only one or two students will do the work. In this way you find yourself compelled to lecture to them if they are to gain any school knowledge.

In fact, this "refusal" by students to carry out certain activities that required their involvement was observed in the lessons. For example, in one Form 4 lesson the teacher organized students into groups for a group discussion. Four students could be observed asleep when they were supposed to be discussing. In another class the teacher asked students to discuss five disadvantages of hydroelectric power in pairs and only 8 students (pairs) out of a total of 23 were observed working in pairs. The rest were either doing nothing or reading the class textbook.

The tendency in research is to see such student behavior as simply idiosyncratic. On the contrary, such student "refusal" to participate in certain classroom activities might be a protest against the teacher's attempt to have them play a role they do not perceive as theirs or simply a role that they do not know how to assume. Instructional procedures, such as question–answer sessions and group discussions, demand student participation. Their participation, however, will depend on whether they see this demand as legitimate and in line with their own student role definition. If the demands of the activities are incompatible with their role definition, they may "refuse" to take part in those activities, thus forcing the teacher to assume a more domineering role in class. And, indeed, classroom research in Botswana has indicated that teachers, students, and school administrators are perfectly happy with teacher-dominated classroom interactions (Prophet & Rowell, 1993).

Furthermore, when we consider that, in relation to the students, knowledge is external, their "refusal" is understandable. Involving them in group discussions is, in a sense, asking them to "construct" knowledge. But their view of the nature of knowledge is that it is something external, a commodity possessed by the school and embodied in teachers and textbooks, and if they want to pass their examinations, they have to get it from these sources. Thus, attempts to have them construct knowledge in the classroom would be a waste of time, and group discussions are, therefore, resisted. The teacher is

then forced to assume an information-giving position. This resistance, thus, cannot just be explained away as students' idiosyncrasy or perversity. It is an act, a practice, informed by their own assumptions about knowledge and about the ways it should be transmitted, and it has bearing on the teachers' classroom practice.

*Teachers' perceptions of their students.*

Teachers' design and selection of instructional methods are influenced by the perceptions they hold of their students. As Bartolome (1994) observes, "[T]eaching strategies are neither designed nor implemented in a vacuum. Design, selection, and use of particular teaching approaches and strategies arise from perceptions about learning and learners" (p.180). Research, for example, has demonstrated that teachers tend to use different teaching and learning strategies and approaches with children of different social classes (see Anyon, 1981; Da Silver, 1988; Jones, 1989). These studies stress that teachers have different perceptions of students from different social backgrounds and that this influences their choice of teaching methods. In the present study, teachers clearly demonstrated a pathological view of their students. In their description of their students they constantly drew a comparison between rural and urban students. Students attending school in rural areas were viewed as cognitively deficient and materially disadvantaged compared with urban students:

> First teacher: In participation, for example, they tend not to participate, not because they don't know, but because it's like they are not supposed to talk in class; it's the teacher who is supposed to talk. Students from urban areas in terms of their academic work are advantaged in that they come from areas with better facilities compared to those from rural areas.
> Second teacher: I see it really affecting their learning. ... If you compare these two groups of students [urban and rural], as far as class participation is concerned, you will find that students from town participate more. They talk and ask questions. They have no fear of the teacher, whereas those from rural areas are reserved and passive. Even when they do not understand something, they won't ask.

Two main reasons were suggested for the passiveness of rural students: home culture and language. One teacher said:

> Perhaps it has to do with our culture which encourages passiveness on the part of the young. They are not encouraged to venture. So the major shortcoming is that the child doesn't develop confidence in himself. Right from youth students are not allowed to experiment. Language is also a problem with these students.

There was a general consensus in the school that primary education was failing students. Teachers complained that most students who left primary schools, particularly in the rural areas, could conveniently be described as "illiterate" since they could not read, write, or converse coherently in English, the medium of instruction in schools in Botswana. This concern with English reflects the general concern in the country with the "poor" educational "standards," whatever these are. Poor mastery of communication skills minimized students' participation, in the teachers' view. Consequently, certain instructional methods were seen as being more appropriate with these students than others. Attempting to use participatory methods, such as group discussions, was then viewed as a waste of time (and as we have seen, students also

resisted them), and, thus, teachers resorted to teacher-centered methods. This is understandable considering the importance of examinations in Botswana's educational system. In such circumstances the teachers are left with no choice but to "spoon feed" the students if they are to pass their examinations.

The deficit view of the student held by the teachers should also be understood within the wider Tswana sociocultural context. This deficit view of the child is deeply anchored in Tswana cosmology (for a detailed description of this cosmology, see Alverson, 1978). Suffice it to say that Tswana society emphasizes structures of domination and subordination of the child to his or her elders. Children are exposed to these rigid and paternalistic authority structures quite early in their lives, internalizing them during primary socialization and leading to a "dependent" mode of thinking. It is the latter that constitutes the students' cultural baggage that they bring to the classroom situation and has a bearing on how they behave in class. Thus, what appears as student passiveness in class might actually be an expression of their traditional relationship towards elders, in this case, teachers. All this demonstrates how the home environment penetrates the classroom environment, influencing and guiding the thoughts and actions of students and teachers.

## Summary and implications

The qualitative study reported here clearly shows that the teachers' classroom practices are influenced by many factors – their assumptions about the nature of knowledge, their perceptions of students, and that which they perceive to be the goal of education and schooling. Their understanding of these factors will determine their receptivity to proposed pedagogical change. But what are the implications of these factors for a shift to a more learner-centered pedagogy?

Jones (1989) observes that there is a positive correlation between a positive view of schooling and the way to go about acquiring the necessary credentials offered by schooling. Teachers in this study perceived as their main responsibilities the "imparting" and "delivery" of curriculum knowledge and the keeping of order in class. Conversely, the students' role was perceived as that of "receiving" the teachers' knowledge. If the role of the teacher is that of purveying knowledge, then his/her role is to "teach." If the role of the student is perceived as that of a receptacle of knowledge, then his/her role is to "learn" by way of assimilating the teacher's knowledge. Also, as is clear from above, the distinction between "teaching" and "learning" tends to simplify and clearly define the roles of the classroom actors. Once the role boundaries are clearly demarcated, they have to be adhered to so as to create a stable and orderly classroom atmosphere without which teaching/learning may not be possible. Deviations from these boundaries are actively and passively articulated. In fact, the study shows how teachers employed overt and more subtle strategies to maintain their dominant role in class and how students, likewise, employed strategies to keep the teachers in an information-giving position. Thus, the teach–learn schism puts the teacher in a very powerful position in the classroom. Yet this can only promote a deductive approach to teaching and learning, which is antithetical to the inductive approach promoted by a learner-centered pedagogy advocated by the Ministry of Education.

Learner-centered pedagogy demands that the teacher act as a facilitator in the learning process and that the learners be active participants in their own learning processes. This inevitably demands the relaxation and democratization of teacher–

student relationships, which, as we have seen, are overly paternalistic. But there might be some reluctance on the part of teachers and students to alter existing power relations since this might destabilize their taken-for-granted classroom world.

If the views expressed by teachers in this study are representative of views of teachers in pubic senior secondary schools in general, this does not bode well for the learner-centered pedagogy advocated in *Education for Kagisano*. It has emerged from this study that this learner-centered pedagogy is incongruent with the teachers' deep-seated assumptions about the goal of schooling. This may explain why the pedagogy has not been adopted/implemented in schools as suggested in many official documents. No amount of technical fine-tuning of the system can bring about the desired change. There is an urgent need, then, to recognize that teachers are thinking beings who attach meanings to their actions and, as such, are capable of subverting planned change.

It is also important to point out that the deductive, teacher-centered approaches and their attendant teach–learn schism are based on the epistemological understanding that knowledge is a commodity "out there," objective and independent of the learner. From what was observed in the lessons and from what the teachers described as their roles and responsibilities, it clearly emerged that they held an objectivist view of knowledge. Teachers saw themselves as the arbiters of knowledge. Students also saw them in the same light. As such, knowledge existed as an external phenomenon that came to the students as a finished product. Learning and teaching, therefore, had to be product-oriented rather than process-oriented. Hence the teachers' emphasis on right answers and facts-based question–answer sessions.

Because students also understood knowledge as something with an independent existence of its own, they resisted teachers' attempts at involving them in the *processes aimed at constructing knowledge*, processes such as group work and discussions. Furthermore, since teachers saw themselves as experts, they had to demonstrate their expertise. To accomplish this, they had to go to class well prepared so as to efficiently and effectively "impart" knowledge and "deliver the goods." The view of knowledge as a commodity, however, is incompatible with the learner-centered pedagogy (Rowell, 1995). The latter is based on the epistemological assumption that knowledge is socially constructed. In the classroom this epistemology implies students contributing towards classroom processes and assuming a more active role in class. It means students taking control of, and responsibility for, their own learning, and the teacher's dominance subsiding as (s)he assumes the role of a facilitator. As Rowell (1995) puts it, this pedagogy is "democratic in action" and gives "rise to a shift in the locus of control at all levels in the educational system" (p.10). It requires teachers to change their control mechanisms, such as those identified in the lessons observed, mechanisms that tended to inhibit active students' participation and promoted authoritarianism. Classroom organization itself would have to change to reflect the view of knowledge as a social construction. Teacher visibility would become blurred as students became the center of classroom activities.

In short, learner-centered pedagogy in the context of Botswana calls for the disintegration of the teachers' and students' taken-for-granted classroom world. But this may be accompanied by teachers' loss of sociopsychological support. It is, therefore, not surprising that faced with such a situation teachers may resist or subvert the invading innovation, thus further entrenching existing patterns of classroom practice. This may also explain why it is (and why it would be) difficult to change the existing patterns of classroom practice in Botswana public schools. Thus, a model of pedagogical change that ignores teachers' perspectives on knowledge and the ways it ought to be transmitted may never yield the desired changes.

Furthermore, a learner-centered pedagogy demands that teachers do away with the cultural deficiency view of the learner and see the student as a capable partner in the learning process. It may cause a lot of stress on teachers if they are asked to redefine their attitudes towards those they see as below them in the hierarchy of authority. Therefore, introducing a learner-centered pedagogy in an educational environment like that of Botswana demands prior understanding of teachers' conceptions of learning and learners. These conceptions may act as deep-seated causes of the failure of pedagogic innovations. It must be stressed, then, that so long as innovating is perceived as a technical issue, responses to failure will invariably also be technicist in nature. This can only be expected to lead to a cyclical reproduction of failure.

## Conclusion

The technicist model of managing pedagogical change in Botswana has been criticized by Maruatona (1994) and Prophet (1995) for decontextualizing the whole process of change. By assuming that change is simply a matter of injecting resources into the system, the model overlooks the power of teachers to subvert the very same planned change. The findings of the present study point to the fact that pedagogic change is not just about technical issues associated with the innovation delivery system. Such a change also involves thinking and active agents (teachers and students) who mediate the centrally produced curricular and teaching materials, resulting in a discrepancy between official rhetoric and classroom reality. Teachers' classroom practices are informed by their conceptions and understandings of teaching and learning, of schooling and its purpose, of knowledge (subject-matter), and of the contexts within which these have evolved.

These conceptions and understandings coalesce into teachers' perspectives. Proposed change has, consequently, to be congruent with these perspectives for it to be acceptable to teachers. The present study, though limited in scope, clearly shows that teachers' perspectives are incompatible with the central values of a learner-centered pedagogy. This is disturbing indeed for it questions the appropriateness of learner-centered education for Botswana conditions. One is tempted to agree with Hopkin (1997) that what he terms teacher-directed activity learning (which is different from teacher-centered learning) is at this stage what is more appropriate for Botswana. Then a gradualist approach can be adopted to move towards student-centered learning, but it should be stressed that this is something that will certainly take some time to accomplish.

In the meantime there is need for researchers to continue documenting teachers' perspectives so as to build a corpus of research findings that would usefully inform educational policy. Our understanding of teachers' perspectives may assist us in effectively changing their practices. It is only when we know what teachers know and think about their own practices that we may design preservice and inservice programs to help them question their own beliefs and assumptions. By facilitating the questioning of these beliefs and assumptions we may hope to produce teachers who may be ready to challenge and supplant their own cherished beliefs and practices (Smyth, 1987). Fieman and Buchmann (as cited in Grossman, Wilson & Shulman, 1989), emphatically state that "Without help in examining current beliefs and assumptions, teacher candidates are likely to maintain conventional beliefs and incorporate new information or puzzling experiences into old frameworks" (p. 32).

By questioning their own teaching, teachers would be problematizing the taken-for-granted aspects of their work. Only in this way would teachers become aware of alternative courses of action. A situation that perpetuates the old can hardly be conducive to change and transformation. The view of teachers as capable of acting and reflecting about their own classroom practice is both emancipatory and empowering, and it directly challenges the basic assumptions of technical rationality and its associated technicist model of teacher education and pedagogical change.

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