Epistemological beliefs and perceptions of education in Africa
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Document Version
Publisher's PDF, also known as Version of record

Publication date:
2006

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):
Summary

To all intents and purposes, this has been an explorative study. Against a scarcity of personal epistemology studies in the African context, the aim of this study has been that of outlining patterns of epistemological beliefs and perceptions of education deemed distinctive of high school students in Mozambique, as well as to explore relationships between these constructs and some relevant socio-cultural variables and, subsequently, assess their impact on students’ academic achievement. That enterprise was meant to contribute to the deepening of the awareness into the learning patterns and possible learning problems of the target group. The study was inspired by and designed against a background of acknowledged low efficiency of secondary (high school) education and low quality of its outputs. As a touchstone for the investigation, we hypothesised that, to some extent, such state of affairs of secondary education in Mozambique could be due to ‘less sophisticated’ beliefs about knowledge and learning, and to rather lax perceptions of education held by the students. The assumption was that culturally rooted values and beliefs could, in some way, impact that kind of epistemological beliefs and perceptions of education.

In Chapter 1 the aim, the conceptual framework and the rationale for the study are presented. Subsequently, the operational research questions lending the grasping at the aim of the study are formulated. They are here recalled:

1. What kinds (patterns) of epistemological beliefs and perceptions of education are to be found amongst Mozambican high-school students, and how far do these constructs intertwine?
2. To what extent the identified epistemological beliefs and perceptions of education bear specific cultural traits?
3. To what extent students’ epistemological beliefs are related to some selected demographic and socio-cultural variables?
4. Is there empirical indication that the epistemological beliefs and the perceptions of education held by Mozambican high school students do impart their learning outcomes?
The conceptual framework of the study was presented graphically so as to better capture the flow of the hypothesised relationships, with special emphasis to those imparting students’ learning outcomes in relation to the main constructs (epistemological beliefs and perceptions of education). Utmost, the graphical conceptual framework intends to depict the pervasive role of culture in relation to all variables and relationships under consideration. After all, the hypothesis of cultural underpinnings of epistemological beliefs and perceptions of education of the target group is central and specific to the study.

Our conceptualisation of culture is that of a set of distinctive and conventional patterns of ideas, thoughts, beliefs, norms, activity and art, that characterise the way of life within a society, and that are conveyed from generation to generation through informal, non-formal, and formal education. Meanwhile, the complexity, haziness and slipperiness of the concept of culture are also acknowledged, on grounds that “the variable culture remains just that: variable and dynamic, qualitative and not quantitative” (Baskerville, 2003, p.11). In view of that, specific reference is made to the controversy around Hofstede’s (2000) framework for classifying countries’ cultures. Arguable it may be, that framework was found useful in the context of this study, mainly for purposes of discussing and comparing some of the outcomes in relation to those reported in analogous studies that have been carried out in other cultural settings.

Chapter 2 provides an extended background to the study, both at the conceptual and at the contextual levels. At the conceptual level, the key theoretical constructs of the study are outlined. To give the reader apposite notional outlook of the construct of epistemological beliefs, the chapter starts by revisiting the foundations and the ongoing discernments about epistemology from the European philosophy view point, and by reviewing the enduring discussion about African philosophy and African epistemology. The discussion boils down to conclude that epistemology has to be perceived in its historical and dynamic character, as ultimately testified by post-modernist philosophers in the Western world. Especially, it is argued that African philosophy – thence African epistemology, are to be perceived as “in the making” and inevitably embedding all historically inherited practices of knowing (i.e. the traditionally African ones and those imposed via Muslim and Christian-European values). The remaining part of Chapter 2 depicts the setting of the study. Basic data and a brief history of
Mozambique are presented. Emphasis is given to the educational history and to chief current educational issues, namely access, relevance, effectiveness and quality. The latter is deemed the most critical issue and the one much related to the ultimate concern of the present study.

Chapter 3 elaborates on both the theoretical territory and on the practical developments and outcomes of personal epistemology research, of which epistemological beliefs is a particular paradigm. The chapter starts by tracing the inception of personal epistemology and then proceeds to discuss the developmental paradigm, which is the earliest research approach in personal epistemology studies. The most representative models within the developmental paradigm are reviewed (e.g. Perry, 1970; Kuhn, 1991; Baxter Magolda, 1992; King & Kitchener, 1994). The overall discussion around the developmental paradigm brings to light that under this approach, personal epistemology is understood as following a rather fixed and foreseeable trajectory, just like cognitive development (Piaget, 1950). Thenceforth, ideas about the nature of knowledge and knowing are thought of to move predictably through sequenced and evolutionary stages. The earlier stages are seen to represent absolutist and dualist beliefs about the structure, certainty and sources of knowledge. In contrast, the latter stages are interpreted to concern the perception of knowledge as relative, contextual, and attained through one’s active process of re-evaluation and re-interpretation of reality.

Against the background provided by the developmental paradigm, the chapter proceeds to characterise the epistemological beliefs system paradigm. Accordingly, personal epistemology consists of epistemological beliefs, and these are conceived of as a set of relatively independent and stable beliefs about the nature of knowledge and the nature of learning. Epistemological beliefs are expressed through relatively independent and stable beliefs about the structure, source and certainty of knowledge, and about the control and the speed of knowledge acquisition (Schommer, 1990). Without claiming the epistemological beliefs system paradigm to be a perfect one – otherwise, its theoretical and methodological issues are also there acknowledged and discussed, in Chapter 3, we have put forth our argument for adopting the epistemological beliefs system paradigm in the present explorative study. Chiefly, we uphold that this approach is in tune with the main aim of the present study, namely that of identifying the typical belief
patterns of a particular target group, and assess the impact of those on students’ learning outcomes.

Chapter 4 is devoted to the conceptualisation of perceptions of education, the second main construct of the study. Perceptions of education are conceptualised from the learning conceptions theory (Säljö, 1979; Marton, Dall’Alba, & Beaty, 1993) to refer to a set of associated beliefs about schooling and learning. Specifically, by perceptions of education we refer to beliefs about the aims and goals of education, and to beliefs about the requisites, behaviour, and regulation in learning, respectively. The main theoretical assumption for such a conceptualisation of perceptions of education was drawn from the realisation that amongst currently held conceptions of learning there are some which do not seem to reflect absolute cognitive perspectives about learning. Instead, those conceptions of learning appear to portray expectations about the ultimate social purpose of accessing education (e.g. ‘learning as a duty’; ‘learning as empowerment’ – cf. Purdie et al., 1996 and Cliff, 1998, respectively). In our discussion, we tried to demonstrate that those ‘atypical’ conceptions of learning are to be mostly found in non-Western contexts, notably in Asia and in Africa. For this reason we dare calling for a re-conceptualisation of the notion of conceptions of learning.

Both Chapter 5 and Chapter 6 report on the actual empirical sub-studies undertaken in the framework of the overall study. Two similar studies, labelled Study A and Study B are about epistemological beliefs and form Chapter 5, which is presented in two parts. Part I reports on the methodology and outcomes of the two sub-studies, while Part II performs a comparative analysis of the outcomes, as to ascertain solid conclusions. Due to some degree of factor inconsistency, we could not assert conclusively about a typical pattern of epistemological beliefs of the target group. Even so, specific belief features were clearly identifiable. Those features prompted a conjecture about a few but germane particular aspects characterising the epistemological profile of our target group: the rather complex profile of epistemological beliefs, the prevalence of authority-related stances in their epistemological beliefs systems, and the relevance of home educational background in epistemological beliefs development (‘epistemological sophistication’);

Chapter 6 comprises the description of sub-studies “C” and “D”, which are on the perceptions of education. Sub-study C is a qualitative
interview-based inquiry, conducted in order to identify categories of
description embodying the perceptions of education of the target group.
These were found to include both perceptions of schooling and
perceptions of learning. The former were found to reflect specific
motives and goals for attending school, while the latter include
conceptions of learning such as getting factual knowledge,
understanding, achieving, and boosting the ego. Sub-study D is a
quantitative questionnaire-based one, meant to fine-tune the survey of
the significant perceptions of education. On that, very little could be
attained, seemingly due to psychometric caveats of the scale developed
and used in that study. Nevertheless, outcomes suggested that students’
perceptions of education are rooted on ‘motivational’ and ‘goal-
motivational’ oriented dimensions.

Chapter 7 discusses the overall main findings of the study by way of
answering each of the four research questions. Thus, with regard to the
first research question, the outcomes are discussed as confirming that
there is no clear and stable pattern of epistemological beliefs that may be
taken as unambiguously epitomising the target group. However, belief
features noticeably embedded in those rather unstable belief-factors of
the target group were discussed in relation to the cultural setting of the
study. Those features are the belief complexity and the conformity to
authority. On grounds of their cultural underpinnings, discussed in
Chapter 2 along with the issue of African epistemology, those specific
belief features are interpreted as culturally imparted. The
aforementioned also answers partially the second research question of
the study, which is concerned with probable and plausible cultural
characteristics of the epistemological beliefs of the target group.
Proceeding in a similar way, but then with regard to the construct of
perceptions of education, the outcomes are discussed as demonstrating
the prevalence of a perception of education as ‘getting schooled’, for
individualistic and materialistic purposes. Such outcome is deemed
rather incongruent with hypothetical African perceptions of education,
purportedly impacted by and impregnated with collectivistic and
humaneness values. The discussion goes further to suggest two lines of
thought about this outcome. One is that formal education, historically
‘foreign’ to Africa, is inherently individualistic. In that sense, formal
education values seem to overshadow those based on traditional African
education. Consequently, another line of thought is that it is to be
admitted that there has been an erosion of traditional (collectivistic)
values in African societies, in general, as a result of the superimposition of formal education. Essentially, we sustain that one cannot expect values – including traditional (communalistic) perceptions of education, to be enduring in a ‘globalised’ world.

Family level of education and school environment were the demographic independent variables confirmed to be more significantly related to students’ portrayed epistemological beliefs. This outcome surfaced as the most relevant one in response to research question 3, which was about the relatedness of the identified epistemological belief-factors with socio-cultural variables. Students from schools located in rural or less urbanised areas appear more likely to portray less sophisticated beliefs concerning the nature and sources of knowledge, as well as about the speed of learning. On the other hand, it came to light that parents’ higher levels of education are positively influential in epistemological sophistication of their children and dependents. The implication of that outcome in the Mozambican context is obvious and ought to be highlighted: Literacy and adult education are to be seen as also contributing, indirectly but positively, to the fostering of epistemological growth within the society as a whole.

Outcomes pertaining to research question 4 suggest that epistemological beliefs do not have a direct impact on students’ academic performance. Their impact is indirect and it is mediated by the perceptions of education. Essentially, what our data seem to suggest is that students that are epistemologically ‘less sophisticated’ hold high individualistic and materialistic motives for getting educated and yet happen to perform well. Rather intriguing and paradoxical in the light of the hypothetically positive correlation between epistemological sophistication and academic outcomes, this outcome has been interpreted as suggesting that students may just adopt strategic (not necessarily active) approaches in their learning, for the purpose of achieving good school marks.

In all, what has been concluded from the whole study is summarised in Chapter 8. Succinctly, concerning epistemological beliefs, the main conclusions are the following:

i. No neat and stable belief pattern was found that could unequivocally be taken as ‘the pattern’ of epistemological beliefs amongst high-school students in Mozambique;
ii. There are, however, a few features that seem typical of this target group. Those are the complex (mixed) character of the belief-factors portrayed (i.e., factors mingling beliefs about knowledge with beliefs about learning), and the recurrent occurrence, in those belief-factors, of authority (teacher) related components of beliefs;

iii. The underpinnings of those features of beliefs are thought to be culturally specific of African traditional values, beliefs, and practices of knowing and learning;

iv. In general, students exhibit less sophisticated beliefs, specifically a belief in simple learning and authoritative knowledge, and a belief in quick learning;

v. Those beliefs are related to individualistic and materialistic perceptions of education, in an interplay that seems to prompt students’ strategies towards scoring good marks;

vi. In a much in-depth analysis of the findings, further deductions were drawn. One is that, being a student from a school located in non-urban areas is associated to the likelihood of being epistemologically less sophisticated. Another deduction concerns the likelihood that a higher level of education of the parents seems to inspire and ‘promote’ beliefs sophistication amongst the respective children.

With regard to perceptions of education, the main conclusion was that, in general, students perceive education from an individualistic and materialistic perspective. In other words, personal materialistic advantages, later in life seem to be the dominant drive pushing youngsters to ‘get schooled’.

Obviously contrasting with the theoretical expectations on a ‘collectivistic’ perception of education, the reason for this outcome is probably to be found in the very nature and effect of formal education. Other explanations could be that the rapid and quite radical socio-economic changes that the country is undergoing induces people, particularly the youngsters, to feel the need of equipping themselves with formal knowledge and, above all, with the school certificate/diploma, deemed an essential ‘tool’ for personal survival in nowadays globalised society.

It is acknowledged that the study carries limitations at different levels. Some limitations are inherent to the research paradigm under which it was undertaken. These include the nature of the approach in itself (e.g.
the epistemological beliefs system paradigm is seen to de-contextualise personal epistemology; its conceptual uncertainties (the inclusion of learning dimensions in an epistemological construct has not been well accepted), and its methodological pitfalls, related to factor analysis procedures. Other limitations pertain to the study itself (e.g. the reliability of the scale and reservations about the sample as being representative of the whole Mozambican society). Nevertheless, the likely overall lesson learned from this study is that research on personal epistemology, in general, and on epistemological beliefs studies, in particular, is a worthy pursuit in contexts like Mozambique, as such research can help identifying probable roots of learning difficulties and, consequently, pinpoint the underlying reasons of poor quality outcomes. Furthermore, epistemological beliefs studies may be enlightening in the direction of appropriate interventions to undertake in order to overcome learning difficulties. On those grounds, and on the grounds of the actual findings of the study, suggestions for further research and for classroom good practices are formulated. Specifically, we advocate that replication studies on personal epistemology should be undertaken in Mozambique and in Africa. We presume it would be even more interesting if further research would use the emerging theoretical models and paradigms, some of which have been outlined in Section 3.5 of Chapter 3 of this thesis, namely the Embedded Systemic Model (Schommer-Aikins, 2004); the Epistemic Metacognition Paradigm (Hoffer, 2004); the Epistemological Resources Paradigm (Louca et al., 2004). These models and paradigms have been designed to be more comprehensive, context-bound and context sensitive, so as to capture the subtle, slippery, and yet ubiquitous nature of personal epistemology. Nonetheless, the empirical validation of those models and paradigms is still to be assured.

Under the assumption that epistemological beliefs may influence teaching as well, it is also suggested that other personal epistemology studies should be undertaken to assess teachers’ epistemological beliefs. Complementarily, we advocate that topics on personal epistemology should be included in teacher training programmes, as to make teacher trainees well aware of this pervasive component of students’ characteristics. At a more practical level, we proposed argumentative reasoning and reflective judgments practices to be included and encouraged in the daily activities in classrooms, so as to promote beliefs development and sophistication.