

Education for Sustainable Development and retention: unravelling a research agenda

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Abstract This paper considers the question of what education for sustainable development (ESD) research might signify when linked to the concept of “retention”, and how this relation (ESD and retention) might be researched. It considers two different perspectives on retention, as revealed through educational research trajectories, drawing on existing research and case studies. Firstly, it discusses an ESD research agenda that documents retention by focusing on the issue of keeping children in schools. This research agenda is typical of the existing discourses surrounding Education for All (EFA). It then discusses a related ESD research agenda that focuses more on the pedagogical and curricular aspects of retention, as this provides for a deeper understanding of how ESD can contribute to improving the quality of teaching and learning within a wider EFA retention agenda.

Keywords Sustainable development · Education · Research · Retention · South Africa

Résumé Éducation pour le développement durable (EDD) et rétention : éclairer un programme de recherche – Dans cet article, j’examine en quoi pourrait constituer une recherche sur l’EDD reliée au concept de « rétention », et les possibilités d’étudier cette relation (EDD et rétention). J’envisage, à partir d’études de cas et d’études scientifiques existantes, deux perspectives différentes de la rétention, telles

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qu'elles se dégagent de projets de recherche éducative. J'analyse tout d'abord un projet d'étude de l'EDD qui documente la rétention en abordant le problème de maintenir les enfants scolarisés. Ce projet est typique des discours existants sur l'Éducation pour tous (EPT). Je présente ensuite un projet de recherche relié à l'EDD et davantage axé sur les aspects pédagogiques et curriculaires de la rétention. Ce dernier permet de mieux comprendre comment l'EDD peut contribuer à améliorer la qualité de l'enseignement et de l'apprentissage dans le cadre d'un programme plus vaste de rétention en faveur de l'EPT.

Zusammenfassung Bildung für nachhaltige Entwicklung in Bezug auf Vermeidung von Schulabbruch. In diesem Beitrag beschäftige ich mich mit der möglichen Bedeutung von Forschung über Bildung für nachhaltige Entwicklung (BNE), wenn sie mit dem Konzept der „retention“ (Vermeidung von Schulabbruch) verknüpft wird, und wie die Beziehung zwischen Bildung für nachhaltige Entwicklung und Vermeidung von Schulabbruch erforscht werden kann. Ich betrachte das Thema Vermeidung von Schulabbruch aus zwei verschiedenen Perspektiven, wie sie in pädagogischen Forschungsrichtungen erkennbar sind, und beziehe mich dabei auf vorliegende Forschungsarbeiten und Fallstudien. Zunächst diskutiere ich eine BNE-Forschungsagenda, bei der es schwerpunktmäßig darum geht, dass der Schulbesuch von Kindern auf längere Dauer gesichert werden muss. Diese Forschungsagenda ist typisch für die Diskurse im Zusammenhang mit „Bildung für alle“ (EFA). Im Anschluss daran diskutiere ich eine damit zusammenhängende Forschungsagenda, die sich mehr auf die pädagogischen und curricularen Aspekte der Vermeidung von Schulabbruch konzentriert, weil sich dadurch besser erschließt, wie BNE zur Verbesserung der Unterrichts- und Lernqualität im Rahmen einer umfassenderen BNE-Agenda für Vermeidung von Schulabbruch beitragen kann.

Resumen Educación para el desarrollo sostenible y retención. Desentramando una agenda de investigación – En este trabajo, me ocupo del interrogante de cómo se manifestaría la educación para el desarrollo sostenible (EDS) si se la enlazara con el concepto de la “retención”, y de cómo podría ser investigada esta relación (EDS y retención). Tengo en cuenta dos perspectivas diferentes de retención, tales como se han manifestado a lo largo de los recorridos de investigación sobre la educación, remitiéndome a investigaciones y estudios de caso existentes. En primer lugar, describo una agenda de investigación sobre EDS que documenta la retención centrándose en el problema de mantener a los niños en las escuelas. Esta agenda de investigación es típica de los discursos que existen alrededor de la Educación para Todos (EPT). Luego, describo una agenda de investigación relacionada con la EDS que se centra más en los aspectos pedagógicos y curriculares de la retención, puesto que ofrece un entendimiento más profundo de cómo la EDS puede contribuir a mejorar la calidad de la enseñanza y del aprendizaje dentro de una agenda de retención más amplia de la Educación para Todos.

Резюме Образование для устойчивого развития и концепция «удержания». Раскрытие исследовательской программы – В данной статье рассматривается вопрос о том, что может означать исследование в области образования для устойчивого развития, когда оно связано с концепцией «удержания», и каким образом возможно исследовать их взаимосвязь. На основе проводимого исследования и анализа отдельных примеров здесь приводятся две различные точки зрения относительно данной проблемы, которые выявляются через исследовательские образовательные траектории. Во-первых, в статье обсуждается исследовательская программа по образованию для устойчивого развития, которая документально подтверждает и уделяет особое внимание проблеме удержания детей в школах. Данная исследовательская программа является типичным примером происходящих дебатов по проблеме «Образование для всех». Далее в статье обсуждается аналогичная исследовательская программа по образованию для устойчивого развития, которая делает еще больший акцент на педагогических и учебно-методических аспектах данной проблемы, так как это позволит лучше понимать, каким образом образование для устойчивого развития может содействовать в повышении качества преподавания и обучения в рамках расширенной программы «Образование для всех».

Introduction

The International Implementation Scheme for the United Nations Decade of Education for Sustainable Development (UNDESD) identifies research as an important mechanism for enabling ESD internationally (UNESCO 2005). Of interest to this paper and the topic being discussed, is the understanding that the UNDESD is primarily an edu-centred intervention, which is essentially ideas driven (i.e. there are no funds available for structural interventions such as building more schools, or funding for more children to go to school, or for changing the designs and operations of schools) as is the case in the Education for All (EFA) agenda (UNESCO 2009). In this regard, King (2009, p. 177) notes that “The ESD literature seems more interested in how education can assist in transmitting messages about sustainable development than in the sustainability of national educational ambitions”. As stated by UNESCO, a primary objective of ESD is to re-orient education in the direction of a more sustainable society, with an intention to enhance the quality of education (UNESCO 2005). The UNESCO (2005) ESD International Implementation Scheme does not, however, point out how educational quality within a re-orientation framework, can contribute to EFA objectives such as retention of children in school.

Retention has become a major issue affecting the education of the majority of the world’s children as enormous challenges remain to keep children in school, once access to formal education has been secured (UNESCO 2004, 2009; Bruns et al. 2003). Retention is, however, not only a matter of keeping children in school, it is a

more complex issue with many different dynamics and meanings, all of which have implications for an ESD research agenda. The most recent Education for All Global Monitoring Report discusses the importance of education that reaches the marginalised (UNESCO 2010), and makes the important point that education enables children to have access to a wider range of life choices and chances, confirming the relationship between education and development. Failure to retain children in school expands the chances of their exclusion, and their marginalisation. This has implications for a country's ability to develop sustainably, and as such, retention is an important dynamic in an ESD research agenda. In the section below, I discuss two different, yet related ESD research agendas focussing on retention.

Perspective 1: an ESD research agenda focussing on keeping children in school for development benefits

Monitoring retention

One of the most prominent perspectives on retention in international educational literature that has relevance to ESD, is the imperative for keeping children in school, with an understanding that this leads to significant development benefits (including the possibility for sustainable development benefits). There are substantive processes underway to monitor access and retention, particularly through the UNESCO Education for All Global Monitoring Reports. These reports, published annually document the status quo, and also identify key trends. For example they inform us that:

- ... the expansion of schooling is leading to a slow reduction in the number of out-of-school children of primary school age, which dropped from 106.9 million in 1998 to 103.5 million in 2001—a rate that appears to be insufficient to achieve Universal Primary Education (UPE) by 2015 (UNESCO 2004, p. 21).
- Completion of primary school remains a major cause for concern: delayed enrolment is widespread, survival rates (retention rates) to grade 5 are low (below 75% in 30 of the 91 countries with data) and grade repetition is frequent (UNESCO 2004, p. 21).
- ...in 2006, there were 28 million fewer out-of-school children than in 1999. Compared with the 1990s, the progress achieved since Dakar has been dramatic (UNESCO 2009, p. 5).
- National budgets in poor countries are under pressure. Sub-Saharan Africa faces a potential loss of around US4.6 billion annually in financing for education in 2009 and 2010, equivalent to a 10% reduction in spending per primary school pupil (UNESCO 2010, p. 4), and that
- Millions of children are leaving school without having acquired basic skills. In some countries in sub-Saharan Africa, young adults with 5 years of education had a 40% probability of being illiterate (UNESCO 2010, p. 4).

Education and development

While such monitoring is important to provide some sense of progress against globally defined goals for universal education, any ESD research agenda focussing on retention should also consider why such monitoring is necessary. A key argument is that there is a strong relationship between education and development, and by implication sustainable development (depending on the definition of development being put forward).¹ UNESCO (2004) states for example:

The evidence is clear-cut on the links between good education and a wide range of economic and social development benefits. Better school outcomes—as represented by pupil’s achievement test scores—are closely related to higher income in later life. Empirical work has also demonstrated that high quality schooling improves national economic potential.... Strong social benefits are equally significant. It is well known that acquisition of literacy and numeracy, especially by women, has an impact on fertility. More recently, it has become clear that the cognitive skills required to make informed choices about HIV/AIDS risk and behaviour are strongly related to levels of education and literacy (UNESCO 2004, pp. 40–48).

Cornwell (2004, p. 79), discussing Education in Africa draws attention not only to the broader development benefits of education, but discusses this at household or community level, as follows:

Education is one of the many variables that can impact upon a household’s or a community’s ability to secure survival and livelihoods. The nature and extent of this impact will be shaped—even determined—by the conditions prevailing within that household or community. It is arguably in the field of education where the complex inter-linkages of factors such as poverty, health, politics, security, social relations within a gendered society, values and religion are most apparent.

These two perspectives show that there are different “scales” to development thinking, and an ESD research agenda would need to consider both the macro-level development benefits of retention, as well as household/micro-level development benefits associated with retention of children in school for sustainable development.

¹ It is noted here that concepts of development are not uncontested. The World Bank, for example, argues that education is necessary for sustainable economic growth and for building a knowledge economy (reflecting their view of development) (see Bruns et al. 2003), while other development theorists are critical of this notion of development for its colonising impact (e.g. Kapoor 2009; Bond 2005). Others theorising the relationship between education and development adopt a capabilities approach and argue for the contribution of education to human development (a notion that is broader than economic development only) (e.g. NMF 2005). ESD adopts a notion of development that includes the ecological (e.g. UNESCO 2005), but this too is contested, particularly in the means of establishing what the relationship between economy, ecology and society ought to be. For the purposes of this paper, suffice to say that retention issues would be relevant to ESD, particularly in the latter three meanings of development. Sterling (2007) argues that ESD needs to challenge the roots of modern forms of development, and its influence on education.

Social justice perspectives

Social justice perspectives further illuminate dynamics of retention issues relevant to an ESD research agenda. In 2009 UNESCO reported that “The out-of-school population is heavily concentrated by region and country. Sub-Saharan Africa alone accounts for almost half (47%) of all out-of-school children, with South and West Asia accounting for a further fourth” (p. 14). UNESCO also states (*ibid*) that:

In many developing countries smooth progression through primary school is the exception rather than the rule. High repetition rates are widespread. Of the thirty-one countries in Sub-Saharan Africa with data, eleven have grade 1 and nine have grade 2 repetition rates over 20% ... Repetition also puts a greater burden on households, especially poor households, and increases the chances of dropout.

UNESCO (2009, pp. 15, 16) also raise further complexities associated with inequalities and their impact on retention as follows:

- *Opportunity gaps resulting from economic inequality*: “In rich countries such as Japan and Canada over half of the population has reached tertiary level. In contrast, half of the children in poor countries such as Bangladesh and Guatemala will not even complete primary school” (UNESCO 2009, p. 15). This situation exists within countries, as well as *between* countries. In most developing countries, even the poorest, the rich households achieve universal primary education, and “irrespective of a country’s average wealth or overall level of attendance, children born in the richest 20% of households have similar attendance rates”.
- *Rural urban inequalities*: In many countries rural children are less likely than urban children to attend school, and are more likely to drop out. Poverty is a part of the explanation, as is the structural provisioning of school facilities, transport, etc.
- *Disparities faced by slum dwellers*: Slum areas are typically characterised by high levels of poverty, poor child health and limited education participation. UNESCO reports that in six countries attendance rates for children in slums were lower even than rates in rural areas.
- *Language based disparities*: Understanding what is being taught influences retention rates in schools. Mother tongue instruction can improve school attendance and thus retention.
- *Child labour*: In 2004 there were around 218 million child labourers, of whom 166 million were between 5 and 14 years of age. Child labour is most often associated with poverty. Practical measures such as providing child support grants and abolishing school fees has been shown to reduce child labour.
- *Health barriers*: Globally, millions of children still suffer the consequences of hunger, micronutrient deficiency and infection which undermine attendance, learning and chances of completing school. HIV/AIDS in Sub-Saharan Africa is presenting a formidable obstacle to achievement of universal primary education, and is affecting retention rates, particularly in Sub-Saharan African countries.

- *Gender parity*: In 2006 only 59 of the 176 countries with data had achieved gender parity. While this is a small improvement, more than half the countries in sub-Saharan Africa, South and West Asia and the Arab States have yet to achieve gender parity in primary education. There is also a strong correlation between poverty and gender disparities in primary schools. UNESCO reports that in Mali for example, “girls from the richest households are four times more likely than the poorest girls to attend primary school and eight times more likely to attend secondary school.” (UNESCO 2009, p. 20). Gender *equality* also remains difficult to achieve once girls are in school, and UNESCO reports that this involves providing equal access to good quality education, which is “far more difficult to achieve than the goal of parity” (ibid).

The complex nature of these social justice dynamics are confirmed in a South African study on rural education, in which a mix of the following factors were said to cause absenteeism from school, and eventually drop outs: long distances to get to school with inadequate transport systems and provision; high learner to teacher ratios; lack of access to early childhood education; the cost of school fees and uniforms; hunger and lack of availability of school meals; ill health and HIV/AIDS; disability and access to support services; teenage pregnancy; humiliation, bullying, sexual abuse and violence; language of instruction and inability to understand teachers (Nelson Mandela Foundation 2005).

To address King’s concern about the ESD agenda (noted above), and to develop an ESD research agenda on retention that would contribute to national ambitions of keeping children in school, it would seem that there is a need to focus on at least some of these dynamics:

- Monitor retention dynamics and track trends—particularly to provide more nuanced perspectives than those that can be provided through global monitoring data;
- Consider the relationship between education, retention and development at macro-level as well as at micro household level.
- Consider, and focus on where the issues are most acute—reported by global trend studies (after UNESCO) as being in Sub-Saharan Africa; in early learning (Grades 1–3); in rural areas; in slum areas; amongst girls; and amongst children affected and infected by HIV/AIDS—this is where dropouts are found to be highest. One could therefore propose that an ESD and retention research programme could ideally be located at an intersection that would include children (girl children) in early learning classrooms who are also faced with health risk impacts and who live in either rural areas or slum areas in Sub-Saharan Africa.
- In understanding the nature of the retention issues (as outlined above); there is a need to focus on sustainable structural changes that will keep children who are most at risk from drop out in school (e.g. providing free school fees; welfare grants; school feeding schemes etc.).

However, an ESD research agenda would need to take account of different representations of the issues to provide a fuller picture and deeper insight, as this

extract from the Nelson Mandela Foundation research report on rural education (showing teachers' and learners' perspectives on the same issue) in South Africa (NMF 2005) shows:

Reasons given for school absenteeism and drop out (by teachers) (drawn from the 2003 Rural Education Survey)	% F	% M	Qualitative perspective by learners in a rural education study [<i>in this study learners indicated that distances from school was the main reason why they dropped out</i>]
Care of siblings	22	7	High School learner from Mntsheni in rural KwaZulu Natal: As you can see, I start the day by going out to sell wood so that I can get money with this which to buy a bus coupon. This is because there is no high school nearby; they are all far away ... I sell my own wood to buy the coupon and the candle, which I use to study. My mother sells her own wood to buy food for the family ... And the issue of distance is very serious. I have to wake up at 04:00 and only get back home at 16:00. I am normally dead tired and very hungry on my return and there is no time to study. (NMF 2005, p. 47)
Helping parents with domestic work	41	21	
Helping parents with cultivation and livestock	21	46	
Helping parents with other wage earning activities	14	18	
Wage labour	4	9	
Lack of parental interest in education	51	48	
Lack of learner interest in education	30	42	
Schooling is too expensive	7	8	
Looking after sick family members	16	12	
Pregnancy	29		

Source: NFM (2005, p. 57)

The data also shows that there are other social and material factors that influence retention at school and community level (that are not visible in macro-level studies such as those produced by UNESCO), and that retention should be understood within a longer term and integrated systemic perspective that takes account of the interrelated nature of poverty factors that influence participation in schooling.

Perspective 2: an ESD research agenda focussing on retention through enabling epistemological access and transformative learning

None of the data or discourse on retention discussed under Perspective 1, barring the emphasis on language of learning, deals much with classroom practice, this is despite the fact that UNESCO (2004) report that *quality education* is as significant as ensuring access to school. There is increased attention being given to the question of quality and retention, although this relation is as yet poorly understood and documented. UNESCO (2004, pp. 69, 70) identifies relevance, time, structure, task oriented classroom environment and teachers' subject matter mastery and teaching repertoire as the most important conditions for enhancing teaching effectiveness, and learner characteristics, classroom practices, home and community educational contexts, design and delivery of curriculum, and school contexts as the key factors that influence students achievement.

ESD as explained in a number of orienting documents provided by UNESCO (2005) is purported to have a *transformative* agenda. There is, however, little

guidance on what this might mean for research into issues such as retention, or the relationship between ESD, quality and retention. By considering an ESD research agenda focussing on this relationship I seek to consider the issue of retention from a social epistemology perspective, which Popkewitz (1991, p. 15) describes as “making the knowledge of schooling as a social practice accessible to sociological enquiry”, emphasising the relational and social embedding of knowledge in the practices and issues of power. Social epistemology research, is, according to Popkewitz (1991, p. 15), both a political as well as a conceptual research process. This approach considers how socio-cultural and historically constituted forms of power-knowledge relations (modern forms of reasoning) shape the modernist education system, and its foundational assumptions, which in turn shape inclusion and exclusion patterns. In this light, Ngugi wa Thiong’o (1998, p. 108) observed for example that “... privileging the written over the oral had roots in the relationship of power in society and history”. Similarly, issues such as using English as medium of instruction in preference to mother tongue instruction has similar roots in the relationships of power in society and history.

Retention from this perspective, takes on the political dynamics of the pedagogical process itself and how it comes to be structured and practiced. Popkewitz’s work encourages a research agenda (into retention and other related educational questions) that seek explanations at the level of systems of reasoning associated with inclusions and exclusions, as reflected in pedagogy. His argument is that issues such as retention cannot simply be considered through assessing categorical systems of representation (e.g. numbers of children in school classified according to gender, race, developed, developing etc. as in Perspective 1 above) but that such issues ought to be considered within “... the principles generated by pedagogical and psychological theories of participation and action” (2000, p. 159) that circulate in schools. Through two case study examples, drawn from our Environment and Sustainability Education research programme at Rhodes University, I illuminate some of the errors of judgement that we may well be making if we fail to consider the social epistemologies of schooling at the level of epistemological access, and how the power relations of taken for granted pedagogical strategies and curriculum constructions can serve to exclude learners (Lotz-Sisitka 2009; Hogan 2008), thus contributing to the retention problem as reported by UNESCO (and outlined in Perspective 1 above).

Case study 1: the mutualism/commensualism homework assignment (Lotz-Sisitka 2009)

About 5 years ago a 12 year old child living on our farm made a simple request, one made by children everywhere “Please help me with this homework”. Looking into the homework, I found that he had been asked to explain and then draw pictures of two science concepts “commensualism and mutualism”. Having practiced as a primary school teacher myself, I immediately assessed that he was being asked to distinguish between and explain these concepts. I asked him: Did the teacher give you any materials, do you have a textbook, and do you know what the words mean?

The answer to all of this was ‘no’. We then started to resolve the problem—first by using the dictionary (which was not very helpful as it simply provided us with a more detailed explanation of the concepts in abstract terms). I then checked my understanding of the dictionary concepts by asking my husband (an ecologist) to help us explain the difference between the two concepts. We then took some books from our natural history bookshelf, and we looked for pictures in the books, and in some magazines which illustrated these two concepts. Mercifully we found a picture of a buffalo and some oxpeckers, and a mushroom/fungi growing on a tree trunk. We went into the field and looked at the cows, and noticed an egret sitting just near the cows in the field. We also found some lichen growing on a tree near the house. With these resources at hand—the dictionary, the pictures and the examples in the field, I was able to explain the difference between these two concepts and the child could draw his pictures and write his explanations. After about 90 min the homework was complete, and one could say that the child had gained “epistemological access” to some modern scientific/ecological concepts. He got full marks for the homework, and the teacher complimented him for exemplary work. He reported that he was the only child able to complete the homework.

If this was just an isolated incident, it could be treated as an interesting curiosity. However, this pattern was repeated over a period of 5 years with Mathematics homework, Geography homework, Life Orientation homework, English homework, Technology homework and even Arts and Culture homework, with different teachers each time. The result of this was that the child’s experience of schooling was littered with “foreign words” that apparently held little meaning; concepts that were not accessible to him through the cultural resources in his life world (except through the innovative strategy he used in asking for help with his homework through which he could access other cultural resources and a mediation process). Eventually this was not enough, and last year he dropped out of school in grade 11, despite the fact that he was a motivated student, keen to learn, and intellectually capable. (See Lotz-Sisitka 2009 for a more in-depth discussion of this and other related case stories on epistemological access.)

This example shows that the dominant form of pedagogical practice in the case study school (which like others, is shaped by modern histories of schools), privileges a form of reasoning and pedagogical practice that focuses on concept clarification in which it is assumed that meaning making should be one of “ascending from the abstract to the concrete” (Davydof 1995). This form of “scholastic reasoning” dominates modern conceptions of education (and their globalisation), with the exclusion consequences pointed to above. These only become visible through micro-level analysis, and these insights into the retention issue are “painted out” of retention research as discussed in Perspective 1. The case study shows that the issue of epistemological access, and how it has come to be structured in formal education systems may be a key question that requires researching in and by ESD retention researchers. Other related case study work in our research programme at Rhodes University (e.g. Kota 2006; Hanisi 2006; Asafo-Adjei 2004) shows that there is a need to consider how learners come to access the cultural capital and language used and required by formalised curricula, and how this is constructed (Lotz-Sisitka 2009). Hedegaard and Chaiklin (1990) propose a

re-orientation of the “abstract to concrete” pedagogical process, to what they call a “double move’ between situated activity and subject matter concepts” (as cited in Daniels, 2001, p. 97), which requires context to concept knowledge and learning experiments (O’Donoghue et al. 2007; Lotz-Sisitka 2009), that make more explicit what is known in the everyday through establishing an iterative relationship between everyday knowledges and institutional/propositional forms of knowledge that circulate in schools and formal learning institutions. This, in my view, constitutes relevant ESD research that addresses some aspects of the social epistemologies of retention related issues.

Case study 2: education in the wetlands and wetlands in the education (Hogan 2008)

A second case study within this research programme, addressing social epistemologies of educational access and retention is drawn from the research undertaken by Hogan (2008), situated in the Rufiji wetlands in Tanzania, where children in the wetlands have constant difficulties getting to formal school, and staying in schools. Their educational experience is hampered by poverty related factors (described above), but also by the dynamic physical changes in the wetland, which effectively renders them nomadic for a large part of the year, affecting school results and retention. Schools in the district have the lowest pass rate in Tanzania, affecting high drop out. The standardised formal curriculum and pedagogy are therefore simply inappropriate for use in such a context. Hogan researched the issue of contextualising the curriculum through adaptation of the Continuing Basic Education in Tanzania (COBET) curriculum² for use in the wetlands. The COBET curriculum adopts a more situated, culturally contextualised approach to learning, thus allowing learners to mobilise their prior knowledge and experience, and to draw on the community learning styles and pedagogies which are ordinarily marginalised in the formal (modern) curriculum.

Using an action research process and working with indigenous knowledge concepts and activities relevant to the teaching of wetland ecology and associated sciences (in a manner that takes account of epistemological access as outlined in the Case study above), Hogan found that contextualisation contributed to relevance of the curriculum, and broke through traditional barriers between teachers and students, students and elders, and community and teachers. It also allowed formal education activities to take place outside of the formal school building (which in the case of nomadic children is particularly significant). Contextualisation also necessitated a change in pedagogy towards more learner-centred, discovery methods, and allowed for indigenous knowledge to come into the classroom, while science and other formal curriculum concepts were taught, enabling inter-epistemological dialogues to emerge as shown by this extract from the research:

² This COBET curriculum is a crash curriculum programme used to compensate for 1.6 million children over 10 years of age who remained out of school in the 2000s.

Head teacher: ‘Are those local names and does anyone else understand them?’
Male elder from the village: ‘These are the names we use and even the loggers’ agents understand these names, but they sometimes have other names as well.’
Head teacher: ‘I suppose it is good to know the local and the scientific names so that we can all understand each other’. (Hogan 2008, p. 54)

Hogan concludes her case study research with this statement:

While this study focussed only on one case, it provided useful insight into some aspects of curriculum contextualisation. In engaging the interacting dynamics of relevance through efforts to contextualise the curriculum and draw on local cultural knowledge in teaching a module, the education of the youth living in the wetlands was qualitatively changed and improved ... particularly in relation to quality criteria that focus on relevance, meaning making and epistemological access. (Hogan 2008, p. 55)

This research points to a need to consider both the social epistemology of pedagogy and curriculum, and by association, alternative *socio-cultural meanings of education in discussions on retention*. The research is also showing that there is a need for micro-level studies to unpack the social epistemologies of inclusion and exclusions in school pedagogies, and in school settings, as shown by the two case studies above. More such case studies, conducted in contexts described in Perspective 1 above, will allow for more depth to emerge in an ESD retention research agenda as such research incorporates a social justice, social epistemological and socio-cultural orientations to retention issues, and in our view, forms a legitimate and important part of an ESD retention research agenda.

Conclusion

From the above, it is clear that research focussing on issues of retention, as applied to education, may be diverse, and may be influenced by different perspectives on retention. I have pointed out that focussing on a perspective of retention that is primarily oriented towards counting and monitoring how many children are in school (or not), points out where and in what context it would be most useful to centre an ESD research agenda on retention. I have also pointed out that ESD retention research needs to go beyond identifying macro level trends and the mix of factors that shape and influence retention of learners’ in schools. It needs to engage with micro perspectives and different understandings of the retention issue, as well as the social epistemology of pedagogy, and questions of epistemological access. As mentioned above, the ESD research agenda is primarily edu-centred, and is concerned with re-orientation of education *and* improvement of educational quality. ESD research oriented towards these questions and which focuses its agenda on those most at risk from dropping out of schools, may offer valuable insights into the processes of improving educational quality within the wider EFA agenda. Such a research agenda can also engage the *transformative education discourse that is often associated with ESD* in more tangible ways, giving meaning to the rhetoric outlined

in the official policy documents such as the International Implementation Scheme for the UN DESD (UNESCO 2005). Such a research agenda may provide “content” to the discussions on how schools might think about educational quality and relevance.

Touraine (2000) argues that:

All too often schools define themselves in terms of the curriculum, the knowledge they transmit to their pupils or students, and the exams they use to evaluate the acquisition of knowledge. For a long time this definition was rejected by only a small number of educationalists, most of whom were marginalised by the school system.

As shown by the review in Perspective 1 above, all too often policy makers, donor organisations and researchers think of retention in terms of access to this environment (Bruns et al. 2003; UNESCO 2004, 2009, and discussions in Perspective 1 above). Through research agendas described in both Perspective 1 and Perspective 2 above, it may be possible to develop a deeper and broader understanding of retention issues, and how exclusions are constructed, not only through structural factors in society (e.g. poverty), but also through social epistemologies of curriculum and pedagogy that serve to exclude learners at the level of epistemological access. Perhaps such research would assist schools to describe themselves not only in access, curriculum and examination terms, but also in terms of their contribution to, and relevance in society, and by the way they anticipate and respond to the complex socio-cultural and socio-economic conditions that influence the participation of their learners in education. In this sense, the social justice discourse associated with retention will broaden to include questions of epistemological access and relevance, as well as physical access. Perhaps too, as shown in the Hogan (2008) study, schools in their current form may change, and retention discourses will shift from numbers of children accessing and being retained in the school building, to numbers of children who are successful in participating in learning processes in a society that is oriented to inclusivity, social justice and sustainability.

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