Environmental Education in Botswana: A Socio-cultural Analysis of Children's Participation

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Abstract

There has been an increased interest in the rights and abilities of children to actively participate in their own learning in the field of environmental education and the focus has mainly been on teaching children to participate in understanding and addressing environmental issues through developing their action competence (i.e. their abilities to make decisions and act more independently or collectively). In this article we probe the concept of participation of children in environmental management activities in Botswana schools and illustrate how socio-cultural theory offers a framework for re-thinking the participation of children in environmental education practice. We attempt to use these theories to shed light on issues surrounding children's participation within the socio-cultural and historical environmental education contexts of the schools. The theories used in the paper provide a tool for revealing forms of children's participation. We further illustrate how they can be used for critical reflections and monitoring of teaching practices in schools' environmental education processes.

Keywords: Action competence, children, environmental education, activities, participation.

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INTRODUCTION

The Southern African Development Communities Regional Environmental Education Programme (SADC/REEP) has come up with initiatives to meet the Education for Sustainable Development (ESD) objectives of integrating sustainability practices into aspects of education and learning through participatory approaches (Lotz-Sisitka, 2006). This article probes the rhetorical and normalised emphases on children's participation in Botswana schools, and seek further insight into how children can be engaged in participatory learning processes that are meaningful, purposeful and that broaden their action competence and civic agency (Jensen & Schnack, 1997; Hart, 1992; Hart, 1997; Barratt-Hacking, Barratt & Scott, 2007; Stevenson, 2007).

One of the indictments that has been levelled towards the current state in which environmental learning processes are conducted in Botswana schools (Silo, 2009; 2011; Ketlhoilwe, 2007), is the lack of genuine participation of children in meaningful ways, where there has been an emphasis more on rhetoric rather than meaningful practice, which should be the children's fundamental right of citizenship (Hart, 1992; Graham, Whelan & Fitzgerald, 2006; Barratt Hacking et al., 2007; Stevenson, 2007; Clark & Percy-Smith, 2006). This calls for the need to re-think children's participation in environmental education processes specifically in school environmental activities and *how* children can actually participate in these activities with the aim of developing some sense of purpose in their participation.

CHILDREN'S PARTICIPATION – A CONCEPTUAL ANALYSIS

While few today would argue that participation is a key concept in learning, several environmental education studies in western countries have questioned the interpretation of participation in such learning. The main contention of most of this research is that there is a discrepancy between more open-ended action-oriented and reflexive goals associated with solving environmental problems and the somewhat instrumentalist way in which environmental education has been taken up in Botswana schools through participation in environmental management activities. Ketlhoilwe (2007) argues that there has been a normalization of environmental education into existing school culture through cleaning activities by children based on instructions of teachers to keep the school environment clean, and an association between 'clean schools' and environmental education. According to the schools, this is seen as children participating in environmental management activities (Silo, 2011). Researchers argue that much of the participation in most of these initiatives is focussed on instrumental transfer and acquisition of environmental knowledge, awareness development and behaviour change, as a route to environmental responsibility and pro-environmental agency (Hart, 1992; Hart, 1997; Stevenson, 2007; Chawla & Cushing, 2007).

This discrepancy is ascribed to the historical roots of environmental education where the primary purpose was and still is to develop a concern for the preservation of the environment through sound management activities (Stevenson, 2007) which assumes that such concerns are acquired through engaging children in such activities specifically, school waste management activities, that are considered pro-environmental (Ketlhoilwe, 2007; Chawla & Cushing, 2007; Stevenson, 2007). From these reviews it appears that Botswana school curricula have largely incorporated participation in environmental education activities mainly through narrowly defined, and often de-contextualised practices which are normalized into the structural functioning of the Botswana school system and curriculum cultures (Ketlhoilwe, 2007). Such approaches do not incorporate wider and more democratically oriented concepts of participation in learning, as reflected in the concept of developing *action competence,* responsive and responsible agency in children (Carlsson & Jensen, 2006; Jensen, 2002; Jensen & Schnack, 1997; Jensen, 1997; Uzzell, 1999). It is this central dilemma, namely *how* participation is constituted in environmental educational processes in schools in Botswana that is going to be conceptually analysed as it forms the main object of this paper.

Token versus Genuine Participation

For the purpose of analysing the concept of participation, provisionally it can be viewed as token and genuine. (Hart, 1992) uses a metaphor of a ladder as a model in which he sets up more procedural democratic criteria for distinguishing participation from non-participation by describing different degrees of participation ranging from 'non-participation' to several forms of 'real participation' in the rungs of the ladder. The model focuses on the quality of participation in varying positions on the ladder model from non-participation and token participation on the bottom end to real or genuine participation on the top. According to Hart, token participation is where adults use children to support causes and pretend that the causes are inspired by children when in fact children have little or no choice about what they do or how they participate as is the case in the way children in Botswana schools participate in waste management activities (e.g. picking up litter). While in genuine participation children's initiated and shared decisions, with adults form the top category of children's participation in the ladder. In spite of some critiques on the linear nature of Hart's model (Reddy & Ratna, 2002), we contend that the binary distinction of two forms of participation is a useful tool to help clarify Botswana schools' teaching aims when working with participatory approaches with children if schools have to move from the traditional normalised pedagogical approaches that are still so prevalent in the environmental education discourses, to authentic learner participation, an essential element of personally meaningful learning.

Token Participation

In token participation Hart (1992, 1997, 2008) observed that most projects in which children are involved under the guise of participation are normally designed and run by adults (Hart, 1992), with children merely acting out predetermined roles that are seemingly positive to both adults and children, such as picking litter and cleaning which may just be mere performances when indeed the "children's involvement is ambiguous or even manipulative" (Hart, 1992, p. 9). He contends that there are many more instances of tokenism than there are genuine forms of children's participation in activities. Schools seem to show little evidence of children participating in decisions on their participation in these activities, as most delivery plans are drawn up by teachers with little or no consultation with children who are just passive recipients of the curriculum, with few, if at all any, genuine opportunities to contribute to any action in these activities (Barratt-Hacking et al., 2007). This limited form of participation is consistent with moralistic participation (Simovska, 2004, 2008; Schnack, 2000; Jensen & Schnack, 1997). These scholars view moralistic participation as falling short of creating and developing children with skills to exercise and exert their influence and competencies as qualified participants in democratic environments.

Genuine participation

Hart (1992), views the meaning of genuine participation to be a process of sharing decisions which affect children's lives in the community of which they are part because according to him:

> it is unrealistic to expect children to suddenly become responsible adult citizens without prior exposure to the appropriate skills and responsibilities which foster competence to participate in the day to day management of their immediate environment which includes school, family, neighbourhood and community (p. 5)

What one gathers from this statement is that children's participation is important as a right that enables them to learn their responsibilities towards the environment, and in order to achieve this, they "need to engage in collaborative activities with other persons including those who are older and more experienced than themselves" (Hart, 1992, p.7) in addressing problems that face them in meaningful ways. Genuine participation, Simovska, (2004) emphasises, "is seen to be conducive to the personally meaningful learning and development of action competence" (p. 204).

There is therefore a need to promote children's participation, and the school offers an ideal forum for their active participation in environmental issues that affect their daily lives as it provides them with a role to play in shaping their future (Simovska, 2004, 2008; Hart, 1997, 2008; Chawla & Cushing, 2007). Participation of children in environmental education (EE) activities should contribute to the children' ability to act and effect change as well as develop *action competence* or civic agency in them. In this regard, Uzzell (1999) argues against the traditional approach of teaching environmental education that simply involves children in environmental management activities through normalized strategies (Ketlhoilwe, 2007), where children are used to pick up litter with the aim of creating "clean schools" without children knowing what they actually are learning from engaging in these activities. It then follows that any associated knowledge and insight that they acquire during their participation in these activities, should in essence bear some element of action competence in being *action oriented* (Jensen, 1997, 2004; Jensen & Schnack, 1997). Another key element is that this participatory approach provides possibilities for children to develop, promote, exercise and exert their competencies to be qualified participants in democratic environments by developing students' action competence (Jensen, 1997, 2004).

PARTICIPATION WITHIN AN ACTION COMPETENCE FRAMEWORK

The concept of action competence pioneered by Danish researchers concerned with children's democracy and decision making in environmental and health issues, is well articulated by Jensen (1997, 2004), Jensen and Schnack (1997), Schnack, (2000, 2010), Jensen (1997), and Carlsson and Jensen, (2006). They see action competence as central to participation in environmental education in schools and view it as a departure from the traditional science-oriented approaches of knowledge transfer and behaviour change as reflected in the normalised strategies associated with environmental management activities adopted by schools in Botswana.

They further perceive action competence as *a conscious action by an individual/group* that is *targeted towards solutions of the problem that children are working with.* "Action should be directed at solving a problem and it should be decided upon by those preparing to carry out the action. In other words, action is targeted at change: a change in one's own lifestyle, in the school, in the local or in global society" (Jensen, 2002, p. 326). This means there has to be a *deliberate, conscious desire and purpose on the part of the children* to participate in these environmental management practices by *fully understanding the causes* of the problem, who and what it affects, socio-cultural factors around their participation, change strategies in *how solutions to the problem can be generated* and coming up with *alternatives and new visions* to the way in which they participate in these activities (Jensen, 2004; Jensen & Schnack, 1997). These are all aspects of the participatory process that this article focuses on in this analysis.

Simovska (2008) goes on to emphasise that genuine learner participation within an action competence framework is distinguished from token participation that is evident in the normalised strategies of children's participation in Botswana schools' environmental education processes in that it focuses on the quality of participation not on individual students and modification of their behaviour (p. 63). She summarises participation in three main points that distinguish token from genuine participation to be focus, outcomes and target for change (p. 65) outlined and illustrated in figure 1 below.
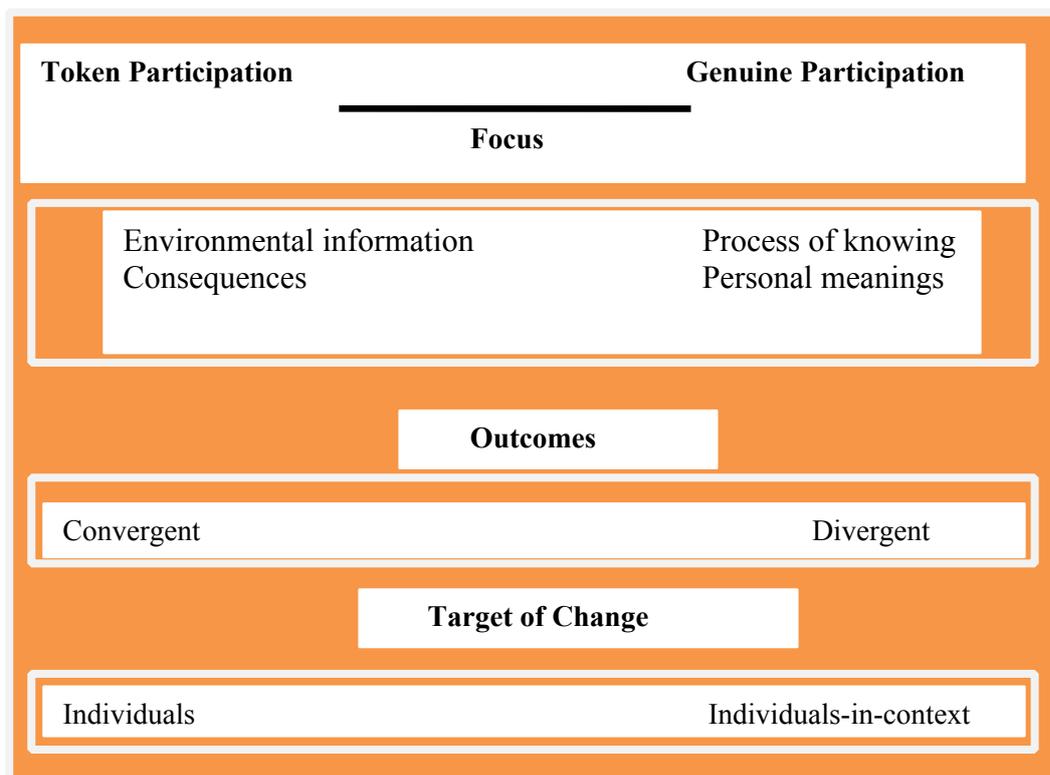
Figure 1: Simovska, (2008) Token versus genuine participation

If the main goal of environmental education is the development of the learner's ability to act and effect change as well as develop civic agency in them, then it follows that any associated knowledge and insight that they acquire during their participation in these activities, should in essence bear some element of action competence in being *action oriented* (Jensen, 1997; Jensen & Schnack, 1997; Simovska, 2004; 2008). Uzzell (1999) argues that the traditional approach of teaching environmental education by simply involving children in environmental management activities through normalized strategies results in fragmented experiences in which children are only engaged in looking for immediate or short term solutions to environmental problems in terms of a "technological fix within a framework that is mechanistic and piecemeal" (p. 402). According to him, these strategies impart knowledge that is not action oriented with schools mainly focusing on transmitting knowledge to children, "who have thus not been afforded the possibility of *actively appropriating and internalizing that knowledge*" (ibid,).

Jensen and Schnack (1997) argue that a school cannot assume to be environmentally effective by routinely cleaning, sorting waste, recycling, engaging in litter campaigns, but rather "the crucial factor must be what the students learn from participating in such activities, or from deciding something else" (p. 165). Such activities, according to them, "are obviously valuable and productive to the extent that they facilitate motivation and acquisition of knowledge" (p. 168) about the waste problem, but in order to be characterized as actions that bring about competence and civic agency, they must be targeted at effecting real change regarding the waste problem. This can only be realized when children are *purposely and systematically given time and space and opportunity to participate* in order for them *to develop their visions*. This has been found to have a very positive effect on the level of children's engagement in issues that affect them (Jensen, 1997, p. 423). He goes on to argue that "the fact that they have been given the opportunity to, develop, discuss and share their visions with others or perhaps participating in developing a common vision is perhaps one of the prerequisites or precursors of the desire to act…." (ibid). It is here, according to Jensen, that the ideas and creative processes in children are developed, and this empowers them to play an active role in making informed decisions about their participation in the environmental management activities. But schools, as is the case in Botswana, seem to lack practice and structures to ensure popular and genuine participation of children on such issues that affect them.

PHILOSOPHICAL UNDERPINNINGS OF ACTION COMPETENCE

According to Schnack (2000) and Mogensen and Schnack (2010), action competence is both a political and democratic ideal which is a characteristic of liberal education and development of critical thinking (Mogensen, 1997) in children where it is equated with such concepts as liberal education, democracy, human rights, sustainable development and equal communication (Schnack, 2000). This school of thought views action competence as a central feature to democratic environmental education as it attempts to break free from moralising behaviour modification which is characteristic of traditional approaches as seen in the Botswana schools normalised participatory discourses of engaging children in litter pick-up activities. Within the action competence framework in democratic environmental education children are encouraged to identify and act upon their own visions of a healthy life and healthy environment by determining how to participate in the process and coming up with solutions themselves.

The main idea of action competence as an eduactional ideal is democratic participation, even within a prevaling authoritarian culture (Tabulawa, 1997) in a societiy like Botswana in which democracy is an enshrined principle in the nation's constitution and where there has been a history of continuous normalized activities (Ketlhoilwe, 2007) in schools disguised as participation. The action competence approach becomes a much needed fundamental tool in order to reveal the nuanced nature of underlying realities of the historical power of subjugation and exclusion of children in genuine participation across schools in Botswana and to problematise and challenge this dominant authoritarian culture, bringing to the fore the children' subdued voices and subjugated capabilities. Schnack (2000)'s analysis provides a transect that dissects across this concept of action competence, revealing the shifts and transformations that are required in environmental education pedagogies that have developed over time resulting in the normalized participation of children that has characterized environmental education processes in Botswana schools (Ketlhoilwe, 2007; Silo, 2009, 2011). Carlsson and Jensen, (2006) in their argument for the development of children's citizenship which in a way is similar to action competence argue that while for example in the context of Botswana, like in any other context, this is "an arena of power with different interests, wishes and needs" (p. 243) it is also an arena for action which should comprise mutuality, equality, collaboration and dialogue. The arena should make

> it possible for students to experience essentially political situations , and thereby to develop the ability to identify and analyze conflicting interests in relation to environmental problems. Among other things this involves with questions such as: Who makes decisions? Who was for and against, and why? How can we as young people gain influence in relation to environmental issues and with whom can we ally ourselves? (p. 243).

These are all questions that should be central to democracy which, as one of the main pillars of Botswana's society, is supposed to permeate through all institutions of the society (cite) including schools and it is connected with participation freedom and self-determination, (Schnack 2000, p. 110). While advocating for such an ideal might seem to pose a paradox in an authoritarian culture (Tabulawa, 1997), it has to be recognised that it is not so much to do whatever one feels like here and now, which is more like self-important egoism, but ability and the will to take responsibility for one's own life, which should be the aspiration for Botswana children when they leave school as self-determining individuals who freely exercise their right to participation in decision-making (Schnack, p. 110)

The argument above points to the need to create the best conditions and opportunities for children to realise themselves, their potentials and unfold those characteristic traits of their human nature of being agents in their own right within any enabling or constraining circumstances. Seen from a philosophical point of view, the main point of action competence is the idea of action (Mogensen & Schnack, 2010, p. 61) in which the aim is the 'fulfilment of humanity: full development of the capacities and powers of each human individual to question preconceived opinions, prejudices, and 'given facts', and intentioned participation in the shaping of one's own and joint living conditions' (Mogensen & Schnack, 2010, p. 61).

The action competence approach seen in this perspective also challenges normalised activities in environmental education in Botswana schools as these tend to perpetuate moralistic tendencies which conceal preconceived ideas and hidden agendas when undertaking environmental education activities in schools, specifically waste management. Hence it calls for participatory approaches which should give rise to teaching and learning sequences that deal with societal issues involving conflicting interests within school communities between children, teachers and other stakeholders. Understood this way,

> the action competence approach points to democratic, participatory and action-oriented teaching–learning that can help students develop their ability, motivation and desire to play an active role in finding democratic solutions to problems and issues connected to sustainable development that may even consist of the aforementioned tendencies, ideas and agendas. (Mogensen & Schnack, 2010, p. 62)

The action competence philosophy is critical towards any reductionist tendency (Breiting & Mogensen, 1999) in environmental education as observed in the normalised waste management activities in Botswana schools where the goal of such activities is to change the children' behaviour (Jensen & Schnack 1997). This is the very reason why participation of children in these activities must also be critically explored when seen from the philosophical perspective of the action competence approach (Schnack, 2000; Mogensen & Schnack, 2010) as the whole idea behind SADC/REEP's ESD agenda seems to be very much in line with the action competence approach.

CHILDREN'S PARTICIPATION WITHIN A SOCIO-CULTURAL APPROACH

All of these insights into children's participation within an action competence framework provided by all these researchers (highlighted above in the previous sections), call for an approach that looks at the mediating factors that will remove barriers which disregard the role of children as potentially full environmental stakeholders (Barratt-Hacking et al., 2007) and move them from being mere actors in environmental management activities to informed and full participants and action competent contributing stakeholders.

Hence, if action competence for civic agency is to be developed in children, there is need to move from a rhetorical and normalised narrow view of participation to a broader approach that seeks to incorporate the *socio-cultural and historical contextual factors* that influence participation of children in these waste management activities (Jensen, 2004) in ways that develop their action competence. Jensen asserts that the element of action competence should be an essential component of environmental education as it brings out children who not only have knowledge and insight about their environmental management activities, but who should also show commitment through working within their social-cultural context with others to resolve problems around the way they participate in these environmental management activities.

Children's participation in environmental management activities in Botswana schools and the potential for developing action competence for civic agency within a socio-cultural and historical context can be understood and/or analyzed through *Cultural Historical Activity Theory* (CHAT), which has laid greater emphasis on situated (Lave & Wenger, 1991) and socio-cultural approaches to learning (Edwards, 2005; Reid et al., 2008; Jensen, 2004). The theory offers a broad approach, both epistemologically and methodologically for expanded learning opportunities for children in waste management activities. It also provides a robust conceptual framework for analysing and exploring children's participation. Participation according to this theory, or the 'participation metaphor' (Edwards, 2005) in learning has generally been perceived to be a non-cognitive option in learning that has been confined within a child instead of being placed on the capacity of a system in which learning is supported by complex forms of engagement (Edwards, 2005). According to Daniels (2001) the theory provides a view of developing cognition and its relationship between societal, cultural and historical factors from the notion of the prevailing context. Daniels goes on to recognise that "cognition is distributed among individuals, that knowledge is socially constructed through collaborative efforts to achieve shared objectives in cultural surroundings and that information is processed between individuals and tools and artefacts provided by

the culture" (p.70). Activity theory's focus on cultural history and tools makes it ideal for exploring interaction among multiple participants in an activity.

Edwards (2005) therefore argues for the potential inherent in the socio-cultural nature of participation in the learning process and how it can be supported in a complex system in which participation of children are operating (Edwards, 2005; Daniels, 2001). This theory provides a potential of understanding Botswana children' participation in waste management activities and how mediating tools within a socio-cultural context of the children influence their participation and how this affects the way the object of their participation is interpreted. The central role for contextualising the activities is that when analyzing children's participation in these activities, it is not only the activities that are going to be analysed, "but also who is engaging in that activity, what their goals and intentions are, what objects or products result from the activity, the rules and norms that circumscribe that activity, and the larger community in which the activity occurs" (Jonassen & Rohrer-Murphy, 1999, p. 62). It is therefore important to analyse waste management activities within their context, as this provides a useful framework for understanding the totality ofchildren's participation and praxis in context (Jensen, 2002, 2004; Jonassen & Rohrer-Murphy, 1999).

Because cultural historical activity theory has a focus on social contexts, interests and practices, it offers an ideal socio-cultural and historical framework for building and analyzing a picture of the status of environmental management activities in schools. From this, it allows for the setting up of mediation processes and engagements through which expanded learning opportunities for collaboration and interaction with children can emerge, which will allow children to participate in environmental management activities oriented towards action competence development. It therefore creates a contextual and emergent research framework for exploring broader views of children's participation in environmental management activities, and the dynamics that influence their participation in these activities.

The cognitive roots of participation in the socio-cultural context can be traced back to Vygotskian cultural psychology which viewed cognitive developments to be a result of a dialectical process, where the children learn by shared problem solving experiences through participation with someone else, such as an adult and peers within their surrounding culture who guides the learner (Daniels, 2001; Rogoff, 1990) because knowledge is place-based and distributed across the community (Edwards, 2005; Daniels, 2001) that the child is part of. This type of participation of children in the learning process occurs within the children's zone of proximal development (ZPD), which is the distance between the actual developmental level as deter- mined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978, p. 90).

PARTICIPATION IN ACTIVITY SYSTEMS

According to Vygotsky (Daniels, 2001, 2008) learning cannot be understood as linear, never-changing and universal as suggested in some areas of developmental psychology, but as always depending on its specific social, cultural and historical formation. Vygotsky (1978), posits that children's participation is mediated by *artefacts or tools* which modify how the individual *subjects (children)* will achieve their *object* (Daniels & Warmington, 2007). Artefacts or tools are created by individuals and social groups of which children are part, in order to interact with their world (Daniels, 2001, 2008). This basic interaction forms an *activity system* (Engeström, 1999; Sanders). Leontev (in Daniels, 2001) went on further to develop Vygotsky's tool mediation by focusing on the object (e.g. participation in a particular environmental management activity) and *how it is interpreted and what actions it elicited in children* (Edwards, 2005). This system forms a first generation activity system. Engeström, (1999), further extended and developed the activity system theoretical framework which offers a more viable root model of participation (Engeström, 1999: Roth, 2004) by focusing on object transformation which helps map relationships between children (subject) and their participation in environmental management activities (object). He argues that the object can be seen as being complex and can be viewed differently by others such as teachers and others in the school. In developing and expanding the concept of the activity system, Engeström (1999; 2000) proposed that an individual activity system is an integral part of a much larger

and expanded collective activity system, and he called this a second generation activity system (Engeström, 1999, 2000). This expanded model considers the social, cultural and historical context within which the activity system is operating. The additional dimensions of this second generation activity system include *community, rules* and *division of labour* (ibid).

In the second generation activity system, the activity system for children's participation forms the unit of analysis (Engeström, 1999, 2000). Children's participation in environmental management activities can be transformed into action competence for civic agency through engaging various mediating *artefacts/tools* which are the available resources influencing the children' participation. The *division of labour* refers to both how the roles, tasks and duties between the members of the school *community* (children, teachers, cleaners etc.) are defined and also how power and status are divided. Tools, community, rules, and division of labour are the structures that can both enable and constrain the activity system for children's participation (Roth, 2004; Roth, et. al. 2004; Edwards, 2005) as their participation is mediated by these structural and socio-cultural dynamics in order to achieve an outcome (Edwards, 2005). Outcomes (e.g. meaningful participation in environmental management activities in a school that show evidence of action competence development), can be brought about by features of the children themselves (i.e. characteristics of the *subject*), the nature of the *objects* that motivate their participation, the *mediating tools* they use (e.g. what facilities and materials they use to support them), the *community* of which they are part (their peers, teachers, parents, and others), the *rules* that pattern their participation (e.g. norms and rules in the school and community related to environmental management), and the *division of labour* (how they divide up tasks and who does what) (Engeström, 1999; Edwards, 2005; Roth et al., 2004). These structures form what Engeström calls *nodes* of an activity system (Engeström, 1999). Each of these nodes is understood not as a constant entity but as undergoing continuous change, which in part is brought about in the system's response to *contradictions, tensions* or inconsistencies (Engeström, 1999, 2000; Roth, 2004). The identification of contradictions within and across activity system is a central component (Engeström, 2000) of second generation activity theory, as arising tensions and contradictions offer *expansive learning opportunities* for children in activity systems (Daniels & Warmington, 2007; Engeström, 1999). According to this framework, children's participation as it is currently undertaken in Botswana schools can be analysed to identify the contradictions and tensions in these activities, which can then provide opportunities for new expansive participatory processes that will lead to the development of children's action competence.

CONCLUSION

Through enabling the expansive participatory learning processes in Botswana schools, children can reposition themselves in relation to environmental management practices in the school and this can further be investigated to see whether and how their participation and motives can be re-conceptualised to embrace a radically *wider horizon of possibilities than in the previous mode of their participation* (Engeström, 2001; Edwards, 2005) in the normalised activities such as routinely picking up litter. For example tensions in the children's activity system can exist in relation to *rules* (what teachers tell children to do), and *how they perceive the object* (i.e. they are not clear why they are being asked to participate in environmental management activities) (Silo, 2009). This tension could create possibilities for children to, for example develop explanations for why they are participating in environmental management activity which would be evidence of an expanded learning opportunity and wider participation in the process that is meaningful and relevant to their issues and interests (Silo, 2009). This could contribute to the process of participation in decision making and the development of action competence, as explained by Hart, Jensen and other theorists as noted above. As Engeström (1999) explains, contradictions "are potential growth points that allow the system to improve while affording the making and remaking of the participants and their identities" (p. 176), allowing for expansive learning.

According to Jensen (2004) expansive transformation which might arise from emerging and observed tensions and contradictions, should help children to come up with questions on how to do things differently to respond to the problems they identify, and change the ways that they participate in environmental management activities. This would expand their learning opportunities which is similar to developing their action competence, this action competence approach provides a more refined picture of

the kinds of processes children could engage with (e.g. vision building, framing questions, making decisions, seeking solutions together, trying out and reflecting on actions etc.) once the tensions in their activity systems become more visible to them, and if they are supported, to use these as open-ended starting points for new opportunities for participation. This should respond to the SADC REEP initiative within the Education for Sustainable Development (ESD) framework (Lotz-Sisitka, 2006) that argues for meaningful participation in environment and sustainability education in Botswana schools.

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