

EDUCATION FOR SUSTAINABLE DEVELOPMENT IN EARLY CHILDHOOD EDUCATION: A GLOBAL SOLUTION TO LOCAL CONCERNS?

Emma Pearson and Sheila Degotardi

SUMMARY

This paper makes the case that Education for Sustainable Development (ESD) offers the field of early childhood a valuable base upon which to begin addressing some substantial contemporary concerns. In the paper, we outline key recent developments in the field of early childhood, particularly those related to globalisation and the spread of European American ideals. Yet ESD promotes the incorporation of local and indigenous understandings in formal education. We propose that, given; (i) broadening appreciation of the reality that early childhood education is characterised by diversity in early values and practices across socio-cultural contexts, and; (ii) global interest in and commitment to early childhood education, the field is not only in need of, but also well-placed to adopt this key principle of ESD.

RÉSUMÉ

Cet article soutient que l'éducation pour le développement durable (EDD) offre au secteur de la petite enfance une base valable sur laquelle s'appuyer pour aborder des considérations contemporaines. Dans cet article, nous soulignons les récents développements dans le champ de la petite enfance, en particulier ceux liés à la mondialisation et à la diffusion des idéaux américains européens. Pourtant, l'EDD fournit des moyens pour favoriser l'intégration des questions locales et indigènes dans l'enseignement formel. Nous proposons que puisque ; (i) l'éducation de la petite enfance est caractérisée par une diversité de valeurs et de pratiques à travers des contextes socioculturels, et ; (ii) l'intérêt et l'engagement dans l'éducation de la petite enfance, le champ a non seulement besoin de, mais est également bien placé pour adopter ces principes d'EDD.

RESUMEN

Este artículo destaca que la educación para el desarrollo sustentable (ESD) ofrece al campo de la niñez temprana una base valiosa sobre la cual comenzar a analizar algunas preocupaciones contemporáneas sostenenciales. En el artículo, se delinean algunos desarrollo recientes claves en el campo de la niñez temprana, particularmente aquellos relacionados con la globalización y el esparcimiento de los ideales americanos y europeos. El ESD por otra parte, promueve la incorporación del entendimiento local e indígena en la enseñanza convencional. Proponemos apoyar estas ideas puesto que se destaca (i) una apreciación mas amplia de la realidad, aspecto por el que la educación de la niñez temprana es caracterizada : la diversidad en valores y prácticas tempranas en los diferentes contextos socioculturales, y; (ii) el interés global y el compromiso con la educación de la niñez temprana, permite apreciar que el campo está no sólo necesitando, sino también bien situado para adoptar este principio dominante de ESD.

Keywords: Education for Sustainable Development, indigenous knowledge, globalisation

INTRODUCTION

Much of the field of early childhood has traditionally been informed and dominated by theories developed on the basis of values and practices found in European and American contexts. However, significant global and local developments during recent decades have presented challenges to some fundamental 'professional' notions regarding the education and care of young children. This paper focuses on two key aspects of these developments; growing attention to the immutable role of cultural values in the practice of early childhood education and the globalisation of early childhood education and care. We begin by drawing attention to global developments in early childhood, which have amplified the spread of European American notions about what is 'best' for children (Penn, 2008). We then review aspects of a substantial body of research that has, over several decades, established the need to account for diverse value systems in early childhood programmes across socio-cultural contexts (Woodhead, 1999). We also refer briefly to a growing body of literature that highlights difficulties associated with direct transferral of practices across diverse contexts, including those that are working towards achieving similar goals. The paper concludes with the proposal that, in light of these developments, the field of early childhood education is poised to take on board novel, cohesive frameworks for the education and care of young children that are more globally relevant than those that have been used in the past. The concept of ESD is presented as a much-needed frame upon which to build effective programmes that respond to contemporary concerns about the contextual nature of early childhood education.

WHAT IS ESD?

The concept of ESD has grown from international expressions of commitment to sustainable development practices concerning economic growth, cultural heritage and environmental protection (Agenda 21, 2005). ESD is unique in that, unlike other educational models designed to address environmental and/or global development issues, it takes an holistic approach, incorporating aspects of both environmental and global education. ESD gives precedence to the role of global perspectives and participation in addressing worldwide social justice and environmental challenges (Scheunpflug & Asbrand, 2006). ESD is grounded in the belief that the formal education has a significant role to play in establishing beliefs and practices that will promote more sustainable approaches to patterns of living and development in future generations (Davis, 2007). ESD has often been associated with the promotion of environmental sustainability (Robottom, 2007), yet Vargas (2000) states that, by promoting social and cultural factors, the concept of ESD goes further than environment education (EE). In particular, Vargas contrasts the concept of sustainable development with earlier, discrete models of development and sustainability that have tended to foreground,

respectively, economic growth and environmental protection. Sustainable development takes as its premise the view that authentic development, for whatever purpose, must place local mentalities, customs and knowledge at its centre (Hounkonnou, 2002) and that the ‘three pillars’ of development – economic, social and environmental issues – are inextricably linked.

Sustainable development is difficult to define because it is highly contextualised. In many cases, the identification of examples of non-sustainable practices is more straightforward than the promotion of sustainable approaches (Breiting, 2007). Breiting therefore suggests that for the purposes of education, sustainable development should be interpreted and presented to educators according to relatable priorities. For the purposes of early childhood education, we find the interpretation provided by Engle (1990, cited in Bossel, 1999) most relevant, as it focuses on community, referring specifically to “the kind of human activity that nourishes and perpetuates the historical fulfilment of the whole community of life on earth” (p. 2). Such an approach fits closely with current conceptualisations of children’s agency, participation in and belonging to communities (for example, Early Years Learning Framework, 2008). Our intention in this paper is to highlight the compatibility of principles espoused by ESD, particularly those that emphasise the role of context in learning and education, with concerns that have been developing within the field of early childhood over a number of decades.

ESD AND THE GLOBALISATION OF EARLY CHILDHOOD EDUCATION

The field of early childhood education has received increased attention in recent decades. Globally, urbanisation, changing economic circumstances, migration and adjustments to family structure have resulted in greater acknowledgement of formal early childhood care and education as a feasible alternative to home-based care-giving (Are, 2007; Bowes, Watson & Pearson, 2008). Universal provision of formal early childhood services has also been promoted via international organisations who view the early years as formative in terms of later development and learning (UNESCO, 1990). These developments have stimulated global interest in provision of early childhood services and, in particular, the goal of achieving positive outcomes for young children. Kaga (2007), for example, supports UNESCO’S goals in stating that education empowers children and societies “by equipping them with values and basic skills that allow them to critically reflect and make informed decisions about issues and courses of action” (p. 54). By instilling young children with important life and learning skills, early childhood education has the potential to promote change and enhance the lives of communities on a global scale.

While these ideals are honourable, a range of issues associated with globalisation in early childhood education have attracted debate (Penn, 2008; 2002). The implication of globalisation for early childhood with which this paper

is chiefly concerned is related to the spread of dominant European American notions about 'best practice' and preferred outcomes in early childhood. The thrust to globalise early childhood education has been led by influential organisations such as UNESCO and The World Bank. These bodies are widely informed by European American standards such as Developmentally Appropriate Practice (DAP), which is shaped by individualistic notions of child development (Penn, 2008; 2004). DAP is underpinned by child-centred learning and teaching approaches that emphasise children's cognitive, social and emotional, physical and academic competencies (NAEYC, 2009). But abilities that may be highly valued in the majority world, such as the importance of learning from community elders, connections with nature and traditional knowledge (Burford, Ngila & Rafiki, 2003; Odora Hoppers, 2007) are not embraced explicitly within this philosophical framework.

Despite cautions against assumptions regarding the universal relevance of European American notions about what is 'right' for children, much of what development organisations espouse in terms of early childhood is informed by distinctively European American approaches (Woodhead, 1999; Penn, 2008). At the same time, early childhood and educational research and commentaries within European American contexts have themselves reflected critically on the assumed origins and continued applicability of accepted theory and practice. Mayer's (2004) review of crude discovery learning, for example, critiques both the effectiveness of this approach and its widely accepted connection to constructivist methods of education. The application of individualistic, child-centred philosophies in reforming early childhood policy and practice across diverse cultural contexts has also been examined and critiqued (Hsieh, 2004; Pearson & Rao, 2006). We highlight these issues below in order to make the case for ESD's potential to promote more contextualised approaches to achieving positive outcomes in early childhood education.

LOCATING EARLY CHILDHOOD APPROACHES WITHIN A EUROPEAN AMERICAN CULTURAL-PHILOSOPHICAL CONTEXT

In the early childhood field, there is growing acceptance that the images of children and learning that teachers bring to their classrooms will shape the nature of their curriculum and the ways that they interact with and guide children in their program (Robertson, 2007; Sorin, 2005; Woodrow, 1999). Such deeply ingrained images are imbued with ideas about the nature and content of children's minds and the ways in which mental processes such as intentions and thoughts affect and are affected by children's social and physical world (Bruner & Olson, 1998; Degotardi & Davis, 2008). These socially and culturally specific images and beliefs are procedural as they guide adult's actions towards children as they seek to steer children towards acquiring the ideas, beliefs, and behaviours that will enable them to function as effective members of their community (Gauvain, 2001; Super & Harkness, 1986). In teaching contexts they comprise a

‘folk pedagogy’ (Bruner & Olson, 1996): A set of intuitive assumptions about children’s minds, learning and teaching, that underpin educational philosophy and decision-making in the classroom.

European American early childhood approaches such as DAP have at their core the notion of child-centredness. Child-centredness emerged in the nineteenth-century educational philosophical ideas of Froebel and Montessori. This philosophical underpinning was then bolstered in the last century by the democratic educational views of Dewey (1916), the emergence of the child-study movement, and the developmental theoretical approaches of pioneers such as Piaget (Chung & Walsh, 2000; Tzuo, 2007). While various interpretations of the meaning of child-centredness exist and continue to emerge (Chung & Walsh, 2000), a common thread that runs through these interpretations is a commitment to individual children’s intentions, needs, and thinking as key determinants of early childhood pedagogy. Child-centred approaches stress individual children’s rights and freedoms to learn through self-directed and intrinsically motivated activity and play, and thus promote educational experiences that are shaped by children, through autonomy, exploration and spontaneity in learning (Kwon, 2002). Accordingly, in most European American early childhood education contexts, child-centredness is associated with a deep-seated construal or image of the ‘individual, psychologically-driven’ child that has permeated the thinking of many Western cultures for centuries (Lillard, 1998). There is, however, mounting evidence that such notions are far from universal. Lillard (1998), for example questions the global applicability of a European American focus on internal agency and motivation, citing numerous examples of cultures that prefer to evoke observable external physical or social forces when explaining or guiding others’ behaviour. In a similar fashion, Markus and Kitayama (2003) contrast the largely European American individuated notion of self with a more interdependent self-construct evident in many Asian cultures in which identity and actions are “impelled by others, in relationship and interaction with others” (p. 2). Construals of agency, therefore, differ according to the construals of self and others inherent in any given context, with ‘individuated’ approaches valuing self-directed, internally motivated action, whereas interdependent approaches appreciate notions of social connectiveness, obligation, and shared responsibility (Markus & Kitayama, 2003).

CHALLENGES RELATED TO THE GLOBAL SPREAD OF DOMINANT EARLY CHILDHOOD POLICY AND PRACTICES

Differences in the construal of the self, of other, and upon human behaviour in general have profound significance for those interested in the promotion of sustainable development through early childhood education. Because broad cultural variation exists, folk pedagogical theories about how and what to teach also differ. Bruner and Olson (1998) argue that these intuitive images cannot be ignored in educational contexts of development and change because they may

contrast and consequently compete with pedagogical approaches that are imposed on communities from cultures with incongruent folk-pedagogical traditions. Odora Hoopers (2007), for example, makes the point that formal science education tends to reflect a view of relationships between man and nature that is instrumental. Such a view contrasts directly with some traditional, indigenous understandings, which view this relationship as symbiotic. For this reason, the global spread of predominantly European American early childhood approaches into diverse countries and communities may be problematic. Indeed, a growing body of evidence has begun to illustrate multiple challenges associated with application of European American understandings in contexts where such philosophical bases compete with quite different, locally-conceived ideals (e.g. Penn, 2008; Prochner 2002).

Challenges associated, for example, with perceptions regarding the incompatibility of 'traditional' (local) education practices and 'modernisation' were reported following widespread educational reforms in the Chinese city of Hong Kong (Mok, 2002). Over the past decade, Hong Kong has undergone extensive educational reforms, incorporating the preschool years through to tertiary-level education. As Cheng (2002) suggests, the reforms, which were ostensibly designed to improve 'quality' of education in Hong Kong, have been: *"....borrowed from elsewhere with little reference to the local context and with little local discussion"* (p. 59). In early childhood, the reforms have promoted the concept of the agentic child and associated child-centred approaches to teaching and learning (Chan & Chan, 2003), with resultant challenges for teachers working within a contrasting frame of reference. Initial response from the field of early childhood education in Hong Kong, to difficulties caused by clashes between local values and the introduction of 'innovative', practices developed elsewhere, centred not on problems with the approaches that were being imposed, but on the need to better educate and prepare local early childhood practitioners (Pearson & Rao, in review).

Vargas (2000) attributes part of the challenge with regard to sustainability of cultural practices to earlier dichotomisation of 'modern' knowledge, perceived as reflecting progress (and largely attributed to 'The North') and 'traditional' customs, associated with failure to progress (and, in large part, 'The South'). In the context of a wider discussion about the use of authority and discipline in Indian schools Sarangapani (2003), for example, points out that the strong focus on student discipline found in an Indian village school, despite its contrast with 'child-centredness', has inherent local ideological value and therefore should be maintained. Sarangapani further analyses the tendency for local programmes that reflect cultural values related to student obligations to be undermined as a result of extremes reflected in dominant perceptions regarding 'traditional', didactic versus 'modern', 'learner-centred' approaches. These examples reflect a global inclination for local practices to be devalued relative to those developed and adopted in Euro-American context, regardless of the latter's incongruity with

local values and customs. The pedagogical difficulties which arise when 'modern', European American approaches conflict with traditional ideologies not only influence how teachers and students make sense of their school identities and experiences, but also impact upon the sustainability of teaching, learning, and consequently, community development.

When pedagogical approaches are globally imposed on communities, a gap is created between theory and practice as educators struggle to reconcile what is promoted as the 'right' way to educate young children with their implicit ideas about learning and teaching. At one extreme, this gap will result in the promotion of educational approaches which are difficult to maintain, while, at the other extreme, it can lead teachers to abandon culturally-specific ideas and values. Either way, development, both individual and community, is compromised as teachers and learners attempt to operate within a framework which lacks meaning and authenticity within their particular context. What is emerging is an illuminating case for the need to adopt frameworks that acknowledge the legitimate use of diverse practices to reach collective goals.

THE ROLE OF AN ESD FRAMEWORK AND EARLY CHILDHOOD EDUCATION IN PROMOTING SUSTAINABLE CHANGE

Hounkonnou (2002) argues that development must be inclusive and authentic if it is to be successful in its quest to engage the support and participation of local communities. She argues, however, that this premise is often thwarted, and provides a vivid illustration of the extent to which hegemonic relationships in social policy between minority and majority world cultures can undermine 'local' expertise. She describes a painting of top government officials from an African country, in which the officials are portrayed without ears, to reflect their failure to listen:

The artist's opinion might appear overstated. However, it illustrates clearly the frustration of local people who have been overlooked for decades by decision makers and development institutions. National scholars, researchers and other development agents share the same frustration, as national authorities only use their ears for foreign 'experts' and advisers. (p. 105)

Growing awareness of challenges associated with hegemonic relationships, particularly with regard to implementing successful social and economic developmental initiatives that benefit local communities, has led to increased emphasis on local participation in sustainable development programs (Evans, Meyers & Ilfield, 2000). At the heart of ESD's approach to the education of young children is its acknowledgment of the distinct social, cultural and physical environments in which children are raised and to which they belong. Kaga (2007) refers to the key principles of ESD, which include the importance of equity in access to education; the nurturance of learning and life skills that equip children to contribute productively to sustainable societies; positive attitudes towards nature and its preservation, and values such as empathy and tolerance.

Early childhood education is well-placed to adopt these key principles. Despite diversity in cultural ideas about children and their learning, there is widespread, shared acknowledgment of the early childhood years as formative with regard to establishing life-long attitudes and dispositions (Kaga, 2007). The contemporary image of children as competent contributors to society (James, Jenks & Prout, 1998) is applicable to all contexts and is reflected in the overall aim of ESD to “...to empower citizens to act for positive environmental and social change by giving people knowledge and skills to help them find new solutions to their social, economic and environmental issues” (Otieno, 2007, p. 37). As Siraj-Blatchford (2007) indicates, much of what sustainable development has to say about delivery of successful programmes is familiar to most working in the field of early childhood. Educational practitioners are likely to incorporate environmental awareness, in terms of both social and physical surroundings, in learning experiences for young children as part of a wider focus on promoting children’s understanding of the world. The ethics of equality and compassion that are inferred by sustainable development, and to which Siraj-Blatchford (2007) refers, are also familiar to most practitioners and professionals working in the field. Of equal importance, constructs inherent in the notion of ESD, whose priority is contextual relevance, can inform the global development of effective early childhood educational programs.

The holistic approach to human growth and development that is reflected in the ESD principles fits closely with fundamental notions of early childhood education and care, as does ESD’s acknowledgement of education in preparing future generations for sustainable life on the planet. A guiding principle of ESD for early childhood education is that children should be educated and nurtured in achieving skills that will enable them to contribute productively to the sustainability of their social and physical environments (Kaga, 2007). While acknowledging the value of early childhood education, the ESD framework therefore stresses the importance of developing culturally relevant, and therefore, sustainable means of meeting such goals. As Rogoff (2003) suggests, contextually-based approaches to education that draw on particular social and physical milieu to provide authentic learning experiences, offer greater potential for sustained learning than experiences that “simply import isolated features of informal or apprenticeship learning into the classroom for part of the day” (p. 361). Likewise, Pramling-Samuelson and Kaga (2007) argue that, if ESD is to be meaningful and successful, it has to be “rooted in the local concrete reality of young children” (p. 12). By developing early childhood approaches that remain true to the culture in which they are situated, early childhood educators are not only well placed to empower children to actively contribute towards the development of their own societies, but also to promote the development of culturally supported, and therefore sustainable, ways of understanding and action through which such change can be achieved.

AUTHENTIC EARLY CHILDHOOD EDUCATION AND ESD: WAYS FORWARD

Keating (1998) contends that education is a fundamental conduit for societal development and success, particularly during times of rapid transition. While acknowledging that education equips individuals with the means to promote community development, his statement that “a society’s ability to foster new skills, new concepts, and new patterns of learning depends heavily on its ability to renew educational institutions and practices” (p. 1) may appear at odds with our present argument related to the importance of sustaining cultural beliefs and practices. Yet notions of *change* and *sustainability* can co-exist if communities are given the opportunity to develop early childhood educational practices which work towards collaboratively formed goals in culturally relevant ways. Innovations can take place, but these innovations need to be meaningful to both teachers and learners if they are going to develop the sense of agency, ownership and confidence required to empower individuals and communities to bring about and positive and sustainable community development (Rogoff, 2003).

Given the inevitable globalisation of early childhood education, our proposal is that the global field of early childhood is in need of a shared framework of principles that lends itself to interpretation based on contextual factors. As Owuor (2007) has suggested, ESD provides an important context for the incorporation of local and indigenous understandings in formal education. Such an agenda also might help to reduce the current practice of importing programmes that reflect dominant conceptualisations of children which are still being debated. We also contend that contemporary features of the early childhood field predispose it to adopting the guiding principles underlying ESD. Global interest in early childhood education and its role in shaping future citizens of the world has increased the field’s exposure to diverse policies, theories and practices, with the potential for both positive and negative consequences (Haddad, 2007). European American early childhood professionals have engaged recently in critical discussions of the contextual nature of ‘childhood’ and early childhood education (Dahlberg, Moss & Pence, 1999). At the same time, global concerns have centred increasingly around the need to protect traditional values and customs related to children and their place in the world (for example, see perspectives reflected in Pramling Samuelsson & Kaga, 2008). The global spread of interest and investment in early childhood education outlined above, particularly by dominant NGO’s such as the World Bank, is likely to lead to greater diffusion of goals and practices across diverse contexts. Adoption of the principles that frame ESD’s approach to the education and care of young children would enable the field to avoid domination in this spread by traditional European American notions, which have tended to be privileged over local values and custom (Penn, 2008). Such a move would also enable the field to move forward in addressing the question of whose priorities count in shaping approaches to early childhood education, by offering a model

that promotes sustained development through appreciation of diverse and traditional understandings.

ESD does acknowledge that not all cultural practices are positive (Pramling Samuelsson & Kaga, 2008). The promotion of shared goals centred around provision of positive and enriching early educational experiences, expressed through diverse practices, offers critical opportunities for what Chavajay (1993) refers to as cross-fertilization of ideas about education, rather than hegemonic patterns in the transfer of policy and practice across contexts. Exposure to 'other ways' of being and thinking can assist local communities (both in The North and The South) to reflect on beliefs and practices, leading to the discouragement and change of those which, for example, are not consistent with the UN Convention on the Rights of the Child.

With regard to the practical implications of ESD as a framework for early childhood education, lessons can be learned from existing programmes and initiatives that promote sustainability in young children's education and highlight the importance of life skills reflecting diverse contexts. Norddahl (2008) highlights children's involvement in 'real life' problems as a useful method of providing opportunities for learning about communities and the environment, as well as empowering children to find their own solutions to issues that are faced in their community. Davis (2008) relates how teachers and children in an Australian day-care worked together to find ways to conserve water resources in their centre and community. In Kenya, Otieno (2008) describes how some preschools work collaboratively with parents and communities to support health, nutritional and educational development. The incorporation of community folklore, practices and resources in these programs have brought about positive educational outcomes as well as increased community pride and contribution. On an international scale, the curriculum of the International Baccalaureate Organisation's Primary Years Programme, which is increasingly being adopted by educational settings world-wide, emphasises the development of concepts, attitudes and action, as well as knowledge and skills, in young children's learning. The PYP is centred around transdisciplinary themes that reflect global concerns, including Sharing the Planet, Where we are in place and time, How we organize ourselves, and How the world works (<http://www.ibo.org/pyp>). By making the focus on life and community explicit in children's learning, these initiatives put sustainability logically at the core of education, rather than simply adding it to a structured programme of academic learning. The emphasis on place also permits authentic learning that reflects the priorities and needs of the local context.

While these examples provide valuable points from which to begin to work towards the kinds of principles to which we have referred widely, the field of early childhood is in need of cohesive, accessible frameworks that can be universally applied. Our proposal is that, with its combined focus on environmental protection and, in particular, equality, social tolerance, and promotion of just, peaceful societies, the framework of ESD responds to key

concerns expressed across early childhood contexts in recent decades. In turn, given its holistic outlook, and its concern with the contextual nature of education, early childhood is particularly well-placed to adopt the core principles of ESD. As Pramling Samuelsson and Kaga (2007) suggest, attitudes and behaviours relating to our place and responsibilities as global citizens of the world are shaped during childhood. ESD's key benefit is that it provides room for interpretation of 'place' and 'responsibility' and therefore has the potential to promote global commitment within early childhood to sustainable practices that reflect local concerns.

REFERENCES

- Agenda 21 (2005). *United Nations Division for Sustainable Development*. Retrieved 25 November 2008 from: <http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm>.
- Are, A. (2007). Cultural issues related to sustainable development in the Nigerian experience. *The role of early childhood education for a sustainable society*. (pp. 1-3) Goteberg University. Retrieved 25 November 2008 from: http://www.ufl.gu.se/digitalAssets/837/837347_Workshop_May07_papers.pdf
- Björneloo, I., & Nyberg, E. (2007). *Drivers and barriers for implementing learning for sustainable development in pre-school through upper-secondary and teacher education*. Technical Paper No. 4. UNESCO Education Sector.
- Bowes, J., Watson, J., & Pearson, E. (2008). Families as a context for children. In J. Bowes & R. Grace (Eds.), *Children, Families and Communities: Contexts and consequences*. Melbourne: Oxford University Press.
- Bossel, H. (1999). *Indicators for sustainable development: theory, method, applications; a report to the Balaton Group*. International Institute for Sustainable Development, Winnipeg, Manitoba, Canada. Retrieved 15 November 2008 from: <http://iisd.ca/about/prodcat/perfrep.htm#balaton>.
- Breiting, S. (2007). Is 'sustainable development' the core of 'education for sustainable development'? In I. Björneloo & E. Nyberg, E. (Eds.), *Drivers and barriers for implementing learning for sustainable development in pre-school through upper-secondary and teacher education* (pp. 19-24) UNESCO Education Sector. Retrieved 15 November 2008 from: <http://unesdoc.unesco.org/images/0015/001509/150966e.pdf>
- Burford, G., Ngila, L. O., & Rafiki, Y. (2003). Education, Indigenous Knowledge and Globalisation. *Science in Africa*. Retrieved 10 April 2009 from: <http://www.scienceinafrica.co.za/2003/march/ik.htm>.
- Chan, L. K. S. & Chan, L. (2003). Early childhood education in Hong Kong and its challenges. *Early Child Development and Care*, 173(1), 7-17.

- Cheng, K. M. (2002). The quest for quality education: The quality assurance movement in Hong Kong. In J. K. H. Mok & D. K. K. Chan (Eds.), *Globalisation and education: The quest for quality education in Hong Kong* (pp. 41-66). Hong Kong: Hong Kong University Press.
- Chung, S., & Walsh, D. J. (2000). Unpacking child-centredness: A history of meanings. *Journal of Curriculum Studies*, 32(2), 215-234.
- Dahlberg, G, Moss, P., & Pence, A. (1999). *Beyond quality in early childhood*. London: Falmer Press.
- Darling, J. (2004). *Child-centred Education and Its Critics*. London: Paul Chapman Publishing.
- Davis, J. M. (2008). What might education for sustainability look like in early childhood?— A case for participatory, whole-of-settings approaches. *The role of early childhood education for a sustainable society*. (pp. 18-24) Goteberg University. Retrieved 25/11/08 from: http://www.ufl.gu.se/digitalAssets/837/837347_Workshop_May07_papers.pdf.
- Degotardi, S., & Davis, B. (2008). Understanding infants: Characteristics of early childhood practitioners' interpretations of infants and their behaviours. *Early Years: An International Journal of Research and Development*, 28(3), 221-234.
- Dewey, J. (1916). *Democracy and education*. New York: Macmillan.
- Early Years Learning Framework* (DRAFT, 2008). Retrieved 25 November 2008 from: http://www.dest.gov.au/sectors/early_childhood/policy_initiatives_reviews/coag/The_Early_Years_Learning_Framework.htm#Draft_Early_Years_Learning_Framework.
- Evans J. L., Myers R. G., & Ilfeld E. M. (2000). *Early childhood counts: A programming guide on early childhood care for development*. Washington, D.C: World Bank.
- Gauvain, M. (2001). *The social context of cognitive development*. New York: The Guilford Press.
- Haddad, L. H. (2008). For a specific dignity of ECE: Policy and research issues relating the education of young children and sustainable society. In I. Pramling Samuelsson & Y. Kaga (Eds.), *The contribution of early childhood education for a sustainable society* (pp. 31-36). Paris: UNESCO.
- Hounkonnou, D. (2002). Linking up with local dynamics: Learning to listen. In C. Leeuwis & R. Pyburn (Eds.), *Wheelbarrows full of frogs: Social learning in rural resource management* (pp. 105-120). Uitgeverij Van Gorcum.
- James, A., Jenks, C., & Prout, A. (1998). *Theorizing childhood*. VT: Teachers College Press.
- Kaga, Y. (2007). Early childhood education for a sustainable world. *The role of early childhood education for a sustainable society* (pp. 53-56). Goteberg University. Retrieved 25 November 2008 from: http://www.ufl.gu.se/digitalAssets/837/837347_Workshop_May07_papers.pdf.

- Keating, D. (1998). Habits of mind for a learning society: Educating for human development. In D.R. Olson & N. Torrance (Eds.), *The handbook of education and human development*. Blackwell Reference Online. Retrieved 10 December 2008 from: http://www.blackwellreference.com/subscriber/tocnode?id=g9789631211860_chunk_g978063121186023.
- Kwon, Y. (2002). Changing curriculum for early childhood education in England. *Early Childhood Research and Practice*, 4(2). Retrieved 25 November 2008 from <http://www.peeearlyyears.com/pdf/Changing%20Curriculum%20for%20Early%20Childhood%20Education%20in%20England.pdf>.
- Kwon, Y-I. (2004). Early Childhood Education in Korea: Discrepancy between National Kindergarten Curriculum and Practices. *Educational Review*, 56(3), 297-312.
- Lillard, A. (1998a). Ethnopsychologies: Cultural variation in theories of mind. *Psychological Bulletin*, 123(1), 3-32.
- MacNaughton, G. (2000). *Rethinking gender in early childhood*. Sydney: Allen & Unwin.
- Markus, H. R., & Kitayama, S. (2003). Culture, Self, and the Reality of the Social. *Psychological Inquiry*, 14(3/4), 277-283.
- McMullen, M., Elicker, J., Wang, J., Erdiller, Z., Lee, S., Lin, C., et al. (2005). Comparing beliefs about appropriate practice among early childhood education and care professionals from the U.S., China, Taiwan, Korea and Turkey. *Early Childhood Research Quarterly*, 20(4), 451-464.
- Mok, J. K. H., & Chan, D. K. K. (2002). *Globalisation and education: The quest for quality education in Hong Kong*. Hong Kong: Hong Kong University Press.
- NAEYC (2009). Position Statement: *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age*. Retrieved 20 April 2009 from: <http://www.naeyc.org/about/positions/pdf/PSDAP.pdf>
- Odora-Hoopers, C. A. (2007). *ECD, Indigenous Knowledge and Sustainable Development from the African Perspective*. Presentation at the International Conference on Early Childhood Education and Sustainable Development, Gothenburg, Sweden, 2nd-4th May, 2007.
- Olson, D. R., & Bruner, J. S. (1998). Folk psychological and folk pedagogy. In D.R. Olson and N. Torrance (Eds.), *The handbook of education and human development*. Blackwell Reference Online. Retrieved 10 December 2008 from: http://www.blackwellreference.com/subscriber/tocnode?id=g9789631211860_chunk_g97806312118604.
- Otieno, L. (2008). The role of culture in integration of education for sustainable development in early childhood education. *The role of early childhood education for a sustainable society*, (pp. 46-49). Gothenburg University. Retrieved 25 November 2008 from: http://www.ufl.gu.se/digitalAssets/837/837347_Workshop_May07_papers.pdf

- Owuor, J. A. (2007). Integrating African indigenous knowledge in Kenya's formal education system: The potential for sustainable development. *Journal of Contemporary Issues in Education*, 2(2), 21-37.
- Pearson, E., & Rao, N. (2006). Early childhood education policy reform in Hong Kong: Challenges in effecting change in practices. *Childhood Education*, 82(6), 363-368.
- Pearson, E., & Rao, N. (in review). 'Local' values do count: The role of cultural belief systems in shaping the spread and influence of globalized notions of early childhood policy and practice. *Early Childhood Research Quarterly*.
- Penn, H. (2002). The World Bank's view of early childhood. *Childhood: A Global Journal of Child Research*, 9(1), 118-32.
- Penn, H. (2004). *Childcare and Early Childhood Development Programmes and Policies: Their Relationship to Eradicating Child Poverty*. CHIP Report No 8. London: Childhood Poverty Research and Policy Centre. Retrieved 6 October 2008 from <http://www.research4development.info/PDF/Outputs/ChildhoodPoverty/CHIPRep8.pdf>.
- Penn, H. (2008). Working on the impossible: Early childhood policies in Namibia. *Childhood*, 15(3), 379-395.
- Pramling Samuelsson, I., & Kaga, Y. (Eds.). (2008). *The contribution of early childhood education to a sustainable society*. UNESCO, Paris. Retrieved 10 December 2008 from: http://www.oei.es/decada/unesco_infancia.pdf.
- Prochner, L. (2002). Preschool and playway in India. *Childhood*, 9(4), 435-453.
- Robertson, J. (2006). Reconsidering our images of children: What shapes our educational thinking. In A. Fleet, C. Patterson, & J. Robertson (Eds.), *Insights: Behind early childhood pedagogical documentation* (pp. 37-54). Sydney: Pademelon Press.
- Robottom, I. (2007). Some conceptual issues in education for sustainable development. In I. Björneloo & E. Nyberg (Eds.), *Drivers and barriers for implementing learning for sustainable development in pre-school through upper-secondary and teacher education* (pp. 25-30) UNESCO Education Sector. Retrieved 25 November 2008 from: <http://unesdoc.unesco.org/images/0015/001509/150966e.pdf>.
- Sarangapani, P. M. (2003). Childhood and schooling in an Indian village. *Childhood*, 10(4), 403-418.
- Scheunpflug, A., & Asbrand, B. (2006). Global education and education for sustainability. *Environmental Education Research*, 12(1), 33-46.
- Siraj-Blatchford, J. (2007). Sustainable development: A case for prioritising the public understanding of science and technology in early years practitioner training. *The role of early childhood education for a sustainable society* (pp. 46-49). Gothenburg University. Retrieved 25 November 2008 from: http://www.ufl.gu.se/digitalAssets/837/837347_Workshop_May07_papers.pdf.

- Siraj-Blatchford, J. (2008). The implications of early understanding of inequality, science and technology for the development of sustainable societies. *The contribution of early childhood education to a sustainable society* (pp. 67-72). Retrieved 15 December 2008 from: http://www.oei.es/decada/unesco_infancia.pdf.
- Smyth, J. C. (2006). Environment and education: A view of a changing scene. *Environmental Education Research*, 12(3-4), 247-264.
- Sorin, R. (2005). Changing images of childhood – reconceptualising early childhood practice. *International Journal of Transitions in Childhood* 1(1), 12-21.
- Stevenson, R. B. (2006). Tensions and transitions in policy discourse: Recontextualizing a decontextualized EE/ESD debate. *Environmental Education Research*, 12(3-4), 277-290.
- Super, C. M., & Harkness, S. (1986). The developmental niche: A conceptualization at the interface of child and culture. *International Journal of Behavioral Development*, 9(4), 545-569.
- Vargas, C. M. (2000). Sustainable development education: Averting or mitigating cultural collision. *International Journal of Educational Development*, 20(5), 377-396.
- Tzuo, P.W. (2007). The tension between teacher control and children's freedom in a child-centred classroom: Resolving the practical dilemma through a closer look at the related theories. *Early Childhood Education Journal*, 35(1), 33-39.
- UNESCO. 1990. *World Declaration of Education for All: Meeting Basic Learning Needs*. Jomtien, Thailand, UNESCO. Retrieved 25 November 2008 from: http://www.unesco.org/education/efa/ed_for_all/background/jomtien_declaration.shtml.
- Woodhead, M. (1999). Towards a global paradigm for research into early childhood education. *European Early Childhood Education Research Journal*, 7(1), 5-22.
- Woodrow, C. (1999). Revisiting images of the child in early childhood education: Reflections and considerations. *Australian Journal of Early Childhood* 24(4), 7-12.

Correspondence about this paper should be addressed to:

Emma Pearson PhD.
Institute of Early Childhood
Macquarie University
NSW 2109
Australia.
Emma.Pearson@aces.mq.edu.au