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CONTENTS

TOWARDS A FUSION OF PEDAGOGY AND ANDRAGOGY: A PARADIGM SHIFT FROM MALCOLM KNOWLES' ANDRAGOGICAL PRINCIPLES

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Abstract

This paper critically examines Malcolm Knowles' andragogical principles as the basis for the learning process of adults. Knowles' contention that the learning processes and principles of children (pedagogy) must be completely different from that of the adults (andragogy) was vehemently disputed by some scholars based on the fact that humanistic psychology, upon which andragogy is rooted, assumes the problem of definition. Humanistic psychology does not make Knowles distinction between adults and children distinct enough. Instead, it applies its principles to all humans in spite of age. In essence, the four well-known features of adults (self directedness, rich experience, specific learning needs, and applied learning base) can all be applied in different ways to children. These submissions made Knowles to moderate his position regarding the differences between adult and younger learners. What he once strongly held on to as exclusive unique characteristics of adults, he later acknowledged as innate tendencies in all beings. Based on these contentions, this paper concludes that there is the need for a fusion between pedagogical and andragogical principles of learning which allows a bridge between the two methods of learning irrespective of the age of the learners.

Introduction

Since 1833 when Alexandar Knapp employed the use of andragogy in Germany, there has been a debate led by Bernard (1979), Bright (1989), Imel (1991) and Levinger (2003) as to whether andragogy differs from pedagogy. The controversy became heightened by Malcolm Knowles' work where he maintained that the learning process of adults is completely different from that of children. Adult learners are considered as the subjects of their learning. This changes the roles of both the learner and teacher. The teacher plays the role of a facilitator in the learning process.

Knowles' philosophy has been vehemently disputed by scholars such as Bright (1989) who referred to the former's position as an "epistemological vandalism of knowledge." Epistemological vandalism of knowledge refers to the denial of *a priori* form of knowledge acquired without recourse to human experience.

Humanistic Psychology

The question is: If Adult Education is so strongly dependent on source disciplines like Philosophy, Sociology, Psychology, Economics and History, does this preclude its possessing a complementary degree of independence relative to that dependence?

It is argued that Knowles' andragogy is rooted in humanistic psychology, which has a problem with the definition of the term "adult." So, if Adult Education is equated with the education of adults, as distinct from the education of children, then the science of teaching 'adults' necessarily assumes the problem of definition.

Despite the attacks on Malcolm Knowles' Philosophy, his position remains relevant in adult education literature where variables of culture, social, economic and political realities influence the definition and learning of adults.

The concept of social pedagogy has initiated a revolution to the debate between pedagogy and andragogy. It has prompted educational philosophers to conceptualise a fusion of the two terms in line with Hegelian dialectics. That is the specific sense of arguments derived from Hegel: the formation of synthesis from the thesis and antithesis.

The Learning Process

Learning is conceived by respondents in a survey by Purdie, Hattie and Douglas (1996) as "increasing one's knowledge memorizing, reproducing, and studying; a means to an end; understanding; (seeing something in a different way) personal fulfillment; a duty; a process not found by time or context; and developing social competence." These views bear resemblance with the features of learning identified by Marton, Dall' Alba and Beaty (1993).

As a process not bound by time or context, learning was seen not only as related to school, but also as occurring in a variety of everyday contexts. Learning takes place during encounters with other people, through reading books, while traveling and while at work. Learning continues throughout life; it is a gradual, continuous process. The age of a learner can determine the type of strategy or method to be used. The method of educating a six year old was captured by Brubacher (1985) as a setting where

> *Bells divide the day into periods... the periods are short (fifteen to twenty five minutes and varied; some leave their seats, play games, and act out make-believe stories, although in 'recitation periods' all movement is prohibited. As they grow older, the taboo upon physical activity becomes stricter, until by the third or fourth year practically all movement is forbidden except the marching from one set of seats to another between periods of manual training or home economics once or twice a week.*

Conversely, learning by adults is different from that of children because of the peculiarities of the sphere of life referred to as adulthood – "the time when the basic skills and abilities which were so rapidly acquired in childhood are consolidated and exploited to the full and many new skills and competences are learned" (Bernard, 1979). Learning in adulthood can be complex, for the varying learning experiences at childhood may either enhance or mar it. Human beings go through several transitional as a result of physiological, psychological and environmental factors, which affect the types of learning methods, appropriate to them. Akinola (2000) compartmentalized the stages of life into four, namely:

1. 0 – 20 years (children). This is characterized by youthful energy and vigor. Thus at this stage the young healthy adult can learn well and actively involved in literacy activities.
2. 20 – 40 years (Early adulthood). This is the period of adult maturation, marked by the on set of diminishing efficiency.
3. 40 – 60 years (middle adulthood). This stage is characterized by noticeable physical changes.
4. 60 years and above (later adulthood). At this age verbal intelligence may be impaired. Late adult are more likely than younger persons to grapple with impaired vision.

Philosophical assumption of Piagetian theory is that children's reasoning will develop automatically as they grow older. Moreover, an attempt to hasten this process will be a waste of time – perhaps even an educational malpractice (Gazzard, 1985). In this view, it is assumed that children's development goes through irreversible, necessarily age related stages. This stage theory of cognitive development is reflected in the way educational curricula, from primary education to tertiary education level, have been designed. Within the Nigerian context, the minimum age for entering the university is sixteen. This means that at this age, a desirable method of learning should be provided. Although the investigation of the relation between age and college success is not within the scope of this paper, it should be noted that little or no indication has been given by earlier research that age is a sole determinant of college success.

Pedagogy

Etymologically derived from the ancient Greek noun "Pais" (child) and the verb "agein" (to lead), *pedagogy* stands for the act of educating children. The historical antecedent is also instructive. In ancient Greece, paidagogia (servanthood) was the work done by the paidagogos, usually (slave or servant) who was entrusted with 'leading' the master's children. The servant taught the children how to behave at home, on the street, and even in the school. Castle (1967) says "despite the lowly status of the pedagogue, he was entrusted with the moral supervision of his master's children... He was the omnipresent symbol of parental authority." Pedagogy is thus closely associated with moral upbringing and the ethics of the teaching profession. This is why teachers act *in-loco-parentis*, taking the place of parents in the life of their pupils while at school.

Pedagogy developed with varied connotations in European countries. In England, it has an additional meaning that stands for "the science of teaching reference." This meaning refers to what was commonly employed in German (padagogik) as methodology: one's approach. The concept of pedagogy in literature acquired more comprehensive meaning by moving beyond mere methodology to an orientation, an approach, or stance on the part of an educator towards the process of educating. That is, it implies a methodology as well as a theoretical position. Paulo Freire adopted this usage in *Pedagogy of the Oppressed* (1972), *Pedagogy in Process* (1978), and *Pedagogy for Liberation* (1987). From this usage, Pedagogy adopts a normative character. It points to a well-defined philosophy of education, to a vision of man and the world, underlying it (Bennaars, 1993). In this vein,

Dasberg (1980) advocates Pedagogy of Hope while Giroux (1983) proposes "a critical pedagogy."

From the teaching of children to a theory and practice of education, pedagogy involves an educational approach and stance on the part of the educator. It has definite implications for varied definitions and practices of educational systems. For example, if education is understood as learning to be a self-reliant person in the society, the four dimensions of the human person – cognitive, normative, and creative and dialogical-would integrate the units into a whole pedagogy of an educational approach. The four dimensions of the human person provide an integrated pedagogy that can bring about the humanisation of the educational process (Bennaars, 1993).

Andragogy

Knowles' concept of andragogy and its application to adult education programmes are based on the assumptions of humanistic psychology of Abraham Maslow and Carl Rogers. Maslow (1971) opined that "the schools should be helping children to look within themselves and derive a set of values." The main element of the humanistic approach is to regard learning basically in terms of personal growth and development. That is "the role of education is to release inner human potential and facilitate learning which will lead to self actualisation." (Youngman, 1986). The emphasis is therefore on learning, rather than teaching, regarding conventional education as an imposition on learners.

Malcolm Knowles used the principles of humanistic psychology in adult education context. He posits that "The language of meeting needs, student – centred learning, self evaluation and the teacher as facilitator is very pervasive in the field of adult education... the dominant mode of learning is group learning (Knowles, 1984). Knowles, a former executive director of the Association of Adult Education of the United States of America and Professor of Adult Education of North Caroline State University, wrote the first major history of adult education in the United States. He is perhaps best known for his emphasis on andragogy and, more recently, on Contract Learning. Knowles defined and maintained that andragogy should distinctly remain the art and science of helping adults to learn. He specified that "andragogy is premised on at least four crucial assumptions about the characteristics of adult learners that are different from the assumptions about child learners on which traditional pedagogy is based. These assumptions are that, as a person matures,

1. his self concept moves from one of being a dependent personality toward one of being a self directed human being;
2. he accumulates a growing reservoir of experience that becomes an increasing resource of learning;
3. his readiness to learn becomes orientated increasingly to the developmental tasks of his social roles; and
4. his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from being subject-centred to being problem centred (Knowles, 1980).

Zmeyor (1998) added three other assumptions of andragogy

> *the learning of an adult that is largely determined by his/her life context, i.e. time, place, daily life and occupational, social and family factors; the adult learning process is characterized by the leading role of the learner himself or herself; the learner and the teacher cooperate in all stages of learning i.e. in the planning, realization, evaluation and correction of the learning process.*

From this perspective Zmeyor (1998) described andragogy as "the theory of adult learning that sets out the scientific fundamentals of the activities of learners and teachers in planning, realizing, evaluating and correcting adult learning."

The Problem of False Dichotomies

In the application of Knowles' approach to adult education, there are two false dichotomies. Bright (1989) observed that "the first concerns the degree of epistemological overlap between andragogy and humanistic psychology... The second is the criteria which are used in justifying the distinctive and fundamentally different nature of adults as opposed to children."

Although Knowles pointed to the psychological roots of andragogy, it is done in a minimal sense. Rather than building an edifice of a new massive intellectual and practical approach to adult learning, his views of andragogy represent obvious variations with marginal differences between the major themes of adult education. Humanistic psychology, although more concerned with adult experience, does not make Knowles' distinction between adults and children distinct enough. Instead, humanistic psychological principles apply to all humans inspite of age. When adherents of andragogy formulated criteria and dimensions of adult experience, which did not apply to children, they "merely invent a false dichotomy in that it artificially creates two subgroups within the population by involving criteria which do not apply in the distinctive manner claimed." (Bright, 1989).

The four well known features of adults: self-directedness, rich experience, specific learning needs and applied learning base can all be shown by children in varied degrees even if those degrees are relatively lower than the adults'. Knowles himself suggested that children might display self-direction outside formal educational situations. Modern developmental psychology and humanistic psychology regard humans as interacting with and influencing their environment in a reciprocal and dynamic manner (Leiner, 1981).

Lerner and Spanier (1978) offered numerous instances, such as the cries of the child for food, security, comfort, and care, and attention as the young child or foetus' impact upon the family. Hence, children cannot always be categorized as passive and adults active. While Knowles criterion of experience suggests age discrimination, it would be absurd to imply that there are no differences between adults and children. There are many but, whatever the extent of such differences, it ought not to be encapsulated in utter simplistic categorization as suggested by Knowles. Andragogy, as a theoretical foundation for a distinctive adult education, produces false dichotomies between childhood and adult learning. Levinger (2003) sees this

dichotomy "with respect to how individuals become more competent by overstating differences between older and younger learners." While andragogy is not being denied within humanistic psychology and adult learning, the social, cultural and technological milieux of the 21st Century call for a more concrete theoretical basis for adult learning.

Fusion of Pedagogy and Andragogy

The difference between pedagogy and andragogy becomes irrelevant when one relates education with the need of the society. Educating children and adult should necessarily benefit the society by enhancing development. Education for development primarily implies that education is to be understood in extrinsic terms but not education for its own sake. It implies a correlation between education and development. Development is the only panacea for ignorance, poverty, and disease.

The characteristics of pedagogy and andragogy can be expressed according to the following broad questions: What should be learned? How should it be organised for teaching? What is the role of the teacher? Where should learning take place? Theorists in methodology would answer these questions as shown in the table below:

Table 1:
Characteristics of Pedagogy and Andragogy

Categories	Pedagogy	Andragogy
Age of the learner	Child	Adult
What should be learned?	Determined by institution, parents, teachers, and society	Determined by the learner
How should it be organised for teaching?	Determined by institution, Parents and teachers	Suitability to the learner
What is the role of the teacher?	Instructor	Facilitator
Where should learning take place?	In formal, non-formal and informal settings	In formal, non-formal and informal settings.

Apart from the location where learning takes place, other categories are opposed to each other. The project approach to teaching methods has been enunciated by Hartman and Eckerty (1995) that "children learn best when interest is fully engaged and the teacher acts as a facilitator and consultant rather than an instructor." Kansas In-service Training (1996) adapted Gullo's (1992) submission of what the teaching methods for children should facilitate: "it should be relevant to the life experience of the child, and facilitates repeated experiences of a concept"

Nyerere, during the 1960s and 1970s, greatly contributed to the concepts of education and development in contemporary African society. In his 'education for self reliance' he linked education and development in a conservative manner with strong emphasis on self-reliance. He later

revisited these relationships between education and development in the light of liberation theory inspired by Paulo Freire's. Specifically, he stated that the purpose of education is liberation through the development of man as a member of society (Nyerere, 1974). This was built on Paulo Freire's conception of critical pedagogy as "the search for a programme dialogically with the people... to introduce the pedagogy of the oppressed, in the elaboration of which the oppressed must participate (Freire, 1970).

The child can be involved in community participation very early in life. The Universal Declaration of Human Rights of 1948 paved way for human development based on the principle of human dignity. This document expresses the global ideals in the language of development. Development denotes movement towards a direction, revealing what is hidden and actualizing potentials. The best illustration of this movement can be found in the natural process. Thus a seed develops into a plant, a tadpole into a frog, an embryo into an infant, a child into an adolescent and later an adult. An individual that develops into physical maturity attains a desirable state but developmental psychology makes a distinction between physical growth (quantitative change) and development, which specifically deals with qualitative change.

The principle of assimilation occupies a prominent place within Jean Piaget's theory of development. In his view, the stages-theory, development is perceived as continuous not a linear path or an inevitable course. Piaget distinguishes four stages: the sensorimotor stage, the pre-operational and concrete operational stages and, finally, the formal-operational stage. Piaget adopts a definite end-state similar to maturity in physical development which reduces human phenomenon to just a biological event.

Erikson (1963) questions Piaget's theory by characterizing social development from the cradle to the grave. Social development requires continuing education. In continuing education, there is a fusion between pedagogy and andragogy since education becomes a lifelong phenomenon. Education, at every stage of human development provides a means of solving problems that confront individuals regardless of the age. According to Okonjo (2000),

> *participation by the individual in the education process must lead amongst other things to a relationship, which inspires the extraordinary effort, and the sustained commitment which is required for the mastery of new knowledge and how it is used in meeting the challenges and solving the complex problems which arise in life.*

Dewey (1916), in his pragmatic theory of knowledge, opined that "confronted with a problem, an adult or child constructs, in imagination, a theory or hypothesis of how it might be solved." The progressive philosophy of education, in contrast with the traditional school acknowledges the child's freedom to engage in interesting activities. The purpose of education is the liberation of man from the restraints and limitations of ignorance and dependency. In this vein, Nyerere (1978) submitted that as "development is for man, by man and of man, so is education which has to increase man's physical and mental freedom – to increase their control over themselves,

their own lives and the environment in which they live." This is an ideal which education in Africa has not achieved. Consequently, it poses a pedagogical problem.

The Pedagogical Problem

Schooling in Africa tends to emphasize only the cognitive dimension of education. This is a practice that widens the child-adult difference in learning. Childhood and adolescence education in primary and secondary schools is somewhat far from day to day practical living. The pedagogical task of education includes the provision of conducive atmosphere, attainment of intentions, relations and understanding (Erny, 1981). Basic to the atmosphere are a sense of security and of confidence provided to the learner. The attainment of intentions is the end of educating. That is, education should be future oriented by looking into the future of the individual and the society at large. The pedagogical relation according to Erny (1981) is a given socio-cultural context in which education takes place. It is the link between the individual and society as a whole. That means an educator needs to function as mediator between the child and the society. He guides and initiates the child into adulthood through transfer of knowledge. Bigge (1999), contends "that the effectiveness of a school depends in large measure, upon the amount and quality of transfer potential of the materials that students learn." Thus, transfer of learning is the cornerstone upon which education should ultimately rest. Where this is absent or neglected, it results in a pedagogical problem. A 'lacuna' is created for another form of education to fill.

Both parents and teachers stand accused of neglecting the younger generation. There is need for understanding by parents and teachers of the conditions for educating so as to solve the pedagogical problem. Interestingly, the traditional African pedagogy was characterized by an atmosphere of communal care and concern, reflecting its explicit pedagogical intentions and relations. The traditional African pedagogy achieved the intentions and relations through ritual and initiation and produced "societal action that aims at leading an infant from a natural, original state to the state of adulthood. (Erny, 1981).

Childhood and adulthood can be relative states of life measurable not only by biological age but also by the social responsibilities of individuals in the society. In this sense, a ten-year-old who succeeds his father as a king of a community assumes the role of an adult regardless of his chronological age. For such a child or young adult, social pedagogy can be used to resolve the pedagogical problem of choosing the most appropriate method for learning. Even in recent years, social pedagogy is assuming significance in adult education in some societies like Sweden, which prefer it to the use of the term andragogy (Jarvis, 1990).

Social Pedagogy

Social pedagogy is a revolutionary education principle developed with the concern for the expression, activity, and initiative of an individual person. It forbids arbitrary manipulations of human nature; any encouragement to act blindly and mechanically; any kind of drill; rote learning; uniformity; force-

feeding with subject matter that is not understood (Gunther, 1994). Social pedagogy means that education needs to be turned away from the influence of colonization and religion into a force for social change. The work of Friedrich Diesterwag (1790-1866), the Prussian Educational thinker, showed that education should be open to everyone: 'first educate men as human beings before worrying about their profession, class, or age.' Ghent (1994) comments that Diesteweg did not distinguish between adolescents and adults, whereas such distinction was necessary in the educational doctrines that were applied to the bourgeosie. "The threat of socio-economic struggles was apparently considered to be far more dangerous than the conflicts between generations (Ghent, 1994).

'Social,' in the context of pedagogy, could embrace an education for community. That is, the individual learner needs to relate and reflect what is psychologically necessary for his growth and the creation of community in the curriculum and method available to him. This connection of pedagogy with community remains a key theme in the work of Dewey, Freire, and Nyerere. The kind of education proposed by these authors is such that should take place "from the educating community of the household, through the national and uniform school, into the free self education of adults of social backgrounds" (Marburger, 1979) quoted in Ghent (1994).

In a narrow and exclusive sense, young people can become the particular object of social pedagogy. For example, Becker (1946) contends that youth organizations such as league of girls and boys would benefit from social pedagogy because it would introduce them to modernization and family life. One of the particular forms of social pedagogy utilised as an instrument of social discipline of youth is camping. The idea of team and service could be used to find the behaviour of the individual and camp community into the collective community. Rather than being restricted to youth organizations, social pedagogy is better represented today as "a perspective, including social action which aims to promote human welfare through child-rearing and education practices; and to prevent or ease social problems by providing people with the means to manage their own lives, and make changes in their circumstances. (Cannan, *et al,* 1992). Conceived in this way, it includes a wide range of practices including ageing, mid-life, youth and day care programmes. This linkage with social problems and crisis work situates social pedagogy alongside social work.

Added to the social work dimension of social pedagogy is the belief that the experience required for learning by both children, youths and adults was for participation in community life. For Dewey (1916), community was described in terms of sharing in a common life. Thus, the classroom or wherever learning occurs, should be a place where there are group activities where people cooperate. Teachers are to join in with the activities and participate in a common endeavour. A critical point is that people learn through interacting with one another and a social environment. The basic assumption under girding participatory or collaborative learning would be that the facilitator's role as a source of authority diminishes. The shaping and testing of ideas for knowledge creation and transmission becomes a process in which anyone can participate (Imel, 1991). In this collaborative model, knowledge is constructed rather than transferred.

Furthermore, knowledge is considered to be found within the community rather than in the individual (Whipple, 1987).

Levinger (2003) proposed the creation of a new learning science, partagogy. Its primary focus is "to help individuals develop skills and knowledge they need to access available participation opportunities and create new ones over the course of their lifespan." The participation opportunities with which partagogy concerns itself are related to four core domains of human behaviour and national development: family life; livelihood; civic affairs; and environmental stewardship. Partagogy as a new science of learning is essentially for optimal human capacity as opposed to human resource development.

The works of theorists like Erikson (1963) prove inadequate for enlarged understanding of human capacity development because they remain silent on what methodological approaches are most suited to the development of skills and knowledge to access participation opportunities. Similarly "it can be argued that the distinctions between pedagogy and andragogy are not helpful to our task of understanding more about human capacity development ...Neither term conveys specifics with regard to the content to be acquired by learners. The terms pave the way for establishing a false dichotomy with respect to how individuals become more competent by overstating differences between older and younger learners" (Levinger, 2003).

Conclusion

The confrontation of difference can be so exciting for theorists, yet it usually becomes confusing to learners. In the case of pedagogy and andragogy, contradictions postulated by the adherents are due to research lags, inadequate data, and untestable assertions. For all-embracing theories of learning, environmental conditions, practice reflection, social process, as well as the readiness of the learner constitute the elements that should be taken into consideration. Since andragogy and pedagogy have to apply these elements, it is possible to build an integrated theory where there is a fusion of pedagogies and andragogies.

It is important, therefore, to continually search for better ways of understanding the learner's need system irrespective of his age, defenses against change, identifications, projections and his total personality so as to achieve the desirable end of education namely, personal fulfillment and societal good. Learning is expected to produce a desirable adjustment of the human person to his immediate and global environments. This is not to relegate the factor of age in an educational process. Rather, age should be considered within the social and cultural contexts.

In order to meet the individual's social aspirations, a social pedagogy offers an educational methodology that is germane to the learning needs, interests, and capacities of a sustainable society through its citizens' participation. Hence, Partagogy has both a methodological foundation and a content basis contrasted with the earlier views and differences of pedagogy and andragogy. Such method and content are neutral to the knowledge, skills, and behaviours they seek to develop in either child or adult learner. Imel (1991) noted that Knowles moderated his position regarding the

differences between adult and younger learners. What he once strongly held on to as exclusive unique characteristics of adults, was what he acknowledged as innate tendencies in all human beings. Nevertheless, he never built a bridge between the two methods of learning.

References

Akinola, B.; Sarumi, A. and Mojoyinola (2000) *An Introduction to Psychological Foundations of Adult Education*. Ibadan: Gabesther Educational Publishers.

Becker, H. (1946) *Germen Youth: Bond or free?* London: Kegan Paul & Co.

Bennaars, G. (1993) *Ethics, Education and Development*. Nairobi: East African Education Publishers.

Bernard, L. (1979) *Adult learning*. London: Croom.

Bigge, M. (1999) *Learning Theories for Teachers*. New York: Longman.

Bright, B. O. (1989) 'Epistemological Vandalism; Psychology in the study of Adult Education.' *Theory and Practice in the study of Adult Education. The Epistemological Debate*. New York: Routledge.

Brubacher, J. (1985) "The Challenge to philosophize about education" in Henry N (ed) *Modern Philosophies and Education*. Chicago: The National Society for The Study of Education.

Cannan, C.; Berry, L. and Lyons, K. (1992) *Social Work and Europe*. London: Macmillan.

Castle, E. (1967) *Ancient Education*. London: Penguin.

Dewey, J. (1916) *Democracy and Education. An Introduction to Philosophy of Education* (1966 edition). New York: Free Press.

Erikson, E. (1963) *Childhood and Society*. New York: McGraw-Hill.

Erny P. (1981) *The Child and His Environment in Black Africa*. Nairobi: East African Publishing House.

Gazzard, A. (1985) 'Philosophy for Children and the Piagetian Framework *Thinking* Vol. 1 (No. 1). p. 136

Ghent, B. (1994) 'The invention of Dutch andragogy: The role of Octavia Hill and Paul Natorp" in S. Marriot and B. J. Hake (eds.) *Cultural and Intercultural Experiences in European Adult Education. Essays on Popular Higher Education since 1890*. Leeds: University of Leeds.

Gullo, D. (1992) *Developmentally Appropriate Teaching in Early Childhood*. Washington, D. C.: National Education Association of The United States.

Gunther, K. (1994) 'Friedrich Adolph Wilhelm Diesterweg' in Z. Morsy (ed.) *Thinkers on Education* Paris: UNESCO.

Hartman, J. and Eckerty, (1995): Projects in The Early Years. *Child Education*, New York: Macmillan

Imel, S. (1991) Collaborative Learning in Adult Education. *Eric Digest*, No. 113, Vol. 4. pp. 41

Jarvis, P. (1990) *An International Dictionary of Adult and Continuing Education*. London: Routledge.

Knowles, M. (1980) *The Modern Practice of Adult Education: From Pedagogy to Andragogy.*, Chicago: Association Press.

Knowles, M. (1984) *The Adult Learner: A Neglected Species*. Houston: Gulf.

Lerner, R. and Spanier, M. (1981) (ed.) *Child influences on Marital and Family Interaction: a Life-Span Perspective*. New York: Academic Press.

Lerner, R. M. (1981) (ed) *Individuals as Producers of their own Development*. New York: Academic Press.

Levinger, B. (2003) *Critical Transitions: Human capacity development across the Life-Span: Critical Issues, 1994 – 2003.* Education Development Center Inc. USAID. *www.edc.org.*

Marton, F. Dall' Alba, M. Beaty, T. (1993) Conceptions of learning. *International Journal of Educational Research* Vol. 19, (No. 38), p. 568

Maslow, A. (1971) *The Farther Reaches of Human Nature.* New York: The Viking Press.

Nyerere, J. (1974) *Freedom and Development.* London: Oxford University Press.

Nyerere, J. (1977) Ujamas Essays on Socialism. London: Oxford University Press.

Nyerere, J. (1978) "Development is for man by man and of man" The declaration of Dares Solaam in B. Hall & J. Kidds (eds.) *Adult learning: A Design for Action.* Oxford: Pergamon Press.

Okonjo, C. (2000) *The Quiet Revolution: On Creating an Information-Age Education System for Nigeria.* Owerri: Spectrum Books Ltd.

Purdie, N.; Hettie J. & Douglas G. (1996) Student conceptions of learning and the use of self-regulated learning strategies: A cross-cultural comparison. *Journal of Educational Psychology* Vol. 88, p. 87

Smith, M. (1999) *www.infed.org.biblio/ b-soc.ped.htm.*

Whipple, W. (1987) "Collaborative Learning: Recognizing It When We See It." A. A. H. E. Bulletin (October) in Levinger, B. (2003) *Critical Transitions: Human Capacity Development Across Lifespan: Critical Issues 1994 – 2003 Education Development Centre Inc. USAID* www.edc.org.

Youngman, F. (1986) *Adult Education and Socialist Pedagogy.* Sydney: Croom Helm Ltd.