Child’s Physical Development, Environment and Intelligence: Implication for Administration of Childhood Education

Ali Hamdallah,1 Aliyu Ozovehe2 Abdullahi Abdulrahman3
1Department Of Science And Environmental Education, University Of Abuja, Abuja, Nigeria
2Trifield Technology Limited, Abuja, Nigeria
3Department Of Educational Management, University Of Abuja, Abuja, Nigeria

Abstract: This work sought to examine how biological stages of development and the environment of a child provide for learning experiences and as such, are seen as factors or determinant which affects child’s intellectual growth/development. As an academic subject, different view on childhood development has been reviewed for the purpose of this work. This research work is longitudinal in nature. It uses observational and experimental techniques. Case studies and expose-facto method was also employed. The conclusion to this work is universally generalized. The null hypotheses put to test are: Child intellectual development is not influenced by physical developments/ability and Child intellectual development is not affected by experience (level of exposure to environmental variables).

These hypotheses were rejected, while the alternate hypotheses were upheld. The implications were presented in a table below. Recommendations and conclusion were also given.

Keywords: intellectual development, physical abilities, environmental experiences, theorist’s gender

I. Introduction

This work is a summary of a book titled “Modern Theory on Child Intellectual Development” currently submitted for publication. Child psychology is a field which is being pre-dominated by male theorists. The absence of female theorist in this field calls for a justified concern.

To some extent this is a gender sensitive issue, because, right from conception, the female bears the growing child in her womb for a gestation period. Physically and psychologically, the child is thus being attached to the mother from the onset of his life, thus making a researching mother a part of mobile and continual observer in nature’s laboratory set for experimental observation.

After child delivery, the mother begins to nurture the child, being directly involved in the child’s welfare. The mother, as a matter of obligation is inseparable from the child in the early part of childhood, through the weaning period and beyond, as the case may be. It is little wonder that the Qur’an stated that “we did enjoin upon man concerning his parents; beareth him his mother in weakness upon weakness and his weaning taketh two years, saying “be thou grateful unto -------. However a man loves his family (child in particular) he will find it an impossible task to play the natural role played by the mothers.

The implication of the above is that a female theorist, who is a mother and is availed the opportunities of interacting with children will present issues on child psychology with a greater accuracy than her male counterpart.

The author is of the opinion that scholars, who are mothers, whose view may be differentiated from the author’s view on the basis of cultural or religious background, should strive through research in the field of child psychology.

A group of scientist from university of IOWA is of the opinion that to say “it’s in the gene,” –the world has relied on that simple explanation for too long. According to UI Health Care News “the UI team calls for tossing out the nature -nurture debate, which they11 say has prevailed for centuries in part out of convenience and intellectual laziness”. Also, in the view of the author, this “conveniences” and “intellectual laziness” is the main reason why psychologists have accepted available theory on child intellectual development (Science Daily, July 21, 2009).

This is therefore a humble attempt of the researcher to share her views on child’s intellectual development. The research is thus captured as Modern Theory on Child Intellectual Development.

II. Hypotheses

The hypotheses which guided this work were derived from the theory proposed in the book viz:
Child intellectual development depends on two factors viz physical developments/ability and experience (level of exposure to environmental variables).

The null hypotheses derived from the above are as follow:
Child’s Physical Development, Environment And Intelligence: Implication For Administration Of

- Child intellectual development is not influenced by physical developments/ability.
- Child intellectual development is not affected by experience (level of exposure to environmental variables).

Theoretical Frame Work/Empirical Studies

Jean Piaget, the oldest child of Arthur Piaget, a professor of medieval literature, had interest in cognitive development. That is, he was interested in knowledge and how children come to know their world (Wanda (downloaded on 19/12/12)). Coincidentally, the researcher is interested on the on the same topic coined as Modern Theory on Child’s Intellectual Development. Though, Jean Piaget dwell more on the cognitive aspect whereas this research is interested in the three aspects of knowledge viz cognitive, psychomotor and affective development of the child.

Piaget believed that children’s spontaneous comments provides valuable clues to understanding their thinking, though he was not interested in a right or wrong answer but rather forms of logic and reasoning (Wanda).

Many philosophers of the past also debated the question of whether human knowledge is inborn or the product of experience. Nativists believed that certain elementary truths are innate to the human mind and need not be gained through experience. In contrast, empiricists believed that at birth, a person’s mind is like a tabula rasa, or blank slate, and that all human knowledge ultimately comes from sensory experience. (Kassin, Saul. "Psychology." Microsoft® Encarta® 2009 [DVD])

The above express the position of the Qur’an as presented by Baqir.S (2000); “and Allah has brought you fourth from the wombs of your mothers, you did not know anything, and he gave you the hearing and sight and the hearts that you may give thanks. The pen, through writing is also a means of enhancing learning; in this case the physical development of the hand is relevant. In the chapter titled “the pen”, in the Qur’an, Allah swears “by the pen and by what they write”; the first word revealed in the Qur’an is a command to “read”! Or “study”! Or “proclaim”! Therefore, to read also requires the physical ability to use the eyes/mouth. But learning has also gotten an innate aspect of it, as illustrated in this statement “He (God) thought the use of pen; He taught man what he knew not. He taught him expression” (Qur’an).

More to this, the researcher believed that child’s spontaneous comment, facial expression and actions can provide valuable clues to understanding their thinking, feelings, as well as indicating the particular skill that child has acquired.

For example:

A child of one year, five month was given a small pocket sized book whose story/rhyme emphasized an expression in a picture than use of sentence. The child playfully studies this book for about one week. The storyline/rhymes is about a child, who put his thumb nail into a charismas pie, pull a plump of it with his thumb nail and said “what a good boy I am”. In the absence of this book, a bowl of food was presented to this child whose picture appears to look like the cake placed in a bowl as shown in the picture. The child then digs her thumb nail and pulls a plump of the pounded yam while looking exited. the child is not interested in whether the food was charismas’ pie of a bowl of pounded yam but her action indicated that she knows that it was food and she also know the basic shape of the food, ie around shaped cake as compare to the round shaped pounded yam in a bowl (cognitive) she also indicate that she has acquire the (psychomotor) skill that was demonstrated in the picture (though it was not explained to her; and the fact that she remember to practice what she saw in the picture, even in the absence of the book shows that she values (affective) the action she studied on the book.
III. Methodology

Mainly, the methodology used in this research work is experimental as well as ex-post-facto, yet it can still be referred to as developmental in nature. The data gathering techniques used was observatory skill. Mainly the home/wherever the child is in the presence of the researcher serves as the laboratory in which specimen were closely observed while they were unaware and feel free in their behaviour. In other word, the children were systematically observed in their own environment which serves as their natural environment where they act freely.

Oral interview was also conducted to verify some relevant information. The instrument/technique is therefore reliably.

IV. Discussion of Finding
Conclusion

The conclusion arrived at are as follow:

- Child intellectual development is influenced by physical developments/ability.
- Child intellectual development is affected by experience (level of exposure to environmental variables).

For children at the following stages of child development:

- Partial passive stage (0-2 months), things are alternately made and unmade;
- Mechanical operational stage (2-4 months) Associative reasoning is developed. Ie Associative knowledge of electricity through it appliances.
- Pre-primary consolidation stage (1-3 years), the knowledge of risk taking strengthens associative reasoning. Things are not made and unmade
- Secondary consolidation stage (3-7 years) There is consolidation of the acquired knowledge of a child at the earliest stage. The socio-sphere which constitutes sets of human activities of such environment facilitates cognitive, psychomotor and affective development.
- Tertiary consolidation stage (7-11 years) Good teachers/parents/school management has to carefully manage this stage. Their imaginative skill is firmly established requiring the provision of the right key to take them along an imaginative path.

Recommendation

The aim of every successful educational organization is to maximize learning. Looking at the educational implication as stated in the table above, the following suggestions are recommended for effective administration of early childhood education:
Learning begins from birth; it is therefore encouraged for early childhood education administration to ensure that the staff catering for crèche pupils should communicate to them using desirable scheme of work. Within two weeks, they should be able to detect the condition of Autism.

Early childhood education administrators should take advantage of using suitable toys which can be used to achieve the objective of learning associative knowledge.

Things are not made and unmade. Children should be introduced to harmless risk like falling from low mattress placed on the flour or from chair/bed to any soft materials like foam. Being over protective will slow child development.

Constant changes in the environment can enhance learning at this stage; therefore, care givers should pay attention to their symbolic expressions. Administrators should see to regular introduction of changes in classrooms and school environment.

Bruner’s theory of circular learning is strongly recommended. To facilitate knowledge/skill consolidation, hence it is recommended that:

1. An early childhood educator should be able to engage learner to learn a concept at a time.
2. When a child has learnt and is no longer interested in a concept, the teacher should recognise that and move onto the next concept which is to be learnt.
3. At subsequent level, when a child is ready to relearn, learning activities should be organised to explain such a concept to suit learners’ desire that satisfy his learning needs.

An effective teacher should break down related concepts into their building blocks (analysis). And at the end of the lesson sum up the same related concepts to have such ideas firmly established for children of seven years and above.

VII. Conclusion

Child Intellectual development is a function of physical development/abilities and environment variables/experience.

Intelligence is the abilities to adjust to ones environment and the capacity to solve new environmental problems, leading to the highest probability of satisfying one’s need within the physical abilities of such individuals as a result of accumulated past experiences.

The extent to which one exploits his physical/innate abilities, environment and draw on past experience determines the outcome of a child intellectual achievement.

END NOTE:

With the write up so far, what was observed over the years has been discussed to the best of the writer’s knowledge and findings. The struggle on this path is continuous one. When more knowledge is gained, it will be presented before the community of scholars. Meanwhile, the writer hopes to engage in further longitudinal studies in the following areas:

- Adolescent Intellectuality
- Intellectual Behaviour: Middle age
- Intellectual Behaviour: old age

Reference

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