

CURRICULUM DEVELOPMENT

AT THE TURN OF THE CENTURY

The Nigerian Experience

Edited By:

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and

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**CURRICULUM DEVELOPMENT AT
THE TURN OF THE CENTURY:
The Nigerian Experience**

PAPERS IN HONOUR

OF

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Influence Of Home And School Factors On Identification And Matching Skills Among Pre-Primary School Children

M.N. Odinko

Introduction

It is important that acquisition of classificatory skills (identification and matching aspects of cognitive development) starts during the preschool age (Duckworth, 1964; Nowak, 1969; Evans, 1998). In consequence, lessons related to identification and matching have been included in all the core subjects children learn at the pre-primary levels and beyond (Gagne, 1967; Njeriga and Kama, 1993). The importance of classificatory skills also borders on their usefulness to scientists and many professionals (Gagne, 1967). These reasons, among others, must have made many educators to focus their attention on how to boost different aspects of cognitive development (including identification and matching) among children. For example, Onibokun, et al. (1982), Berruta-Clement, et al. (1984) and Myers (2000) contend that children at

their formative years, need a lot of cognitive exposures that should involve what they see, hear and what they do; leading to what they eventually know through experience. It is in this light, perhaps, that Bradely and Caldwell (1979), Durojaiye (1985) and Onocha (1985) noted that parental provision of appropriate play materials and opportunities for variety in activities during infancy could contribute to children's overall cognitive development.

There are indications from research findings of Tuppen (1981), Ntumi (1983), and Keeves (1975) that structural variables of the school such as school location and teacher characteristics could enhance or deter cognitive development of pupils irrespective of their level of development. In addition, these studies found that the location of school influences the quality of teachers who would clamour to work there and that the more qualified or experienced a teacher is, the more he is likely to impact more authentic and reliable facts needed for cognitive development of the pupils kept under his/her care.

This background emphasizes the need to bring into focus the present study which examined the extent to which some factors inherent in the home (home language, mother's number of children, educational level of mother and occupational status of mother) and school (school location, teacher income, teacher qualification, and teacher-pupil ratio) could provide a basis for explaining acquisition of classificatory skills aspects of cognitive development (identification and matching) among pre-primary school children. It is the contention of the investigator that a better understanding of the interactions between the home/school factors and classificatory skills (identification/matching skills) especially when the variables are taken together, would be of considerable help in developing a more effective theory and practical techniques for counselling parents (especially mothers) teachers and owners of pre-primary institutions interested in boosting classificatory skills (identification and matching) among pre school children.

Specifically, the study sought to provide answers to the following questions:

(1) To what extent would the eight home and school factors, when taken together, predict pre-primary school children's acquisition of identification and matching skills?

(2) What is the relative contribution of the variables to the prediction?

Methodology

(a) Sample:

Stratified random sampling was used to select 40 registered primary institutions in the five local Government Areas (LGA) that make up Ibadan municipality and Akinyele. Latter, simple random sampling was also used to pick ten pupils from each selected schools to participate in the study. The mothers and teachers of the selected pupils automatically qualified to participate in the study.

In all, the subjects consisted of 400 pupils (200 males and 200 females), and their mothers, 40 teachers and 40 schools. The ages of the pre-school children ranged from 4 to 5 years (mean age = 4.6 years; SD = 0.86).

(b) Instrumentation

Three valid and reliable instruments were used to collect data for the study:

1. Home Background Questionnaire (Cronbach Coefficient alpha value = 0.89).
2. School Background Questionnaire (Cronbach Coefficient alpha value = 0.87); and
3. Identification and Matching Skills Test (K-R-21 = 0.92).

Data Collection and Analysis

The instruments were administered directly to the selected subjects in the 40 schools that participated in the study. The

Identification and Matching Skills Test (IMT) was administered first to the selected pupils. The School and Home Background Questionnaires were administered to the teachers and mothers of the selected pupils who participated in the study. Data collection lasted for four weeks.

Data analysis involved the use of multiple regression (backward solution procedure) to examine the relationship between the eight home and school factors (independent variable) and acquisition of identification and matching skills.

Results

Table 1 shows that the use of eight home and school factors (educational level of the mother, home language, number of children of the mother, occupation of the mother; school location, teacher qualification, teachers-pupil ratio and teacher income) to predict skills acquisition in identification and matching yielded a multiple regression coefficient (R) of .71715 (adjusted) and multiple regression squared (R^2) of .50437 (adjusted). The table shows that analysis of variance of the multiple regression data yielded an F-ratio of 51.75 (significant at the 0.01 level).

Table 1: Regression Analysis on Identification and Matching Data

Multiple R (adjusted) = 71715
 Multiple R^2 (adjusted) = .50437
 Standard Error of Estimate = 15.5

Analysis of Variance

Source of variation	Df	Sum of square	Mean of squares	F-ratio
Due to regression	8	95047.55	1880.94	51.75*
Due to residual	391	89759.39	229.56	
Total	399	184806.94		

*Significant at the 0.01 level

Table 2 shows, for each independent variable, the standardized regression weight (β), the standard error of estimate (SE_{β}), the degree of freedom (df), the T-ratio, and the level at which the T-ratio is significant. As indicated in Table 2, the T-ratio associated with variables 1 (educational level of the mother), 2 (school location), 3(occupation of the mother), and 7 (home language) are significant at the 0.05 level.

Table 2: Relative Contribution of the Independent Variables to the Prediction

Variable no	Variable	SE B	DF	Beta	T-ratio
1	Educ. Level of mother	.25011 0	1,391	.190257	3.617 *
2	School location	.87630 8	2,390	.153662	2.187
3	Occup. Status of mother	.59947 2	3,389	-.169122	- 4.236 *
4	Teacher qualification	.39161 3	4,388	-.045353	-1.100
5	Teacher-pupil ratio	.52700 3	5,387	.076427	1.258
6	Mother's no of children	.48187 1	6,386	-.063412	-1.759
7	Home language	.47534 2	7,385	.454415	8.576
8	Teacher income	.40857 1	8,384	.061667	1.371

* Significant at the 0.05 level

Discussion

The results of the present study reveal that the eight home and school factors, when taken together, seem to be effective in

predicting pre-primary school children's acquisition of identification and matching skills. The observed F-ratio is significant at the 0.01 level- an indication that the effectiveness of a combination of the independent variables in predicting pre-primary school children's acquisition of identification and matching skills could not have occurred by chance. The magnitude of the relationship between the preschoolers acquisition of identification/matching skills and a combination of the independent variables is reflected in the values of coefficient of multiple regression (0.71715) and multiple R squared (.50437) as shown in Table 1. It may thus be said that about 50% of the total variance in pre-primary school children's acquisition of Identification and matching skills is accounted for by a linear combination of the eight home and school factors.

As for the extent to which the eight independent variables contributed to the prediction, the value of the T-ratio associated with respective independent variables, as shown in Table 2, indicate that only variable 1(educational level of the mother), 2(school location), 3(occupation status of mother), and 7(home language) each contributed significantly to the prediction of pre-primary school children's acquisition of Identification and matching skills. The values of the standardized regression weight associated with these variables (see Table 2) indicate that variables 7 (home language) is the most potent contributor to the prediction; followed by variables, 3(occupation status of mother), 1(educational level of mother)and 2 (school location) in that order.

The indication that home language (language most often used at home) is a significant contributor to the prediction of skill acquisition in identification and matching seems explicable considering that the language habit a child acquires and the function of the language in the child's experiences sharpen his/her intellect, particularly, the development of reasoning and conceptual learning (Onocha and Okpala, 1987). Thus, if the language a child uses most often at home is that which compliments the language of school and textual materials (English language) the child may not experience much difficulty in

understanding the teacher, or the instructional and reading materials. For instance, when asked to take tests or complete assignments, such a child may not have much difficulty following instructions, interpreting questions, or supplying answers.

Educational level of the mother made a significant contribution to the prediction of identification and matching skills. This result corroborates the findings of Ninio (1979) that educational level of the mother correlates positively with the child's acquisition of literacy skills (Identification and matching). They are of the opinion that higher status mothers (in terms of education) tend to know at what age a child starts to see, hear, think, understand words, identify mother/older sibling and objects around. These calibre of mothers have the tendency to consider it useful talking to their children, telling them stories, buying the first book and talking about abstract objects at early ages. On the contrary, if a mother has a low educational status and as a result exhibits negative attitude towards a child's intellectual development (e.g. does not know at what age to start interacting with the child, does not provide appropriate learning environment, does not read to the child, does not supervise the child's learning activities: general/reading/home work/assignment, etc.) it is likely that the child may acquire minimal vocabulary before school age and thus minimal skills in identification and matching of letters and objects.

It seems explicable that occupational status of mother made significant contribution to the prediction of literacy skill acquisition in the area of identification and matching considering that the discipline or occupation engaged by a child's mother could have different effects on the academic achievement of the child. As illustrated by Sparing and Lowman (1983) a mother whose occupation is teaching, is likely to focus on academic competence and mental health of the child whereas one whose occupation is nursing or medicine is likely to focus on how the child grows and develops. It is also likely that career modeling from parents would make a noticeable impression on children's achievement or intellectual development. For instance, mothers who engage in menial jobs like sowing, trading, farming, catering among others, are more likely to have less contact hours with their children. This

can affect the vocabulary and communication skills of the children. These mothers may also like their children to toe the line of their trade and as a result may not bother to lay much emphasis on early intellectual development of the children.

The reported significant influence of school location on intellectual development in the area of identification and matching skills is explicable. A closer examination of the available data reveals that pupils whose schools are located in the urban areas tend to perform better than their counterparts in the rural areas. This might be so because children who attend pre-schools located in the urban areas are much more likely to be exposed at home and in their communities to literacy related activities including visiting parks, having access to literacy related toys, books and spending more time in literacy related parent-child activities. Also, the availability of Television and other information technology may have contributed to literacy development of urban pupils. However, children who attend pre-school in rural locations are likely to be affected by the economic condition of the rural dweller which may hinder the provisions of learning materials by both parents and owners of the pre-school institutions.

In contrast to the findings above, teacher qualification made no significant contribution to the prediction of identification and matching skills among pre-school children. Perhaps what is required in terms of teacher qualification to effectively teach skills of identification and matching to pre-school children is such that every teacher in the sample must have attained the required qualification level. In consequence, it would seem that enough variability was not associated with the required level of teacher qualification to warrant significant contribution to the prediction of identification and matching skills among pre-school children. This, however, needs to be investigated further.

Teacher-pupil ratio, mother's number of children and teacher income also made no significant contribution to the prediction of identification and matching skills among pre-school children. This, perhaps, is an indication that in the presence of other more potent home and school factors, the respective contribution of the three

variables to the prediction would be low and not statistically significant.

Conclusion

The results reported in this study provided an empirical basis for suggesting that parents, teachers and counsellors use the eight home and school factors (Mother's level of education, occupational status of the mother, number of children of the mother, home language, school location, teacher-pupil ratio, teacher qualification and teacher income) as a predictor set in studying pre-primary school children's acquisition of identification and matching skills. Perhaps, the use of teacher qualification, teacher pupil ratio, mother's number of children and teacher income, as part of the predictor set, should be reconsidered as their specific contributions to the overall prediction is not statistically significant. Proprietors, head teachers and guidance counsellors of pre-primary schools who are interested in solving problem of cognitive skills development associated with matching and identification should endeavour to encourage the use of school language (English language) at home. They should also provide remedial programme and special attention during instruction to pre-school children from mothers of lower educational and occupational status as well as those who attend schools in rural settings.

References

- Benjamin L.A. (1993). Parents' Literacy and Their Children's Success in School. *Educational Research Report*, Washington. D.C.
- Berruta-Clement, J. R, Schweinhart, L.J., Barnett, W.S., Epstein, A.S., and Weikart, D.P. (1984). *Changed Lives. The Effect of the Perry Preschool Program on youths through age 19* (Monograph of the High/Scope Educational Research Foundation No. 8). Ipsilanti, ML High/Scope Press.
- Bradley, R. H., and Caldwell, B. M., (1976). "The Relation of Infants Home Environment to Mental Test Performance at Fifty-

- four Months: A Follow-up Study". *Child Development*, 49, 1172-1174.
- Duckworth, E. (1964): "Piaget Rediscovered." *Journal of Research in Science Teaching*. Vol. 2 (3), 172-175.
- Durojaiye, S. M. (1986). *Practical Methods for Nursery Schools* Oxford University Press, Ibadan, Nigeria.
- Evans, L. J. (1998). *Effectiveness: The State of the Art* Early Childhood Matters, The Bulletin of the Bernard Van Leer Foundation. No. 88.pp 5.
- Gagne, R. M. (1967). "Science-A Process Approach: Purpose Accomplishments, Expectations " *AAAS Miscellaneous Publications*, No. 67-12.
- Keeves, J. P. (1975): "The Home, The School and Achievement in Mathematics and Science Education". *Journal of Science Education*. Vol. 59. No 4.
- Myers, R. G. (2000). *Early Childhood Care and Development A Global Review* World Education Forum. Education for All 2000. Assessment UNESCO, 2000, Dakar, Senegal.
- Ninio, A. (1979). "The Native Theory of the Infant and Other Material Attitude in Two Subgroup in Israel. *Child Development*, 50, 976-980.
- Njenga, A. and Kamuau, E. (1992). *A Case Study of Distinct Center for early Childhood Education in Kenya*. A paper presented at the International Seminar on Child-Child and the Growth and Development of Young Children in Kenya.
- Nowak, S. M. (1969): "The Development and Analysis of the Effects of an Instructional Programme Based on Piaget's Theory of Classification." Ann Arbor Michigan: University Microfilms, H69-19, 201.
- Ntumi, R. A. (1983): *Attitude of Primary School Children in Ghana*. IDRC Manuscript Prepost 72e-53.
- Onibokun, et al. (1982). *Nursery Education*. A.C.E Material Production Project for Institute of Education, University of Ibadan. Heinemann Educational Books (Nigeria) Ltd. Ibadan..
- Onocha, C. O. (1985). Patterns of Relationship Between Home and School Factors and Pupil Learning Outcomes in Bendel

Primary Science Project. *Unpublished PhD Thesis*; University of Ibadan.

Onocha, C.O. and Okpala, P.N. (1987). "Family and school environmental correlates of Integrated Science achievement". *American Journal of Psychology*, Heldref publications, Washington D.C., 20016, VOL.121, No.3, pp.281-286.

Sparling, J., and Lowman, B. (1983). Parent information needs as revealed through interests, problems, attitudes and preferences. In R. Haskins and D. Adams (Eds.), *Parent education and public policy* (pp.304-323). Norwood, NJ. Ablex.

Tuppen, C. J. (1981): *School and Student Differences: Grade Ten Examination and Assessment Results: ERD Research Report No. 59*, University of Chicago Press.

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