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Factors Associated with Attendance of Early Childhood Education Programmes by Children Less Than 5 Years in Uganda

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ABSTRACT

Attendance of organized early childhood education (ECE) programmes is still low in Uganda. The purpose of this study was to identify factors associated with the attendance of ECE programmes in Uganda. Data from the Uganda Demographic and Health Survey 2016 were analysed using a logistic regression model. The study sample was 5175 children aged 36-59 months and their mothers' selected using two-stage stratified sampling with probability proportional to size. Sex of child, age of a child, wealth index, mother's education as well as children reading books, playing, naming, counting, and drawing with their mothers were significantly associated with ECE attendance. These findings indicate the crucial role played by parents, especially mothers in the lives of their children. Therefore, there is a need to sensitize parents about the importance of ECE, the critical role they have to play, and how to go about it in the provision of support for learning to their children. Furthermore, there is a need for the government to establish public ECE facilities that could provide services at subsidized fees for poor households in Uganda that cannot afford fees paid by private ECE centres.

Keywords: Logistic regression, Attendance, Early Childhood Education, Uganda

1. Introduction

Early childhood is the most critical time for the growth and development of the child and needs the utmost attention and appropriate care (WHO & UNICEF, 2012). Early childhood is defined generally as the period from birth to eight years

of age and it is the most intensive period of brain development in the life of an individual (WHO & UNICEF, 2012; Vandenbroeck, Lenaerts, & Beblavý, 2018). Early childhood education (ECE) can be defined as programs for young children based on an explicit curriculum delivered by qualified staff and designed to support children's development and learning (Akbari & McCuaig, 2014). This is usually conducted in settings including child care centres, nursery schools, preschools, pre- or junior kindergarten, and kindergarten (Akbari & McCuaig, 2014).

In many countries globally, early childhood education and care (ECEC) has been a topic of increased policy attention (Taguma, Litjens, &Makowiecki, 2012). This can be attributed to the growing body of scientific research reporting significant benefits, both in the short and long run resulting from participation in ECEC. Individual benefits include among others higher income, improved educational achievement, better social integration and health for children as well as higher participation in labour markets especially for mothers (Vandenbroeck, Lenaerts, & Beblavý, 2018). Potential benefits at the societal level include reduced crime rates and expenditure on welfare as well as higher tax revenues and improved social cohesion (Vandenbroeck, Lenaerts, & Beblavý, 2018).

Despite the benefits of attending ECE, its coverage is still very low in Sub-Saharan Africa. Uganda is no exception with only 37% of children aged 36-59 months reported to be attending organised early childhood education programmes (UBOS & ICF, 2018). One of the avenues for increasing ECE participation by children is through both home-based and school-based parental involvement. School-based involvement comprises interaction with school staff and participation in activities at school such as attending school programmes and discussing child's performance with class teachers (Hill, et al., 2004; McBride, Dyer, Liu, Brown, & Hong, 2009) among others. Home-based involvement comprises activities carried out at home with the child such as assisting them with homework, reading them stories, and playing with them games (Hill, et al., 2004; Seginer, 2006) among others.

Research has shown that parental involvement is vital for the holistic development of a child especially in their early years (Hill & Taylor, Parental school involvement and children's academic, 2004; Li, Corrie, & Wong, 2008).

For example, parental reading with children has been reported to help encourage interest and inculcate reading habits (Manzon, Miller, Hong, & Khong, 2015) subsequently resulting in success at higher levels of education (Jeynes, 2011), socio-emotional wellbeing among others (Lau, Li, & Rao, 2011).

However, few studies in developing countries have explored parental involvement in ECE with the majority of the studies being conducted in developed countries

(Lau, Li, & Rao, Parental involvement and children's readiness for school in China, 2011). Furthermore, few studies have focused on home-based parental involvement in ECE yet it is at home that parents spend the most time with their children with low levels of involvement at school. There is a need for more research to explore how parents involve themselves in ECE and how best to do it in the home setting. Furthermore, there is a need to study how their involvement impacts the holistic development of children as well as their attendance of school-based formal ECE programmes. Therefore, this paper explores factors associated with the attendance of ECE programmes by children with a focus on maternal, child, and household factors. The rest of the paper is organized as follows: a description of the secondary data source, variables to be considered for analysis, and the analysis procedure in Section 2. Then the study findings will be presented as well as a discussion of the findings in Section 3 plus concluding remarks in Section 4.

2. Methodology

2.1 Data source

The data used in this study was from the 2016 Uganda Demographic and Health Survey (UDHS). The UDHS sample was stratified and selected in two stages. Firstly, 696 enumeration areas (EA) were selected from the 2014 Uganda National Population and Housing Census (NPHC) (UBOS & ICF, 2018). Households constituted the second stage of sampling and a listing of all households in the selected EAs was obtained. In total, a representative sample of 20,880 households (30 per EA) was randomly selected (UBOS & ICF, 2018). The sample EAs were selected independently from each stratum using probability proportional to the size and resulted in 18,506 women being successfully interviewed, with an average of 1,200 complete interviews per domain (UBOS & ICF, 2018). The 2016 UDHS included questions in the Woman's Questionnaire from the UNICEF Multiple Indicator Cluster Survey (MICS) module on Early Childhood Development (ECD). For this study, only 5175 children were considered after dropping 9364 respondents with children outside the age bracket of 36-59 months (UBOS & ICF, 2018).

This was so because the module on ECD was only administered to women who had a child aged 36-59 months living with them. Furthermore, respondents who had missing information concerning whether a child attends any organized learning or early childhood education programme were dropped and these were 983 in total.

2.2 Dependent and independent variable

In the UDHS, the dependent variable, attendance of any organized learning or early childhood education programme, such as a private or government facility, including kindergarten or community child care, was measured on a nominal scale, that is whether a child attended or not. The independent variables were grouped into child characteristics (sex, age); maternal characteristics (age, education level, working status, religion), and household characteristics (wealth index, region, and residence).

2.3 Data analysis

The data were analysed using STATA version 14 (StataCorp, 2015).Firstly, a descriptive summary of all plausible independent variables and ECE attendance was done using frequencies and percentages. Then, using the Pearson's chi-square test, the association between ECE attendance and the plausible independent variables was tested at a 5% level of significance. Independent variables that turned out to be significantly associated with ECE attendance ($p \leq 0.05$) were considered for further analysis.

$$\chi^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i} \quad (1)$$

Where O_i = the observed frequency count for the i^{th} level of the categorical variable, and E_i the expected frequency count for the i^{th} level of the categorical variable.

Finally, since the outcome variable, ECE attendance was measured on a nominal scale, that is, a child either attended or did not attend an organized ECE programme; the logistic regression model was fitted to determine the significant factors at the 5% level of significance. Only plausible independent variables that had a p-value less than or equal to the level of significance after running the Pearson chi-square test were considered in the final logistic regression model.

$$ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_k x_k \quad (2)$$

Where p = the probability of a child attending an organized ECE programme, β_0 is the intercept and $\beta_1 \ldots \beta_k$ are partial slope coefficients, and $x_1 \ldots x_k$ are the independent variables.

To check for the goodness of fit of the final logistic regression model, the Akaike Information Criteria (AIC) was used to compare it to other possible model options. Since the outcome variable is binary that means other possible model options

include the probit regression model and the complementary log-log (cloglog) regression model. The logistic regression model will be considered a better fit if it has the lowest AIC value. The AIC is defined as

$$AIC = -2lnL + 2k \quad (3)$$

Where lnL = the maximized log-likelihood of the model and k is the number of parameters estimated (StataCorp, 2015).

3. Results and Discussion

3.1 Descriptive summary of independent and dependent variables

From Table 1, the majority of children never attended an early childhood education programme (62.94%). The highest proportion of children were; female (50.34%) and aged 36-47 months (50.24%). The highest proportion of mothers was aged 25-29 years (26.47%) and Catholic (40.50%). The majority of the mothers; had attained at most primary level education (62.98%), had never read books to their children (83.07%), had never played with their children (68.12), and had never named, counted, or drawn with their children (76.29%). The highest proportion of households were in the poorest wealth index (27.05%), resided in the Eastern region (28.85%) and the majority were rural-based (83.27%).

Table 1: Characteristics of children and their mothers

Variables	Frequency	Percent
Attend ECE		
No	3,257	62.94
Yes	1,918	37.06
Sex of child		
Male	2,570	49.66
Female	2,605	50.34
Age of child		
36-47	2,600	50.24
48-59	2,575	49.76
Mother's age		
Below 25	1,148	22.18
25-29	1,370	26.47
30-34	1,204	23.27
35 plus	1,453	28.08

Mother's education		
No education	815	15.75
Primary	3259	62.98
Secondary	854	16.50
Higher	247	4.77
Mother's work status		
No	955	18.45
Yes	4,220	81.55
Read book		
No	4,299	83.07
Yes	876	16.93
Played		
No	3,525	68.12
Yes	1,650	31.88
Named, counted, drew		
No	3,948	76.29
Yes	1,227	23.71
Religion		
Anglican	1,674	32.35
Catholic	2,096	40.50
Muslim	582	11.25
Pentecostal	660	12.75
Others	163	3.15
Wealth index		
Poorest	1,400	27.05
Poorer	1,170	22.61
Middle	1,032	19.94
Richer	844	16.31
Richest	729	14.09
Region		
Central	972	18.78
Eastern	1,493	28.85
Northern	1,293	24.99
Western	1,417	27.38
Residence		
Urban	866	16.73
Rural	4,309	83.27

3.2 Association between child, maternal, household factors and ECE attendance

From Table 2, the results show a significant association between ECE attendance and child characteristics, household characteristics as well as maternal factors except for mother's work status. ECE attendance was highest amongst female (39.27%) children and those aged 48-59 months (43.18%). Regarding maternal factors, ECE attendance was highest among children of mothers; aged 25-29 years (41.90%), with a higher education level (80.16%), and Muslims (42.61%). Children whose mothers; read them books (67.81%), played with them (43.03%), and named, counted, or drew with them (56.72%) had the highest proportion attending ECE programmes compared to those whose mothers didn't. ECE attendance was highest among children in households in the; richest wealth index (69.14%), Central region (60.91%), and urban areas (57.74%).

Table 2: Relationship between child factors, maternal factors, household factors, and ECE attendance

Variables	Attend ECE			
	No	Yes	n	p-value
Sex of child				
Male	65.18	34.82	2,570	0.001
Female	60.73	39.27	2,605	
Age of child				
36-47	69.00	31.00	2,600	0.000
48-59	56.82	43.18	2,575	
Mother's age				
Below 25	64.11	35.89	1,148	0.000
25-29	58.10	41.90	1,370	
30-34	61.46	38.54	1,204	
35 plus	67.79	32.21	1,453	
Mother's education				
No education	79.26	20.74	815	0.000
Primary	67.17	32.83	3,259	
Secondary	43.68	56.32	854	
Higher	19.84	80.16	247	
Mother's work status				
No	64.71	35.29	955	0.209
Yes	62.54	37.46	4,220	
Read book				

No	69.20	30.80	4,299	0.000
Yes	32.19	67.81	876	
Played				
No	65.73	34.27	3,525	0.000
Yes	56.97	43.03	1,650	
Named, counted, drew				
No	69.05	30.95	3,948	0.000
Yes	43.28	56.72	1,227	
Religion				
Anglican	60.27	39.73	1,674	0.000
Catholic	67.7	32.30	2,096	
Muslim	57.39	42.61	582	
Pentecostal	59.85	40.15	660	
Others	61.35	38.65	163	
Wealth index				
Poorest	82.36	17.64	1,400	0.000
Poorer	72.05	27.95	1,170	
Middle	60.85	39.15	1,032	
Richer	48.34	51.66	844	
Richest	30.86	69.14	729	
Region				
Central	39.09	60.91	972	0.000
Eastern	71.06	28.94	1,493	
Northern	78.58	21.42	1,293	
Western	56.46	43.54	1,417	
Residence				
Urban	42.26	57.74	866	0.000
Rural	67.09	32.91	4,309	

Table 3 provides a summary of the results from the logistic regression model which excluded variables that had no significant association ($p>0.05$) with ECE attendance. Apart from the variables corresponding to mother's age, religion, region, and residence, the rest of the independent variables had a significant association with ECE attendance. Females (OR=1.21) were more likely to attend an ECE programme compared to their male counterparts. Concerning age, children aged 48-59 months (OR=1.83) were more likely to attend an ECE programme compared to those aged 36-47 months. Regarding mother's education level, children of mothers who attained at most primary (OR=1.37), secondary

(OR=1.87) and higher (OR=4.13) levels of education were more likely to attend an ECE programme compared to those whose mothers had no education. Children whose mothers read them books (OR=2.16) were more likely to attend an ECE programme compared to those whose mothers didn't. On the contrary, for children whose mothers played with them (OR=0.75), they were less likely to attend an ECE programme compared to those whose mothers didn't. For children whose mothers named, counted or drew with them (OR=1.80), were more likely to attend an ECE programme compared to those whose mothers didn't. Regarding wealth index, children from households in the poorer (OR=1.35), middle (OR=1.56), richer (OR=2.65), and richest (OR=3.35) wealth indices were more likely to attend an ECE programme compared to those from the household in the poorest wealth index.

Table 3: Factors associated with attendance of ECE programmes

Variables	OR	95% CI	
Sex of child			
Male (ref.)	1.00		
Female	1.21**	1.06	1.37
Age of child			
36-47 (ref.)	1.00		
48-59	1.83**	1.61	2.08
Mother's age			
Below 25 (ref.)	1.00		
25-29	1.15	0.96	1.38
30-34	1.02	0.84	1.24
35 plus	0.91	0.75	1.09
Mother's education			
No education (ref.)	1.00		
Primary	1.37**	1.12	1.68
Secondary	1.87**	1.45	2.42
Higher	4.13**	2.74	6.23
Read book			
No (ref.)	1.00		
Yes	2.16**	1.79	2.61
Played			
No (ref.)	1.00		
Yes	0.75**	0.64	0.88
Named, counted, drew			

No (ref.)	1.00		
Yes	1.80**	1.51	2.15
Religion			
Anglican (ref.)	1.00		
Catholic	0.81**	0.70	0.95
Muslim	1.00	0.80	1.24
Pentecostal	0.92	0.75	1.13
Others	0.72	0.49	1.04
Wealth index			
Poorest (ref.)	1.00		
Poorer	1.35**	1.10	1.65
Middle	1.93**	1.56	2.38
Richer	2.65**	2.12	3.32
Richest	3.35**	2.52	4.45
Region			
Central (ref.)	1.00		
Eastern	0.51**	0.42	0.62
Northern	0.48**	0.39	0.61
Western	0.86	0.70	1.04
Residence			
Urban (ref.)	1.00		
Rural	0.93	0.76	1.14

*CI = Confidence Interval; ** $p \leq 0.05$*

The final logistic regression model is of the form,

$$ln\left(\frac{p}{1-p}\right) = 0.22 + 1.21sex_{child} + 1.83age_{child} + 1.37mother_{educ_{prim}} + 1.87mother_{educ_{sec}} + 4.13mother_{educ_{high}} + 2.16read + 0.75played + 1.80named + 0.81relig_{cath} + 1.35wealth_{poorer} + 1.93wealth_{middle} + 2.65wealth_{richer} + 3.35wealth_{richest} + 0.51region_{east} + 0.48region_{north} \quad (4)$$

3.3 Goodness of fit

From the results of the AIC test, the logistic, cloglog and probit regression models had AIC values of 5708.147, 5710.175, and 5710.503 respectively. Since the logistic regression model had the lowest AIC value, this meant that it fitted the data better.

4. Discussion

This study sought to identify the factors that influenced ECE attendance specifically among children aged 36-59 months in Uganda. The increased likelihood of ECE attendance among females compared to males is consistent with findings by (Cools, Schøne, & Strøm, 2017; Hanly, Edwards, Goldfeld, Craven, & Mooney, 2019; Mergler & Walker, 2017; Deming & Dynarski, 2008) who reported a higher likelihood of delaying school start for boys than for girls. This could be attributed to parental

perceptions that boys develop slower than girls (Hanly, Edwards, Goldfeld, Craven, & Mooney, 2019; Mergler & Walker, 2017). As regards the increased odds of ECE attendance with the increase in a child's age, this is consistent with findings by (Mergler & Walker, 2017; Hanly, Edwards, Goldfeld, Craven, & Mooney, 2019). This could be due to the perception that children are at an advantage if they start school at an older age (Hanly, Edwards, Goldfeld, Craven, & Mooney, 2019; Fortner & Jenkins, 2016). The increased odds of ECE attendance with the increase in maternal education were consistent with findings by (Kamanda, Madise, & Schnepf, 2016). This could be attributed to the increased exposure of parents to the importance and value of education as an essential and basic need. This may not be the case for uneducated parents who view education as a luxury and hence believe their children can afford to do without it. However, this finding was inconsistent with findings by (Deming & Dynarski, 2008) who reported delays in starting school among children whose parents were highly educated. The positive significant association of mothers reading books, naming, counting, and drawing with children on ECE attendance can be attributed to parental awareness of the benefits of their involvement in the development, academic achievement, and interest of their children (Fan & Chen, 2001; Clark, 2007).

These benefits could manifest inform of an advantage over peers in school (Wade & Moore, 2006), language comprehension and expressive skills (Gest, Freeman, Domitrovich, & Welsh, 2004), attitudes towards reading, and attentiveness in the classroom (Rowe & Rowe, 1992) among others. The reduced odds of ECE attendance among children whose mothers played with them could be attributed to the mothers being stay-at-home parents and so are available to look after them. On the contrary, children whose mothers are not stay-at-home will be enrolled into a day care centre or pre-school where they can be looked after as the parents engage in other activities. The increased likelihood of ECE attendance with the increase in wealth index category is inconsistent with findings by (Deming & Dynarski, 2008; Fortner & Jenkins, 2016) who reported a positive relationship between redshirting or delayed schooling and having a high income. The findings of this study could be attributed to the high fees charged by pre-schools which are predominantly

privately owned making it expensive for parents in lower wealth index categories to afford to enrol their children resulting in ECE programmes.

5. Conclusion

This study set out to ascertain the factors associated with attendance of early childhood education programmes by children aged 36-59 months in Uganda. The odds of ECE attendance were higher among females and children in the 48-59 months age group. The odds also increased with the increase in the education level of the mother and the household wealth index. Furthermore, children whose mothers; read to them books, named, counted, and drew with them were also more likely to attend ECE programmes. These findings bring to light the crucial role played by parents, especially mothers in the lives of their young children. Therefore, there is a need to sensitize parents about the importance of ECE, the critical role they have to play, and how to go about it. This will in turn help them develop cognitively as well as prepare them for formal primary education. Furthermore, there is a need for the government to establish public ECE facilities that could provide services at subsidized fees compared to the private institutions which can only be afforded by the wealthy who are a small proportion of the population. This can be ventured into by partnering with private institutions to subsidize fees with the government contributing financially to these institutions as has been the case with universal primary education or else the government can set up public preschools that offer services at subsidized fees.

Finally, there were some study limitations that present opportunities for further research. Given that secondary data was used, some variables which could affect ECE attendance weren't considered. These include school-related factors such as fees charged, teacher to pupil ratio, and competencies of the teachers, among others. Given that the focus of the study was on households, these weren’t captured.

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References

1. Akbari, E. and McCuaig, K. (2014). Early Childhood Education Report 2014. Toronto: Ontario Institute for Studies in Education.
2. Clark, C. (2007). Why it is important to involve parents in their children's literacy development. London: National Literacy Trust.
3. Cools. S., Schøne, P. and Strøm, M. (2017). Shifts in school starts: What role does gender and social background play? *SØKELYS PÅ ARBEIDSLIVET*, 34(4-2017), 273-289. DOI:10.18261/issn.1504-7989-2017-04-03.
4. Deming, D. and Dynarski, S. (2008). The Lengthening of Childhood. *Journal of Economic Perspectives*, 22(3), 71-92. DOI:10.1257/jep.22.3.71.
5. Fan, X. and Chen, M. (2001). Parental Involvement and Students' Academic Achievement: A Meta-Analysis. *Educational Psychology Review*, 13, 1-22. DOI:10.1023/A:1009048817385.
6. Fortner, C.K. and Jenkins, J.M. (2016). Kindergarten redshirting: Motivations and spillovers using census-level data. *Early Childhood Research Quarterly, 38*, 44-56. DOI: 10.1016/j.ecresq.2016.09.002.
7. Gest, S.D., Freeman, N.R., Domitrovich, C.E. and Welsh, J.A. (2004). Shared book reading and children's language comprehension skills: the moderating role of parental discipline practices. *Early Childhood Research Quarterly*, 19(2), 319-336. DOI: 10.1016/j.ecresq.2004.04.007.
8. Hanly, M., Edwards, B., Goldfeld, S., Craven, R.G. and Mooney, J. (2019). School starting age and child development in a state-wide, population-level cohort of children in their first year of school in New South Wales, Australia. *Early Childhood Research Quarterly*, 48, 325-340. DOI: 10.1016/j.ecresq.2019.01.008.
9. Hill, N.E. and Taylor, L. C. (2004). Parental school involvement and children's academic achievement: pragmatics and issues. *Current Directions in Psychological Sciences*, 13(4), 161-164.
10. Hill, N.E., Castellino, D.R., Lansford, J.E., Nowlin, P., Dodge, K. A., Bates, J.E. and Pettit, G.S. (2004). Parent Academic Involvement as Related to School Behavior, Achievement, and Aspirations: Demographic Variations Across Adolescence. *Child Dev*, 75(5), 1491-1509. DOI: 10.1111/j.1467-8624.2004.00753. x.
11. Jeynes, W.H. (2011). *Parental involvement and academic success*. London: Routledge.
12. Kamanda, M., Madise, N. and Schnepf, S. (2016). Does living in a community with more educated mothers enhance children's school attendance? Evidence from Sierra Leone. *International Journal of Educational Development*, 46, 114-124. DOI: 10.1016/j.ijedudev.2015.09.008.

13. Lau, E.Y., Li, H. and Rao, N. (2011). Parental involvement and children's readiness for school in China. *Educational Research,* 53(1), 95-113. DOI:10.1080/00131881.2011.552243.
14. Lau, E. Y., Li, H. and Rao, N. (2012). Exploring parental involvement in early years education in China: development and validation of the Chinese Early Parental Involvement Scale (CEPIS). *International Journal of Early Years Education*, 20(4):405-421. DOI: 10.1080/09669760.2012.743099.
15. Li, H., Corrie, L.F., and Wong, B.K. (2008). Early teaching of Chinese literacy skills and later literacy outcomes. *Early Child Development and Care, 178*, 441-459. DOI: 10.1080/03004430600789365.
16. Manzon, M. Miller, R. Hong, H. and Khong, L. (2015). Parent Engagement in Education (NIE Working Paper Series No. 7). Singapore: National Institute of Education.
17. McBride, B.A., Dyer, W.J., Liu, Y., Brown, G.L. and Hong, S. (2009). The Differential Impact of Early Father and Mother Involvement on Later Student Achievement. *J EducPsychol*, 101(2), 498-508. DOI:10.1037/a0014238.
18. Mergler, A. and Walker, S. (2017). This is possibly THE hardest decision a parent has to make. Deciding when your child is ready to start Prep. *Australasian Journal of Early Childhood,* 42(2). DOI:10.23965/AJEC.42.2.12.
19. Rowe, K.J. and Rowe, K.S. (1992). The Relationship between Inattentiveness in the Classroom and Reading Achievement (Part B): An Explanatory Study. *J. Am. Acad. Child Adolesc. Psychiatry,* 31(2), 357-368.
20. Sax, L. (2007). Boys Adrift: *The Five Factors Driving The Growing Epidemic Of Unmotivated Boys and Underachieving Young Men*. New York: Basic Books.
21. Seginer, R. (2006). Parents' educational involvement: A developmental ecology perspective. *Parenting: Science and Practice.*, 6, 1–48. DOI: 10.1207/s15327922par0601_1
22. Taguma, M., Litjens, I. and Makowiecki, K. (2012). *Quality Matters in Early Childhood Education and Care: Slovak Republic*. Paris: OECD.
23. UBOS and ICF. (2018). Uganda Demographic and Health Survey 2016. Kampala and Rockville, Maryland: UBOS and ICF.
24. Vandenbroeck, M., Lenaerts, K. and Beblavý, M. (2018). Benefits of early childhood education and care and the conditions for obtaining them. Brussels: European Union.
25. Wade, B. and Moore, M. (2006). A Sure Start with Books. *Early Years: An International Research Journal,* 20(2), 39-46. DOI: 10.1080/0957514000200205.
26. WHO and UNICEF. (2012). Early childhood development and disability: discussion paper. Malta: World Health Organization.