INFLUENCE OF PARENTAL CARE ON ACADEMIC ACHIEVEMENT OF STUDENTS WITH PHYSICAL IMPAIRMENT IN KWARA STATE

Authors:

Lateef Omotosho Adegboyega (Ph.D.) Department of Counsellor Education, University of Ilorin, Ilorin, Nigeria

Florence Bosede Famolu (Ph.D.) Department of Guidance and Counselling, Faculty of Education, Osun State University, Osogbo, Nigeria

Florence Adeoti Yusuf (Ph.D.) Department of Guidance and Counselling, Faculty of Education, Osun State University, Osogbo, Nigeria

E-mail address of first author: adegboyega.lo@unilorin.edu.ng

Reviewers: Ferenc Mező (Ph.D.) Eszterhazy Károly Catholic University, Eger (Hungary)

> Katalin Mező (Ph.D.) University of Debrecen (Hungary

...and two other anonymous reviewers

Adegboyega, Lateef Omotosho; Famolu, Florence Bosede & Yusuf, Florence Adeoti (2023). Influence of Parental Care on Academic Achievement of Students with Physical Impairment in Kwara State. *Special Treatment Interdisciplinary Journal [Különleges Bánásmód Interdiszciplináris folyóirat*], 9. (2). 7-16. DOI 10.18458/KB.2023.2.7

Abstract

The study examined the influence of parental care on the academic achievement of students with physical impairment in Kwara state. The study adopted a descriptive survey of a correlational type. All students with a physical impairment in Kwara State were the population of this study while 185 students with a physical impairment who were selected through snowball and purposive sampling techniques constituted a sample for this study. A researcher-designed instrument titled: "Influence of Parental Care on Academic Achievement Questionnaire" (IPCAAQ) was used to collect data from the respondents. The data collected were analysed using percentages for demography data and main research questions, Pearson Product Moment Correlation (PPPC) statistical tool was used to test the hypotheses at 0.05 level of significance. The finding of the study revealed that the majority (87.6%) of the students with physical impairment experienced positive parental care and that more than half of the students with physical impaired have high and average levels of academic performance. A significant correlation between parental care and academic achievement of students with physical impairment in Kwara state. In addition, a significant relationship was found between the parental care and academic achievement of male and

female students with physical impairment irrespective of their age group. Based on the finding, it was recommended that counsellors should intensify efforts on encouraging parents to show caring for their children with any form of disability in order for them to have good academic achievement.

Keywords: influence, parental care, academic achievement; students with physical impairment **Discipline:** pedagogy

Absztrakt:

A SZÜLŐI GONDOSKODÁS HATÁSA A KWARA ÁLLAMBAN ÉLŐ MOZGÁSSÉRÜLT TANULÓK TANULMÁNYI TELJESÍTMÉNYÉRE

A tanulmány a szülői gondoskodás hatását vizsgálta a Kwara államban élő mozgássérült diákok tanulmányi eredményességére. A mintát a nigériai Kwara államban élő mozgássérült diákok (n=185) alkották, akiket hólabda- és célzott mintavételi technikával választottak ki. A vizsgálat módszereként a szerzők által összeállított "A szülői gondoskodás hatása a tanulmányi teljesítményre kérdőív" (IPCAAQ)et használták. Az összegyűjtött demográfiai adatokat és a fő kutatási kérdéseket százalékos arányok segítségével elemezték, a hipotézisek tesztelésére Pearson Product Moment Correlation (PPPC) statisztikai eszközt használtak ($p \le 0,05$). A vizsgálat eredménye azt mutatta, hogy a mozgássérült tanulók többsége (87,6%) pozitív szülői gondoskodást tapasztalt, a mozgássérült tanulók több mint felének kiemelkedő és átlagos a tanulmányi teljesítménye. Szignifikáns összefüggés van a szülői gondoskodás és a mozgássérült tanulók tanulmányi teljesítménye között. Ezenkívül szignifikáns kapcsolatot találtak a szülői gondoskodás és a mozgássérült tanulók tanulmányi teljesítménye között. Az eredmények alapján a szerzők azt javasolták, hogy a tanácsadók (gyógypedagógusok) fokozottan ösztönözzék a szülőket arra, hogy tanúsítsanak több törődést a bármilyen fogyatékossággal élő gyermekük felé annak érdekében, hogy jó tanulmányi eredményt érjenek el.

Kulcsszavak: befolyás, szülői gondoskodás, tanulmányi eredmény; testi fogyatékos diákok Diszciplína: neveléstudomány, gyógypedagógia

Introduction

People with physical disabilities do not fully enjoy school environments or practices due to fewer priorities given by educational providers to issues that may support the disabled, especially in developing countries in areas such as mobility in the school premises, curriculums, teaching, and learning materials, infrastructure, special programs such as sports and games and so on. Globally, according to the World Health Organization (WHO, 2011), people with physical disabilities are among the most marginalized groups in the world. People with disabilities have poorer health outcomes, lower education achievements, less economic participation and higher rates of poverty than people without disabilities. Physical disability is defined as partial or total loss of physical operational abilities, problems with the use and movement of nerves or muscles and complications with the composition and, or operation of bones and joints including amputation, arthritis, and cerebral palsy (Kabuta, 2014).

Physical disabilities and health conditions are classified as either congenital or acquired. Students with congenital conditions either are born with physical difficulties or develop them soon after birth. Acquired disabilities are those developed through injury or disease while the child is

developing normally (Balal & Rehan, 2012; Oladeji & Oladeji, 2011). Kipkorir and Simatwa (2016), Addo (2014) identified types of physical disabilities as follows: Paraplegia, Quadriplegia, Multiple sclerosis (MS), Hemiplegia, Cerebral palsy, Absent limb/reduced limb function Dystrophy and Polio. Paraplegia and Quadriplegia are what people first identify with a physical disability (Kipkorir & Simatwa, 2016). Paraplegia results from injury to the spinal cord, occurring below the neck, while quadriplegia refers to damage to the spinal cord in the neck. Varying degrees of loss of limb and other mobility may result from either condition. Other forms of physical disability, such as polio (an acquired disease), cerebral palsy (damage to brain tissue during fetal stages) and some genetic conditions can result in loss of mobility (Kipkorir & Simatwa 2016; Addo, 2014). These physical and health conditions affect this group of students to have good academic performance as some of the support systems in school and at home are inadequate.

Success at school or academic achievement refers to a person's performance in a given academic area (e.g. reading or language arts, mathematics, science, and other areas of human learning (Kathryn, 2010). Academic achievement can be described as how well a student is accomplishing his tasks and studies (Srinivas & Venkatkrishnan, 2016). Students with physical illnesses or disabilities are at for being underachievers risk when their impairment results in limitations on physical and cognitive abilities, or results in limited school attendance and decreased opportunity for school success (Wasielewski, 2016). Kamal, Asrar, Younes and Chishti (2014) found that 58.34% of the physically handicapped students in Peshawar District showed bad academic performance. Adegboyega (2019) found a high poor rate of academic performance of students with disabilities in higher education. In Nigeria, Fareo and Ojo (2013) reported significantly poor academic

performance of students with disabilities as a result of inadequate or unavailability of essential facilities and materials like hand railings, hearing aids, Braille, instructional materials, and lower toilets were not available, although the few that were available (typewriters, resource rooms, wheelchairs).

Generally, people with disabilities all over the world were considered socially and physically less capable. They were not easily accepted and regarded as part and parcel of the family and the community. They were neglected and rejected but they often enjoy parental care due to the bond between parent and child. Parental care is defined as any form of post-positional parental behavior that increases the survival of the offspring at some expanse to the parent (Nkechi et al, 2013). Parental care is any investment by the parent in an individual offspring that increases the offspring's chance of surviving at the cost of the parent's ability to invest in itself or other offspring (Ngwiri, 2008). Parents have a responsibility to provide parental care to their child, among them are naming the child; providing a home for the child; protecting and maintaining the child; disciplining the child; choosing ad providing education for the child determining the religion of the child; agree to the child with any necessary medical treatment (Alonso-Alvarez & Velando, 2012). The effect of parental care on a child at any given time cannot be over-emphasized.

Poor parental care with gross depr ivation of the social and economic needs of a child, usually yields poor academic performance of the child (Munyi, 2012; Hill & Taylor, 2004). According to Lytton (2010), good parenting supported by the strong economic home background could enhance strong academic performance of the child. Faradina (2016) explained that positive parents' acceptance of disabled children will lead to positive development and academic achievement. Bariroh (2018) reported a positive significant parental

influence on the achievement of children with disabilities. This suggests that parental care influence children's academic lives or has an impact on children with physical disability general behaviour and academic life.

When children have caring parents and families to support in their developmental stage, children tend to have good mental health and are likely to succeed in school and throughout life. However, lack of parental care often leads to poor academic performance and deviant behaviours. Many students including students with a physical challenge, experience poor parental care and supports due to the parenting style of their parents and as a result, they are distracted and have a low concentration in the classroom thereby leading to failure or low the academic performance. Most of the studies on parents and academic performance of students with disabilities focused on parental roles (Mntambo, Adam, Hlengwa & Krishna, 2021), parental involvement (Oranga, Obuba, Sore & Boinett, 2022; Bariroh, 2018) on academic performance of students with disability outside Nigeria, however, there are inconclusive studies on parental care and academic achievement of students with physical impairment in Nigeria.

The present study, therefore, investigated the influence of parental care on the academic achievement of students with physical impairment in Kwara state. The study examined the nature of parental care experienced by students with physical impairment in Kwara state; the study sought to determine the academic achievements of students with physical impairment.

The study also tested the following null hypotheses:

- 1. There is no significant correlation between parental care and academic achievement of students with physical impairment in Kwara state.
- 2. There is no significant correlation between parental care and academic achievement of

male and female students with physical impairment in Kwara state.

3. There is no significant correlation between parental care and academic achievement of students with physical impairment in Kwara state across age group.

Methodology

This study adopted a descriptive survey design of correlational type. All students with physical impairment in Kwara State were the population of this study, while the sample for the study selected students comprised with physical impairment drawn from various schools in across the State. The actual population of physical impairment is unknown but the researchers were able to sample 185 physical impaired students. Snowball and purposive sampling techniques were used to select 185 participants. Snowball sampling involves identifying a few students with physical impairment while they (physical impaired), teachers, counsellors and other students assist in identifying others until the required numbers were obtained. According to David (2008), snowball sampling or chain-referral sampling is a nonprobability sampling technique in which the samples have traits that are rare to find. This is a sampling technique, in which existing subjects provide referrals to recruit samples required for a research study. After the respondents were identified purposive sampling was used to select the respondents that met the criteria (physical impaired). Therefore, a total number of one hundred and eighty-five (185) respondents were used in this study.

Instrumentation

The instrument adopted for this study was a researcher-designed questionnaire titled "Influence of Parental Care on Academic Achievement

Questionnaire" (IPCAAQ). The questionnaire consisted of 3 sections (Section A, B & C). The first section comprised the demographic data of the respondents such as gender and age. Section B comprised 10 items on parental care adapted from Parker, Tupling, and Brown's (1979) Parental Bonding Instrument. The original instrument contained 25 items including 12 'care' items and 13 'overprotection' items. The instrument was patterned after 4 point Likert Type rating scale of Very like - 4; Moderately like - 3; Moderately unlike -2; and Very unlike -1. The instrument has a reliability of 0.92. In this study, the items adapted include, my parents: "Spoke to me in a warm and friendly voice"; "Let me do those things I liked doing"; "Seemed emotionally cold to me"; "Appeared to understand my problems and worries"; "were affectionate to me"; "frequently smiled at me"; "tended to baby me"; "could make me feel better when I was upset"; "let me decide things for myself"; and "let me dress in any way I pleased". Section C was on an academic performance subscale where students with physical impairment's academic achievement grades were collected from schools in two core subjects (Mathematics & English language) for the 2021/2022 academic session. These grades were transformed and used to determine the academic achievement of the students. The instrument, Influence of Parental Care on Academic Achievement Questionnaire was validated by five experts in the measurement and evaluation as well as the English and Mathematics Department of the University of Ilorin. The instrument was later subjected to test re-test a reliability and reliability coefficient of 0.86 was obtained which made the instrument suitable for this research.

Copies of the questionnaire were administered to the selected respondents after permission from school authorities was sought for the distribution of questionnaire forms and for the release of students' result broadsheet to access students' performance in the two core subjects (that is English & Mathematics). The parent's and guardians' consent were also sought to permit their children and wards to respond to the questionnaire.

Percentage distribution statistics were used to compute the demographic data of the respondents. To ascertain the parental care experienced by physical impaired students, the highest score any respondents could get on parental care is 40 (4 points x 10) while the lowest score is 10 (1 point x 10). Respondents who scored below 25 experienced negative parental care, while those above 25 experienced positive parental care. For academic achievement, the results of two core subjects (that is English Language & Mathematics) offered by physical impaired students were collected and graded A, C, P, and F. The A grade was regarded as high academic achievement (score above 60%), C (50-59%) as average achievement, and P and F (0-49%) were regarded as low academic achievement. Pearson's Product Moment Correlation (PPMC) statistical tool was to answer the null hypotheses at a 0.05 level of significance.

Result

Table 1 reveals that 64.3% (119) of the respondents were male while 35.7% (66) were female. Also, 56.6% (105) of the respondents were below 16 years of age while 43.2% (80) were above 16 years of age.

Table	1.	Frequen	ıcy	Distribution	of	the	Respondents
Demogra	phi	: Data. S	Sour	rce: Authors (Com	puta	tion (2022)

Variable	Frequency	Percentage		
	(N=185)			
Gender				
Male	119	64.3		
Female	66	35.7		
Age				
Below 16 years	105	56.8		
Above 16 years	80	43.2		

Research Question 1: What is the nature of parental care experienced by students with physical impairment in Kwara state?

Table 2 indicates that 12.4% (23) of the respondents experienced negative parental care, while 87.6% (162) of the respondents experience positive parental care. This indicates that the majority (87.6%) of the respondents experienced positive parental care.

Table 2. Nature of Parental Care Experienced by the Respondents. Source: Authors Computation (2022)

Nature	Frequency	Percentage (%)
Negative	23	12.4
Positive	162	87.6
Total	185	100

Research Question 1: What is the level of academic achievement of students with physical impairment in Kwara state?

Table 3 reveals that 7.0% (13) of the participants had high performance, 51.4% (95) of the participants fell within the average while 41.6% (77) of the participants had low academic performance. This indicates that more than half of the respondents (that is those who have high and average levels of academic performance) have high levels of academic performance.

Table 3. Respondents Level of Academic Achievement. Source: Authors Computation (2022)

Level	Performance	Frequency	Percentage	
	Grades			
High	Distinction	13	7.0	
Average	Credit (C)	95	51.4	
Low	Pass and Fail	77	41.6	
	(P&F)			
Total		185	100	

Hypotheses Testing

Three null research hypotheses were postulated for this study and were tested using Pearson's Product Moment Correlation (PPMC) at 0.05 alpha level.

Hypothesis 1. There is no significant correlation between parental care and academic achievement of students with physical impairment in Kwara state.

Table 4 indicates that the calculated r-value is .427 with a correspondence p-value of .000 which is less than 0.05 level of significance. Since the calculated p-value of less than the 0.05 alpha level, hypothesis 1 is hereby rejected. This implies that there is a significant correlation between parental care and academic achievement of students with physical impairment in Kwara state.

Table 4. Relationship between Respondents' Academic Achievement and Parental Care. Source: Authors Computation (2022)

Variables	Ν	Mean	SD	df	Cal. r-value	p. value
Academic Achievement	185	20.88	4.86	368	.427*	.000
Parental care	185	30.96	4.32			

* Significant, p < 0.05

Hypothesis 2. There is no significant correlation between parental care and academic achievement of male and female students with physical impairment in Kwara state

Table 5 indicates that the both p. values for male and female are less than 0.05 alpha level. The null hypothesis is rejected since the calculated p-value is less than alpha level. Therefore, there is significant correlation between parental care and academic achievement of male and female students with physical impairment in Kwara state.

Hypothesis 3. There is no significant correlation between parental care and academic achievement of students with physical impairment in Kwara state across age group.

Table 6 reveals that null hypothesis three is rejected since both p. values across age groups are less than 0.05 alpha level. Hence, there is a significant correlation between parental care and academic achievement of students with physical impairment in Kwara state across age groups.

Discussion

The finding of the study revealed that the majority (87.6%) of the students with physical impairment experienced positive parental care. The finding of this study in inline with the study of Trumbo (2012) who found that more than 90 percent of the in-school adolescents were experienced good parental care. This could be that the quality of time parents spend with physically impaired students and the provision of essential things could strengthen parental bonding between parents and children.

The finding further showed that more than half of the students with physical impaired have a high and average level of academic performance.

Gender	Variables	Ν	Mean	SD	Cal. r-value	p. value
Male	Academic Achievement	119	20.35	4.46	.281*	.000
	Parental care	119	22.32	4.28		
Female	Academic Achievement	66	21.85	5.41	.305*	.000
	Parental care	66	22.84	3.34		

Table 5. Relationship between Academic Achievement and Parental Care of Male and Female Respondents. Source: Authors Computation (2022)

* Significant, p < 0.05

Table 6. Relationship between Academic Achievement and Parental Care of the Respondents across Age Group. Source: Authors Computation (2022)

Age	Variables	Ν	Mean	SD	Cal. r-value	p. value
Below 16 years	Academic Achievement	105	21.15	4.86		
	Parental care	105	22.80	4.12	.258*	.001
Above 16 years	Academic Achievement	80	20.67	4.87	.312*	.000
-	Parental care	80	22.27	3.84		

* Significant, p < 0.05

The finding is in line with Alawaye (2016) who found high-level performance in academic and creativity among secondary school students in Nigeria. The finding supports the study of Desforges and Abouchaar (2003) who found that significant improvement on pupil's achievements. This could be as a result of parental efforts on students with physical impairment.

The result of null hypothesis one showed that there was a significant correlation between parental care and academic achievement of students with physical impairment in Kwara state. This implies that parental care influences the academic achievement of students with physical impairment. The finding supports the study of Faradina (2016) who asserted that positive parents' acceptance of disabled children will lead to positive development and academic achievement. Bariroh (2018) reported a positive significant parental influence on the achievement of children with disabilities. The reason could be that the caring that parents show to their children (physically disabled) motivate their learning and academic achievement. Also, it could also be due to the fact that children learn a lot from their parents' customs, morals, behaviour or moral and values of society which in turn assist them to succeed in life.

Hypothesis two revealed that there was a significant correlation between parental care and academic achievement of male and female students with physical impairment in Kwara state. This means that parental care has a similar influence on the academic achievement of male and female students with physical impairment. The finding relates to the study of Alonso-Alvarez and Velando (2012) who found no significant discrimination in caring for male and female children by parents. Found that good parental care improves both male and female students' academic performance and psychosocial well-being. The reason could be that parents care for both male and female students with physical impairment equally.

The last hypothesis also revealed that there was a significant correlation between parental care and academic achievement of students with physical impairment in Kwara state across age groups. This implies that a relationship existed between parental care and the academic achievement of physical impaired students. The finding relates to the study of Mieki (2008) who found that the parents monitoring and involvement have a dramatic impact on their children's school performance irrespective of age group.

Implication for Counselling

The findings of this study have some implications for Counsellors. The current study revealed that parental care has influenced on academic achievement of students with physical impairment. Therefore, there is a need for Counsellors to do more enlightenment programmes, for other parents who have children with other forms of disabled, on the effects of parental care on children's academic achievement. The Counsellor should orientate the parents to create time for their children because parents play an important role in children's cognitive development.

Conclusion and Recommendation

The study examined the influence of parental care on the academic achievement of students with physical impairment in Kwara state. The study concluded that parental care has influenced on academic achievement of students with physical impairment. Also, a significant relationship was found between parental care and academic achievement of male and female students with physical impairment irrespective of their age group. Therefore, counsellors should intensify efforts on encouraging parents to show care for their children with any form of disability in order for them to have good academic achievement.

References

- Addo, G. (2014). Analysis of barriers to children with mobility impairment in basic education in Accra Metropolis, Ghana. Kwame Nkrumah University of Science and Technology. DOI <u>10.1.1.868.2719</u>
- Adegboyega, L. O. (2019). Challenges and adjustment needs of students with special needs in Ilorin metropolis, Kwara State. *Ife PsychologLA*, 27(1), 61-74. Web: <u>https://www.ajol.info/index.php/ifep/article/ view/185698</u>
- Alonso-Alvarez, C. & Velando, A. (2012). Benefits and costs of parental care. In Royle NJ, Smiseth PT, Kölliker M, Velando A. (eds.). *The Evolution* of parental care. Oxford: Oxford Univ. Press. 40– 61
- Balal, I. & Rehan, I. (2012). Discrimination and Stigmatization of physically Disabled Students in a General Educational Environment in Pakistan: A case study. *Academic Research International, 2. (2).* 622-626.
- Bariroh, S. (2018). The influence of parents' involvement on children with special needs' motivation and learning achievement. *International Education Studies*, 11(4), 96-114. DOI 10.5539/ies.v11n4p96
- Faradina, N. (2016). Penerimaan Diripada Orang Tua yang Memiliki Anak Berkebutuhan Khusus. *Ejournal Psikologi*, 4(4), 386-396. DOI <u>10.30872/psikoborneo.v4i1.3925</u>
- Fareo, O. & Ojo, O. (2013). Impact of facilities on academic performance of students with special needs in mainstreamed public schools in Southwestern Nigeria. *Journal of Research in Special Educational Needs*, 13(2), 10-19. DOI:10.1111/j.1471-3802.2011.01228.x
- Hill, N. E. & Taylor, L. C. (2004). Parental school involvement and children's academic achievement: Pragmatics and issues. *Current Directions in Psychological Science*, 13: 161. DOI <u>10.1111/j.0963-7214.2004.00298.x</u>

- Kabuta, L. G. (2014). Problems facing students with physical disabilities in higher learning institutions in Tanzania. Unpublished dissertation submitted to the Open University of Tanzania.
- Kamal, S., Asrar, M., Younes, M. & Chishti, A. (2014). Factors Affecting Academic Performance of Special Students: A Case of Peshawar District. SSRN Electronic Journal. DOI 10.2139/ssrn.2755144.
- Kipkorir, R. N. & Simatwa, E. (2016). Challenges Faced by Learners with Physical Handicaps in Learning Math Using Computer Based Learning. *International Journal of Information Research and Review*, 3 (2.).1795-1800
- Lytton, S. (2010). *Problems and issues in education*. NewBook.Makhe Sons, USA.
- Mntambo, S. J., Adam, J. K., Hlengwa, W. M. & Krishna, S. B. N. (2021). Motivation and learning achievement. *International Education Studies*, 11(4), 96-114.
- Munyi, C. W. (2012). Past and present perceptions towards disability: A historical perspective. *Disability Studies Quarterly*, 32(2), 21-26. DOI <u>10.18061/dsq.v32i2.3197</u>
- Nkechi, O., Umemetu, M. &Ogbonnaya, N. O. (2013). Supervision and inspection for effective primary education in Nigeria: Strategies for improvement. *Academic Research International*, 4(4), 586-594.
- Ogunsola, O.K., Osuolale, K.A., & Ojo, A.O. (2014). Parental and related factors affecting students' academic achievement in Oyo State, Nigeria. World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences, 8(9), 3137-3144.
- Oladeji, M. & Oladeji, S. (2011). Educating students with disabilities in Nigeria: Some challenges and policy implementations. *European Journal of Human Social Science*, 3, 127–139.
- Oranga, J., Obuba, E., Sore, I. & Boinett, F. (2022). Parental Involvement in the Education of Learners with Intellectual Disabilities in Kenya.

Open Access Library Journal, 9, 1-18. DOI <u>10.4236/oalib.1108542</u>.

- Parker, G., Tupling, H., & Brown, L.B. (1979). A Parental Bonding Instrument. British Journal of Medical Psychology, 52. 1-10. DOI 10.1111/j.2044-8341.1979.tb02487.x
- Srinivas, P. & Venkatkrishnan, S. (2016). Factors affecting scholastic performance in school children. IOSR Journal of Dental and Medical Sciences, 15(7), 47-53. DOI <u>10.9790/0853-</u> <u>150714753</u>
- Trumbo, S.T. (2012). Patterns of parental care in invertebrates. In Royle NJ, Smiseth PT,

Kölliker M, (eds). *The evolution of parental care* (81–100). Oxford: Oxford Univ. Press.

- Wasielewski, L. M. (2016). Academic performance of students with disabilities in higher education: Insights from a study of One Catholic College. *Journal of Catholic Education*, 20(1), 10-21.DOI 10.15365/joce.2001062016
- World Health Organization (2011). 10 Facts on Disability.

Retrieved from

http//www.who.int/features/factfiles/disabilit y/en/www.dailymail.co.uk/news/article-

2366260 Accessed on 21th March 2014.