

Socio-economic Background as Correlates on Academic Performance of Students: A Case of Agricultural Science Students in University of Mpumalanga

Agholor Azikiwe Isaac

*Department of Agricultural Extension and Rural Resource Management,
Faculty of Agriculture and Natural Sciences, University of Mpumalanga,
Private Mail Bag X11283, Mbombela, 1200 South Africa*

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ABSTRACT The study examined the socio-economic background as correlates on academic performance of students in University of Mpumalanga. The objectives of the study were: i) to investigate the impact of household characteristics on academic outcomes of students, ii) determine the relationship between access to home resources and academic achievement of students. Random sampling was used to select 60 males and females from first year diploma in plant production and bachelor qualifications. The range for result from first semester was categorized for all courses offered. The data obtained were analysed using logistic regression to determine relationship between the listed socio-economic variables and academic performance of participating students. Language of expression at home ($\beta = -4.698, P \leq 0.022$); Parental assistance ($\beta = 5.583, P \leq 0.028$) and Home Learning Resources ($\beta = 4.069, P \leq 0.045$) were predictive of academic achievement respectively. The study concluded that parental assistance is credible and fluency and literacy in a child's home language assists in laying a mental and linguistic foundation for learning.

INTRODUCTION

Socio-economic background of an individual is hinged on perceived self-concept, aspiration and position within a socio-cultural environment (Deepa F and Chamundeswari 2014). Learning and academic activities and the attitude towards learning are determined by socio-economic status. Chay (2001) asserted that various studies which have been done showed that socio-economic factors and students' academic performance; and the level of attrition from schools and colleges are linked directly. Turker-Drob and Harden (2012) observed that socio-economic factors which embodies the social demographic characteristics, educational and economic characteristics prevalent in a given family have impact on the mental abilities of students. Turker-Drob and Harden (2012) asserted that genetic constitution of an individual has

also been discovered to account for at least fifty percent of academic success while fifty percent is attributable to environmental factors. According to Sirin (2005) environmental factors which are also linked to intellectual abilities and access to resources have been found to intensely determine the academic attainment of the students. Further, socio-economic background has also been discovered to be associated with academic success and self-efficacy (Weiser and Riggio 2010; Shah 2012). The relevance and the association of socio-economic background with academic performance was further expatiated and supported by the findings of Harper (2012), and Engle et al. (2006) that there are positive relationship between students brought up in homes of lower socio-economic status and academic achievement. Studies also revealed that students of lower socio-economic background are more probably to originate from homes where mother and father have not obtained certificate higher than college diploma (Engle et al. 2006). In addition, college students who happen to come from homes where parents have no formal school certificates are less likely to receive academic support and incentives to continue their education (Bill and Terry 1982), and they are most likely to be misinformed about tertiary education (Vargas 2004).

Address for correspondence:
Agholor Azikiwe Isaac
Department of Agricultural Extension and Rural Resource Management,
Faculty of Science and Agriculture,
University of Mpumalanga,
Private Mail Bag X11283, Mbombela, 1200 South Africa
Telephone: +27(0)786283593.
E-mail: isaac.agholor@ump.ac.za.

The home setting where a student is nurtured has influence on his academic attainment and level of performance. Students from homes with lower socio-economic background are predisposed to minimal learning resources and are less likely to obtain encouraging support for academic stimulation (Vernon-Feagans et al. 2012). In contrast, students from homes with higher socio-economic background are more motivated and are likely to have increased academic prospects (Dilworth-Bart 2012). Furthermore, Sainz et al. (2012) observed that the physiognomies of the home setting have an impact on the learning behaviour, and cognitive development of a student. Parents play a major role in behaviour moulding and they remain the main avenue for values and interest towards the students' learning (Sainz et al. 2012). Parents' level of education and academic attainment is related to the extent of academic assistance given to their child. Scholars have also come up with the suggestion that peer group influence and adopted mentors plays a significant role in the academic achievement of students (Edman and Brazil 2007). According to Mji and Mbinda (2005), child independence, responsive support, and affection are linked to high quality parent-child relationship. The quality of relationship that a student receives from parents is associated with academic achievement (Grolnick and Ryan 1989; Matsen et al. 1999); and parents' participation in school activities which include: SGB meetings, School Open Day, assistance with homework, also has tremendous influence on the students' academic achievement (Fan and Chen 2001; Catsambis 2002). Further, Bank et al. (1990) posited that educational ambition of parents is also associated with academic performance of students. This is confirmed by the assertion (Leung et al. 1987; Astone and Mclanahan 1991) that parents with great educational ambition expect their child to obtain decent grades and complete school in good time. According to Naevdal and Thuen (2004), higher academic achievement is commonly linked to families with two couples (intact families). This assertion also gave credence to the study of Amato (2001) that students from families with both parents (intact family) staying together often do better than students from single parentage in many instances including school assessment scores; and are more likely to graduate from school in good time with low level of attrition. Studies have revealed the impact of

socio-economic factors on achievement of students in many perspectives. Hamid (2011) observed that there were synchronized association between family earnings and students achievement in English language. Students whose parents earn higher family income were discovered to obtain higher grades in aptitude test as well as better grades in senior school certificate examination in English. The study of Hamid (2011) was also supported by Shamim (2011) who posited that students whose parents earns higher income often perform better in English language than students whose parents are in lower income brackets. The reasons adduced for this positive correlation of higher family income and achievement in English language was the early exposure of students of high income family to English medium schools compared to students whose parents fall within the lower income bracket. Further, Aikens and Barbarin (2008) alluded that students from lower socio-economic background attain English language competencies very slowly, and tend to display a sluggish alphabet recognition, poor pronunciations and are more prone to reading snags. It is against this backdrop that this study aims to investigate the socio-economic background as correlates on academic performance of students' in the new University of Mpumalanga, South Africa.

Objectives of the Study

1. To investigate the impact of household characteristics on academic outcomes of students.
2. To determine the relationship between access to home resources and academic achievement of students.

METHODOLOGY

Population

A total of 60 students comprising of male and females were drawn from first year diploma in plant production and bachelor agricultural extension and rural resource management qualifications participated in the study.

Sample and Sampling Techniques

Random sampling was used to select students who participated in the study. This was

carried out by selecting male and female students from diploma and bachelor qualifications in the new University of Mpumalanga. The selection was done after due consultation and approval from relevant authority to use the specified number of students for the study.

Instrument

Demographic questionnaire was the instrument adopted to elicit information on some of the socio-economic characteristics of the participating students. Questions raised were about the employment status of participants' parents, language spoken at home, consideration in terms of affluence (high and low SES), how often parents offer assistance in school work/assignment, level of education of parents, ownership status of house, infrastructures or amenities available at home and challenges experienced with home infrastructures. Respondents were asked to indicate their level of agreement with each item using a 5-point Likert scale (most often, very often, undecided, often, less often) on the questionnaire item about parents assistance with school work/assignment. The questionnaire item on parental affluence also used a 5-point Likert scale (very poor, poor, average, rich very rich) to indicate the level of agreement. First semester results of participating students were utilised to ascertain whether there is a relationship between socio-economic background and academic performance. Questionnaire items were summed up and Cronbach Alpha was 0.81 which indicates perfect reliability. The range for result from first semester was categorized as: less than 50, 51-60, 61-70, 71-80, 81-90, and 91 and above for all courses offered. Respondents were asked only to indicate the scores obtained on a particular subject according to the specified range. Respondents gave their informed consent on their examination scores on all the subjects offered in the first semester.

Data Analysis

The data obtained were analysed using logistic regression to determine relationship between the listed socio-economic variables and academic performance of participating students. In order to avoid the violation of assumptions of normalcy, linearity and homoscedasticity of variables, initial data screening and analysis were performed.

Ethical Consideration

Students who participated in the study were pre-informed about the aims as well as the secrecy and protection of their privacy. They were also informed that taking part in the study was voluntary and the right to stop their participation at any stage of the study was also welcomed. The relevant authority in the University of Mpumalanga gave approval for the study and the courses offered by students and qualifications were collected from the examination department of the university.

RESULTS

The effect of socio-economic background on overall student academic achievement will be mediated by parental assistance. In the past, statistical illustrations have elucidated that socio-economic and parental assistance are significant predictors of academic achievement and level of education anticipated by students. In his study, Jacobucci (2012) who adopted the use of categorical data in mediation analysis observed that when the independent variable, X , is categorical but M and Y are continuous, then the technique is suitable. From the foregoing, the variable socio-economic background, although categorical, was included in the mediation analysis as the independent variable. Logistic regression analysis were in two phases: Firstly using Intact family (IF), Language of Expression at home (LE), Parents' Assistance (PA) and Parental Affluence (SES). The Intact family ($\beta=1.677, P \leq 0.365$) were not significantly predictive of academic achievement of respondents, while the other variables, Language of expression at home [$\beta = -4.698, P < 0.022$]; and Parental assistance [$\beta=5.583, P \leq 0.028$] were predictive of academic achievement respectively (Table 1).

In the second phase, the Parental Affluence, Employment Status and Home Learning Resources were investigated using logistic regression. Result from the analysis revealed that Home Learning Resources ($\beta = 4.069, P \leq 0.045$) were predictive of the academic performance of the students. However, no other socio-economic variable significantly predicted academic performance (Table 2).

DISCUSSION

The study investigated the impact of household characteristics and access to home learn-

Table 1: Logistic regression for intact family, language of expression and parental assistance

Variables	B	S.E.	Wald	df	Sig. (p)	Exp (B)
Intact family	1.677	1.851	.821	1	0.365	5.352
Language of expression	-4.698	2.055	5.225	1	0.022**	.009
Parents' assistance	5.583	2.547	4.806	1	0.028**	265.850

**Significant at 0.05; 0.01

Table 2: Logistic regression for parental affluence, employment status and home learning resources as predictors of academic performance

Variables	B	S.E.	Wald	df	Sig. (p)	Exp (B)
Parental affluence	.264	.541	.239	1	.625	1.303
Employment status	0.21	1.381	.000	1	.988	1.022
Home learning resources	4.069	2.362	2.968	1	0.045**	58.471

**Significant at 0.05; 0.01

ing resources on academic performance of students. The results shows that language of expression at home ($P \leq 0.022$) and parental assistance ($P \leq 0.028$) were significantly predictive of academic performance of the students. Previous studies have indicated that using students' home language for instructions and expression is crucial to effective learning. A students' proficiency in his home language easily translates to access into the wider society for realities. UNESCO (2003), posited that the use of home language for expression in schools will assist in achieving quality education. Additionally, research has also shown that a child's capability to learn a second or additional language at school does not suffer when their mother tongue or home language is used for instruction and expression at home. The competency, fluency and literacy in a child's home language assists to a large extent to lay a mental and linguistic foundation for learning. When a child gets formal instruction at home in their home language throughout, then transition of the instruction to academic learning is faster. Furthermore, parental assistant on academic work of the students was also found to be predictive of academic performance. Parents are role model for their children, as well as avenues for social, academic, moral and inspirational support for academic endeavour. Interestingly, results from the study show that parents assistance ($P = \leq 0.028$) recorded a significant positive relationship to student academic performance. The result is consistent with the findings of Sigfusdottir and Kritjansson (2009), who found that parent support is exemplified in the form of ac-

cess, open conversation about academic improvement and mentoring. However, parental assistance may not entirely be responsible for students' academic performance, but it is undisputable that parents' involvement in a child academic affairs enhances academic success (Glick and Hohmann-Marriot 2007). The congenial attitude portrayed by parents toward their child usually cascades into positive reinforcement for the child and will translate into a significant academic achievement.

The parental affluence as socio-economic characteristics has no relationship with academic performance of students ($P \leq .625$). This result is in contradiction with many studies. For example, Lavin-Loucks (2006) found that children from poor homes suffer from intellectual problems which translate into poor academic achievement. Another contradiction is the study of Amatea and West-Olatunji (2007) which found that school failure was partly due to low socio-economic status of parents. Academic performance is not attributed to parents' level of affluence. Most students from homes with low socio-economic status in most societies have displayed academic ingenuity and in some cases performed better as exemplified in this study. Interestingly, parents within the low socio-economic bracket in most cases strive harder to also enrol their children sometimes in day care centres that offer curricula fashioned towards laying a good foundation for future academic success. Result from the study also indicated that 'Intact family' have no significant relationship to the academic performance of students. This result leads credence to the findings of Weiser and Riggo (2010),

who found that students who were raised by single parents were not only able to secure admission to the university but also performed well academically. Interpersonal family variables, parental involvement and parents aspirations for their children were found to be significantly related to academic performance.

Home learning resources are relevant in building an enviable environment for good study habits and could impact on academic performance. Nevertheless, majority of the respondents do not have study rooms and other resources but were inclined to fair performance. The findings of this study revealed that home learning resources ($P \leq 0.045$) have a significant positive impact to academic performance. This findings are consistent with Teachman (1987) who found that the provision of home learning resources not only assist students to maintain above average performance but also gives an ideal orientation towards academic achievement. In contrast, employment status of respondents have no positive correlation with academic performance as indicated in the findings of this study. This result is not a surprise because employment status as a socio-economic variable cannot immediately translate into academic success or failure. Students from wealthy homes are also prone to failure irrespective of their parents' affluence.

CONCLUSION

Despite low socio-economic physiognomies and being nurtured by single-parents, results revealed that respondents were still above average academic performance in contrast to the previous studies. The home learning resources, language of expression at home, and parental assistance, were significantly and positively related to academic performance. These findings are of importance to assist educational planners in the provision of interventions for future academic development. The findings also focus on the need to examine and compensate for home learning resources available for learners. The findings also justify parental assistance as credible but may not entirely be responsible for students' academic performance, but it points to the need for parents' to be involved in their children's academic affairs. Additionally, fluency and literacy in a child's language of expression at

home assist to a large extent in laying a mental and linguistic foundation for learning.

RECOMMENDATIONS

The study recommends that diverse mitigating remedies that are already in place to increase academic performance should not exclusively be directed at schools but also be focused on socio-economic variables. The home environment must be taken on board in formulating educational policies and interventions. Since home language of expression is effective for increased academic performance, home language should be considered for use at schools in consonant with already existing languages. Furthermore, parents should be encouraged to provide uninterrupted and congenial learning environment for their children at home since this could translate into substantial academic achievement.

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