Students Perceptions on Determinants of Dropouts from Colleges

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ABSTRACT

The objective of this study was to investigate the differential effects of three major factors causing dropout of students from private higher education and training colleges. Using simple random sampling, a sample of 258 students from private colleges in three provinces were selected and used for the study. A structured questionnaire was used to collect data on students' perceptions regarding the magnitude to which distinct factors cause dropout from college. The differential effects of the three major factors on college dropout was analysed using the General Linear Model based univariate ANOVA technique. The $F_{(2, 258)}$ statistic (= 4.039; $p < 0.05$) and the Tukey HSD and Games-Howell post-hoc results indicate significant differences between the effects of institutional factors and socioeconomic status. The mean scores results demonstrate that socioeconomic status had the highest significant effect; followed by student-related factors; while institutional factors had the least effect on dropout.

KEYWORDS: Dropout, student-related characteristics, institutional factors, family socioeconomic status

1.   INTRODUCTION

The dropout of students from tertiary education in most third world economies has emerged as a subject of serious concern in the field of educational research at global level. In South Africa, Fredericks, Blumenfeld & Paris (2004) indicate that one-third of learners who enroll in Grade 1 do not reach Grade 12. Additionally, a survey undertaken by the Department of Higher Education and Training (2005) reveals that approximately 30 percent from the total cohort of 120 000 first-time university and technical college undergraduates dropped out of college by the end of the academic year of their first enrolment. A further 20 percent dropped out in the following two or three years of their studies. Such dropout statistics provide a strong case that college dropout is a serious problem confronting the country's education system. A study conducted by Christenson & Thurlow (2004) and Dweck (1986) reveal that student dropout is an outcome derived from multiple factors that encompass student, institutional and socioeconomic aspects. Dweck (1986) also found that students perceive dropout as largely an outcome of student-related characteristics, institutional factors and family socioeconomic status.

Although the theme of students' dropout from schools and colleges has received substantial attention in the field of educational research, only limited research has however been undertaken to understand students' perceptions on the major determinants of their dropouts. It is therefore against this background that this study focuses on examining, based on students' perceptions, the differential magnitudes to which student-related characteristics, institutional factors and family socioeconomic status cause dropout. All other distinct elements posing as determinants of students' dropout from college are incorporated into the aforementioned three major factors.

1.2 Research Problem

Dropouts from colleges by the majority of students at higher education level have largely been attributed to student related characteristics, institutional factors and family socioeconomic status.

1.3 Research Objective

The principal objective of this study was to investigate whether there are significant differences among the student-related characteristics, institutional factors and family socioeconomic status on dropout of student from colleges.

1.4 Research Question

Are there any significant differences among the student-related characteristics, institutional factors and family socioeconomic status on students' dropouts?

1.5 Null Hypothesis

There exist significant differences among the student related characteristics, institutional factors and family socioeconomic status on students' dropouts.

1.6 Significance of the Study
The results of this study will provide helpful insights on the distinct impacts of student-related characteristics; institutional factors and family socioeconomic status on students' dropouts.

2. LITERATURE REVIEW
2.1 Introduction
This section provides literature survey on the three major factors that influence dropout of students from colleges; namely student-related characteristics, institutional factors and family socioeconomic status.

2.2 Student-Related Factors
According to Wells, Bechard & Hambly (1989), student-related characteristics are amongst the four broad factors that influence dropout decisions. Student-related factors are those attributes learners have as well as the activities that they engage into either inside or outside their school setting (Wells, Bechard & Hambly, 1989). Quite often, such attributes are associated with negative student behaviors such as drug abuse, destructive peer-pressure and engagement in violent activities. Such elements of behaviour lead to low lesson attendance, poor academic achievements and low engagement in class activities. The longitudinal study conducted by Hidi (2000), students' behavioral, cognitive and demographic factors were found to be among the factors leading student to drop out of school. The study found out that students who dropped out were noted to have exhibited high levels of aggressiveness and lower academic performance.

2.3 Institutional-Related Factors
Wells, Bechard & Hambly (1989) define institutional-related factors as structures and activities within the school day that may contribute towards or fail to discourage disengaging behaviors. Given that these factors comprise actions that occur during the normal school day, they translate either positive or negative effects towards students' learning experiences with the institution. Examples of institutional-related factors include tuition fees, lecturer attendance, library resources, assessment frameworks, time-table schedules, lecturer competence, and facilities. Allensworth & Easton (2007) also discovered structures and systems that comprise a college's regarding design its administration, staffing, resources, curriculum and assessments a sell as the manner I which the college provides support to struggling and at-risk learners. In their study on how a school's organizational structure affects dropout behaviors, Allensworth & Easton (2007) used linear analysis to investigate causes of absenteeism. The study that found structures with clear norms in place held the most promise for students at risk of both absenteeism and dropout. Because of good institutional structures, Allensworth & Easton (2007) found that attendance by students' was a strong predictor of success in colleges.

2.4 Family Socioeconomic Status
Meyer (2010) defines family socioeconomic status as factors that encompass qualities of family composition, poverty levels, employment status and parental education backgrounds. Wells, Keen & Zimmerman (2007) elaborated that family factors contribute to the likelihood of either dropping out college or remaining in school. Along this dimension, a study conducted by Meyer (2010) reveal that students mentioned parental support as a factor that helped them stay in college. Additionally, Ginsberg & Miller-Cribbs (2000) indicated that lack of parental involvement in an abusive home was found to be correlated to higher likelihood of dropping out from college. Likewise, living in a violent and dysfunctional home environment, single-parent household, language differences and lowly educated parents were found to be linked to student have positive influence on students' path towards graduation (Rumberger & Larson, 1998).

3. METHODOLOGY AND PROCEDURE
3.1 Introduction
This section covers the research design used in the research study, sample and sampling, data collection, treatment of the experiment and statistical techniques applied in the study.

3.2 Research Design
The research design for this research was an experimental study. The exploratory variables used in the study are the student-related factors, institutional factors and socioeconomic factors; and the dependent variable was dropout.

3.3 Sample and Sampling Technique
The population for this study was tertiary level students from three provinces; Gauteng, Limpopo and North West. Three cohorts were used in which cohort 1 (Gauteng); cohort 2 (North West) and cohort 3 (Limpopo). The

sample consisted of two hundred and fifty eight (n=258) students; from which 25.2% (n=65) were males and 74.8% (n=193) were females. Simple random sampling procedure was applied to collect data for the study.

3.4 Data
The data for the study were collected using a structured questionnaire. Data on students' perceptions were collected in three cohorts. Cohort 1 (Gauteng) collected data on students' perceptions regarding student-related characteristics, Cohort 2 (North West) collected data on students' perceptions regarding institutional factors and cohort 3 (Limpopo) gathered data on students' perceptions on family socioeconomic status.

3.5 Treatment
The sample of the study was categorised into three cohorts; Cohort 1 comprised of students from Gauteng (n = 104), Cohort 2 comprised of students from North West (n = 94) and Cohort 3 encompassed sixty (n = 60) students from Limpopo.

3.6 Statistical Technique
The General Linear Model based univariate ANOVA technique was applied to analyze the differential effects of student-related characteristics, institutional factors and socioeconomic status on dropout from college.

The differential magnitudes to which student-related characteristics, institutional factors and socioeconomic status influences dropouts were analysed using descriptive statistics and the General Linear model based univariate ANOVA approach. Descriptive statistics were used to analyse the estimated marginal means, standard deviation and standard error estimates; while the ANOVA Tukey HSD post hoc test was used to analyze whether any significant differences existed between the three major factors that influence dropouts.

4. RESULTS AND INTERPRETATION
4.1 Descriptive Statistics
From the sample of two hundred and fifty eight (n= 258) students; 40.3% (n = 104) are from Gauteng, 36.3% percent (n = 94) from North West and 23.3% (n = 60) from Limpopo (Figure 1).

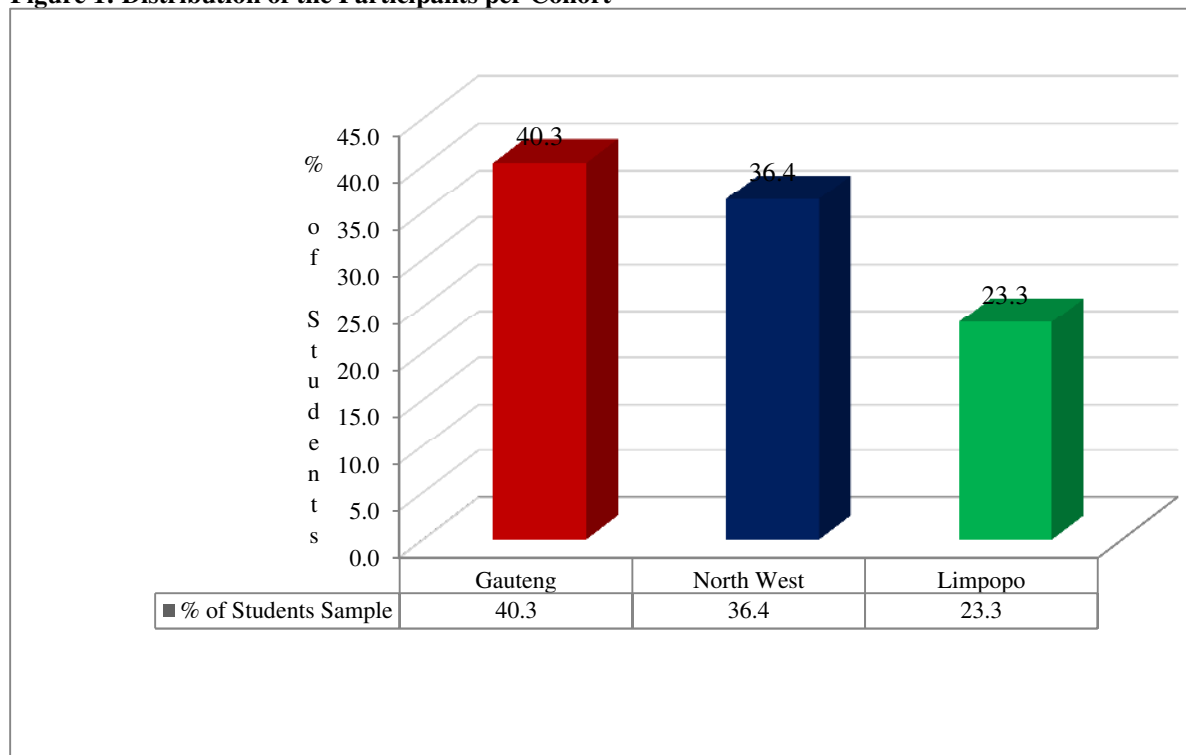**Figure 1: Distribution of the Participants per Cohort**

	Gauteng	North West	Limpopo
■ % of Students Sample	40.3	36.4	23.3

Table 1: Descriptive Statistics

Construct	Estimated Mean	Standard Deviation	Standard Error	95% Confidence Interval	
				L.B.	U.B
Student-related factors (n = 104)	3.365	1.025	0.106	3.156	3.575
Institutional factors (n = 94)	3.074	1.148	0.112	2.854	3.295
Socioeconomic status (n = 60)	3.567	1.079	0.140	3.291	3.842

The estimated marginal mean estimates reveal that socioeconomic status has the high mean score (mean = 3.567), followed by student-related factors (mean = 3.365); and the lowest being institutional factors (mean = 3.074). This indicates that socioeconomic status has the highest significant influence on students' dropouts from colleges. The mean estimates for all the three factors fall within the 95% confidence interval bands.

4.2 Tests of Between-Subjects Effects
The results derived from the tests of between subjects effects (Table 2) indicated significant differences among student-related characteristics, institutional factors and socioeconomic status.

Table 2: Between-Subjects Effects Tests

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	9.483[a]	2	4.741	4.039	.019
Intercept	2712.066	1	2712.066	2310.436	.000
Factor	9.483	2	4.741	4.039	.019
Error	299.327	255	1.174		
Total	3129.000	258			
Corrected Total	308.810	257			
a. R Squared = .031 (Adjusted R Squared = .023)					

The effects of student-related characteristics, institutional factors and socioeconomic status on students' dropouts from colleges differed significantly. ($F_{(2, 106)}$ statistic (= 4.039) at 0.05 level of significance. Together with the SS, a total 3129.0 indicates variability in dropouts. The R-Squared (0.023) equals the SS (Teaching Method)/SS (Corrected Total) = 308.810/13426.52. To detect which of the three factors mean scores differed significantly from one another; the Tukey HSD and Games-Howell post hoc test was applied for the analysis (Tables 3 and 4; respectively).

Table 3: Tukey HSD Post Hoc Tests

(I) Factor	(J) Factor	Mean Diff(I-J)	Std. Error	Sig.	95% CI	
					L.B	U.B
Student-related attributes	Institutional	0.29	0.154	0.145	-0.07	0.65
	Socioeconomic status	-0.20	0.176	0.487	-0.62	0.21
Institutional factors	Student-related	-0.29	0.154	0.145	-0.65	0.07
	Socioeconomic status	-0.49*	0.179	0.018	-0.91	-0.07
Socioeconomic status	Student-related	0.20	0.176	0.487	-0.21	0.62
	Institutional factors	0.49*	0.179	0.018	0.07	0.91

(*) indicates significance of mean difference at the 0.05 level.

The Tukey post hoc tests results indicated that socioeconomic status and institutional factors differed significantly in respect of their distinct effects on dropouts of tertiary students from colleges. Results also indicated that no significant differences were observed between institutional factors and student-related factors.

Table 4: Games-Howell Post Hoc Tests

(I) Factor	(J) Factor	Mean Diff(I-J)	Std. Error	Sig.	95% CI L.B	U.B
Student-related attributes	Institutional	0.29	0.155	0.145	-0.08	0.66
	Socioeconomic status	-0.20	0.172	0.472	-0.61	0.21
Institutional factors	Student-related	-0.29	0.155	0.149	-0.66	0.08
	Socioeconomic status	-0.49*	0.183	0.022	-0.93	-0.06
Socioeconomic status	Student-related	0.20	0.172	0.472	-0.21	0.61
	Institutional factors	0.49*	0.183	0.022	0.06	0.93

(*) indicates significance of mean difference at the 0.05 level.

The Games-Howell post hoc tests results are consistent with those found from the Tukey HSD; signifying that socioeconomic status and institutional factors differed significantly in respect of their distinct effects on dropouts of tertiary students from colleges. Consistent with the Tukey HSD, results also indicated that no significant differences were observed between institutional factors and student-related factors.

5. CONCLUSION
5.1 Conclusion
This study analyzed the differential effects of student-related characteristics, institutional factors and socioeconomic status on dropouts of students from colleges. In light of the findings derived from the analysis above, it is very imperative for parents, guardians and education professionals to collaborate towards addressing socioeconomic and student-related factors in order to minimise dropouts of students form colleges. Measures that can be taken include consistent monitoring academic performance of learners and investigate the causes of suboptimal performances if any gaps exist between current and past academic performance.

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