

**ORIGINAL ARTICLE****STUDENT RELATED DETERMINANTS OF THE FIRST SEMESTER ACADEMIC STATUS: THE CASE OF 2006/7 FIRST YEAR STUDENTS AT SOME SELECTED FACULTIES OF JIMMA UNIVERSITY****Aemero Asmamaw\* Kinde Getachew\*****ABSTRACT**

*The government of Ethiopia has been working aggressively to increase the enrollment rate of students in higher education. However, a significant number of students leave the campus as a result of academic dismissal. This research, therefore, attempted to unfold the magnitude of academic failure and students related factors predicting academic failure in the first semester of 2006/ 07 entries. Six hundred and four participants were selected randomly and responded to a questionnaire. First semester participants' GPA were also secured from the registrar. The finding indicated that 28 % of the sampled students were dismissed from the university. Out of this, 25.7% were males, and 41.4% were females; the highest rate of dismissal was in Education Faculty (40.4 %) and the lowest rate in Medical Faculty (4.3 %). A forward logistic regression analysis disclosed that students who scored high on measure of external locus of control, test anxiety, self concept , females and older students were more likely to fail while students who scored high on internal locus of control and study for longer hours were less likely to fail. Furthermore, the pattern of these factors on academic failure for the two sexes and faculties were indicated. Promoting students' awareness about the importance of investing effort in the academic context and enhancing students' internal locus of causality are some of the recommendations forwarded.*

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## INTRODUCTION

**Background of the Study:** Currently, in Ethiopia, there has been a huge effort by Ministry of Education (MOE) to increase enrolment rates of students in the various universities. This effort, however, has been jeopardized as many students withdraw from their education. One of the major reasons for academic withdrawal is academic dismissal (Tamire, 1997; Fentaw, 2001).

Academic dismissal has been a problem for years and still it is a headache for academicians and university officials worldwide and in Ethiopia. Various studies, as indicated below, have been conducted to find out the magnitude and reasons for students' academic dismissals at different institutes, colleges and universities.

Though academic dismissal could occur in any year, research done in other countries indicated that it is severe in the first year (Mallinckrodt & Sedlacek cited in DeBerard, Spielmans and Julka, 2004) as this level represents a stressful transition from secondary education to tertiary level (Lu cited in DeBerard, Spielmans, & Julka, 2004). As DeBerard et al. (2004) indicted a significant number of students were not able to successfully manage this transition, and decided to leave higher education during or at the end of their freshman year. It is

estimated that 40% of college students leave higher education without getting a degree; with 75% of such students leave within their first two years of college (Porter; Tinto cited in DeBerard et al., 2004).

In Ethiopia, too, academic dismissal has been a problem. For instance, a study done by Tamire (1997) indicated that more than 20% of the 1996 freshman students in Bahir Dar Teachers College and Poly Technique Institute were dismissed from the college. Tamire further noted that more than half of the dismissed were females.

Recent evidences also show that academic dismissal is still a problem in Ethiopian higher institutions. For instance, the data secured from Jimma University registrar office about 2005/2006 entry of students in some faculties revealed that substantial number of students were dismissed from the campus. As indicated in the table below, academic dismissal was severe in Education Faculty, followed by College of Agriculture and Veterinary Medicine, and Technology Faculty. On the other hand, a few students were dismissed from Medical Sciences Faculty and Public Health Faculty.

**Table One: Academic Dismissal of First Year Students by Some Faculties (2005/6 Entry)**

Faculty	Department	Students sat for final exam	Academic dismissal	Total Percentage
Education	Amharic	102	32(31.37%)	26 %
	Afan Oromo	108	29(26.85%)	
	English	153	29 (19 %)	
	Geography	184	50 (27.2 %)	
	History	173	39(19.65 %)	
	Biology	128	29(22.6%)	
	Chemistry	125	35( 28 % )	
	Mathematics	134	21(15.67%)	
	Physic	103	30(29 %)	
College of Agriculture And Veterinary Medicine	Veterinary medicine	56	7( 12.5 % )	18 %
	Animal science	93	19( 20.43 )	
	Crop science	117	17(14.53%)	
	Horticulture	191	33(17.28 %)	
	NRM	115	30(26.09%)	
Technology	Pre-Eng.	280	16 %	15 %
	Computer Sci.	126	13 %	
Medical Sciences	Lab tech.	100	10 (10 %)	5 %
	Pharmacy	119	0 %	
Public Health	Health Education	52	0	1 %
	Health Officer	172	3 (1.74 %)	
	Environmental Health	106	3 (2.83 %)	
	Nursing	127	1 (0.79 %)	

**Source: Registrar office working paper, 2005/6**

In sum, evidences about the first year students of some faculties of 2005/6 entry of Jimma University showed that 13 % of students were dismissed from the campus on the average. This figure indicates how academic dismissal is a problem and also calls for attention or urgency of intervention to minimize the problem and wastage associated with it.

The implications of education wastage associated with academic dismissal are many. Academic dismissal costs the

college or university and the country at large lots of resources in tuition fees, and other related costs (DeBerard et al., 2004). In spite of these considerable negative consequences for universities, for students and the country at large, little has been done to solve the problem in Ethiopia and academic dismissal is still a problem (Tamir, 1997, see also table 1). As a result, those factors that affect academic achievement of first year students need to be researched so that intervention programs could be designed to minimise the problem and the wastage associated with it.

With regard to the factors, there seems to be general agreements among scholars that students' academic success in higher institution depends on several interlocking factors (Gifford, Perriott, Juanita, Mianzo, and Frank, 2006). Socio-demographic factors (such as age, income, and gender), psychological factors (e.g. motivation, stress, study strategies) and other factors like study hours and understanding the language of instruction are among the factors that could play substantial roles in students' academic success.

Regarding gender of the students in predicting academic achievement, there were conflicting findings. Some scholars like Garton, Dyer & King, (2000); Belechier, (2002) indicated that gender did not predict consistently academic success. On the other hand, several researchers reported that gender significantly predicted academic achievements of higher learning (Zhang, Anderson, Ohland, Carter & Thorndyke, nd) and indicated that male students excelled female students in courses like economics and engineering (Schram, cited in DeBerard et al., 2004) while females did better in other subjects that required verbal ability (Ryland, Riordan & Brack, cited in DeBerard et al., 2004).

Concerning students' income, scholars at different time found out that income of students positively affect the academic success of freshmen students (Jing and Sedlacek, 2001).

Motivation also plays a vital role in education. In this regard, researchers agreed that students who lack the right motivation tend to score lower grades (Belechier, 2002; Feldman, 1996). Even though there are different theories of motivation, researchers have indicated that the most important motivational factors that link to academic success is locus of control (Sisney, Strickler, Tyler, Wilhoit, Duke and Nowicki, cited in Gifford et al., 2006).

Locus of control states that the belief about what causes and influences ones behavior has a marked impact on our expectations and motivation (Gage & Berliner, 1998; Elliott, Cook, & Travers, 2000). More specifically, locus of control refers to a person's beliefs about control over life events. People who perceive that both positive and negative event occur as a result of their own behavior are considered to have internal locus of control. On the other hand, people who perceive their outcomes in life as determined by forces beyond their control such as the result of luck, fate or powerful others are considered to have an external locus of control (Weiner, cited in Berk, 1991).

In clarifying the relation between students' locus of control and academic success, Weiner (cited in Berk, 1991) pointed out that students who have internal locus of control approach and persist in doing challenging work since they believe that investing tremendous effort causes success. On the other hand, students who have external locus of control avoid success related tasks because they assume that success is related to luck or other factors out of their control. As a result, these students work with little drive or invest little effort (Weiner cited in Berk, 1991).

Though empirical researches on locus of control and academic success using a large sample of first-year students are rare (Gifford et al, 2006), the existing research indicates the importance of internal locus of control in academics. Nelson and Mathias (cited in Gifford et al., 2006) provided evidence that internal locus of control correlates positively to academic achievement among college students. On the other hand, studies on high school students have shown that an external locus of control correlated to lower academic achievement (Ekstrom, Goertz,

Pollack, and Rock; and Sisney et al. cited in Gifford et al., 2006). However, Gadzella, Williamson and Ginther (cited in Gifford et al., 2006) did not find any significant correlation between academic achievement and locus of control.

Though there was little research in Ethiopia that focused on the relation between academic success and locus of control, Tamire (1995) investigated students' belief about their success/failure. The investigation that was conducted on freshmen students of Addis Ababa University by Tamire showed that students attributed their success more to effort and ability than luck; and also they ascribed their failure more to luck and difficult tasks.

Dozens of scholars also identified students' self-concept as playing tremendous role in students' learning. Among these scholars, Marsh (cited in Huitt, 2004) and Zhang et al., (nd) indicated a general academic self-concept measure related directly to academic success of students.

Regarding study strategy, Belcheir (2002) found out that study strategies are important factors in predicting academic achievement of students in college algebra. Researchers also identified surface level and deep level strategies as the two most important study strategies. Regarding this, Purdie and Huttie (1999) indicated that deep level strategies are directly related to achievement whereas surface level strategies negatively predicted academic achievement.

Variables related to the teaching-learning process are also important predictors of academic achievement. These variables, in this study, are study hour and understanding the language of instruction.

Walberg (cited in Purdie and Hattie, 1993) noted that the time spent on study could be debilitating for achievement if students were pressed to work beyond exhaustion.

Other scholars emphasize the quality of the task rather than its quantity. In this regard, Purdie and Hattie (1993) argue that time spent on a task is less important than qualitative (organization and elaboration of the task) aspects of the study.

**Statements of the Problems:** The academic performance of some of the first year students at Jimma University suffers a lot. As indicated earlier in table one, a substantial number of students who joined the university in the year 2005/6 were dismissed. There are a number of student related factors that could influence students' academic success. Students' socio-demographic variables, psychological variables, and instructional variables are widely mentioned in the literature as determining academic status of university students.

Several studies have been conducted with the aim of identifying factors that possibly affect students' performance, using either retrospective design or after the first semester. Such types of designs have limitations. The first limitation is that researches done after the first semester could not include the dismissed students, who already left the institute. The limitation of the retrospective design is that it only focuses on the socio-demographic variables and misses important variables like the psychological ones. Therefore, further study is needed to identify those factors that could affect performance of students taking data during the first semester which could enable to sample participants from first year students before the first semester final exam is given, and also help us to include important variables like the psychological, and instructional factors.

This study, therefore, attempted to identify student related factors that could affect academic status of first year Jimma University students, and

suggest possible ways that could help to mitigate academic dismissal.

The study, therefore, attempted to answer the following research questions:

- ❖ What was the magnitude of academic success/failure in the first semester at Jimma University in 2006/ 07 academic year?
- ❖ Are there gender and faculty wise differences in academic status?
- ❖ To what extent did students' socio-demographic variables, psychological variables and instructional variables predict academic status as measured by first semester GPA? How much variance in academic success/failure can be explained by these variables?
- ❖ Did the independent variables predict academic status as measured by first semester GPA differentially for each faculty?
- ❖ Did the independent variables (mentioned in the methodology section) predict academic status as measured by first semester GPA differentially between the two genders?

**Objectives of the Study:** The general objective of the study was to find out student-related factors that predicted first year first semester academic status of students at Jimma University. The specific objectives of the research were to:

- indicate the magnitude of academic failure /success in Jimma University in 2006/07 academic year;
- check gender and faculty wise differences on academic status;
- pinpoint the independent variables that predicted the first semester academic status of the 2006/07 entrants;
- identify the effects of the independent variables in predicting academic status of first year students in each faculty for 2006/7 entrants;

- identify the effects of the independent variables in predicting the first year students' academic status between the two genders;

The findings of the study might have both practical and theoretical implications.

Regarding the theoretical implications, the study could provide up-to-date information about the magnitude of students' academic status and the extent of the independent variables in predicting the academic status of first year students at Jimma University. As a result, the university students, teachers, policy makers, families and the community at large could be aware of the factors that influence first semester academic status of students of first year students at Jimma University.

Regarding the practical implications, the findings of the study might help the policy makers to design and implement strategies to improve first year students' academic performance on the one hand and improve the efficiency of education on the other hand. In addition, the study might serve as a springboard for further research.

### Operational Definitions

**Academic status:** refers to 2006/7 students' first semester academic Grade Point Average (GPA), and in this research it is demarcated as academic success and academic failure.

**Academic success:** refers to respondents whose GPA is 2.0 and above in the first year first semester.

**Academic failure:** refers to respondents whose CGPA is less than 2.0 in the first year first semester.

**Income:** refers to respondents' average money that they have earned per month for the three months (Dec -Feb. 2006/07).

Study time: refers to average time respondents spent on academic study per week in the university.

Study strategy:- refers to the techniques that respondents employ in their academic study.

Language skill: - refers to how well respondents understand the language of instruction.

Student related factor: in this study student related factor includes socio-demographic factors, internal and external locus of control, self concept , self regulation ,test anxiety, study hour and language of the instruction .

## METHODOLOGY

**Design and Period of the Study:** A cross sectional study design was used for the study as this design is appropriate to collect information at once. General information, data on psychological and instructional variables were collected in the middle of the first semester of 2006/7. Finally, participants' GPA were secured from the Registrar Office at the end of the semester.

### Variables

**Dependent Variable:** the dependent variable of the study was student academic status which was measured as failure (1) or success (0).

**Independent Variable:** the independent variables included socio demographic variables (like gender, income, and age), psychological variables (like locus of control, self-concept, study strategies, test anxiety) and instructional variables (like hours engaged in study and understanding the language of instruction).

**Population and Participants:** The population for this study were students of 2006/7 entry at Jimma University. The target population of the study were first

year regular students of Jimma University in the faculties of Business and Economics,

Education, Medicine, Public Health and Technology. These faculties were selected based on their long history of existence as a faculty in the University relative to others.

The total number of subjects of this study was 630. However, 26 (4 %) students were avoided from the analysis as they failed to fill out the questionnaire appropriately. Therefore, the final analysis was done on 604 (96 %) students. Out of this , 110 ( 18.2 % ) students were taken from Business Faculty , 265 (43.9 %) students were taken from Education , 92 ( 15.2 % ) students were taken from Medical Faculty , 45 (7.5 ) students were taken from Technology Faculty , 92 ( 15.2 ) students were taken from Public Health Faculty , and 517 ( 85.6 %) were males and the rest 87 (14.4 %) were females. The sample size differences for gender and faculty were due to differences in the total population of students in each faculty and differences in the number of male and female students in the target population. The average age of respondents was 19.88 with a standard deviation of 2.06.

**Sampling Techniques:** Two stage sampling techniques were used for the study. First, a simple random sampling technique was used to select the department within each faculty. Then a stratum was made based on the male and female students in the selected departments. Then, a stratified sampling technique was used to select the required samples of male and

female students from every department.

**Instruments:** Primary and secondary data were used for the study. A standardised questionnaire was used to secure the primary data. The questionnaire consisted of two major

parts. In the first part, the respondents supplied general information about the socio-demographic variables. The second part consisted of several standardised scales which were adopted from Sarason, (1980) ; and Jerusalem & Schwarzer (1993) and a language scale designed by the researchers. Students' first semester Grade Point Average (GPAs) were also secured from the Registrar office of Jimma University.

Pilot test was conducted to check the validity and reliability of the various scales. Experts scrutinized the various scales to check the content validity. Furthermore, the questionnaires were administered to 60 first year students who were selected from History department at Jimma University. Based on the pilot-test results, the wording and organization of some items were revised. Above all, reliabilities of the different scales were computed along with the necessary revisions. Originally, the measure of self-concept item consisted of 10 items. However, four items were removed from the last version because they were found to decrease the reliability. The Chronbach  $\alpha$  coefficient for the six items was .603. Originally, the self regulation measure consisted of 10 items. However, four items were removed from the last version because they were found to decrease the reliability. The Chronbach  $\alpha$  coefficient for the six items was .684. Originally, the language scale consisted of 4 items and the Chronbach  $\alpha$  coefficient was .545. The measure of locus of control consisted of 16 items and Chronbach  $\alpha$  coefficient for the items was .948. The Chronbach  $\alpha$  coefficient for test anxiety items was .60.

**Procedures:** Data for the study were secured by means of trained data collectors. Students' GPAs were also secured from the University Registrar Office. After collecting the necessary information, data analysis was carried out.

**Analysis of Data:** The statistical analyses were carried out based on the basic research questions that the study aimed to answer. Preliminary descriptive statistics such as frequency, percentage, mean and standard deviation were employed depending on the nature of the data and research questions. Finally, a chi square ( $\chi^2$ ) test was conducted to see faculty and gender wise differences on academic status and a forward logistic-regression analysis was employed to determine student related factors that could significantly predicted the academic status of first year students in general and for every faculty and gender in particular .

**Delimitation of the Study:** This study examined how student related factors (i.e. socio-demographic factors, psychological attributes, study hour and language of the instruction) affected academic status. Only first year students were considered for the study since it is in this phase that most students are dismissed from the university.

**Limitation of the Study:** One of the serious limitations of the study is lack of adequate local researches pertaining to academic status of university students in the first semester.

**Ethical Issues:** All the necessary ethical issues including consent from the participants and confidentiality were entertained in this research.

## RESULT

The general objective of the study was to examine the magnitude of academic failure and found out student related factors that predicted first year first semester academic status of students at Jimma University.

From the sampled students, it was found out that 169 (28.00 %) respondents did not succeed in their education whereas 435 (72.00 %)



respondents succeeded in the first semester examinations.

When the academic status by gender was examined, 133 (25.7 %) males and 36(41.4 %) female students did not succeed in their education respectively. On the other hand, 384 (74.3 %) male and 51 (58.6 %) females students succeeded in the first semester examination. A chi square ( $\chi^2$ ) test was also employed to check whether these observed differences and the expected ones were statistically significant. The test revealed that there was a significant difference between male and female students on academic achievement. ( $\chi^2 = 9.056$ ,  $P < .05$ ). To specify which cell was the major contributor to the significant chi square value, the standardized residual for each cell was computed. The standardised residual indicated that, in comparing the observed frequencies with the expected ones, there were more female students than the expected ones who failed in the first semester ( $R = 2.4$ ).

From the sampled respondents, the faculty wise comparison also depicted that 39 (35.5%) students from Business Faculty, 107 (40.4%) students from Education Faculty, 4 (4.3%) students from Medicine, 16 (36.4%) students from Technology and 7 (7.6%) of students from Public Health Faculty were dismissed from the University in the first semester. From the total number of students who failed to succeed in the first semester, Education Faculty took the largest share 107 (40.4%) followed by Business 39 (35%), Technology 16 (35%), Public Health 7 (7.6%) and Medicine 4 (4.3%). A chi square test was also employed to check whether these observed

differences and the expected ones were statistically significant. The test revealed that there was a statistically significant difference among the various faculties on

academic achievement ( $\chi^2 = 67.743$ ,  $\text{Sig} < 0.05$ ). To specify which cell was the major contributor to the significant chi square value, the standardized residual for each cell was computed. The standardised residual indicated that, in comparing the observed frequencies with the expected ones, there were more failure and less pass in Education Faculty, less failures and more pass in Medical Faculty and Public Health Faculty ( $R = 3.8$ ,  $R = -2.4$ ,  $R = -4.3$ ,  $R = 2.7$ ,  $R = -3.7$ ,  $R = 2.3$ ) respectively. The rest cells were not significant contributors.

The next section of the result concerned with identifying factors that significantly predicted academic success/ failure of students. A step wise logistic regression analysis was used to identify the socio-demographic factors, psychological variables and instructional variables.

To identify the socio - demographic variables (gender, age, and monthly income) that could significantly predict academic failure, correlation coefficients for the socio-demographic variables and academic status (success coded 0 and failure coded 1) were computed at first. The result indicated that gender of students (male coded 1, female coded 2) and age were significantly related to academic status ( $r = .122$ ,  $p < .01$  and  $r = .098$ ,  $p < .05$ ) respectively. Though monthly income was positively related to academic status, it was not a significant predictor of academic status ( $r = .033$ ,  $p > .05$ ).

Then, a step wise logistic regression analysis was conducted to identify those socio demographic factors that significantly predicted academic status of freshman students.

**Table two: R<sup>2</sup> Change, Predictors, Wald Statistics and Expected Outcome of Academic Failure for Socio Demographic Variables**

Variable	adjusted R <sup>2</sup>	B	Std. error	Wald	sig	Exp
Constant		-4.358	1.044	17.420	.000	.013
Gender	2.00	.826	.245	11.376	.001	2.284
Age	3.80	.123	.048	6.690	.010	1.131

The Nagelkerke R<sup>2</sup> showed that approximately 4 % of the variation in academic success was explained by the variation in gender and age. Specifically, as indicated above in table two, gender and age were important predictors of academic success (B= .826, Wald = 11.376, p < .001, Exp = 2.284; and B= .123, Wald = 6.690, p < .010, Exp = 1.131) respectively. Specifically, the odds for female students to fail in the first semester was 2.284 times that for men and a unit increase in age increases the odds of failing in the first semester by a factor of 1.131.

Then an analysis was done to determine the psychological variables (self concept, self regulation, internal locus of control, external locus of control, and test anxiety)

that significantly predicted academic failure. It was discovered that academic status ( success coded 0 and failure coded 1) was significantly positively related to self concept ( r =.170 , p < .01 ) , to external locus of control ( r=.212 , p< .01 ) and to test anxiety ( r= .178 , p < .01 ) . On the other hand, internal locus of control and self regulation did not relate to academic status significantly (r=-.041 > .05, and r=.016, p> .05) respectively.

Then, a step wise logistic regression analysis was conducted to identify those psychological factors that significantly predicted academic status of freshman students.

**Table Three: R<sup>2</sup> Change, Predictors, Wald Statistics and Expected Outcome of Academic Failure for Psychological Variables**

Variable	adjusted R <sup>2</sup>	B	Std. erro	Wald	sig	Exp
Constant		-3.154	.752	17.568	.000	.043
Ext. locus of C.	.064	.079	.023	11.367	.001	1.082
Int. locus of C.	.082	-.106	.036	8.394	.004	.900
Self concept	.099	.083	.033	6.260	.012	1.082
Test anxiety	.109	.114	.056	4.175	.041	1.121

The Nagelkerke R<sup>2</sup> showed that about 11 % of the variation in academic success was explained by the logistic model. It was also discovered that external locus of control, self-concept and test anxiety significantly predicted academic failure (B=.079, Wald = 11.637, p < .001, Exp = 1.082 ; B = .083 , Wald = 6.260, P < .012, Exp = .1086; and B = .114, Wald = 4.175 , P < .041, Exp = 1.121) respectively.

Particularly, as indicated above in table three, a unit increase in scores on external locus of control, self concept, and test

anxiety, increase the odds of failing by a factor of 1.082, 1.082 and 1.121 respectively. On the other hand, it was discovered that internal locus of control significantly predicted academic failure. (B = -.106, Wald = 8.394, P < .004, Exp = .900).

Particularly, it was also indicated that a unit change in scores of internal locus of control decreases the odds of failing by a factor of .900. The last analysis was done to determine the instructional variables (study hours and

understanding language of instruction) that significantly predicted academic failure. It was found out that academic status (success coded 0 and failure coded 1) was significantly related to study time ( $r = -.115, p < .005$ ). On the other hand, understanding language of instruction did

not relate to academic status significantly ( $r = .015, p > .05$ ).

Then, a step wise logistic regression analysis was conducted to identify those instructional factors that significantly predicted academic status of freshman students.

**Table Four: R<sup>2</sup>, Predictors Wald Statistics and Expected Outcome of Academic for Instructional Variables**

Variable	R <sup>2</sup>	B	Std. error	Wald	sig	Exp
Constant		-.176	.085	.380	.538	.839
Study hours	.019	-.022	.008	7.856	.005	.978

The Nagelkerke R<sup>2</sup> showed that about 1.9 % of the variation in academic success was explained by the logistic model. Specifically, as indicated in table four, study hours significantly predicted academic failure (B = -.022, Wald = 7.856 P < .005, Exp = .978). It was found out that a one hour increase in study hours

decreases the odds of students failing by a factor of .978.

The second section of analysis was aimed at to identify factors that predicted academic failure for male and female students separately.

**Table Five: R<sup>2</sup>, Predictors, Wald Statistics and Expected Outcome of Academic Failure (Socio Demographic Variables) in Males**

Variable	R <sup>2</sup>	B	Std. error	Wald	df	sig	Exp
Age	1.8	.114	.048	5.512	1	.019	1.120
Constant		-3.343	.978	11.678	1	.001	.035

As indicated in the table above age of the participants appeared to be a significant predictor of academic failure in males (B= .114, Wald =5.512 P < .019, Exp = 1.120) and explained approximately 2 % of the

variation in male students' academic failure. It was found out that for one year increase in age, the odd of failing in males increases by a factor of 1.120.

**Table Six: R<sup>2</sup> change Predictors, Wald Statistics and Expected Outcome of Academic Failure (Psychological Variables) in Males**

Variable	R <sup>2</sup>	B	Std. error	Wald	df	sig	Exp
Ext. locus of C.	.069	.100	.025	16.210	1	.000	1.105
Int. locus of C.	.093	-.100	.039	6.533	1	.011	.904
Test anxiety	.111	.166	.062	7.219	1	.007	1.181
Constant		-2.679	.777	11.893	1	.001	.069

For the psychological variables, scores on external locus of control, scores on internal locus of control and scores on test anxiety

significantly predicted academic failure in males ( B=.100 ,Wald = 16.210, p < .000 ,Exp = 1.105 ; B=-.100 ,Wald

= 6.533,  $p < .011$ ,  $Exp = .904$ ; and  $B = .166$ ,  $Wald = 7.219$ ,  $P < .007$ ,  $Exp = 1.181$ ). The three variables together explained 11.1 % of the variation in academic failure among male students. Furthermore, it was discovered that a unit increase in scores on external

locus of control and test anxiety increased the odds of male students to fail by a factor of 1.105 and 1.181 respectively. On the other hand, a unit increase on score of internal locus of control decreased the odds of male students to fail by a factor of .904.

**Table Seven:  $R^2$ , Predictors, Wald Statistics and Expected Outcome of Academic Failure (Instructional Variables) in Males**

Variable	$R^2$	B	Std. error	Wald	df	sig	Exp
Study time	.021	-.024	.009	7.245	1	.007	.976
Constant		-.233	.318	.540	1	.462	.792

Regarding instructional variables, study hours significantly predicted males' academic failing ( $B = -.024$ ,  $Wald = 7.245$ ,  $P < .007$ ,  $Exp = .976$ ). It explained 2.1 % of the variation in academic failing among male students. It was also indicated that a unit increase in a study hour decreased the

odds of males students to fail in the first semester by a factor of .976.

For female students none of the considered socio demographic variables appeared to predict significantly female student's academics failing.

**Table Eight:  $R^2$ , Predictors, Wald Statistics and Expected Outcome of Academic Failure (Psychological Variables) in Females**

Variable	$R^2$	B	Std. error	Wald	df	sig	Exp
Self concept	.095	.195	.081	5.859	1	.015	1.215
Constant		3.841	1.468	6.844	1	.009	.021

Regarding the effect of psychological variable on females' academic failure, only self concept appeared to be a significant predictor ( $B = .195$ ,  $Wald = 5.859$ ,  $P < .015$ ,  $Exp = 1.215$ ) and it explained 9.5 % of the variation in academic failing in females. As indicated in the table, a unit increase in self concept increased the odds of female students to fail in the first semester by a factor of 1.215.

education, business and technology faculties.

It was discovered that self-concept and study hours significantly predicted academic failure of the first year first semester Business Faculty students. Self concept explained 6.5 % of the variation in academic failure in freshman students and a unit increases in self concept increase the odds of failing in freshman first semester exam by a factor of 1.140. On the other hand, study time explained 7.9 % of the variation in academic failing and an hour increase in study hour decreased the odds of failing by a factor of .960.

It was also discovered that none of the instructional variables significantly predicted academic failure in females.

The third section of the analysis was aimed at indicating factors that predicted academic failure in those faculties where academic failure was severe: these are

In Education Faculty, it was found out that gender and scores on external

locus of control appeared to predict academic failure significantly. Gender of the respondents explained 2.9 % of the proportion of the variation on academic failure in Education Faculty and the odds for females to fail is 2.541 times that of men. Similarly, scores on external locus of control explained 2.7 % of the variation on academic failure among Education faculty students and a unit increase in scores of external locus of control resulted in increasing the odds of failing by a factor of 1.056. None of the instructional variables were found to be significant predictor of academic failure of Education Faculty students.

Finally, an attempt was made to identify factors that significantly predicted academic failure among technology faculty. However, none of the independent variables in this study, namely socio-demographic and personal variables, psychological variables and instructional variables, were found to predict academic failure among Technology Faculty students significantly.

#### DISCUSSION

The objective of this study was to identify the magnitude of academic failure and those factors that significantly predicted academic status of freshman students at Jimma University.

The magnitude of academic failure in first semester at some faculties of Jimma University was found to be high. About 28 % of the sampled students failed in the first semester and this figure was almost comparable to the findings of Fentaw (2001) and Tamire (1997).

Specifically, in this research it was found out that female students were more likely to fail than male students. This finding was consistent with the findings of Zhang et al., (n.d) and Schram (cited in DeBerard et al., 2004).

However, some researches indicated inconsistent findings to the findings of this research. For example, Garton et al. (2000) and Belechier (2002) reported that there were no differences in academic failure between the two genders. Still other research works found out that male students were more likely to fail than female students in nutrition and dietetics subjects (Ryland, Riordan & Brack, cited in DeBerard et al., 2004). Research works also indicated that male students excelled female students in courses like economics and engineering (Schram, cited in DeBerard et al., 2004).

Though the researchers could not come across research works that compared different faculties on academic failure/success, in this research it was found out that academic failure was severe in education faculty, followed by Business and Technology Faculty students. However, academic failure in Medical and Public Health Faculties was insignificant.

Psychological variables were found to be important predictors of academic success/failure in the study. External locus of control, self concept, and internal locus of control and test anxiety significantly predicted academic failure.

In this research it was also found out that students who attribute success/failure to external causes were more likely to fail than students who attribute success/failure resided within themselves. This finding corroborated with some research findings. For instance, Ekstrom, Goertz, Pollack, and Rock and Sisney et al., ( cited in Gifford et al. ,2006 ) discovered that students who had high external locus of causality ( students who assumed that success or failure is external) were more likely to fail in academic areas than students who had low external locus of causality .

This research also discovered that internal locus of control significantly predicted academic failure. Students who scored high on measures of internal locus of control were less likely to fail than students who scored low. Nelson and Mathias (cited in Gifford et al., 2006) also reached the same conclusion. The finding in this research, however, contradicted with the finding of Gadzella, Williamson and Ginther (cited in Gifford et al., 2006) which said that there was no significant correlation between academic achievement and locus of control.

Self-concept in this research significantly predicted academic failure. This finding, however, was inconsistent with the findings of several research works (Marsh cited in Huitt, 2004 and Zhang et al., nd). In this research, it was found out that students who scored high on measure of self concept were more likely to fail in the first semester exam than students who scored low. In this regard, a research done by Fletcher, McGuire, Dziuban & Warren; and Ratcliff (cited in DeBerard et al., 2004) demonstrated a negative relationship between self-concept and GPA. The possible explanation for this unusual relationship between self concept and academic status in this research might be that first year students may have unrealistic evaluation of their self concept or there might be some confounding variables.

Test anxiety also significantly predicted academic failure among Jimma University freshman students. Students who scored high on measure of test anxiety were more likely to fail than students who scored low. This finding is consistent with the findings of Mohsen and Mansoor (2009); Lashkaripour; Mwamwenda & Comunian (cited in Mohsen and Mansoor, 2009). The possible explanation for this was that students who experienced test anxiety were unable to do the test in a focused way as anxiety interferes with the cognitive processes and makes the test taker disorganized.

Study hours in this research also significantly predicted academic failure. It was found out that as the number of study hours increased the tendency to fail in the first year first semester examination was minimized. This finding is in support of other research works. However, the research finding was conflicting with the findings of Purdie and Hattie (1993) and Walberg (cited in Purdie and Hattie, 1993) which assumed that time on task and academic performance were not significantly related. They also argued that the quality of the study was more important than the quantity of hours spent on studying a certain topic.

This research also attempted to see those factors that significantly predicted academic failure separately for gender and for each faculty.

For male participants, it was discovered that external locus of control, internal locus of control and test anxiety significantly predicted academic failure. This finding is not in agreement with the finding of other researchers though their findings referred to both sexes. Overall, females reported to be more subjected to test anxiety than males regardless of grade level (Everson, Millsap, & Rodriguez, 1991).

For female students, on the other hand, only self concept predicted academic failure. As indicated above, this finding is uncommon and the reason for this might be that female students might have unrealistic evaluation of their self concept (Fletcher, McGuire, Dziuban & Warren; and Ratcliff cited in DeBerard et al., 2004).

Study hours predicted academic failure for male students but not for females. This finding is inconsistent with the findings of Purdie and Hattie (1993) and Walberg (cited in Purdie and Hattie, 1993) as they found out that the

quality of study was more important than hours spent.

At last, an attempt was also made to dig out factors that significantly predicted academic failure for those faculties where academic failure was severe.

It was discovered that gender of the student and score on external locus of control significantly predicted academic failure in Education Faculty. Regarding gender differences, female students were more likely to fail than males. For external locus of control, it was discovered that students who scored high tend to fail than students who scored low and this finding is consistent with the finding of other researchers ( Ekstrom, Goertz, Pollack, and Rock and Sisney et al., cited in Gifford et al. ,2006 ).

For Business and Economics Faculty students, score on self concept and study hours significantly predicted academic failure. Regarding self concept, it was discovered that students who scored high tend to fail than students who scored low and this findings is not consistent with the findings of other researchers (Fletcher, McGuire, Dziuban & Warren; and Ratcliff cited in DeBerard et al.,2004 ). Study time also significantly predicted academic failure and this finding is inconsistent with the findings of Purdie and Hattie (1993) and Walberg (cited in Purdie and Hattie, 1993 ) as they found out that time on task and academic performance were not significantly related.

For Technology Faculty, all of the independent variables considered for this study failed to significantly predict academic failure. The reason for this might be the distinctive characteristics of the field and this research failed to include important variables like students' self-perceptions of math, science and problem-

solving abilities which were important predictors for the field (Lebold and Ward cited in Zhang et al., nd) .

## CONCLUSIONS AND RECOMMENDATIONS

**Conclusions:** The objective of the study was to investigate the magnitude of academic failure among some selected faculties of Jimma University freshman students. Moreover, the study attempted to identify those socio-demographic, psychological and institutional factors that significantly predicted academic status of freshman students. The study, however, was not without limitations. One limitation was that the survey was limited only to some faculty of Jimma University due to time and financial constraints. This undoubtedly affects the generalization of the results to other university. Despite these limitations, the study came up with the following important conclusions.

- Ethiopia needs an adequate and skilled manpower to bring about development in different sectors. This need might be hampered as students failed and discontinue their education. Moreover, academic dismissal results in educational wastage.
- Ethiopia needs adequate and skilled teachers, engineers and business and economics professional among others to bring about a holistic development within a short period of time. Large academic dismissals from Education Faculty, Business and Economics Faculty and Technology faculty that are considered as a backbone for development might jeopardise the country's needs of trained manpower and delay the development process.

- Though various efforts have been made to narrow the gender disparity in academic achievement at different levels of education, the gap is still apparent. We know that today's female students are tomorrow's mothers and educating females is educating the future generation. In this study, however, it was discovered that females' academic status suffered a lot. This undoubtedly affects the society at large in the long run and has an immediate effect on the students themselves as academic dismissal results in various psychological damage and other related problems.
- Psychological variables are a potent force in the teaching-learning process and students need to have the right psychological orientation. To maximize the quality of the teaching-learning process, students should believe in effort to succeed in the academic area, avoid beliefs in luck and miracles, avoid test anxiety in testing, and need to invest a lot of time in their study.

The research also attempted to identify factors that significantly predicted academic failure separately for gender and for the three faculties where failure was significantly high. Regarding these issues, the following findings were obtained.

Male students need to have the right psychological orientation to maximize their academic achievement. Specifically, male students should have an internal locus of causality as it is related with academic success, and they need to spend several hours on their study. On the other hand, male students should be oriented to minimize believing in luck and miracles and being anxious in testing as they lead to academic failure. On the other hand, female students may need to have the right self-concept about themselves as an unrealistic evaluation of self-concept might lead to academic failure.

Business Faculty students need to have a realistic evaluation about their self-concept, and females need to spend several hours in their study. In Education Faculty, students who had an external locus of control seemed to have a problem in their academic status.

**Recommendations:** The study attempted to identify the magnitude of academic failure in some selected faculties of Jimma University students. Moreover, the study attempted to identify the factors that significantly predicted academic status in freshman students of some faculties of Jimma University. To this end, the study came up with important findings and the following recommendations were forwarded in light of the findings.

- The university officials need to design intervention strategies that aim at minimizing academic failure. In this process of intervention, female students need to get priority as opposed to male; and Education Faculty students, Business and Economics Faculty students and Technology Faculty students need to get priority than Public Health and Medical students.
- For male students, the interventions need to emphasize increasing students' awareness about the importance of effort in academics and make them consider that they are responsible for their own success and failure than external bodies. This includes arranging reattribution training to promote the concept of personal responsibility for success/failure and to help students believe that academic success/failure is not in the hands of instructors or luck, but in their own capable hands.
- For Education Faculty students, the intervention process should



aim at promoting students internal locus of control by means of arranging reattribution training.

- For Business and Economics Faculty students, the intervention process should aim at encouraging (facilitating) conditions for students to spend more time on their study.
- More research works are needed to identify those factors that significantly predict academic failure among freshman students of Technology Faculty.
- Comprehensive and rigours studies that take other factors (psychosocial factor, institutional factor) and faculties and universities into consideration need to be conducted in the future.

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