Impact of Study of Habits, Skills, Burn out, Academic Engagement and Responsibility on the Academic Performances of University Students

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Abstract: This study examines impacts of student-related factors including study habits and skills, engagement, burnout, and academic responsibility on the academic successes of the Bahir Dar University students. A randomly selected sample of 333 students, (257 males and 76 females) was taken for the study. Likert-scale was used to measure the study habits and skills (SHS), engagement, burnout, and academic responsibility. Data on the students' academic success were obtained from the Registrar Office. The study shows study habits and skills, engagement, and academic responsibility fail to correlate with academic achievement significantly; while, sex and burnout negatively and significantly related with it. Regression analysis shows, with the exception of engagement, burnout (β=-0.255), SHS (β=183), academic responsibility (β=-0.306), year of study (β = -0117), and sex (β=-0.256) predicted academic achievement significantly. But the path model unveil that all the independent variables together with sex significantly predict the achievement of students. The combined effect of these variables was about 14%, sex being the strongest predicator. It is generally found that male students and students with higher SHS tend to be higher achievers. However, students who feel academic responsibility and are engaged mostly in their academic tasks, and those with burnout feelings tend to achieve less. Based on the findings, conclusions have been drawn and recommendations have been forwarded.

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Introduction

In its quality audit report, Higher Education Relevance and Quality Agency [HERQA] (2008) indicated that the average attrition rate of university students was 29.1%, which unveils the seriousness of educational wastage in the country. It shows that a large number of students discontinue their education every year. Multitudes of factors could be accountable for the students' educational discontinuation. In a nutshell, personal, social, educational, environmental, and other variables are responsible for their failure. Factor attributed to the failure include nature of students ability, assessment used, students' level of readiness and motivation as well as preparation, study habits and skills employed by the students, extent of students engagement in academic tasks, psychological conditions, social and physical environments, and feelings of academic responsibility.

Sex difference in academic achievement has drawn the attention of researchers and students of psychology for some time now. Nevertheless, the studies made so far did not yield consistent or conclusive results. Most teachers fell and expect that male and female students behave differently in certain contexts (Zakriski, Wright, & Underwood, 2005). Many of these differences more likely result from differential socialization by both parents and teachers that may have impacts on the academic behaviors of the students in higher education settings. Different studies show significant academic achievement variations between female and male students in higher education. For instance, a study carried out in Bahir Dar University indicated that female students' attrition rate was higher than their male counterparts throughout the study years (Yalew, 2003). Similar differences were further observed in university wide studies conducted by Higher Education Relevance and Quality Agency (HERQA) in 2006 and 2007. Reports have consistently demonstrated that, in all universities in country, female students' attrition rate was found to be higher than that of the male students. Moreover, a study conducted by Yeshimebrat et al (2009) showed that, irrespective of study programs considered, attrition rate due to academic reasons was higher for females than males. The question here

would be: ‘‘what factors account for performance variations of male and female students?’’ This suggests studies dealing with academic achievement-related factors need to consider sex as a variable of comparison to figure out if there are areas where the two sexes vary in order to take informed measures. Study skills and habits, and other psychosocial and family factors may be responsible for such variation.

There are numerous pieces of evidence that point out that behaviors of students are important determinants of their academic successes. Studies indicate that the nature of study habits and skills students use affect their academic successes to a great extent. A number of studies demonstrate the relationship between study habits and skills, and academic successes of college students (Crede & Kuncel, 1998; Kern, Fagley & Miller, 1998; Al-Hilawani & Sartawi, 1997; Jones, Slate, Perez & Marini, 1993; Jones & Slate, 1992; Larose & Roy, 1991; Lazarus, 1991; Miller, 1991). Study skills are defined as “competence in acquiring, recording, organizing, synthesizing, remembering, and using information and ideas, and are among the skills that can be modified for learners of all ages” (as Harvey, 1995, is cited in Proctor*et al.*, 2006, p. 1). Study skills consist of a variety of activities, including time management, setting appropriate goals, selecting an appropriate study environment, employing appropriate note-taking strategies, concentrating, selecting main ideas, self-testing, organization, and managing anxiety.

Researchers (Britton &Tesser, 1991; Macan, Shahani, Dipboye, & Phillips, 1990) indicate that time management skills predict academic achievement and quality of academic performance. Moreover, students' information processing skills, ability to select main ideas, self-testing, motivation, time management, and concentration correlated significantly with academic achievement of university students (as Kern *et al.*, 1998, is cited by Proctor *et al*, 2006). It is indicated that quality of students’ notes is related to achievement (Lazarus, 1991). As reported by Jones et al, these components and other types of study skills account for approximately 15% of the variance

in the academic achievement of undergraduates (as Jones & Slate, 1992; Jones et al., 1993, are cited in Proctor *et al*, 2006).

As stated earlier, students' failure in their academic careers are attributed to a number reasons. Evidence shows that many undergraduates possess inadequate study skills. Jones and colleagues (1995) noted that overall, students exhibited poor study habits and difficulties with time management, note-taking, and managing anxiety (Kuhn, 1988).

Another factor that could jeopardize students learning and academic achievement is burnout. For example, Yang (2004) indicates that burnout predicts poor academic performance in higher education institutions. Burnout was first used by Freudenberger (1974) to describe the progressive decline in energy, motivation and commitment of individuals in their work. It refers to the feeling of losing interest in ones job, showing a feeling of detachment from the activities one used to perform. The decline in motivation, energy and commitment happens over a year or so and is usually accompanied by reduced reactivity, performance, and a range of adverse physical and psychosomatic symptoms. Freudenberger and Richelson (1980), as cited in Francis, Hills,&Kaldor(2009: 243 – 244), later he defines burnout as "a state of fatigue or frustration brought about by devotion to a cause, a way of life or a relationship that failed to produce the expected reward".

Maslach and Jackson (1981a) extended the concept and described the nature of burnout in a more detailed manner. Maslach and Jackson (1981a) describe burnout as physical, emotional and mental exhaustion state manifested by severe depletion and chronic fatigue, feelings of helplessness and hopelessness, and development of negative self-concept and negative attitudes towards work, life and other people. They further indicate that emotional exhaustion, depersonalization, and lack of personal accomplishment are syndromes of burnout. Emotional exhaustion is described as an emotional fatigue that is manifested in the form of overtiredness, tardiness, and feeling lethargic to the work to be done and depersonalization is characterized by the development of cynical attitude

towards work and life. Lack of personal accomplishment is exhibited by deterioration of self-competence and decreased personal satisfaction with one's achievements. Accordingly, students who develop feeling of burnout may not have positive attitudes toward their work, feel incompetent, and develop a state of underachievement. In other words, in learning situations, burnout may lead to a variety of psychological anomalies that have negative bearings on academic performances of students. Some of its correlates are anxiety, depression, frustration, hostility and fear. Studies by (Cordes & Dougherty, 1993; Maslach & Pines, 1977; Maslach, 1978) show that burnout can lead to lower commitment, absenteeism, reduced productivity, and low morale.

Higher education institutions are believed to be environments with causing stress, anxiety, and burnout. Evidence shows the presence of burnout among college students (Meier &Schmeck, 1985). Student burnout can lead to higher absenteeism, lower motivation to do required course work, higher percentage of dropout and so on (Meier &Schmeck, 1985; Ramist, 1981).

Another factor that affects students' academic performance is the level of their feeling of academic then responsibility that is defines as students' readiness to act with duty and willingness to have obligation to act. In other words, taking responsibility could mean "acknowledging and accepting the choices you have made, the actions [to be] taken, and the results they have led to" (Beaumont, 2009). Definitions of responsibility entail having duty or obligation to act; acknowledging and accepting the choices, taking actions, preparing and accepting outcomes, meeting commitments, preparing and keeping plans in performing tasks, performing assignments assigned and conforming to the expectations of others, and putting every effort to achieve the goals set.

Singg & Ader (2001) and Yalew (2004) show that academically responsible students tend to be more successful than those with less academic responsibility. Academically responsible students tend to be inquiring, show tendencies of investigating, seeking, and embracing facts and truth. They rely on reasons and sanity, rather than on poor perception of oneself, fantasy and unrealistic thoughts. Presumably students with low level of

responsibility, perform less in their academic performances. Higher level of responsibility would lead academic engagements and work hard that result in higher grades. Research findings indicate that engagement predicts academic success. Engagement is pertained to students' vigor, dedication and absorption to academic tasks. It is all about to be productive by doing a great job (Maylett & Riboldi, 2008). Studies show that students' engagement contributes to their academic performances (Suárez-Orozco, Pimentel, & Martin, 2009; Fredricks, Blumenfeld, & Paris, 2004; Greenwood, Horton, & Utley, 2002; Marks, 2000; National Research Council, 2004).

Academic engagement refers to "the degree to which students are 'connected' to what is going on in their classes" (Steinberg et al, 1996, p.15, as quoted by Suárez-Orozco, Pimentel, & Martin, 2009: 718). It involves cognitive, behavioral, and emotional dimensions (Fredricks, Blumenfeld, & Paris, 2004). In other words, students are involved in their learning emotionally, cognitively, and behaviorally. Cognitive engagement refers to "the degree to which students are interested in and are curious about what they are learning," and behavioral engagement refers to "students" participation and efforts in academic tasks (i.e., doing homework, turning in assignments on time, and paying attention to class work, classroom behaviors, and attendance" (Suárez-Orozco, Pimentel, & Martin, 2009, pp. 718 – 719). Citing the work of Rumberger (2004), Suárez-Orozco, Pimentel & Martin (2009, p. 719) explain that academic engagement occurs along a continuum. They state:

> Highly engaged students are actively involved in their education, completing the tasks required to perform well in school. Somewhat engaged students may be doing "good enough" academic work but are not reaching their academic potential. Further along the continuum, there may be a significant gap between students' intellectual potential and their academic achievement. In cases of more extreme academic disengagement, lack of interest, erratic class attendance, and inadequate assignment completion can lead to multiple course failures that often foreshadow school dropout.

They further point out that students may disengage from their learning slowly in response to the accruing difficulties in their community, learning and family circumstances, which may lead to subsequent adjustment problems and academic failure. These descriptions of engagement warrant the need to take appropriate intervention mechanisms to minimize, if not to avoid, the problem of underachievement, poor learning, and ultimately educational wastage. Though research elsewhere in the world repeatedly shows that students' study habits and skills, academic responsibility, engagement and burnout determine the quality of their learning and achievement, there are no studies that examine the impacts of these variables on the academic successes of students in higher learning institutions in Ethiopia. Although there are studies that address the effects of these variables one by one or with other variables, there is no study that has investigated the combined effects of these variables on the academic achievements of university students. It is hoped that findings of this study would help universities devise intervention mechanisms that minimize the attrition rates and enhance the learning competence of students.

Students need to have proper study habits and skills, high level of engagement and feeling of responsibility as well as low level of burnout to be successful. Relegating the software of students, i.e., their affective conditions in which they are and focusing on the hardware, such as giving tutorials and other course provision mechanisms would never make them successful in their academic careers. In this case, the present study highlights the impacts of study habits and skills, engagement, burnout and feelings of academic responsibility on the students' academic performances. It is critical to understand and explain the impacts of these factors on the academic performances of the students. The study can be useful in devising mechanisms of helping students to be fully engaged, to get out of their burnouts, and then develop feelings of academic responsibility in order to enhance their study habits and skills. This would undoubtedly improve their competence and their successes in their educational careers.

It is legitimate to raise questions such as ‘‘How good are the study skills of students?’’ ‘’To what extent are students (dis)engaged in their learning?’’ ‘‘Do they feel academically responsible and carry out their responsibilities accordingly?’’ ‘‘To what extent are they motivated so that the level of feeling boredom or burnout is low?’’ ‘‘How severely are their learning and performances affected by these factors?’’ Hence, the purpose of this study is to examine the combined impacts of study habits and skills, engagement, burnout and academic responsibility on the academic performances of students. Accordingly, this study tries to answer the following research questions.

1. What are the combined impacts of study habits and skills, engagement, burnout and academic responsibility on students’ academic success? Which of these variables predict the academic performance of students significantly?
2. Are there significant relationships among the predictor variables, viz., study habits and skills, engagement, burnout and academic responsibility?
3. Do the impacts of study habits and skills, engagement, burnout and academic responsibility on students’ academic success differ in terms of sex?
4. Are variables related to sex and year of study exogenous variables that affect the students’ academic success moderated by study habits and skills, engagement, burn out and academic responsibility? If so, which of these variables have stronger mediational role?

To test the direct and indirect impacts of the independent (predicator) variables on the dependent variable (academic success as represented by CGPA), the fowling model that shows the impacts of exogenous variables and those mediating variables has been developed.

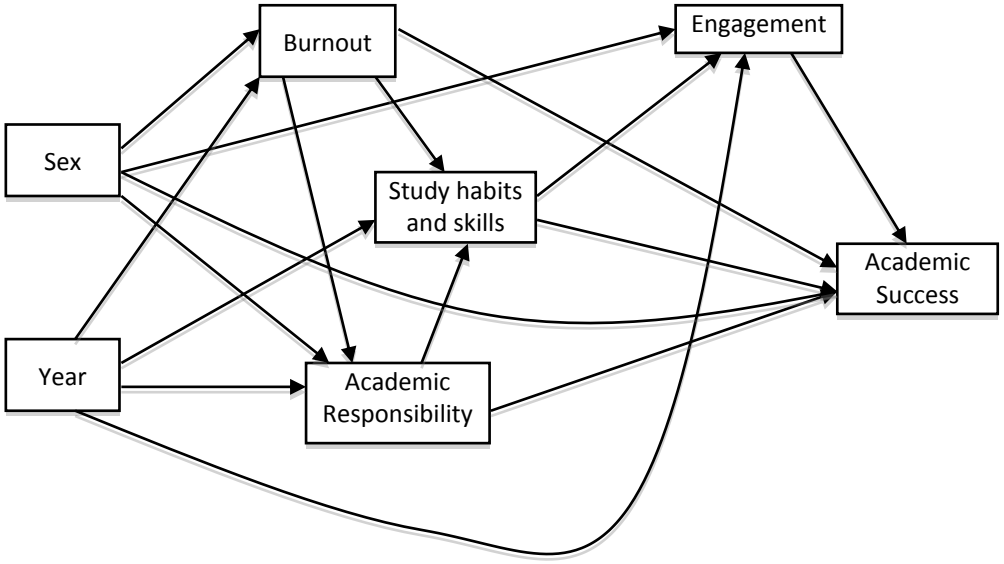

Figure 1: A model developed to test the effects of the predictor variables on academic success

Methodology

Population, Sample and Sampling

A questionnaire consisting of various scales was administered to 417 randomly selected students of various batches of the undergraduate programs of the faculty of Humanities, College of Science, Educational and Behavioral Sciences, School of Law, and College Business and Economics of the Bahir Dar University. The students were from the departments of Amharic, Biology, Educational Planning and Management, Law, and Management. The departments were selected using convenient sampling method. Of the distributed copies of the questionnaire, 333 were used for final analysis while others were rejected because they were either incomplete or errors made in filling in them.

Data Collection Tools

Study habits and skills of the students were measured using a scale adapted from Wen & Liu (1976). Engagement was measured using the adapt scale of Schaufeli*et al*. (2002). Student burnout was measured using adapted scale of Hu & Schaufeli (2009). Finally, data on academic responsibility were examined using a scale developed by Yalew (2004). All were Likert's scales 5 points that ranged from 1 (strongly disagree) to 5 (strongly agree). The study habit and skills scale had 46 items and yield a reliability of $\alpha = 0.89$. Engagement scale had 17 items and produced a reliability of $\alpha = 0.84$. The burnout scale consisted of 16 items with reliability of $\alpha = 0.86$. What is more, the academic responsibility scale comprised of 17 items with reliability index of $\alpha = 0.90$.

Data Collection Procedures

Items in the questionnaire were translated to Amharic to facilitate communication. The questionnaire was tried out on 46 randomly selected students before it was used for the final study. Items that did not have higher item-total correlations were dropped. To determine the students' academic performances, cumulative grade point averages obtained from the Registrars' Offices of the respective faculties, schools and colleges of the respondents.

Data Analyses Methods

The inter-correlations among all variables were determined using Pearson Product Moment Correlation Coefficient. Multiple linear regression analysis was employed to determine the relative contributions of each of the independent variable, on the dependent variable as well as the combined effect of the variables. To test the model proposed in the introduction section and examine the direct and indirect impacts of the independent variables on the dependent variable, path analysis AMOS Version 5.0 was employed. Descriptive statistics was also used to show the levels of the students according to variables treated. Moreover, t-test was employed to ensure the level of significance of the beta weights. All significance tests were made at $\alpha = 0.05$ level.

Results

Table 1 below shows the means and standard deviations of the variables treated. The calculated means of the variables demonstrate that female students tend to have higher mean scores in study habits and skills, engagement and academic responsibility, while males have higher CGPA and more burnout tendencies compared to their female counterparts. As indicated in Table 2, however, the differences between male and female students were significant only in engagement, in favor of females, and academic achievement, in favor of males. However, the overall status of students against the variables indicated that the students, irrespective of their sex, have significant higher mean scores than the expected mean scores of study habits and skills (expected mean = 92, t = 32.76, df = 332, p = 0.001), engagement (expected mean = 34, t = 32.72, df = 332, p = 0.001), and academic responsibility (expected mean = 34, t = 20.70, df = 332, p= 0.001); but lower level of burnout experiences (expected mean = 32, t = -22.22, df = 332, p = 0.001).

Table 1: Means and standard deviations of male and female students of study habits and skills, engagement, burnout, academic responsibility, and CGPA

	Male			Female					p-value
Variables	**n**	**Mean**	**Sd**	**n**	**Mean**	**Sd**	**t-test**	**df***	
SHS	257	126.11	19.74	76	128.67	18.98	-1.026	127	0.307
ENG	257	47.88	8.13	76	49.99	7.77	-2.056*	128	0.042
BURN	257	20.45	9.96	76	19.75	9.52	0.555	127	0.580
ACRES	257	45.79	10.93	76	47.43	11.78	-1.089	116	0.278
CGPA	257	2.67	0.54	76	2.32	0.42	5.933*	154	0.000

*df_s were adjusted using Welsh method for sample size differences for male and female students

Note: SSH= Study habits and skills ENG = Engagement BURN = Burnout ACRES= Academic Responsibility

To examine the relationships among each of the variables treated, Pearson Product Moment Correlation Coefficients were employed. The results are presented in Table 2.

From Table 2, it can be learned that study habit and skills positively correlated and significantly with engagement and academic responsibility, while they are negatively correlated and significantly correlated with burnout. This denotes that students who exhibit good study habits and skills tend to engage more and feel academic responsibility and tend to show lower level of burnout. However, burnout correlated significantly yet negatively with students' academic performance. This signifies that students who report to have higher level of burnout tend to achieve lower than those who experience less burnout.

Table 2: Inter-correlation matrix among study habits and skills, engagement, burnout, academic responsibility, sex, CGPA, and year of study

Variables	1	2	3	4	5	6	7
1. Study habits and skills	1.000						
2. Engagement	0.664**	1.000					
3. Burnout	-0.499**	-0.561**	1.000				
4. Academic Responsibility	0.725**	0.608**	-0.537**	1.000			
5. Sex	0.055	0.110*	0.062	0.070	1.000		
6. CGPA	0.006	-0.074	-0.106*	-0.078	-0.255*	1.000	
7. Year of study	-0.146**	-0.045	0.067	-0.186**	0.037	-0.107	1.000

*p < 0.05, **p<0.01

Moreover, engagement strongly, significantly and positively correlated with study habits and skills, and academic responsibility, while negatively and significantly correlated with burnout. This indicates that students who tend to have lower level of burnout engage more in their studies. In addition, students with higher levels of academic responsibility reported that they engage more than those with less feeling of academic responsibility. From the table, it can be discerned that burnout is correlated negatively and significantly with academic responsibility, which signifies that students with

higher levels of burnout tend to demonstrate lower levels of academic responsibility.

To determine the combined effects of study habits and skills, burnout, engagement and academic responsibility on students' academic success, multiple linear regressions were employed. This was intended to determine the strength of the overall contribution of the predicator variables to the dependent variable, and to identify independent variables that best explain variances among academic performances of the students. Variation in academic success were determined by CGPA that was explained by the combined effect of the independent variables entered in the regression analysis (namely, sex, year of study, study habits and skills, engagement, burnout and academic responsibility). The result shows that the combined effect of all the independent variables on the dependent variable is statistically significant ($R = 0.394$, $R^2 = 0.155$, $F_{6,326} = 9.968$; $P<0.001$). This implies the independent variables together indicate 16% of the variance in academic performances of the students. An attempt was also made to see independent contribution of each predicator variable to the dependent variable as shown in Table 3 below.

Table 3: Regression of CGPA according to sex, study habits and skills, engagement, burnout, academic responsibility and year of study

Variables	Unstandardized Coefficients		Standardized Coefficient	t
	B	Std. Error	Beta	
Engagement	-0.009	0.005	-0.130	-1.747
Burnout	-0.014	0.004	-0.255	-3.955*
Study habits and skills	0.005	0.002	0.183	2.257*
Year of study	-0.068	0.031	-0.117	-2.239*
Academic responsibility	-0.015	0.004	-0.306	-3.867*
Sex	-0.326	0.065	-0.256	-4.982*

*p< 0.05

As shown in Table 3, sex, year of study, study habits and skills, burnout, and academic responsibility have statistically significant impacts on the academic performance of the students; while impact the engagement is not statistically significant. To determine the increase made in the overall R^2, a stepwise multiple regression was conducted as indicated in Table 4.

Table 4 indicates important variables that significantly predicted students' academic achievement. The variables were sex, burnout, academic responsibility, and year of study, which accounted for about 14% of the variance in academic performance of students. Sex alone explained 7.6 % of the variance in CGPA, which was statistically significant ($F_{1, 331} = 27.189$, $p < 0.001$). The inclusion of burnout in the equation improved the coefficient of determination by 1.4%, which was a significant increase ($F_{1, 330} = 5.053$; $p< 0.05$). When academic responsibility was added to the equation the coefficient of determination rose by 3.4%, which was also a statistically significant increase ($F_{1, 329} = 12.762$; $p< 0.001$). A 1.6% variance increase was observed when year of study was considered in the equation ($F_{1, 328} = 5.920$; $p < 0.05$).

Table 4: Stepwise multiple regression of CGPA on the independent variables treated

Model	Variables entered	Unstandardized Coefficients		Standardized Coefficients			ΔR^2
		B	Std. Error	Beta	**R**	**R^2**	
1	Sex	-0.351	0.067	-0.276**	0.276	0.076*	.076
2	Sex	-0.355	0.067	-0.279**	0.300	0.090*	.014
	Burnout	-0.006	0.003	-0.118**			
3	Sex	-0.342	0.066	-0.269**	0.352	0.124*	.034
	Burnout	-0.013	0.003	-0.235**			
	Academic Responsibility	-0.011	0.003	-0.219**			
4	Sex	-0.335	0.065	-0.263**	0.370	0.137*	.016
	Burnout	-0.013	0.003	-0.241**			
	Academic Responsibility	-0.012	0.003	-0.246**			
	Year of study	-0.074	0.031	-0.127*			

* p< 0.05, **p < 0.001

The beta coefficients reveal that the relationships between academic responsibility and CGPA and between year of study and CGPA are both negative which imply that the students who claim that they are academically responsible and senior students tend to be less successful in their academic achievements.

The study attempted to examine the direct and indirect impacts of the variables on academic success. To do this, end path model was employed and the results are presented in Figure 2. As stated in Yalew (2004), path analysis helps to verify statements concerning the direction of causal flow between variables ("causal" refers to the degree of impact one variable, or a set of variables, has on another variable). Thus, it is a step beyond the predictive power of traditional correlational and regression analyses. It shows the causal links among the latent and/or observed variables. As shown in Figure 1, this path model has been constructed based on the existing theories, knowledge and assumptions.

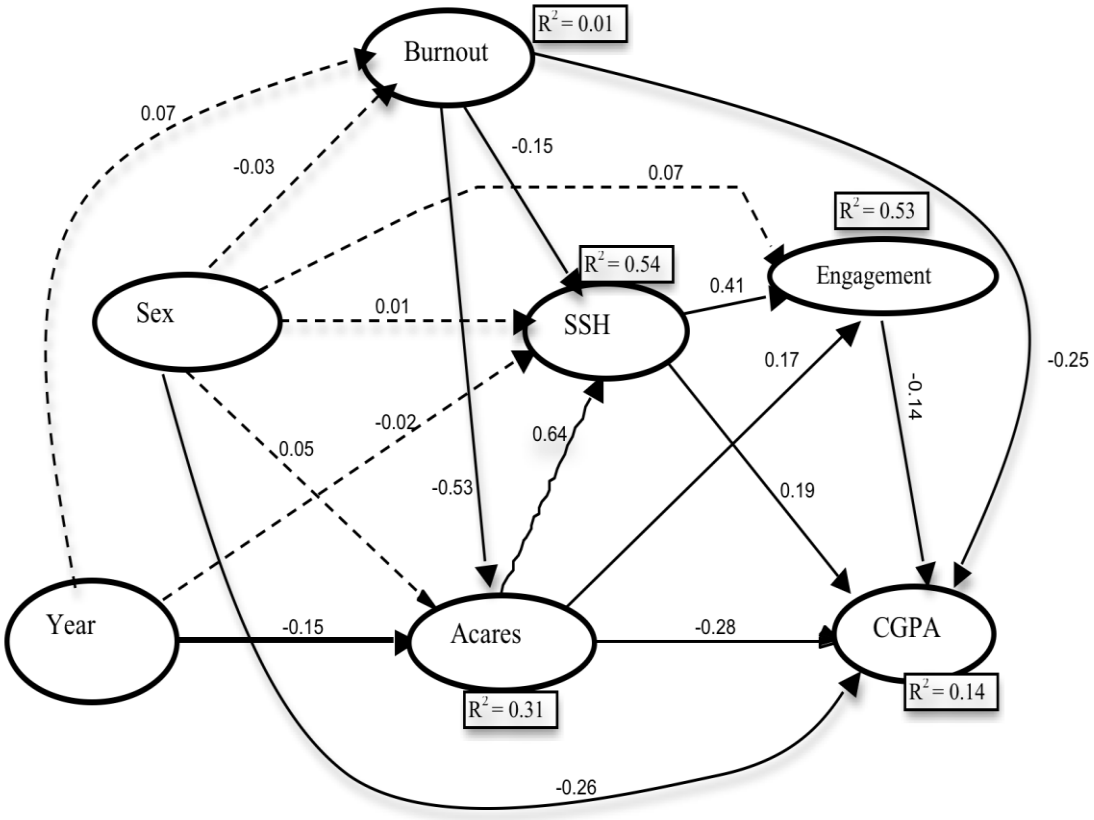

Figure 2: The proposed model
(The dotted lines represented effects that were not significant at p= 0.05)

Using AMOS 5, the specified model was tested to see its fitness to the data. The original model failed to fit the data, as reflected in the fit indices: χ^2 = 8.184, df = 3, p=0.042, CFI=0.992, NFI =0.988, RFI=0.918, and RMSEA=0.072, p>0.05.

A significant value of χ^2, which is relatively higher than 0.05 value of RMSEA (root mean square error approximation), and is not significant at p = 0.05,

and the lower results of NFI and RFI, show that the model does not fit the data satisfactorily.

Hence, in order to create a more parsimonious model, paths that were not significant were dropped and the model that was found to be appropriate was employed. As indicated in Figure 3 (the last model), the results indicate that there is a significant match between the data and the model (χ^2 = 14.929, df = 9, p=0.093, RMR =0.780; RMSEA = 0.045, p=0.54; GFI =0.987, AGFI =0.960, NFI = 0.979, RFI =0.950, IFI = 0.991, CFI =0.991).

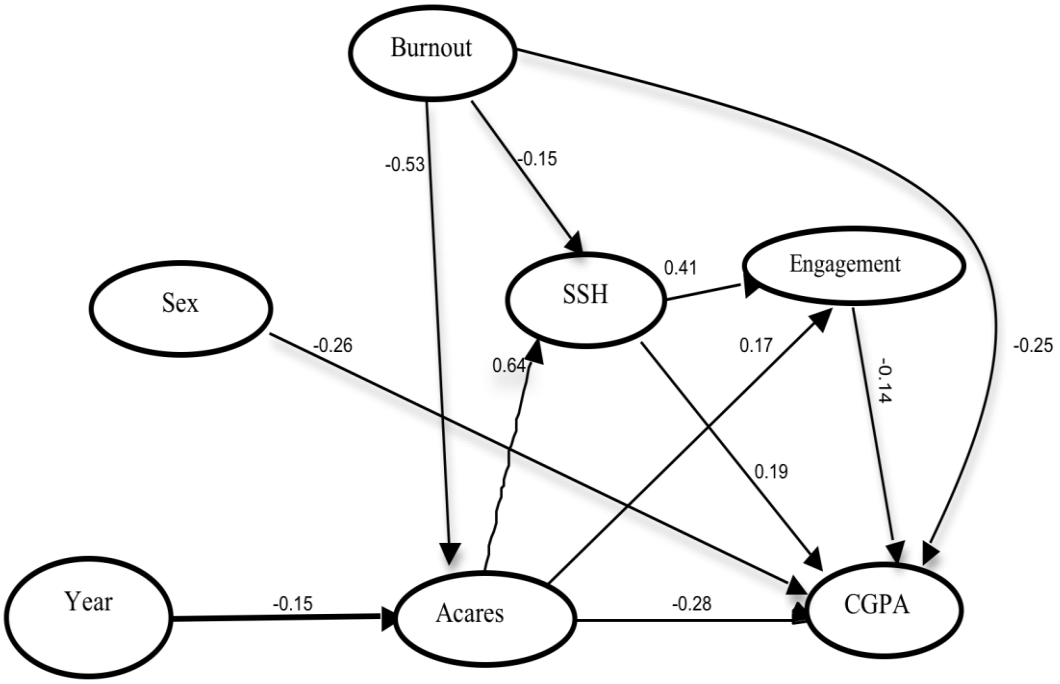

Figure 3: The path model that show the impacts of sex, year of study, burnout, study habits and skills (SSH), academic responsibility (Acares) and engagement on academic achievement (CGPA)

Although the impact of the variables on the criterion variables was significant, it was not as it had been expected. That is, the impacts of engagement and academic responsibility on academic achievement were negative, though the others were then as they had been expected. The results signify that students' who claim that they have better study habits and skills tend to be academically more successful than those students with poor study habits and skills . But students with academic responsibility and those who engage in their studies are found to be students with low academic achievement. Interestingly, the impact of the feeling of the academic responsibility on study habits and skills is found to be very strong (β = 0.64), which in turn was affected by burnout (β = -0.53). Although the impact of engagement on students' academic success is negative, students who believe that they have higher level of study habits and skills are found to be those who are more engage in their academic activities.

The other interesting finding of the study is that as study year increases, the level of academic responsibility decreases. Sex has moderate and negative impacts on academic success. The study reveals that male have higher CGPA's scores than the female, though the differences are not significant.

Table 5: Direct, indirect, and total effects of the variables on academic performance of students (standardized coefficients)

Variables	Direct effects (β)	Indirect effects	Total effects
Year of Study level	0.000	0.033	0.033
Burnout	-0.254*	0.134	-0.120
Academic Responsibility	-0.281*	0.062	-0.219
Study habits and skills	0.194*	-0.059	0.134
Engagement	-0.145*	0.000	-0.145
Sex	-0.261*	0.000	-0.261

*p=0.001

As indicated in Table 5, the indirect impact of study years on academic achievement (CGPA) is positive but negligible. The path analysis indicates that students who experience burnout problem tend to have poor level of engagement and poor study habits and skills.

The model also reveals that the combined contributions of the covariates to the variance in academic success of students is found to be only 14%, but when the impacts of burnout and academic responsibility on study habits and skills, is found to be of 54% of variance, of which 46.25% is attributed to academic responsibility. Moreover, 53% of the variance in academic engagement of students is related to burnout, academic responsibility, and study habits and skills, of which 26.96% is attributed to study habits and skills and 14.98 % to burnout.

Discussion

As indicated earlier, this study attempts to examine the impacts of study habits and skills, academic engagement, burnout and academic responsibility on the academic success of students. To determine the relationships, zero-order correlation tests, multiple linear regression and structural equation modeling using path model were determined. The correlation analysis results show that study habits and skills are correlated with engagement, burnout, and academic responsibility. It also shows that engagement is correlated negatively with burnout. This result goes with previous findings of Shaufeli *et al.*, (2002) and Green *et al.*, (1991). It was indicated that students who felt boredom in their university education tended to show lower academic success, have poor study habits andskills and lower level of academic engagement. Studies revealed that individuals who developed negative affectivity (or burnout) exhibited poor motivation, which is a major precursor of engagement and persistence, emotional exhaustion or feeling tired, as well as intellectual impairment that leads individuals to have weak information processing and memory (e.g., Klein, 1996).

The relationship between engagement and academic success is found to be negative, which was not expected. This result is in contrast to the findings of Suárez-Orozco, Pimentel, and Martin (2009), Kuh*et al.* (2008) and Shaufeli*et al.* (2002) who reported a significant positive relationship between academic achievement and cognitive engagement. This study shows a significant negative impact of engagement on academic achievement, though its magnitude is very weak ($\beta = -0.14$, $p<0.05$). The result of this study suggests that students who reported that they were engaged scored lower performances. This could be explained in two ways. First, those students who said they were engaged in academic activities and tasks might have spent too long hours on their study material without effective study but, as experiences habits. Those with lower grades might have felt that they had engaged in their studies more hours than those with higher grades. The study also shows that female students had lower score than their male counterparts though yet they engaged academically more than the males (see Table 1).

In other words, a number of students, due to either anxiety or anticipation of failure, may stick to their reading materials without having sufficient level of information processing, and without giving due attention, or paying concentration to the contents therein. Even some students could sit longer without going into the material at hand to use their action as excuses for their failure or low grades. Second, those academically able students may spend shorter time in their academic activities which could suffice for them to be successful. Examining the positive and significant direct impacts of study habits and skills on academic achievement of students could further corroborate this assumption. As stated earlier, students claimed that their study habits and skills were effective achieved high academic results.

The positive impact of study habits and skills on academic success of university students has been well documented in previous studies (Agnew *et al*., 1993; Jones, Slate, & Kyle, 1992; Jones *et al.*, 1994; Jones, Slate, Marini & DeWater, 1993; Lawler-Prince, Slate & Jones, 1993; Slate, Jones &Charlesworth, 1990). Research indicates that students, who manage their time, plan their work, take and make notes properly, can deeply process

materials, minimize disturbing experiences, and review learning materials are successful in their academic careers. For instance, Riaz*et al*. (2002) describes found a positive relationship between academic achievement and study habit among Pakistani undergraduate and postgraduate students.

This study has also shown that sex has a negative and significant impact on academic success of students, revealing that male students tend to score higher mean scores. This difference has been consistently reported by local researchers (e.g., Yalew, 2003). Given the limited number of female students in higher learning institutions in Ethiopia, the findings demonstrate that female students have problems of academic achievement. This could be an indication of educational difficulties that female students encounter in the country.

The study further reveals the impacts that burnout and academic responsibility have on the academic success of students. Both have statistically significant negative impacts on academic performance of students as measured by CGPA. The result pertaining to burnout is consistent with the existing line of research (Newman *et al.,* 1990). It may not be a surprise that students who have higher level of burnout underperform academically. Students with high scores can be high exhausted and will less likely be engaged in academic activities.

Also quite inconsistent to the findings of this study, previous studies (for example, Zimmerman & Kitsantas, 2002) found out that perceived academic responsibility predicted academic achievement. That is, academic responsibility in this study, however, negatively predicted academic success which might indicate that academically responsible students might have fear of failing due to their earlier lower grades.

It is shown that years of study have moderate impact on the combined impact of the independent variables on the dependent variable treated. With regard to first year and second year students, the combined impact of the

independent variables was found to statistically significant. In contrast, it had insignificant impact in the care of the third and the fourth year students.

With regard to the first year students' burnout, academic responsibility and sex have statistically significant and negative independent impact on academic success. On the other hand, the effect of the other independent variables on academic success is found to be statistically insignificant. Among the independent variables treated, in the care of second year student only sex have statistically significant and negative effect on academic success. In the case of third year sample students, only study habits and skills had statistically significant impact on academic success. However, in the case of the fourth year samples, none of the independent variables treated had statistically significant impact on academic success. This could be probably due to two reasons. In senior years, the majority of academically less able students might have discontinued their education because of low academic achievement and the group became more homogenous than students in the freshman program that leads to the second reason, which is variance restriction affects the magnitude of the regression coefficients.

To sum up, this study has indicated that the independent variables treated, except engagement, have significant effects on academic success of students. Students who claim that they employ good study habits and skills tend to be more successful academically. This would imply that higher education institutions need to develop the study habits and skills of their students and thereby enhance the academic success of the students. This can be done by (1) giving first timer students induction on study habits and skills and (2) giving training on the study habits and skills to the students so that they can cope with the demands of the various academic subjects.

Burnout has also predicted students' academic performance negatively. This suggests that university lecturers have to be sensitive to reduce emotional exhaustion impacts on the academic performance of the students.

It is shown that engagement and academic responsibility do not positively and significantly predict academic success. This entails that universities

should make sure that students are engaged academically in a way that leads them to success rather than spending time and energy in an ineffective manner. Similarly, students should feel academic responsibility to be successful. This suggests the need to pay attention to specific aspects of academic responsibility so that academic responsibility will pay off. It is also worth considering to mention that universities assessment processes should reward academic responsibility. Moreover, studies seeking to investigate factors attribute to the academic success should seek better ways of understanding the specific activities that lead students' academic engagement responsibility.

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