

## Assessment of Time Management Practices and Students' Academic Achievement: The Moderating Role of Gender

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Doi: 10.23918/ijsses.v8i4p171

**Abstract:** Quality time management is an imperative tool that leads to greater academic performance and reduces depression, anxiety and stress among students. However, most college students seemed to face difficulties in balancing their academic and social life. The rationale of this inquiry was to examine the influence of time management practices on students' academic achievement in the Colleges of Education (CoE) in Ghana and as well to explore the moderating role of gender in this relationship. The research employed descriptive survey design and a sample of 325 students from six CoE were selected to participate in the investigation using the multistage sampling approach. The data was collected using adapted Time Management Questionnaire (TMQ; Britton & Tesser, 1991). Data gathered were analysed using AMOS, Moderation Analysis and Independent sample t-test. The findings showed that time management practices (short-range planning, time attitudes, long-range planning) does not predict academic achievement of CoE students. The study again, revealed that gender does not moderate the relationship between time management and academic achievement of the students. The results showed that there was no significance gender difference in time management practices of CoE students. The study concluded that ineffective time management behaviours among college students could lead to poor academic achievement and other psychological effects. The Management of the CoEs in Ghana in collaboration with other policy makers should hold seminars and workshops for students at the start of each semester to discuss the value of good time management activities in order to improve their achievement. Faculty are sensitised to inculcate in the students the skills and positive attitude towards effective time management so as to increase their self-efficacy in time management. Students should be conscious of ineffective time drivers and assume responsibility for quality time management.

**Keywords:** Academic Achievement, Coe, Long-Range Planning, Short-Range Planning, Time Attitudes, Time Management

Received: November 17, 2021

Accepted: December 23, 2021

Agormedah, E.K., Britwum, F., Amoah, S.O., Acheampong, H.Y., Adjei, E., & Nyamekye, F. (2021). Assessment of Time Management Practices and Students' Academic Achievement: The Moderating Role of Gender. *International Journal of Social Sciences and Educational Studies*, 8(4), 171-188.

## 1. Introduction

“If the price of success is hard work and hard work is achieved through excellent time-management skills, then isn’t time one of the greatest resources a human can have?” [Vince Lombardi, 1967]

Quality in higher educational institution is driven by several factors including the academic achievement of the students. The quality in students’ academic achievement is being determined by several factors involving academic and non-academic related factors (Adams & Blair, 2019). It is worth noting that non-academic related factors that affect students’ chances of attaining success in higher education are equally important and deserve investigation. One such non-academic related factors is “time management”. Time is a significant aspect in day-to-day life since it influences a person's success or the achievement of various groups, such as students (e.g., Pehlivan, 2013; Nasrullah & Khan, 2015; Pugh & Nathwani, 2017). According to Britton, and Tesser (1991, p. 405), “students' time is a scarce resource”. Time is one of the most valuable commodities and assets in life and should be used positively because of its real wealth (e.g., Alghaswyneh & Basri, 2015).

Time management can be defined as clusters of behavioural skills that are important in the organisation of study and course load (Lay & Schouwenburg, 1993). According to Erdem (1999), time management is the process of putting management functions like planning, organizing, and directing one's own activities into action in order to achieve goals in one's personal and professional life in the most efficient and effective way possible. Claessens, van Eerde, Rutte, and Roe (2007) defined time management as "behaviours" aimed at making efficient use of time while completing certain goal-directed tasks. Time management has also been defined as a form of self-management with an explicit focus on time in deciding and understanding what activities to do, how much time should be committed to activities, in what time it should be done, how activities may be done more efficiently, and when is the ideal or correct time for particular activities (Mercanlioglu, 2010; Savino, 2016). Aduke (2015) defined time management as the ability to organize, plan, arrange, and account for one's time in order to increase production and efficiency.

According to scholars (e.g., Britton & Tesser, 1991; Aeon & Aguinis, 2017), there are three rudimentary faces of time management behaviours among students: time attitudes, short-range planning and long-range planning. Time attitude is the positive or negative perspective of students towards the present, future and past time which had been directly linked to academic achievement (Nieuwoudt, & Brickhill, 2017). Short-range planning is the ability of the students to plan for the day to a day activity in the short run or for tasks/activities within a day or week. Finally, the long-range planning is the ability of the students to handle everyday tasks/activities for longer period of time and keep up with the objectives set for significant dates. These time management behaviours or skills are argued to improve the positive academic output (Razali, Rusiman, Gan, & Arbin, 2018).

The goal of time management among student is to improve the quality of activities completed in a restricted amount of time. Good time management behaviours such as establishing objectives and priorities as well as monitoring the use of time can facilitate productivity, greater academic achievement and minimise depression, anxiety and stress in students (e.g., Lay & Schouwenburg, 1993; Claessens et al., 2004; Kearns & Gardiner, 2007; Aduke, 2015; Chaturvedi, 2016; Jenaabadi, Nastiezaie, & Jalalzaei, 2016;

Adams & Blair 2019), contributing to work effectiveness, maintaining balance and academic success (Misra & McKean, 2000), influencing personal and social life and future or employment life (Macan et al., 1990; Britton & Tesser, 1991; Kearns & Gardiner, 2007). Aduke (2015) argued that prioritizing tasks can make work and studying more pleasant which reduces inefficiencies, anxiety and stress. Chaturvedi (2016) asserted that time allocation; especially for university students is quite essential as it help to enhance their productivity and grades. Time management offers individuals the means to structure and control their activities (Claessens et al., 2004).

However, many students find it hard to regulate both their studies and their external lives (van der Meer, Jansen, & Torenbeek, 2010) leading to time mismanagement, poor sleep patterns, and increased levels of stress (Hardy, 2003). Poor time management behaviours, such as not allocating time properly or last-minute cramming for exams are sources of stress and poor academic performance (Britton & Tesser, 1991). Rabin, Fogel and Nutter-Upham (2011) found that 30% to 60% undergraduate university students regularly post pone their academic tasks. Similarly, Seo (2012) mentioned that undergraduate university students usually cram and “pulling and nighters” before an academic task. Based on these findings, it is very essential for the students to allocate and manage their time and meet the deadlines (Al-Khatib, 2014). Claessens et al. (2007) were of the view that it is necessary every student has the ability to manage time, which involves setting goals and expectations, and using mechanisms for time management. So, learning the art of time management is a necessity.

Globally, it is evident that institutional demands for high performance force students to manage their time effectively and mandate the search for time control (Alay & Koçak, 2003). Developing time management skills among college students' lives is critical to academic success (Nonis et al., 2006; Sauvé et al., 2016). It assists students when analysing tasks and scheduling their completion, giving students more vital planning skills and a greater understanding of responsibilities and their significance when constructing task schedules (van der Meer et al., 2010). Notably, substantial research evidence indicated that good time-management practices can extend beyond university study to significantly increase a person's quality of life (e.g., Wang et al., 2011).

In connection with the relationship of time management and academic achievement, there have been mixed findings recorded by literature. Considerable empirical evidence suggests that effective time management is associated with greater academic achievement (e.g., Britton & Tesser, 1991; Nadinloyi et al., 2013; Kharadze, Gulua, & Davit, 2017; Scherer, Talley, & Fife, 2017). Extant researchers have found that time management (e.g., time consumers, time planning, time attitude and allocation, seminars, lecture attendance, self-study/daily study hours, short- and long-range planning) is a significant predictor of academic achievement, GPA and also related to academic and personal success (e.g., Tanriogen & Iscan, 2009; Cemaloglu & Filiz, 2010; Mercanlioglu, 2010; Grave, 2011; Ali et al., 2013; Bratti & Staffolani, 2013; Pehlivan, 2013; Ogundipe & Falade, 2014; Nasrullah & Khan, 2015; Ghiasvand et al., 2017). For example, Britton and Tesser (1991) reported that good time management guarantees higher academic achievement of college students. Time management skills accounted for 36% of the variance with their grade point average. Khanam et al. (2017) concluded that students with effective time management achieve high grades and those who do not manage their time effectively achieve low grades. Razali et al.

(2018) found that students' academic performance was influenced by their self-reported time management (time planning, time attitudes, and time waste).

Despite these positive results, a substantial body of literature has also shown a negative influence or no influence of time management on students' academic achievement and academic stress. Thus, these studies have found that ineffective time management behaviours result in poor academic achievement (e.g., Balduf, 2009; Swart et al., 2010; Alghaswyneh & Basri, 2015). Nzewi, Chiekezie, and Ikon (2012) in Nigeria revealed that time management is not a factor that affects the CGPA among postgraduate students. Gayef, Tapan, and Sur (2017) using 341 students, found that there was no significant relationship between students' time management subscale mean scores and academic success. A plethora of investigations also exist on gender difference in time management behaviours among students. For example, female students in terms of time management are generally more accomplished than male students and possess higher average scores (e.g., Saketi & Taheri, 2010; Pehlivan 2013; Kaushar, 2013). Pehlivan (2013) and Al-Khatib (2014) showed that female students reported higher time management skills than male students. They are good time managers, and they have high grades than male students. Khan, Ashraf, and Nadeem (2020) showed that there was significant gender difference in time management. Female students' academic achievement was higher than that of male students. Conversely, extant researchers have discovered there was no substantial difference in time management behaviours between male and female (e.g., Iscan, 2008; Saketi & Taheri, 2010; Razali et al., 2018).

### **1.1 Context of the Study**

In Ghana, Teacher Training Institutions (TTIs) that offered certificate programs to prepare teachers for basic schools in Ghana, were elevated to tertiary status and re-designated as Colleges of Education (COEs) to offer tertiary programmes. Since the elevation and re-designation of TTIs as CoEs, there has been a lot of demand on tutors to provide quality education to the teacher-trainees. This demand on teachers has been transferred to student-teachers directly or indirectly via their academic activities. Students have multiple tasks and multiple instructors to satisfy, and grades are determined by the quality of work submitted to these different instructors. The teacher-trainees are expected to undergo series of classroom and practical activities to accomplish per semester courses. The curriculums are designed in a way that gets to peak and troughs in the workload of student requiring them to manage their academic time and work-life balance. Coupling classroom, field, social engagements as well as assessments on courses actually demand effective time management practices on the part of these students. Students often complaint they do not have enough time to complete all the tasks assigned to them. In trying to read all the books and chapters assigned, meet paper deadlines, and participate in extracurricular activities, university students may become overwhelmed with feelings that there is not enough time to complete all their work adequately. It seems to suggest that college students in Ghana appear entangled in how best to manage time resource effectively and efficiently in both their academic pursuits and workloads in order to ensure performances in various fields of endeavour. Given their academic pressures, family and financial obligations, the need for proper planning and time management to avoid distress becomes imperative. Alghaswyneh and Basri (2015, p. 4) stated "time is regarded as an opportunity, if used wisely; it enables us of achieving our goals."

Globally, a lot of studies have been conducted in both developed and developing economies about the influence of time management behaviours on students' academic achievement. However, these studies

have produced contradictory findings. While some studies revealed significant relationships between students' time management and the academic performances (e.g., Britton & Tesser, 1991; Tanriogen & Iscan, 2009; Cemaloglu & Filiz, 2010; Mercanlioglu, 2010; Grave, 2011; Ali et al., 2013; Bratti & Staffolani, 2013; Nadinloyi et al., 2013; Pehlivan, 2013; Ogundipe & Falade, 2014; Nasrullah & Khan, 2015; Ghiasvand et al., 2017; Kharadze et al., 2017; Khanam et al., 2017; Scherer et al., 2017; Razali et al., 2018), other studies also recorded little or no significant relationship between the two variables (e.g., Balduf, 2009; Swart et al., 2010; Nzewi et al., 2012; Alghaswyneh & Basri, 2015; Gayef et al., 2017).

In furtherance, effect of gender on time management among students has been investigated with conflicting outcomes. Some studies found a significant difference between male and female students (e.g., Saketi & Taheri, 2010; Pehlivan 2013; Kaushar, 2013; Al-Khatib, 2014; Khan et al., 2020), while others found no such difference (e.g., Iscan, 2008; Saketi & Taheri, 2010; Razali et al., 2018). Aside the gender differences, most of the studies on time management and educational achievement among students were implemented in different fields and levels of education. For example, Accounting and Finance students (e.g., Bratti & Staffolani, 2013), Business and Management studies students (e.g., Sayari, Jalagat, & Dalluay, 2017; Gupta & Chitkara, 2018), Nursing students (e.g., Nayak, 2019), Engineering students (e.g., Adams & Blair, 2019) and Diagnostic Radiology students (Alyami, Abdulwahed, Azhar, Binsaddik, & Bafaraj, 2021).

Based on the prevailing literature, number of issues arise: (1) majority of the previous studies were conducted in Western and some Africa societies, accordingly, their findings are likely to be less applicable in the Ghanaian context because time management skills and behaviours and academic achievement among students are likely to differ between Ghana and these countries due to diverse cultures, values, and beliefs, (2) most of the studies have been conducted in different fields and levels of education including medical, engineering, general college students, business students, school students and university students, (3) there is uncertainty as to whether gender moderate the relationship between time management practices and academic achievement among students, and (4) pertaining to the Ghanaian context, little is known about time management skills and behaviours and academic achievement among students in the CoEs (e.g., Tsitsia, Afenu, Kabbah, Attigah, & Bimpeh, 2021). To fill this gap in the existing literature, the present examination proposed the following research hypothesis:

H<sub>0</sub> 1: Time management practices will not predict students' academic achievement

H<sub>0</sub> 2: Gender will not moderate the relationship between time management and students' academic achievement

H<sub>0</sub> 3: There is no statistical significance difference between male and female students with regards to time management.

## **2. Theoretical Framework**

This present inquiry is rooted within pickle jar theory and existentialism philosophy. Notwithstanding, these theoretical models are different in their ways about how students should manage their time, they had comparative fundamental components and commended one another. The standard parts of these models assisted us to appreciate how time is of essence and precious assessing that needs quality management.

Pickle jar theory is a modern and relevant theory of time management spearhead by Jeremy Wright (Olubor & Osunde, 2007). The Pickle Jar theory is basically based on the idea that time, like a pickle jar, is limited. Our life is the jar and what is in it, the volume or space is limited. Every day, we fill out time with important, less important, and unimportant things. The Pickle Jar Theory serves as a visual metaphor designed to help set priorities over the course of a day or determine what is useful and what is not useful. This theory is predicated on the fact that individual student in the CoEs have many large priorities in lives such as personal studies, group studies, assignments, presentations, academic workload, leisure, relationships, family responsibilities, sleep and rest. Accordingly, they should construct a balance among activities, responsibilities and things using effective time management system. They should allocate time for everything activities and responsibilities because their academic accomplishment is determined through effective utilization of time at each phase. This could influence their academic achievement.

The existentialism philosophy also serves as a theoretical underpinning for this present examination. Existentialism philosophy is a learner centered philosophy which offers direction to students about their study. “Existentialism places the highest degree of importance on student perceptions, decisions, and actions” and individuals are responsible for determining for themselves what is true or false, right or wrong, beautiful or ugly” (Sadker & Zittleman, 2015). The students are self-responsible of their academics as they just seek guidance from their teachers, but take decisions as well as manage all activities themselves. The French existentialist, Jean Paul Sartre, once said, “Man is condemned to be free; because once he is thrown into this world, he is responsible for everything he does.” This is unquestionably factual among college students; they are given the advice that they are self-responsible for their life on campus, hence, they must make good decisions about the time. They must learn how to balance their academic and social life. According to the existentialism philosophy, students make choices and then take the time to evaluate those choices. Students think for themselves and are aware of responsibilities assigned to them (Sadker & Zittleman, 2015). Students need to feel that their time at university is a means to achieving their overall goals of life (MacMillan, 2009). “The teacher’s role is to help students define their own essence by exposing them to various paths they may take in life and by creating an environment in which they can freely choose their way” (Sadker & Zittleman, 2015). Therefore, they strike a balance between their academic activities, responsibilities and asocial life, the moment this life choice has been given to them in order to ensure success in their academic life.

## **2.1 Conceptual Framework**

Based on the foregoing, a conceptual framework was developed to highlight the general idea of the research (see Figure 1).

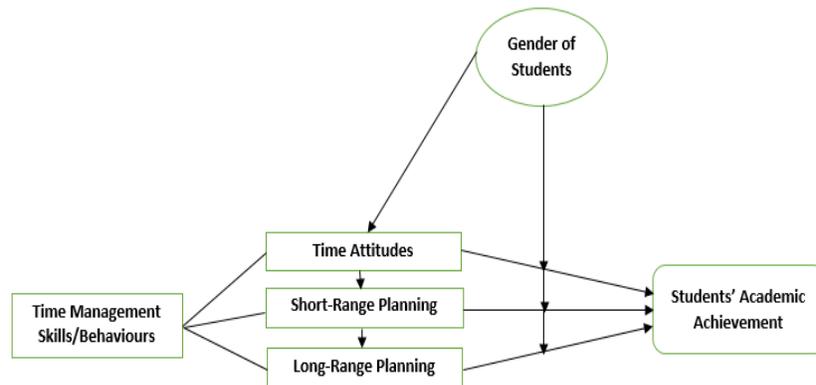


Figure 1: Conceptual framework showing the moderating role of gender in the link between time management behaviours and students' academic achievement. Source: Authors' construct, 2021

Time management was used as a predictor variable and academic achievement and gender were used as a criterion and moderating variable respectively. The inquiry proposes a link between time management and students' academic achievement in the CoE in Ghana. It is hypothesised that gender will moderate the relationship between time management and academic achievement. Thus, the direction and strength of the relationship of time management and academic achievement will be determined by male and female students. The study also hypothesised that there will be gender difference in time management of the students.

### 3. Research Methods

#### 3.1 Research Design

Descriptive, cross-sectional survey design rooted within the quantitative research approach of the positivist research philosophy was employed in this present investigation. The design, according to Amedahe (2002), enables for the collection of data that may be used to test hypotheses or answer questions regarding the current state of the phenomenon being studied. Information on the variables being investigated was gathered at a specific point in time with the purpose of describing relationships between variables (Tate, 1998). Generalizing from a sample to a population, according to Cohen, Manion, and Morrison (2011), aids in conclusions regarding the original group's characteristics, attitudes, and actions. Hence this design was deemed appropriate for this study.

#### 3.2 Population and Sample Selection

The population for the study was all Level 300 students in the CoEs in Ghana. In Ghana, there are forty-six (46) CoE (Institute of Education, 2021). These CoEs are grouped under five zones namely: Northern Zone (N = 10 CoEs), Ashanti/Brong Ahafo Zone (N = 6 CoE), the Volta Zone (N = 7 CoEs), Eastern/Greater Accra Zone (N = 9 CoEs) and Central/Western Zone (N = 7 CoEs). The total populace was about 23,660 students. Multi-stage sampling techniques was applied in the selection procedure. The overall number of CoE to be picked from each of the zones was determined using a proportionate sampling

technique and simple random sampling was used to select six (6) colleges from the 46 within the five zones. The total number of Level 300 students from the six selected colleges was 2,160 (Institute of Education, 2021). The sample size ( $n = 325$ ) was determined using Gill et al. (2010) sampling table. The proportional stratified random sampling was used to select 325 Level 300 students from the six selected colleges. The table of random numbers was generated and used to select the students.

### **3.3 Data Collection Instrument and Procedures**

The data was collected using adapted questionnaire “Time Management Behaviour Scale (TMBS)” (Britton & Tesser, 1991). Britton and Tesser (1991) initially developed a 35-item questionnaire of time management. After conducting factor analysis, the items were reduced to 18-items which consisted of 3 subscales: The Short-Range Planning has 7 items; Time Attitudes also have 6-items and Long-Range Planning also have 5-item. Each scale item has five response categories: Always-1, Frequently-2, Sometimes-3, Infrequently-4 and Never-5. These were scored from 1 to 5 with a high score indicating a positive attempt at managing time. The response, 'Always' was scored as 1 for items 8, 10, 13 and 15 and as 5 for the remainder of the items. The range of possible scores was 18-90 on the 18-item, thus TMBS; 7-35 on the Short-Range Planning sub-scale; 6 - 30 on the Time Attitudes sub-scale; and 5-25 on the Long-Range Planning sub-scale. Higher values on the scale correspond to better time management practices.

The data was collected on school grounds after permissions were sought from appropriate authorities. Before this, an introductory letter from the Department Education and Psychology, University of Cape Coast was obtained to seek permission from the selected colleges. The researchers visited the colleges and had an interaction with the principals, tutors and students prior to the data collection. This approach was to create a good rapport with the college authorities and respondents to ensure that the participants provided accurate information as possible. During the data collection process, the researchers ensured the protection of vulnerable respondents (Creswell 2012). Respondents were guaranteed their anonymity because their identities were not linked to their responses. Informal and verbal consent was taken from college principals, tutors and students (Creswell 2014). The questionnaire was administered to the students in a reserved classroom in each college where all the selected respondents were assembled. The respondents were assured of confidentiality and were, thus, encouraged to provide honest responses as possible. Students' achievement test scores were taken from Institute of Education, University of Cape Coast and match directly with the questionnaire. This composed of scores in general subjects like Mathematics, English, Social Studies and Science.

### **3.4 Data Processing and Analysis Procedures**

The data collected was assessed for their completeness after the data gathering. The questionnaires were then numbered chronologically by giving each a serial number and then keyed into Statistical Product and Service Solution (SPSS version 25) computer software for processing. The data entered was screened for errors and corrections were made where necessary. Confirmatory factor analysis (i.e., factor loadings, average variance extracted) and reliability analysis (i.e., Cronbach Alpha) were also conducted to ensure that the instrument reflected the context of the research. The Cronbach Alpha reliability estimates for the total scale was .890 ( $n = 18$ ) and subscales were: short-range planning, .773 ( $n = 7$ ); time attitude, .730 ( $n = 6$ ); and long-range planning, .716 ( $n = 5$ ). The data collected on the first hypothesis was tested using

SEM approach via Analysis of Moment Structure (AMOS version 26) (Alavifar et al., 2012). The second hypothesis was tested via moderation analysis using Hayes's PROCESS Macro (Hayes, 2013) and the last hypothesis was tested using independent sample t-test at 5% alpha level. The bootstrapping approach, precisely 5,000 bootstrap samples with bias-corrected, was used as the parameters estimates procedure (Hayes, 2018), using a confidence interval of 95%. To interpret whether the result was significant or not using the confidence interval, the lower and upper limit values should not include zero (Hayes, 2018). Prior to testing the hypotheses, four assumptions were tested. They included multivariate normality, multivariate outliers, autocorrelation, and singularity.

#### 4. Results and Discussion

##### 4.1 Results

Hypothesis One: Time management practices will not predict students' academic achievement

The goal of the hypothesis was to examine whether time management practices among students would predict their students' academic achievement in the CoE. Covariance-based SEM was performed to test data on this hypothesis. Figure 2 presents the model.

As shown in Figure 2, short-range planning (with a mean of 28.27 and variance of 22.80) does not predict academic achievement by  $-.05$ . This was followed by time attitudes (with a mean of 23.62 and variance of 16.74) which did not predict academic achievement by  $-.17$  and long-range planning (with a mean of 20.33 and variance of 12.42) does not predict academic achievement by  $-.26$ .



Figure 2: Modelling students' time management behaviours on academic achievement

All with an error variance of .497.54 and intercept of 283.49 for academic achievement. The covariance between short-range planning and long-range planning was 11.00, short-range and time attitudes was 13.57 and time attitudes and long-range planning was 10.00. Table 1 presents the significance of the path model.

Table 1: Prediction of time management behaviours and students' academic achievement

Model	B	SE	CR	95% Confidence Interval	
				Lower	Upper
(Constant)	283.490	7.448		268.837	298.143
Short-rang planning	-.050	.342	-.148	-.724	.623
Time Attitudes	-.167	.451	-.372	-1.053	.720
Long-range planning	-.256	.497	-.517	-1.234	.722

Source: Field data, 2021 \*Significant,  $p < .05$ ;  $R^2 = .07$

From Table 1, it was obvious that students' time management behaviours (i.e., short-range planning, time attitudes, and long-range planning) overall explained 7% of the variations in academic achievement of the students ( $R^2 = .07$ ). The results showed that short range planning [ $b = -.050$ , Boot95%CI (-.724, .623)] followed by time attitudes [ $b = -.167$ , Boot95%CI (-1.053, .720)] and short-range planning [ $b = -.256$ , Boot95%CI (-1.234, .722)] were not significant predictor of academic achievement of the students. The study further proceeded to look at the total construct of time management in predicting students' academic achievement. Figure 3 present the model.

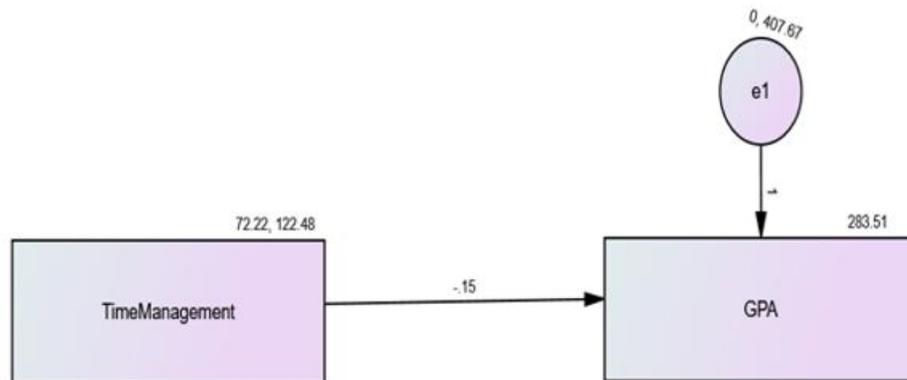


Figure 3: Time management construct as a predictor on students' academic achievement

From Figure 3, Time management construct did not predict students' academic achievement in the CoE by  $-.15$ , with a mean and error variances of (72.22, 122.48) and an error variance of .407.67 and intercept of 283.51 for students' academic achievement. Table 2 presents results of test of significance prediction.

Table 2: Prediction time management behaviours and students' academic achievement

Model	B	SE	CR	95% Confidence Interval	
				Lower	Upper
(Constant)	283.509	7.417		268.917	298.102
Time-Management	-.147	.102	-1.446	-.346	.053

Source: Field data, 2021 \*Significant,  $p < .05$ ;  $R^2 = .06$

Path analysis was conducted to examine the total Time management construct and academic achievement of CoE students. The results, as indicated in Table 2, revealed no significant influence of time management construct on academic achievement of CoE,  $b = -.15$ , Boot95%CI (-.346, .053). Time management explained 6% of the variations in academic achievement of the student students ( $R^2 = .06$ ).

Hypothesis Two: Gender will not moderate the relationship between time management and students' academic achievement.

This hypothesis examined whether gender moderate the link between time management and academic achievement of the students. The data was analysed using Hayes PROCESS Macro. The results are presented in Table 3.

In Table 3, there was no statistically significant influence of time management and gender on the academic achievement of students in the CoE,  $F(3, 321) = 10.6537$ ,  $R^2 = .0906$ . These predictors explained 9% of the variance in the academic achievement of the students. It was found that gender of the respondents does not moderate the relationship between time management and students' academic achievement ( $b = .0556$ ;  $SE = .2009$ ;  $t = .2768$ ;  $p = .7821$ , Boot95%CI (-.3397, .4509). It was concluded that gender was not significant factor that affect the strength and direction of the association between time management and academic achievement of the students.

Table 3: Moderating role of gender in the relationship between time management practices and students' academic achievement

Variable	<i>B</i>	<i>SE</i>	t-value	p-value	BootLL	BootUL
(Constant)	269.5279	21.5724	12.4941	.0000	227.0867	311.9692
Time Management	-.1855	.2945	-.6296	.5294	-.7649	.3940
Gender	8.0436	14.6085	.5506	.5823	-20.6969	36.7842
Time Manage*Gender	.0556	.2009	.2768	.7821	-.3397	.4509
$R = .3009$	$R^2 = .0906$			$F = 10.6537$	$df(3, 321)$	

Source: Field data, 2021 \*Significant,  $p < .05$

Hypothesis Three: There is no statistical significance difference between male and female students with regards to time management.

The aim of the hypothesis was to examine gender difference with regards to student's time management in the CoE. The results are presented in Table 4.

Table 4: Difference in students' time management behaviours based on gender

Variable	Gender	N	<i>M</i>	<i>SD</i>	t-value	df	p-value	$\eta^2$
Short-Range Planning	Male	197	28.60	4.71	1.577	323	.116	.0007
	Female	128	27.75	4.87				
Time Attitudes	Male	197	23.77	4.16	.774	323	.440	.0001
	Female	128	23.41	4.02				
Long-Range Planning	Male	197	20.49	3.55	1.014	323	.311	.0003
	Female	128	20.09	3.51				
Time Management	Male	197	72.86	11.17	1.289	323	.198	.005
	Female	128	71.24	10.30				

Source: Field survey, 2021 \*Significant,  $p < .05$

As shown in Table 4, the difference in time management of the students based on gender was examined using independent sample t-test. The results of Levene's Test for Equality of Variances revealed that there were equal variances assumed in the scores for short-range planning ( $F = .811$ ;  $p = .37$ ), time attitudes ( $F = .006$ ;  $p = .94$ ) and long-range planning ( $F = .585$ ;  $p = .44$ ). This evidence suggests that the assumption of homogeneity of variance has been met. The results of the independent sample t-test revealed that there was no statistically significant difference in the mean score of time management for male students ( $M = 72.86$ ;  $SD = 11.17$ ) and female students [ $M = 71.24$ ;  $SD = 10.30$ ;  $t(323) = 1.289$ ,  $p = .198$ ]. The magnitude of the differences in the mean scores was very small ( $\eta^2 = .005$ ) according to the guidelines proposed by Cohen (1988). This was evident within the sub-scales of time management behaviours scale.

#### 4.2 Discussion

The findings from our research established that time management behaviours (i.e., short-range planning, time attitudes, and long-range planning) of college students does not statistically influence students' academic accomplishment. In fact, our study discovered a negative effect of time management behaviours on students' academic achievement. The implication of this result is that, a unit increase in students' poor or ineffective time management practices would negatively reduce their academic achievement. Accordingly, college students with poor time management behaviours will have low grades. Our findings lend support to the outcomes of the previous literature that time management behaviours have negative influence on academic achievement (e.g., Balduf, 2009; Swart et al., 2010; Alghaswyneh & Basri, 2015). Nzewi et al. (2012) in Nigeria established that time management is not a significant factor that affects the academic performance of students. Likewise, Gayef et al. (2017) uncovered that there was no significant relationship between students' time management and academic success.

When students develop negative perspectives (such as procrastination, lack of control over time) towards their present, future and past time, cannot handle daily school tasks/activities within shorter possible time and keep up with their academic objectives for a significant date, it would negatively affect their academic tasks. It is worth noting that, "time" is one of the scarce resources among students, and if use improperly, it could lead to low academic engagement, student-cohesiveness, class attendance etc. It could also lead to high academic pressure, depression, stress, and anxiety among students. Several researchers have found

that poor time management behaviours are sources of students' psychological effect such as depression, anxiety and stress as well as poor academic performance (e.g., Britton & Tesser, 1991; van der Meer et al., 2010; Rabin et al., 2011; Seo, 2012). The rationale for time management among student is to improve their quality of activities completed in a restricted amount of time. Quality time management behaviours can facilitate students' productivity, academic achievement and minimise depression, anxiety and stress in students (e.g., Lay & Schouwenburg, 1993; Claessens et al., 2004; Kearns & Gardiner, 2007; Aduke, 2015; Chaturvedi, 2016; Jenaabadi, Nastiezaie, & Jalalzai, 2016; Adams & Blair 2019). From these results, we asserted that effective time management among students cannot be deemphasised. So, learning the art of time management is a necessity for quality life and academic success.

In our study, we discovered that short-range planning seems to be a relatively good predictor of students' academic achievement than long-range planning (see Table 1). Why is this the case? This could be accredited to several possibilities. In some environments, for some goals, long-term trends may be more important than short-term fluctuations while a short-term window may be optimal in other environments for other goals. For example, the college environment is one in which changes in expectations, demands, and so forth, are relatively rapid and frequent. Different parts of the same course may unpredictably differ in difficulty; the overlapping of demand from different courses is often unpredictable; non-academic life events may cause unpredictable changes in demands, available time, or priorities; teachers may even change their mind about presentations date or exam time among others. Conceivably, in this type of environment, if the academic goal is to maximise grades, a short-term planning window is more optimal than a long-term planning window. If this interpretation is correct, then the long-range planning factor might become more important in a less volatile, more stable environment.

This current inquiry also found that gender of students does not moderate the association between students' time management practices and academic achievement. Thus, the direction and strength of the relationship between time management and academic achievement among students is not sensitive to the gender of students. This implies that the link between time management behaviours and students' academic achievement does not differ between male and female students. This is a novel finding because previous studies did not focus on the moderating role of gender in the relationship between time management and academic achievement among students (e.g., Iscan, 2008; Saketi & Taheri, 2010; Pehlivan 2013; Kaushar, 2013; Al-Khatib, 2014; Razali et al., 2018; Khan et al., 2020). Khan et al. (2020) established that there was significant gender difference in time management and academic performance of students. Female students' academic achievement was higher than that of male students.

In furtherance, the study found that college students' time management behaviours and skills were not sensitive to their gender. Thus, gender of students does not affect their time management practices. The implication of this result is that both male and female college students have equal time management behaviours. Conversely, male students appear to have better time management behaviours and skills than the female students. This could also reflect in their academic performance. In general, the insensitivity of college students' time management behaviours and skills to their gender was found by prior researchers (e.g., Tuluk & Ve-Gençdoan, 2005; Iscan, 2008; Saketi & Taheri, 2010; Razali et al., 2018). The results disagreed with the findings of previous studies that a significant difference exists in the time management behaviours and skills between male and female students (e.g., Saketi & Taheri, 2010; Pehlivan 2013;

Kaushar, 2013; Al-Khatib, 2014; Khan et al., 2020). Quality time management behaviours or skills cannot be developed in emptiness, it must be on training and practices. This suggests that if gender influences college students' time management behaviours or moderate the relationship between time management behaviours and academic achievement, then a particular sex (either male or female student) might have been highly exposed to some form of time management training. If this debate is blemished, then enough empirical evidence must be provided by succeeding studies on the form of time management training these college students may have acquired.

Based on our findings, we resolved that our proposed model does not fit the data collected. The model was saturated, and showed discrepancy between the hypothesised model and the predicted model. Based on this finding, the researchers present the final model in Figure 4.

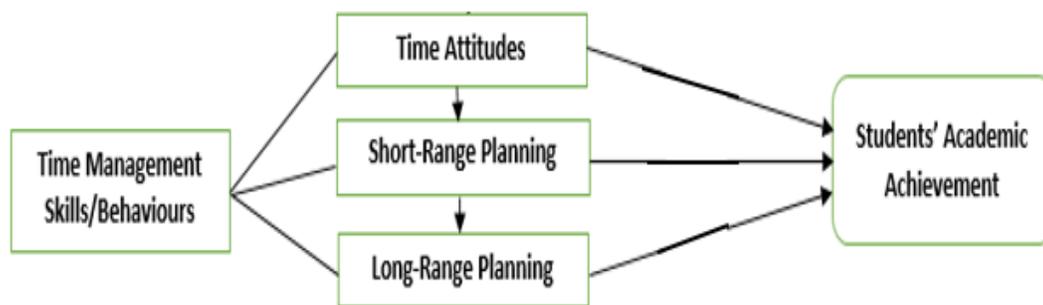


Figure 4: Final observed conceptual model

## 5. Conclusions and Recommendations

### 5.1 Conclusions

Students' time management practices provide a negative contribution to their academic performance. The negative effect of students' time management on their academic achievement suggests that, they have ineffective time management behaviours and skills such as missing class hours, not pay much attention to their academic activities and responsibilities and squandering time on social media. These issues could keep students from managing their time effectively resulting in low student achievement. Time management and academic achievement are similar for both male and female students. Thus, both male and female students have a negative perspective towards their time management. This implies that students having ineffective time management behaviour tend to have poor academic achievement.

The "Time Attitudes" among students which is related to Bandura's Self-efficacy is not encouraging. These low feelings of efficacy might not allow, and indeed support, more efficient cognitive processing, more positive affective responses, and more persevering behaviour. These have led to a negative contribution of students' time management to their academic achievement. Students who are unable to effectively manage their time and spend a significant amount of time on activities other than schoolwork, consequently will reduce their concentration and understanding of their learning materials, resulting in a

reduction in academic achievement. Again, male and female students who lack self-discipline and do not manage their time effectively will find it difficult to participate in activities while also completing all academic obligations on time. All these negative behaviours might cause psychological effects involving academic pressure, depression, stress, and anxiety among students. It could also lead to academic dissatisfaction among them which in the long-run would cause retention, school drop-out, academic probation and losing scholarships. These ineffective time management behaviours among the students directly reflect the pickle jar theory and existentialism philosophy. Thus, the college students' time like the pickle jar is limited, hence they must take strategic decisions about their time drivers or effective time allocation. They have the choice to make effective decision about the balance between their academic activities and social life activities.

## 5.2 Recommendations

Based on these findings and conclusions, we recommended that the Management of the CoEs in Ghana in collaboration with other policy makers should include "time management behaviours and skills" in their orientation programmes for fresh students. This would enhance the time management skills of students particularly the first-year students when they newly enter in a higher education setting. They should hold seminars and workshops for students at the start of each semester to discuss the value of good time management activities and how students may efficiently manage and use their time in order to improve their achievement. Faculty are sensitised to inculcate in the students the skills and positive attitude towards effective time management so as to increase their self-efficacy in time management. Time management training should also be incorporated into the course outline, academic advising and mentoring programmes for students. College students are informed to develop their skills in time management by increasing their awareness of attitudes, planning, thinking and behaviors regarding time management. They should be aware of time wastage and should take responsibility for managing the time more efficiently. They are also alerted to practices self-regulation and control in order to ensure effective time management so as to have positive impact on their academic life.

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