Type of Article: **Original Research Article**

Exploring tThe Interrelation Between Time Management Aand Academic Achievement Among University Students

ABSTRACT

Time management plays a very important role in personal and professional life. Several studies have demonstrated that judicious use of time positively affects academic performance. This study was carried out to assess the relationship between time management and academic achievement of the students of Sylhet Agricultural University. Moreover, the study aimed to know if there was any gender difference in time management. Based on the literature review on time management, survey research has been identified as the most prominent design to study time management. The time management questionnaire developed by Britton and Tesser was used as a study tool for its reliability and validity. A total of 187 students were selected from Sylhet Agricultural University as respondents for the study. Data were analyzed using descriptive statistics, t-test, and ANOVA. The results of this study do not suggest a significant relationship between time management and academic achievement. However, females manage time better than males in short-range and long-range planning.

Keywords: Time Management, Academic achievement, University Students

1. INTRODUCTION

Time is the most valuable resource in our life. Everyone has equal access to this resource. But different people manage their time in different ways. Time management is the process of planning and controlling time. Good time management improves efficiency and productivity, reduces stress, and ensures success. Judicious use of time hones the productivity of students and improves their academic performance. So, students should be capable of fixing objectives and formulating strategies to manage and use time in a disciplined manner.

Success or failure in life depends on managing time effectively and putting importance on planning [1]. ~~(Macan, Shahani, Dipboye & Phillips, 2000).~~ Previous studies have shown that an individual can use time judiciously by creating a daily schedule and setting effective goals [2]. ~~(Sabelis, 2001).~~ Prioritizing tasks, fixing targets along with making plans and timetables are involved in time management. Prioritizing enables a person to identify the activity that will be accorded topmost priority. The activities and strategies to achieve the targets are reflected in their plans. This includes making the to-do lists, weekly, monthly, or, longer plans as well as making schedules when the planned activities would be carried out. The effective use and management of time require procedures and high standard planning behaviors. There are three areas of time management behaviors: short-range planning, long-range planning, and time attitudes [3].~~(Aeon & Aguinis, 2017).~~ Short-range planning enables an individual to fix and organize the tasks to be performed within a short period. To manage tasks over a long period, an individual prioritizes the activities and creates a timeline for each task. Time attitude is the perception of an individual towards the present, past, and future [4]. ~~(Andretta, Worrell, Mello, Dixson, & Baik, 2013).~~

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Sansgiry *et al.* [5] (2006) defined time management for students as a set of behavioral skills that is crucial to performing academic activities in a disciplined manner. Time management is an ever-changing process that must be kept under control by each individual. Time management skills positively affect students' performance. Successful time management is the foundation of effective study habits and strategies for success [6, 7, 8]. (Kearns & Gardiner, 2007; Kelly, 2002; McKenzie & Gow, 2004) Students are often overwhelmed with academic stress as a result of disorganization. Understanding time management and leisure planning principles can affect physical and mental health [9].(Trenberth, 2005). Deft use of time mitigates stress and anxiety as well as ensures better academic performance [6, 10].(Misra & McKean, 2000; Kearns & Gardiner, 2007) Many students face difficulties in maintaining a balance between studies and other activities [11] (Van der Meer, Jansen, & Torenbeek, 2010) that result in mismanagement of time, circadian rhythm sleep disorder, and high stress [12]. (Woodman & Hardy, 2003). Making a conscious choice on how to spend time may lead to more happiness and psychological equilibrium.

Numerous researches have been conducted on the gender difference in time management behaviors among students. A significant gender difference was observed in time management [13]. (Khan, Ashraf, and Nadeem, 2020) Female students have been found to be more proficient in time management than their male counterparts [14, 15, 16, 17, 18]. (Saketi & Taheri, 2010; Pehlivan, 2013; Kaushar, 2013; Al-Khatib, 2014; Subramanian, 2016). On the contrary, some studies observed no significant difference in time management behavior between males and females [19].(Razali et al., 2018). From the literature review, mixed findings have been found regarding the relationship between time management and academic achievement. Significant empirical studies suggest that effective time management is associated with academic achievement [19, 20, 21, 22, 23]. (Macan *et al.*, 1990, Britton & Tesser, 1991; Nadinloyi *et al.*, 2013; Scherer *et al.*, 2017 and Razali *et al.*, 2018). On the contrary, some studies found no significant relationship between time management and academic achievement [24, 25].(Yilmaz *et al.2010;* Khanam *et al.*, 2017).

Despite being aware of the impact of time on academic achievement, students are oblivious of its importance [26]. (Sevari & Kandy, 2011). The technological revolution is changing the world. How individuals manage time is now determining their success in academic and professional fields. Today's competitive world inspires people to make the best use of time from childhood. Employees nowadays are expected to be more knowledgeable and skilled which requires proper time planning. The present government of Bangladesh has taken several initiatives to ensure the quality of education to keep pace with the modern world. To reap the benefits of such initiatives, how students manage their time is now actually worth our attention as it ensures productivity and efficiency while mismanagement of time leads to anxiety and depression.

Time management behavior is a construct that is mostly used in multidisciplinary research. According to Claessens [27](2007), survey research is the most prominent design used to study time management behavior and many scales were used to fulfill the purpose. He also reported that in the research on time management, three questionnaires are most frequently used. These are the time management behavior scale [20]. (TMBS, Macan *et al.*, 1990); the time structure questionnaire [28] (TSQ, Bond and Feather, 1988); and the time management questionnaire [21].(TMQ, Britton and Tesser, 1991). Time management questionnaire (TMQ) developed by Britton and Tesser [21] (1991) was used in this study. In this study, students'

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GPA (Grade Point Average) has been used to measure their academic achievement as the grading system is used worldwide to indicate the students' academic excellence [29, 30]. ~~(James & Chilvers, 2001; Svanum & Zody, 2001).~~ The objectives of this study were to explore the relationship between time management and academic achievement of the students of Sylhet Agricultural University and to know if there was any gender difference in time management.

2. MATERIALS AND METHODS

This study attempted to replicate Britton and Tesser's [21] ~~(1991)~~ study. Time Management Questionnaire (TMQ) developed by Britton and Tesser [21]~~(1991)~~ was used in this study for its reliability and validity [27]. ~~(Claessens *et al*., 2007)~~ The questionnaire included 18 items and the scale consisted of three factors, namely short-range planning, long-range planning, and time attitudes. Short-range planning included 7 questions, Time attitudes included 6 questions, and Long-range planning included 5 questions. A Likert scale of 1 to 5 was used in the questionnaire for this study (5= Always, 4= Frequently, 3= Sometimes, 2= Rarely, 1=Never) The range of possible scores was 18-90 on general time management, 7-35 on short-range planning, 6-30 on time attitudes and 5-25 on long-range planning. Higher values correspond to better time management practices. Britton and Tesser [21] ~~(1991)~~ did not evaluate the psychometric properties of the 18-item scale in their study. However, in this study, the internal reliability of the scale was assessed using Cronbach's alpha. The total scale was shown to have a reasonable level of internal reliability (Alpha = 0.71). A total of 187 undergraduate students from six faculties of Sylhet Agricultural University were selected to participate in this research. They were enrolled at Level-4 Semester-1. Among them 87 were males and 100 were females. Data were collected in January and February 2022. Students' GPA in the previous semester was used to measure their academic achievement. Data were analyzed using SPSS statistical software. Frequency, percentage, means, and standard deviation were calculated through descriptive statistics. Independent sample t-test and one-way ANOVA were used to compare the means of various parameters. Multiple Regression Analysis was applied to analyze the relationship between time management and academic achievement. Before Multiple Regression, factor analysis (through principal component analysis) was used to identify important factors. KMO and Bartlett's Tests were used to determine the suitability of factor analysis.

3. RESULT AND DISCUSSION

3.1 Time Management Score

Respondents' score on time management was categorized into three groups. Table 1 shows that more than half (55.6%) of the participants' score was moderate to low.

Table 1~~:~~. Score on Time Management

Score	Number of participants (%)
High score (70-90)	83 (44.4)
Moderate score (55-69)	81 (43.3)

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Low score (Below 55)	23 (12.3)

This result is consistent with the study of Khatib [17] ~~(2014)~~ where 74.5% and the study of Pehlivan [15] ~~(2013)~~ where 92.5% of the participants had moderate to low-level time management scores. The result is also similar to the study of Khanam *et al.* [25] where 51.90% of the participants scored moderate to low-level scores.

3.2 Gender Difference

Britton and Tesser [21] ~~(1991)~~ did not report analyses for men and women students separately in their studies. However, this study attempted to do this and the findings have been presented in Table 2. Descriptive statistics were used to calculate the Mean and Standard Deviation. Then Independent Sample t-test was run.

Table 2~~:~~. Gender wise distribution of mean score with Standard Deviation (SD) in Time Management

Time Management	**Gender**		***P-value***
	Male	Female	
	Mean (SD)	Mean (SD)	
Short-range planning	19.72 (6.09)	21.80 (5.74)	0.018
Time attitudes	19.18 (3.28)	18.51 (3.31)	0.165
Long-range planning	16.79 (3.69)	18.20 (3.48)	0.008
Overall time management	94.60 (17.76)	98.82 (16.76)	0.097

Table 2 shows a slight difference between male and female participants concerning their mean scores in time management and the difference is statistically significant in the case of short-range planning (p=0.018) and long-range planning (p=0.008). Scores of females are higher than their male counterparts in all subscales except time attitudes. This result is similar to the study by Subramanian ~~(2016)~~ [18] who observed that girls manage time better than boys.

3.3 Relationship ~~b~~Between ~~t~~Time M~~m~~anagement and ~~a~~Academic ~~a~~Achievement

Table 3~~:~~. Academic achievement and mean score with SD in Time Management

Time Management	**Academic achievement (GPA)**		***P-value***
	Below 3.50	3.50-4.00	
	Mean (SD)	Mean (SD)	
Short-range planning	20.15 (5.82)	21.24 (6.06)	.383
Time attitudes	19.41 (3.23)	18.48 (3.31)	.747
Long-range planning	17.30 (3.82)	17.69 (3.53)	.395
Overall time management	96.41 (17.84)	97.13 (17.07)	.486

Table 3 shows students having higher GPA (3.50-4.00) obtained higher scores in all subscales except time attitudes but the difference was statistically non-significant. This result is consistent with the studies of Yilmaz *et al.*~~,~~ [24] ~~(2010)~~ and Khanam *et al.* [25] ~~(2017)~~ who

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also observed no significant relationship between time management and academic achievement.

3.4 Comparison of ~~s~~Students' ~~r~~Responses to ~~t~~Time ~~m~~Management with ~~o~~Other ~~s~~Studies

Table 4. ~~:~~Responses to the questions on Time Management

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Questions		Responses				
		Always Respondents (%)	**Frequently** Respondents (%)	**Sometimes** Respondents (%)	**Rarely** Respondents (%)	**Never** Respondents (%)
Q1	Do you make a list of the things you have to do each day?	18 (9.6)	22 (11.8)	81 (43.3)	32(17.1)	34(18.2)
Q2	Do you plan your day before you start it?	34 (18.2)	42 (22.5)	59 (31.6)	28 (15)	24 (12.8)
Q3	Do you make a schedule of the activities you have to do on workdays?	35(18.7)	38 (20.3)	56 (29.9)	33 (17.6)	25 (13.4)
Q4	Do you write a set of goals for yourself for each day?	15 (8)	31(16.6)	54 (28.9)	40 (21.4)	47 (25.1)
Q5	Do you spend time each day planning?	12 (6.4)	46 (24.6)	59 (31.6)	43 (23)	27 (14.4)
Q6	Do you have a clear idea of what you want to accomplish during the next week?	20 (10.7)	33 (17.6)	47 (25.1)	47 (25.1)	40 (21.4)
Q7	Do you set and honor priorities?	55 (29.4)	41 (21.9)	53 (28.3)	27 (14.4)	11 (5.9)
Q8	Do you often find yourself doing things that interfere with your academic work simply because you hate to say "No" to people?	28 (15)	41 (21.9)	75 (40.1)	26 (13.9)	17 (9.1)
Q9	Do you feel you are in charge of your own time, by and large?	48 (25.7)	30 (16)	84 (44.9)	16 (8.6)	9 (4.8)
Q10	On an average class day do you spend more time on personal grooming than doing academic work?	54 (28.9)	0(0)	44 (23.5)	81 (43.3)	8 (4.3)
Q11	Do you believe that there is room for improvement in the way you manage your time?	89 (47.6)	38 (20.3)	37 (19.8)	13 (7)	10 (5.3)
Q12	Do you make constructive use of your time?	23(12.3)	52 (27.8)	79 (42.2)	23 (12.3)	10 (5.3)
Q13	Do you continue unprofitable routines or activities?	60(32.1)	32 (17.1)	58 (31)	27 (14.4)	10 (5.3)
Q14	Do you usually keep your desk clear of everything other than what you are currently working on?	81 (43.3)	45 (24.1)	34 (18.2)	17 (9.1)	10 (5.3)
Q15	Do you have a set of goals for	15 (8)	25 (13.4)	45 (24.1)	48 (25.7)	54 (28.9)

	the entire semester?					
Q16	The night before a major assignment is due, are you usually still working on it?	82 (43.9)	34 (18.2)	44 (23.5)	16 (8.6)	11 (5.9)
Q17	When you have several things to do, do you think it is best to do a little bit of work on each one?	59 (31.6)	33 (17.6)	55 (29.4)	15 (8)	25 (13.4)
Q18	Do you regularly review your class notes, even when a test is not imminent?	17 (9.1)	30 (16)	71 (38)	34 (18.2)	35 (18.7)

Table 4 shows that 29.4% of the students always, 28.3% sometimes, 14.4% rarely and 5.9% never set and honor priorities. Similar findings have been reflected in the study of Khanam *et al*. [25] ~~(2017)~~ in which 29.1% of the students always, 24.1% sometimes, 8.9% rarely and 5% never set and honor priorities. This result is also consistent with the study of Oyuga *et al*. [31] ~~(2016)~~ who found that 41.6% of the students always, 39.2% sometimes, 10.8% rarely and 8.4% of the students never do things in order of priority. The findings are in agreement with the findings of Ugwulashi [32] ~~(2011)~~ who emphasized that students always do things in order of priority.

In the study of Denlinger [33] ~~(2009)~~, most students do not plan well. A similar result has been found in this study where 31.6% sometimes plan their day before they start it, 15% do it rarely and 12.8% never plan their day before they start it. This result is also consistent with the study of Khanam *et al*. [25] ~~(2017)~~ where 29.1% sometimes, 10.1% rarely and 12.7% never plan their day before they start it.

In this study, it is observed that only 12.3% of students always make constructive use of their time as compared to 42.2% of the students who sometimes make constructive use of their time and only 8% of students always have a set of goals for the entire quarter. The findings are similar to the study of Khanam *et al*. [25] ~~(2017)~~ who found that 12.7% of students always make constructive use of their time, 37.9% do it sometimes and 10.1% of students always have a set of goals for the entire quarter.

In this study, most of the students (43.3%) rarely spend more time on personal grooming than doing academic work. This finding is in contrast with the study of Khanam *et al*. [25] ~~(2017)~~ where most of the students (43%) always spend more time on personal grooming.

3.5 Factor ~~a~~Analysis

This study replicated Briton and Tesser's [34] (1991) findings with respect to their time management scale. As no significant relation was found between time management and academic achievement based on three factors of that questionnaire, factor analysis was run to know if there is any correlation between time management and academic achievement. Table 5 shows the sampling adequacy and test of sphericity of factor analysis. It exemplified that factor analysis was appropriate because Bartlett's test of sphericity indicated the overall significance of the correlations among the variables ($p<0.01$). Besides, the Kaiser- Mayer-Olkin (KMO) measure of sampling adequacy gave a value of 0.793 (> 0.5) which indicated that the data were suitable for principal component analysis.

Table 5~~:~~. KMO and Bartlett's Test

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Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.793
Bartlett's Test of Sphericity	Approx. Chi-Square	797.175
	Df	153
	Sig.	.000

Through principal component analysis, five components having eigenvalues greater than 1 were found. The result of the PCA explained a total of 54% of the total variance. Therefore, five components were retained and rotated with a varimax solution. Rotated Component Matrix showed that the items can be clustered into 5 factors. The factors were renamed and have been shown in Table 6 along with their corresponding items.

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Table 6. Factors Extracted from Questionnaire

Factor Name	Item	Question
Daily Planning	1	Do you make a list of the things you have to do each day?
	2	Do you plan your day before you start it?
	3	Do you make a schedule of the activities you have to do on workdays?
	4	Do you write a set of goals for yourself for each day?
	5	Do you spend time each day planning?
	6	Do you have a clear idea of what you want to accomplish during the next week?
Long-term planning	12	Do you make constructive use of your time?
	13	Do you continue unprofitable routines or activities?
	14	Do you usually keep your desk clear of everything other than what you are currently working on?
	15	Do you have a set of goals for the entire semester?
	18	Do you regularly review your class notes, even when a test is not imminent?
Time Perception	7	Do you set and honor priorities?
	9	Do you feel you are in charge of your own time, by and large?
	11	Do you believe that there is room for improvement in the way you manage your time?
Time Attitude	16	The night before a major assignment is due, are you usually still working on it?
	17	When you have several things to do, do you think it is best to do a little bit of work on each one?
Time Wasting	8	Do you often find yourself doing things that interfere with your academic work simply because you hate to say "No" to people?
	10	On an average class day do you spend more time on personal grooming than doing academic work?

3.6 Multiple Regression

After factor analysis, multiple regression analysis was applied to analyze the relationship between GPA and five factors extracted from the questionnaire. The findings have been presented below.

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Table 7. Model Summary

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R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.212	.045	.019	.22761	2.099
Predictors: Daily Planning, Long-term planning, Time Perception, Time Attitude, Time Wasting Dependent Variable: GPA				

The coefficient of determination, R^2, which indicates how much of the total variance can be explained by the independent variable is 19%.

Table 8~~:~~. ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.442	5	.088	1.706	.135
Residual	9.428	182	.052		
Total	9.870	187			

Predictors: Daily Planning, Long-term planning, Time Perception, Time Attitude, Time Wasting
Dependent Variable: GPA

Table 8 shows that the value of the calculated F is 1.706 and the *P*-value is greater than the usual significance level of 0.05.

Table 9~~:~~. Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.537	.017		213.095	.000
Daily Planning	.031	.017	.133	1.840	.067
Long-term planning	-.022	.017	-.097	-1.335	.184
Time Perception	-.006	.017	-.028	-.380	.704
Time Attitude	.010	.017	.046	.630	.530
Time Wasting	-.028	.017	-.122	-1.680	.095

Predictors: Daily Planning, Long-term planning, Time Perception, Time Attitude, Time Wasting
Dependent Variable: GPA

Table 9 shows that the predictors are statistically not significant as their *P*-values are greater than the usual significance level of 0.05. Therefore, the result of the multiple regression did not suggest any significant relationship between time management and academic achievement. However, this result is not consistent with the studies of Britton & Tesser [21], ~~(1991),~~ Nadinloyi *et al.* [22] ~~(2013),~~ Scherer *et al.* [23] ~~(2017),~~ Razali *et al.* [19] ~~(2018)~~ and [1]. ~~Macan *et al.* (2000).~~

4. LIMITATION OF THE sSTUDY

This study has several limitations. Firstly, the sample size was small which affected the reliability of the result. Furthermore, this study was a replication study of Britton and Tesser ~~(1991)~~ [21] using a similar methodology. The cultural context was not considered in this study which might have influenced the expected outcomes. Moreover, the pandemic had a

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profound impact on students' daily activities which might have affected their responses. The social desirability bias is very likely to be present in this study. In addition, the study did not investigate the underlying reasons for such time management practices. Further research may provide additional insight into the underlying reasons.

5. CONCLUSION

In this study, more than half of the students scored moderate to low scores in time management. Students having higher GPA obtained high scores in all subscales of time management except time attitude, but the difference was statistically not significant. The result of factor and multiple regression analysis also did not find any significant relationship between time management and academic achievement of the students. However, this study found a significant gender difference in time management. Females scored higher than males in all subscales of time management except time attitude, but the difference was statistically significant in the case of short-range and long-range planning.

REFERENCES

3. Aeon B, Aguinis H. It's about Time: New Perspectives and Insights on Time Management. Academy of Management Perspectives. 2017;31:309-330.

4. Andretta JR, Worrell FC, Mello ZR, Dixson DD, Baik SH. Demographic differences in adolescents' time attitudes. Journal of Adolescence. 2013;36:289–301.

21. Britton BK, Tesser A. Effects of time-management practices on college grades. Journal of Educational Psychology. 1991;83:405-10.

27. Claessens BJC, van Eerde W, Rutte CG, Roe RA. A review of the time management literature. Personnel Review. 2007;36(2):255-276.

33. Denlinger JC. The Effects of Time Management on College Students' Academic Performance. J Edu Psychol. 2009;83(3):405-10.

29. James D, Chilvers C. Academic and non-academic predictors of success on the Nottingham undergraduate medical course 1970-1995. Medical Education. 2001;35:1056-1064.

16. Kaushar M. Study of impact of time management on academic performance of college students. Journal of Business and Management. 2013;9(6):59-60.

6. Kearns H, Gardiner M. Is it time well spent? The relationship between time management behaviors, perceived effectiveness and work-related morale and distress in a university context. Higher Education Research & Development. 2007;26:235- 247.

7. Kelly WE. Harnessing the river of time: A theoretical framework of time use efficiency with suggestions for counselors. Journal of Employment Counseling. 2002;39:12-21.

13. Khan MJ, Ashraf A, Nadeem A. The effect of time management on the academic performance of students in the higher education of Islamabad. International Review of Management and Business Research. 2020;9(3):202-211.

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25. Khanam N, Sahu T, Rao EV, Kar SK, Quazi SZ. A study on university student's time management and academic achievement. Int J Community Med Public Health. 2017;4(12):4761-4765.

17. Khatib ASA. Time Management and Its Relation to Students' Stress, Gender and Academic Achievement among Sample of Students at Al Ain University of Science and Technology, UAE. Int J Business Social Res. 2014;4:5.

1. Macan TH, Shahani C, Dipboye RL, Phillips AP. College student's time management: Correlations with academic performance and stress. Journal of Educational Psychology. 2000;82(4):760-768.

8. McKenzie K, Gow K. Exploring the first year academic achievement of school leavers and mature-age students through structural equation modelling. Learning and Individual Differences. 2004;14(2):107-123.

10. Misra R, McKean M. College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. American Journal of Health Studies. 2000;16(1):41-51.

Nadinloyi KB, Hajloo N, Garamaleki NS, Sadeghi H. The study efficacy of time management training on increases academic time management of students. Procedia-Social and Behavioral Sciences. 2013;84:134-138.

31. Oyuga PA, Raburu P, Peter JO. Relationship between Time Management and Academic Performance among Orphaned Secondary School Students of Kenya. Int J Applied Psychol. 2016;6(6):171-8.

15. Pehlivan A. The Effect of the Time Management Skills of Students Taking a Financial Accounting Course on their Course Grades and Grade Point Averages. Int J Business Social Sci. 2013;4(5):196-203.

19. Razali SNAM, Rusiman MS, Gan WS, Arbin N. The impact of time management on students' academic achievement. Journal of Physics Conference Series. 2018; 995(1): 012042. DOI:10.1088/1742-6596/995/1/012042

23. Scherer S, Talley CP, Fife JE. How personal factors influence academic behavior and GPA in African American STEM students. SAGE Open. 2017;7:1-14.

2. Sabelis I. Time management: paradoxes and patterns. Time & Society. 2001;10:387-400.

14. Saketi P, Taheri A. The relationship between time management and academic achievements among bachelor and master students of Shiraz University and Shiraz University of Medical Sciences. Iranian Journal of Medical Education. 2010;10(3):293-300.

5. Sansgiry SS, Bhosle M, Sail KK. Factors That Affect Academic Performance among Pharmacy Students. American Journal of Pharmaceutical Education. 2006;70(5):1-9.

26. Sevari K, Kandy M. Time Management Skills Impact on Self-Efficacy and Academic Performance. Journal of American Science. 2011;7:720-726.

18. Subramanian A. Time management and Academic achievement of Higher Secondary School Students. Int J Res Granthaalayah. 2016;4(12):6-15.

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30. Svanum S and Zody ZB. Psychopathology and college grades. Journal of Counseling Psychology. 2001;48(1):72-76.

9. Trenberth L. The role, nature and purpose of leisure and its contribution to individual development and well-being. British Journal of Guidance & Counseling. 2005;33(1):1-6.

32. Ugwulashi CS. Time Management and School Administration in Nigeria: Problems and Prospects. J Edu Social Res. 2011;1(2):23-5.

11. Van der Meer J, Jansen E, Torenbeek M. It's almost a mindset that teachers need to change: First-year students' need to be inducted into time management. Studies in Higher Education. 2010;35:777-791.

12. Woodman T, Hardy L. The Relative Impact of Cognitive Anxiety and Self-Confidence upon Sport Performance: A Meta-Analysis. Journal of Sports Sciences. 2003;21:443-457.

24. Yilmaz I, Yoncalik O, Bektas F. Relationship between the Time Management Behaviour and Academic Success. E-J New World Sci Acad. 2010;5:187-94.

20. Macan et al., 1990…..

22. Nadinloyi et al., 2013

28. Bond and Feather, 1988…

34. Briton and Tesser's (1991)…

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