Time management practice by college of teacher education students: Multitasking, procrastination, task prioritization, and technology use

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Abstract

This study attempted to examine the time management practices of students and the state of different factors of time management (multitasking, procrastination, task prioritizing, and technology use) at Debre Markos College of Teacher Education. Based on students' problem of meeting deadlines to properly carry out and submit assignments, students' time management practices, the status of the factors described, and differences among students based on sex and field of study regarding those factors were examined. The study employed descriptive survey design of the quantitative approach involving 113 students selected through a proportional simple random sampling technique. Questionnaire data were analyzed through mean, one sample t-test, independent samples t-test, and analysis of variance. Findings unveiled that students were not good enough in their time management practices. Paradoxically most students were multitasking, using technology, and procrastinating on the one hand and prioritizing their tasks, on the other. Although they do not have significant differences in their task prioritization, female students were more procrastinating than their male counterparts in their academic tasks. More male students than females were multitasking and using technology. Although patterns of moderate differences were observed in terms of fields of study, the statistical outputs imply that there were lots of variances among students both in their practice of procrastination and technology use.

Introduction

Needless to mention, time is an indispensable resource in everyone's life. Kostic and Chadee (2017, p.1) in this respect assert time as an essential dimension of our world "that significantly influences the shaping of our existence." Its role is highly significant in the field of education in particular complement that because all activities of education are time-framed and time management implies student achievement (Cyril, 2015; Das & Bera, 2021). Its management, therefore, plays a vital role because efficiency and effectiveness in time management is the most valuable tool that cannot be renewed or reversed. Accordingly, time management is not an easy task the effectiveness of which is influenced by different factors (Krause & Coates, 2008), which require the capability of organizing, planning, prioritizing,

goal setting as well as scheduling or splitting and allocating time between specific activities (Alyami et al., 2021). In short, it refers to handling time effectively so that the right time is allocated to the right work.

Hence, time management is a broad concept that covers multidimensional areas right from planning day-to-day activities to setting long-term goals. Eerde et al. (2004) claim that effective time management offers individuals the means to structure and control their activities. Similarly, Wang et al. (2011) state that time management is important elsewhere, and the ability to manage time properly optimizes the quality of life. According to Jackson (2009), a good time management capability enhances efficiency more than working tougher or harder because it helps to work smarter or assists in getting more work done in less time, even during tight deadlines and high-pressure situations.

In general, scholars (e.g., Das & Bera, 2021; Douglas et al., 2016; Kearns & Gardiner, 2007; Özer et al., 2009) claim that good time management practice by students renders significant contributions to their academic achievement. Kearns and Gardiner (2007), Kelly (2002), McKenzie and Gow (2004), and Krause and Coates (2008), consistently, argued that students with good time management practices demonstrated a positive influence on their learning outcomes. In the same line, other scholars (e.g., Adebayo, 2015; Al-Zoubi, 2016; Dalli, 2014; Eerde et al., 2004; Eid et al., 2015; Krause & Coates, 2008; Olowookere et al., 2015; Oyuga et al., 2016; Wang et al., 2011) assert that effective time management enhances the academic success of students. In contrast, Alani et al. (2020) argue that it is efforts and self-management rather than time management that influence the academic performance of students.

To effectively explain the role of time on students' learning outcomes, consequently, scholars identified major time factors that influence students' academic achievement. Among others, the major factors that are closely related to student behaviors included multitasking or trying to do more than one task at a time (Mancini, 2003; Tracy, 2013) procrastination or pushing the execution of task ahead (Karakose, 2015), task prioritizing or ordering tasks based on importance (Mancini, 2003; Tracy, 2013), and use of technology or supporting activities to manage time with technology (Kaya et al., 2012). It is worth noting that multitasking is a kind of problem in task accomplishment that refers to alternating between different tasks at the same time (Junco, 2012; Junco & Cotton, 2012).

Concerning multitasking, Junco (2012) found that students with multitasking behaviors demonstrated performance decrements in their academic outputs. Other researchers (Chun et al., 2011; Ellis et al., 2017; Junco & Cotten, 2011, 2012; Koch et al., 2011; Rosen et al. 2011; Tombu et al., 2011; Wood et al., 2012) uncovered that multitasking of students has an obstructive effect on their academic achievement. Junco and Cotten (2012, p.1), for instance, claimed that "using Facebook and texting while doing schoolwork were negatively associated with overall college GPA." Other studies (Baert et al, 2020; Burak, 2012; Wood et al., 2012) supplemented that multitasking, and more specifically the use of such technologies as smartphones while reading for example, is strongly associated with poorer achievement in their education by students. This is because the processing of information from multiple stimuli and performing simultaneous tasks at a time is hardly possible for human beings. In addition, Mokhtari et al. (2015), complements that multitasking is so costly because it increases the

errors people make and reduces productivity. Regarding technology use and procrastination, too, various researchers (e.g., Hargittai, 2008; Kaya et al., 2012; Wood, et al., 2012) reported that access to technological networks and appliances as well as adoption and use of technology by students affects their academic performance.

Nayak (2019) and Peng and Kamil (2017), similarly, reported that there was a significant positive association between procrastination (or time wasting) and academic stress among students with a spillover effect of poor academic performance whereas Sayari et al. (2017) found that procrastination is not significantly related to the academic performance of students. Peng and Kamil (2017) expounded that the academic performance of students is also a function of prioritization. In the same line, Sayari et al. (2017) asserted that prioritization is significantly associated with the academic performance of students. Bahadori et al. (2015), consistently claimed that prioritization of objectives and activities directly affects effective time management and performance of tasks. In general, good time management practice stems from identifying time management destructors and prioritizing tasks effectively.

On the other hand, there are also sources of literature that claim that gender has roles in students' time management practice. Kaya et al. (2012), for instance, disclosed that female students were better than their male counterparts in their time management practices. In contrast, Sultana and Shakur (2022) found that males were much better at their time management skills than their female counterparts. Agormedah et al. (2021), on the other hand, found no significant difference between male and female college students in their time management practices.

The effects of time management dimensions also varied in terms of demographic characteristics such as gender, race, and socioeconomic status. Özer et al. (2009), for instance, found that female students were more procrastinating on their academic tasks than their male counterparts. On the other hand, Stoet et al. (2013) argued that Female students are better than males at multitasking, with some difficulty to generalize whereas Hirnstein et al. (2019) argued that there are no or only small differences between males and females in multitasking practices. Concerning technology use, similarly, Anderson (2001), Odell et al. (2000), Sherman et al. (2000) and Slate et al. (2002) suggest that male college students spend more time online than female college students implying that male college students are more technology users than their female counterparts. Bressers and Bergen (2002) and Jones et al. (2019) in contrast observed that female college students tend to use technology, such as the internet, more than their male counterparts do. Hence, noting the incongruence of the findings, this study aims to investigate the practice of time management by students at Debre Markos College of teacher education (DMCTE).

Problem Statement

Students have very busy and stressful lives due to multitasking (Wasserman et al., 2019). They have to attend classes, carry out assignments or homework, and study for exams. Other than their education, they have to accomplish their daily life routines that are necessary for their economic and social utility. These all require scheduling their time in terms of priority. That is because accomplishing everything at once is often challenging and overwhelming. That is why a time management strategy is necessary and students need to learn about time

management. An effective time management practice helps them to develop the capability and culture of planning their tasks and prioritizing upcoming duties and paves the way for keeping them prepared, well organized, and focused. This in turn enables them to complete their academic tasks on time and lead their daily lives at a well-composed pace instead of suffocating with the consequences of procrastination and hurly-burly (Hoover, 2007; Forsyth, 2007 & Khanam, Sahu, Rao, Kar & Qazi, 2017).

When we gauge students' time management practice in DMCTE, on this basis, different problems can be drawn. Primarily, teachers often complain that most of their students neither meet the deadlines of assignment submission nor carry out their assignments properly despite mutually scheduled time frames being set. In other words, they cannot accomplish a given task within the schedule and quality required. Besides, the problem is not only widespread among the majority of students and jeopardizing their academic success, but is also getting worse and worse over time (Aschalew, 2019 & Bedru, 2015). This triggered us to examine some of the common factors that are widely known in affecting the effective and efficient utilization of time by students.

Only a few local studies were found that were conducted on students' time management. Alemu (2012) assessed the time management practices of summer students at Addis Ababa University. He employed descriptive methods to analyze data on time management factors which could not be inferred to the population. Similarly, Tesfay (2019) conducted a study regarding the effect of time management practice on the academic achievement of university students. This study exclusively dwelt only on whether students have a culture of long and short-range planning in which he did not touch procrastination, multitasking, task prioritizing, and technology use. Besides, Sayariet al. (2017) have given recommendations about time management, however, it does not apply to the college of teacher education. Others such as Nasrullah and Khan (2015), Wolters and Brady, (2021) and Pérez-Sanagustín, et al. (2021) studied about the impact of time management on the students' academic achievements, college students' time management, flipped experience and, scaffolding and self-regulated learning strategies to improve learners' time management and engagement, respectively. None of them were studied at colleges of teacher education with a focus on procrastination, multitasking, task prioritizing, and technology use.

Therefore, the current study extended the investigation of those factors thoroughly, in a different setting and with different participants by using inferential methods. Although it may replicate a past study, according to Cohen et al. (2018) and Creswell (2014), it is possible to investigate a problem more that was examined somewhere else earlier so long as it involves different participants in a different setting or research site. According to Creswell, this method is especially important in quantitative studies because it generates broader information and either increases the values of earlier research outputs and their broader application or triggers controversies that inquire further examination.

Consequently, the current research sought to examine the major factors that are often identifies determinants of students' academic success (multitasking, procrastination, task prioritizing, and technology use) in the practice of time management among the students of DMCTE. To that effect, the study was spearheaded by the following research questions:(1) What is the extent of third-year students' time management skills in DMCTE? (2) What is the

extent of multitasking, procrastination, task prioritizing, and technology use among third-year students of DMCTE? (3) Are there statistically significant differences among students based on their sex and field of study in their practice of multitasking, procrastination, task prioritizing, and technology use?

Methods

This study intends to investigate the time management practices of students in DMCTE. The descriptive survey design of the quantitative approach was employed because this type of design allowed us to collect a variety of quantitative data from different departments to satisfy the research need. As stated by Creswell (2014), for one who needs to collect quantitative data and made generalizations from the sample to a given population, it is advisable to use a descriptive survey design. Data were collected from 113 (74 Males and 39 Females) third-year students (because there were no 1st and 2nd year students in the college during the time of data collection) recruited through Cochran's equation. The proportional simple random sampling technique was also considered to provide an equal chance of participation for males and females as well as for students from different fields of study (Cohen et al., 2018). As a result, the samples were taken from each department and sex proportionally (Education eight from 28, Mathematics 23 from 79, Language 44 from 148, Aesthetics five from 19, Natural science 21 from 79, social science 12 from 42). Whereas to ensure sex proportionality 74 males from 253 and 39 females from 136 were selected to be used as data source for the study.

A questionnaire was employed to collect data. It was adapted from the scale developed by Alyami et al. (2021) and consisted of 30 items, of which among those 10 items were for time management practice, and the rest 20 items were used for procrastination, multitasking, technology use, and task prioritization, five items for each. The questionnaire is a Likert type having five alternatives between strongly disagree to strongly agree. Data were collected after translating the instrument into the Amharic language, the mother tongue obviously because students are more proficient in Amharic than they are in English. Both Amharic and English teachers participated during the translation process to secure clarity and thereby validity of the instrument.

Before administering it, the instrument was piloted on 38 third-year students who were excluded from the final study. The content and predictive validities of the instruments were checked by professionals (experts) in the field. In addition, the administration of the instrument in the piloting stage after translating it into Amharic also contributed to obtaining information that assisted to optimize validity. Regarding reliability, Cronbach's alpha statistic was employed and demonstrated outputs that inform the reliability of the instruments (see Table 1).

Finally, data collected directly by the researcher were analyzed by using mean scores, one sample t-test, independent samples t-test, and one-way ANOVA. *Cohen's d* and *Tukey post hoc* tests were also employed to measure the strengths of mean score differences.

Table 1

Cronbach alpha Reliability Coefficients of Variables

Variables	Number of Items	Coefficient Alpha
Students' time management skill	10	0.813
Procrastination	5	0.791
Multitasking	5	0.902
Task prioritizing	5	0.874
Technology use	5	0.793

Results

In this study, fortunately, all data were not only secured from the participants but also found usable after screening. There were very little missing data from very few participants. In addition, the fitness test of the data to necessary assumptions confirmed the possibility of applying the required parametric tests. That is, normality, linearity homoscedasticity, multicollinearity, and equality of variances were checked and found at an acceptable level to employ statistical (inferential) tools described in the methods of data analysis section. Because it suffices the rule of thumbs, as a result, multicollinearity was checked through the level of tolerance (T) $T \geq 0.2$, variable inflation Factor (VIF)<5, and value of correlation(r)<0.8. Based on the rule of thumb for each of the assumptions, the same thing was applied.

Students Time Management Practice

Students' time management skills in DMCTE demonstrated almost an average practice of each of the necessary activities (see Table 2). The time management practice was gauged based on the average mean score or test score (M =3). The aggregated findings demonstrated contradictory feelings by students. That is, the figures in the table indicated higher mean scores than average that included the desire of students to manage their time daily, balancing their private and study time, the flexibility of priorities, spending time wisely, and avoiding time destructors on the one hand and lower mean scores than average in others including in the need for improvement in their time management skills, on the other. When viewed in terms of sex the figures in the table depict that males are better than females in their time management practices, except in meeting deadlines. It in turn implies that males seem to have only just the claim because females are better at meeting deadlines than males.

Table 2

Self-Reported Time Management Practices by Students (N = 113)

Time Management Scales	Participants					
	Males		Females		Aggregate	
	x̄	SD	x̄	SD	x̄	SD
I prefer to manage my time daily	3.28	1.384	3.02	1.388	3.15	1.383
I meet the deadline for any work	2.26	1.382	3.00	1.257	2.63	1.335
I balance my private time and study time	4.27	0.752	3.10	1.167	3.68	3.919
I can adapt and be flexible when changes occur and reassess priorities	3.40	1.334	3.00	1.298	3.13	1.320
I have a established plan for each week's tasks	3.39	1.341	2.24	1.203	2.82	1.316
I feel that my time management skill needs more improvement	3.20	1.271	2.63	1.158	2.88	1.240
I used to put my important dates on a single calendar	3.21	1.427	2.09	1.321	2.65	1.404
I spend my time wisely and avoid distractions	3.58	1.334	3.00	1.298	3.39	1.346
I effectively manage my workload	3.17	1.368	2.31	1.288	2.74	1.340
I am excellent at time management	3.43	1.405	2.33	1.158	2.88	1.357
Average Mean	3.32		2.67		3.00	

The time management practices of the students were also examined to gauge whether there were discrepancies between males and females. That was because there are researchers who argue the two have significant differences in this respect. The independent samples t-test portrayed by Table 3, in this respect, demonstrated that males and females have statistically strong differences in their time management skills (t = 5.872, df = 111, p < 0.05, d = 1.161).

Table 3

Independent Samples t-test of Students' Time Management Practices Between Sexes

Variable	Assumption	Levine's Test for Equality of Variances		t-test for Equality of Means				Cohn's d
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	
Time Management Practice	Equal variance assumed	10.198	.002	5.87	111	.000	3.236	1.161

Time Utilization of Students in Terms of Sex

Table 4 displays the role of different factors that either facilitate or hinder the effective time utility of students. All the mean scores in the table are significantly higher than the average score (Average Mean=3, p < .01 in all cases). It all implies that students are multitasked, use technology, and procrastinate on the one hand but prioritize their tasks, on the other. Still, their practices are contradictory. For instance, a student multitasked and prioritize tasks at the same time. Hence, it can be argued that students are characterized by inconsistent behaviors, despite their lower habit of procrastination and technology use. All their characteristics hinder a wise and effective utilization of time for their academic purposes, which might impact their academic performance.

Table 4

One-Sample t-test on Students' Time Management Practice (n=113)

Variables	Test Value = 3				
	Mean	SD	T	df	Sig
Multitasking	4.16	.46	82.182	112	.000
Procrastination	3.44	.554	54.399	112	.000
Task prioritizing	4.13	.438	83.415	112	.000
Technology use	3.59	.761	41.862	112	.000

Procrastination, Multi Tasking, Prioritizing Task, and Technology use by Students

Data was collected from students to know about the extent of procrastination, technology use, task prioritizing, and multi-tasking by students in DMCTE. As can be seen from Table 5, the extent of four elements were gauged based on the average mean score($\bar{x}$=3). Based on the aggregate results of students on the extent of procrastinating tasks and multi-tasking, it is possible to say that students are found in both procrastination and multi-tasking, however, there has been a slight mean difference between the extent of procrastination and multi-tasking (Aggregate mean of 3.44 and 4.16) respectively. In addition to procrastination and multi taskings, analysis was also made on prioritizing task and technology use by students. The results revealed that prioritizing task is also a problem of students at DMCTE. This is because all the item that were filled by them and later analyzed showed an average greater than the average mean value that is (M=4.13) which is greater than (M=3). Similarly, though its mean value was somewhat lesser than prioritizing tasks, DMCTE students self-reported item on technology use indicated that they are good in technology use (M= 3.59) which is greater than the expected average value three. From this result, it can be seen that though students claimed to have used technology, they have multitasking and task prioritization problem.

Table 5

Self-reported Procrastination, Multi-tasking, Prioritizing task, and technology use(n=113)

Procrastination	Aggregate Response	
	x̄	SD
I avoid setting personal deadlines and sticking to them	3.3009	0.342
I do not wait until the last minute to do things	3.8761	0.523
I often find it difficult to begin a paper or project	3.4336	0.228
I pack my schedule so full that I don't have time if an emergency arises	3.3062	0.312
I often do things quickly, but incorrectly, and then have to redo them	3.3009	1.365
Aggerate Mean and Standard Deviation	3.44	0.554
Multi-Tasking		
I start a task, put it aside, start another, put it aside, and continue doing this so that I rarely finish any one project.	4.5209	1.356
I pack my schedule tight to do many activities	4.8702	0.353
I over-schedule and take on too many commitments	3.8336	0.228
I become busy with overcrowded tasks	3.7362	0.112
I feel that I have plenty of tasks given from my teacher	3.851	0.252
Aggerate Mean and Standard Deviation	4.16	.46
Prioritizing Task		
I spent time on major tasks over the minor ones	3.459	1.319
I do not spend a lot of time on routine and trivial things	4.672	0.257
I am not bad at establishing priorities. I treat everything as if it were equally important	4.773	0.268
I do not spend time socializing instead of working	3.962	0.112
I do not read things that aren't essential to finishing the work at hand	3.832	0.232
Aggerate Mean and Standard Deviation	4.13	0.438
Technology use		
I have used computer to do educational tasks	3.683	0.979
I prefer to use online books and other sources to accomplish my tasks	3.574	0.757
I have used mobile phone to support my task	3.367	0.697
I have good internet access at my college	3.769	0.53
I have used technological tools to use my time effectively	3.576	0.832
Aggerate Mean and Standard Deviation	3.59	0.761

One of the factors that generate divergence in students' multitasking, and procrastination, technology use is sex. In this respect, Table 6 shows that male and female students have a moderate difference in multitasking (t = -2.488, df=111, d = -0.492), strong differences in procrastination (t=4.999, df=111, d = 0.989), and a very strong difference in technology use (t=6.910, df=111d = 1.367). But the two have no statistically significant differences in task prioritization (t = -.726, df = 111, p > .05). Based on the differences that are presented in Table 6, it can be argued that more males than females use technology and procrastinate more and in contrast, more females than males are multitasked. This implies the existence of mixed results whereby female students in DMCTE are relatively higher in procrastination and technology use but are more multitasked than their male counterparts.

Table 6

Independent Samples Test between Sexes Regarding the Four Variables

Variable	Assumption	Levene's Test for Equality of Variances		t-test for Equality of Means			Mean difference (M – F)	Cohen's d
		F	Sig.	T	df	Sig. (2-tailed)		
Multitasking	Equal Variance assumed	1.136	.289	-2.488	111	.014	-0.221	-0.492
Procrastination	Equal Variance not assumed	10.310	.002	4.999	111	.000	0.498	0.989
Task Prioritizing	Equal Variance assumed	.409	.524	-.726	111	.469	-0.063	-
Technology use	Equal Variance assumed	1.270	.262	6.910	111	.000	0.896	1.367

Time Utilization of Students in Terms of Field of Study

Comparisons were also made in terms of fields of study to examine whether DMCTE students have differences in their experiences with the aforementioned factors of time management. The outputs in Table 7 explain statistically significant differences only in their procrastination ($F_{(5,107)} = 14.703$, $p < .05$) and technology use ($F_{(5, 107)} = 17.637$, $p < .05$). This implies that the students of DMCTE have a different experience in procrastination and technology use.

Table 7

F-test among Students in Terms of their Field of Study

Variables		Sum of Squares	df	Mean Square	F	Sig.
Multitasking	Between Groups	50.705	5	10.141	2.001	.084
	Within Groups	542.198	107	5.067		
	Total	592.903	112			
Procrastination	Between Groups	350.931	5	70.186	14.703	.000
	Within Groups	510.786	107	4.774		
	Total	861.717	112			
Task prioritizing	Between Groups	20.592	5	4.118	.851	.517
	Within Groups	517.726	107	4.839		
	Total	538.319	112			
Technology use	Between Groups	733.155	5	146.631	17.632	.000
	Within Groups	889.837	107	8.316		

Table 8 depicts the Tukey *post hoc* test regarding the inter-field difference in students' level of procrastination. The results in the table unveiled that statistically significant mean score differences were observed between mathematics students and the students of education,

language, natural sciences, and social sciences (all at P<0.05). Therefore, based on table 8, it is observable that Education students have better than other department students.

Table 8

Post-Hoc Test in Terms of Fields of Study on Procrastination

No	Source of variation	Mean Difference					
		1	2	3	4	5	6
1	Education	0.000					
2	Mathematics	4.174*	0.000				
3	Language	0.114	4.288*	0.000			
4	Aesthetics	-1.800	2.374	-1.914	0.000		
5	Natural Science	0.000	4.174*	-0.114	1.800	0.000	
6	Social Science	0.750	4.924*	0.636	2.550	0.750	0.000

Note. * p < 0.05

Regarding the differences in the practice of procrastination, further scrutiny was conducted to know the strength of the difference (see Table 9). This was carried out by using the effect size test through *etha square* (η^2). It revealed that the interaction effect size in terms of field of study was moderate ($\eta^2 = 0.407$). The value 0.975 for the within-groups sums of squares (intercept) informs that there are a lot of variances among students in their practice of procrastination.

Table 9

Effect Size Test on Procrastination

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	350.931*	5	70.186	14.703	.000	.407
Intercept	20274.126	1	20274.126	4247.044	.000	.975
Procrastination	350.931	5	70.186	14.703	.000	.407
Error	510.786	107	4.774			
Total	34271.000	113				
Corrected Total	861.717	112				

Note. * R Squared = .407 (Adjusted R Squared = .380)

The other variable where a statistically significant mean difference was observed in Table 9, based on the field of study was technology use. Table 10 displays the post hoc test results to identify the specific destiny of the differences. Those statistically significant differences were found among different fields of study. Students from the department of education have significant differences with students of language, natural science, and social science. Similarly, mathematics students had significant differences with students of language, natural science, and social sciences. In addition, a significant difference was found between students of language and the aesthetic departments. Moreover, students of aesthetics have significant differences from natural science and social science students. All the differences are

at p < .05 level of significance. Therefore, from this, one can understand that the department students belong to is a factor for variations in their time management practice.

Table 10

Post hoc Analysis Among Departments Regarding Technology Use

No	Source of Variation	Mean Difference					
		1	2	3	4	5	6
1	Education	0.000					
2	Mathematics	2.750	0.000				
3	Language	7.364[*]	4.614[*]	0.000			
4	Aesthetics	2.750	.000	-4.614[*]	0.000		
5	Natural Science	7.560[*]	4.810[*]	.196	4.810[*]	0.000	
6	Social Science	7.417[*]	4.667[*]	.053	4.667[*]	-0.143	0.000

Note. * p < 0.05

In addition to gauging the significance of differences, a further investigation was conducted to measure the strength of the difference among students in terms of field of study. The interaction effect size manipulated by using *etha square* showed a moderate difference (see Table 11). The output revealed that the interaction effect of different fields of study produced a moderate ($\eta^2 = 0.452$) difference. The value 0.957 for the within-groups sums of squares (intercept) informs that there are lots of variances among students in their practice of procrastination.

Table 11

Effect Size Test on Technology Use of Students

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	733.155[*]	5	146.631	17.632	.000	.452
Intercept	19667.921	1	19667.921	2365.005	.000	.957
Technology use	733.155	5	146.631	17.632	.000	.452
Error	889.837	107	8.316			
Total	38199.000	113				
Corrected Total	1622.991	112				

Note. * R Squared = .452 (Adjusted R Squared = .426)

Discussion

Concerning their time management practices findings informed that students are not good enough because almost all mean scores on the scales indicated that activities are below average, especially for females. Unlike the arguments by different scholars who examined the role of time in life (such as Cyril, 2015; Das & Bera, 2021; Kostic & Chadee, 2017), consequently, students in DMCTE are not effectively utilizing such an indispensable resource in their academic life. In addition, males and females revealed statistically very strong differences in their time management practices. In line with Sultana and Shakur (2022) but in

contrast to Agormedah et al. (2021) and Kaya et al. (2012) in the current study context males were much better than their female counterparts in their time management skills and practices. As a whole, studies conducted across the world regarding the association between time management and academic performance by different scholars (e.g., Adebayo, 2015; Al-Zoubi, 2016; Dalli, 2014; Das & Bera. 2021; Douglas et al., 2016; Eid et al., 2015; Krause & Coates, 2008; Olowookere et al., 2015; Oyuga et al., 2016; Wang et al., 2011; Özer et al. 2009) reported lack of effective time management hindering the academic success of students and so the poor academic performance of students at DMCTE could be attributed to their poor time management.

The claim by Alani et al. (2020) that attributed efforts and self-management rather than time management to the academic performance of students did not work in the context of DMCTE. That is because students are good enough neither in their time management practices nor in their academic performance (as mentioned in the problem statement) which otherwise should not have been had Alani et al.'s (2020) argument been held in the college's context.

In addition, a closer examination made on the dimensions of time management that exposed students to the unwise use of time in DMCTE identified paradoxical practices. Students were multitasking, using technology, and procrastinating on the one hand and prioritizing their tasks, on the other. All their characteristics, except task prioritization, hinder a wise and effective utilization of time for their academic purposes, which likely affects their academic performance. These study results coincided with the findings of earlier studies (such as Baert et al, 2020; Burak, 2012; Chun et al., 2011; Ellis et al., 2017; Gayef et al., 2017; Junco, 2012; Junco & Cotten, 2011, 2012; Koch et al., 2011; Rosen et al. 2011; Tombu et al., 2011; Wood et al., 2012) in revealing not only the exposure of students for multitasking and technology use but also the destructive roles these behaviors played on the engagement and academic success of students. It meant that just like the findings by the abovementioned scholars, students of DMCTE were challenged with a shortage of time to accomplish their tasks with the necessary quality. This fits with those research reports which claimed that multitasking often enhances the possibility of errors students commit and the consequent decreases in their achievements, given that there is a plethora of factors that debilitate the effectiveness of students' achievements.

The participants of the current study also claimed that they are good at prioritizing their tasks, a practice that scholars such as Bahadori et al. (2015) and Peng and Kamil (2017) Sayari et al. (2017) advocate are significantly associated with a better academic performance by students. But this is not realized among the students of DMCTE as noted in the problem statement. Consistent to various researchers (e.g., Hargittai, 2008; Kaya et al., 2012; Nayak, 2019; Peng & Kamil, 2017; Wood, et al., 2012), however, DMCTE students were characterized by procrastination and its consequences. Besides the assertion made in the problem statement section about students' weakness in both their time orientation and performance in DMCTE, the current study disclosed that they were also affected by procrastination. This direct association between procrastination and the academic performance of students corroborates the findings by the scholars described above, on the one hand, but contrasts the finding by Sayari et al. (2017) who denied the positive correlation between procrastination of students and their academic achievement.

Besides the aggregate phenomenon, time management practice among DMCTE students was gauged in terms of the association of its dimensions with sex. In line with Özer et al. (2009), to begin with, in DMCTE female students were more procrastinating than their male counterparts in their academic tasks, although there are cases where differences cannot be discerned. On the other hand, unlike Hirnstein et al. (2019) who asserted no or only small differences between male and female students but like Stoet et al. (2013) who found more female students were better than males at multitasking, the current study found males were less multitasked than females. In line with Anderson (2001), Odell et al. (2000), Sherman et al. (2000), and Slate et al. (2002) and contrast with Bressers and Bergen (2002) and Jones et al. (2019) the current finding informed that more male college students than females use technology in DMCTE.

Besides sex, the perceptions of students about their time management practices were compared and contrasted in terms of their fields of study. In this respect, significant differences were observed only in procrastination and technology use. Regarding procrastination, statistically significant differences were observed between mathematics students and students of education, language, natural sciences, and social sciences. As a result, education students were found better than other department students. The differences among different fields of study regarding technology use, however, varied. Students of the education department have significant differences from students of language, natural science, and social science and at the same time, mathematics students had significant differences from students of language, natural science, and social sciences. Moreover, students of aesthetics have significant differences from language, natural science, and social science students. Although the differences in both cases are statistically moderate, the statistical outputs, in general, informed that there were lots of variances among students both in their practice of procrastination and technology use. So far there is no research on time management factors that compared and contrasted students in terms of fields of study and hence comparative discussions were not carried out. The differences in procrastination and technology use of students at DMCTE in terms of fields of study do not have clear patterns that require solutions peculiar to every field of study.

Conclusions, Recommendations. and Implications

This study was grounded on the problem that students lack to meet both the timetable and the expected quality of work. In support of this, findings of the current study unveiled that most of the students are not good enough at their time management or usage Although there are different factors (teacher competence and commitment, the teaching method employed, facilities and resources, academic background of students, passion of students for the profession, etc.) that determine students' poor time management competence likely played its role in impeding their time management practice at DMCTE. Generally, students' time management practice is found to be problematic that needs follow-up to improve. In addition to this, students in DMCTE were found multitasked and procrastinating. Thus, when compared to others, it is possible to conclude that multitasking and procrastinating are prevalent with large mean scores.

Time is part of every one's life, especially, it determines students' success. However, students of DMCTE had problem of time management. Therefore, to address this problem, college management and teachers shall devise a time management skills training package to empower students in improving their time orientation and have proper knowledge as to the role of time in their academic life. Also, an effort shall be made to mainstreaming time management skills in classroom teaching (advise students about the way they effectively utilize their time to accomplish tasks on time and put checkpoints for their students).

Time management is impacted positively or negatively from different directions. Then, the college management and teachers had better orient students on major factors that enhance or obstruct their time management implementation with particular emphasis on task prioritization, multitasking, procrastination, and technology use. In a very specific manner, multitasking and procrastination of tasks shall be given prior attention as they are the most prevalent in impacting students' time management.

Based on the findings and conclusions of this study, there were issues that call for further investigation through mixed approaches and rigorous statistical applications. Those are (1) the factors behind the divergence of education students in their practice of procrastination from students of other fields of study, (2) the factors that generated differences among students of different fields of study regarding technology use, (3) the relationship between time management practice and academic achievement of students, and (4) the contradictory behaviors of time management whereby students were found multitasking, using technology, and procrastinating on the one hand and prioritizing their tasks on the other hand calls for in depth investigation.

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