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Assessment of Educational Sciences Faculty Students' Time Management Skills from their Own Perspectives

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ABSTRACT

This study examined Educational Sciences Faculty (ESF) students' time management skills (TMSs) from their perspectives. A questionnaire of 58 items was administered. The sample was 306 students. Results disclosed a medium importance and practice level of TMSs. Domain order in importance level was: awareness, evaluation, planning then implementation. Practice level domain order was: awareness, planning, evaluation, with medium level then implementation with low level. There was a statistically significant and positive correlations between importance and practice levels. There were no significant differences in importance level attributed to gender or residence. however, there were differences attributed to the academic year. Importance level increased in fourth and third years than second and first years. There were also no significant differences in practice level attributed to academic year or residence. however, there were differences attributed to gender in favor of males. There were no statistically significant differences in importance or practice level attributed to interaction among the academic level, gender or residence. Further investigation should be conducted on undergraduate students' actual time management needs.

Keywords: Assessment, Time Management Skills, Undergraduate Students

INTRODUCTION

Present and future challenges that individuals, nations and the world should meet create constant demands on educational systems. Since education is society's tool to prepare the desired individuals, it plays a paramount role in equipping them with quality knowledge, values and attitudes as well as building their capacities in life skills as prerequisites to reach comprehensive development and full realization of the independent personality. This eventually empowers and enables the individual to become a successful, efficient, life long learner and a positive contributor to the advancement of humanity and his own society. Here comes the importance of investment in youth as the dynamic future work force, agents of change and sustainable development. Therefore, concerns regarding the quality of university graduates and the need to systematically promote their overall present and future performance levels should highlight the importance of time and time management as crucial factors that not only affect them as students but also societies that seek a better future.

The highly investigated "self efficacy" concept is one component of "self regulation" (Bidgerano, 2005) which the industrialized countries are after. Self-regulatory strategies include time management as one component of the fourth category named resource management (AL-Ansari, 2005 and Bidgerano, 2005). This might justify having time management as a cornerstone in any educational, economic, managerial, and leadership training or evaluation program in advanced countries. Besides, university counseling centers in advanced countries include time management as a main constituent of their counseling and study skills programs (Kachgal et al. 2001). Advanced countries' interest in time element is elaborated also in funding research that examines population's time (Sayer, 2005 and Victorino and Gautheir, 2002). Interest in time, its various domains as well as factors which affect its best use have been invaluable resources of investigation due to time's indispensable value. For instance, (Mattingly and Sayer, 2006) mention that Americans value time more than money. In addition, Jäckel and Wollschheid (2007, p.86) state that personal income, interests and time, frame

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human activities in modern societies.

Study Problem

Students depend on schools to organize their study day and they are relatively not held responsible for many things before entering universities. In fact, when they go to university, they face more time demands in the form of academic, social, personal obligations that they strive to fulfill. Failure in meeting these demands causes physical and psychological problems that affect their overall performance negatively.

One prominent negative observation among ESF students is their constant complaints about lack of time to do things, being overwhelmed with obligations and tasks, lack of control over life… Accordingly, investigating the importance and practice level of their time management skills (TMSs) might shed the light on their status towards systematically and strategically meeting their needs to obtain better quality educational outcomes.

Study Importance

Investigating students' present TMSs should help in determining the importance and practice level of these skills which contributes to enlightened recommendations that improve awareness and practice quality of these skills. The study might be of importance to quality service provided for higher education students in general and ESF students who will become teachers of future generations.

Furthermore, there is a paucity of research investigating university students' TMSs in terms of practice and importance from their own perspective or through other means of evaluation. One reason for this lack may be the common belief among students and academics that the more time students spend studying the better their academic performance becomes. This eventually leads to the false conclusion that students manage their time well. Another plausible reason may be the multidimensional nature of these skills when evaluated in the presence of other variables. This study attempts to fill the gap through determining the practice and importance levels of students' TMSs. It also investigates the effect of three variables, which are the academic year level, gender and residence on practice and importance levels TMSs.

Study Questions

The problem of the study can be addressed through the following major questions:

1. What is the importance level of ESF students' TMSs from their own perspective?
2. What is the practice level of ESF students' TMSs from their own perspective?
3. Is there a statistically significant relationship ($\alpha \leq 0.05$) between the importance level and the practice level of ESF students' TMSs from their own perspective?
4. Are there statistically significant differences ($\alpha \leq 0.05$) in the importance level of ESF students' TMSs attributed to academic year level, gender or residence as well as interaction among them?
5. Are there statistically significant differences ($\alpha \leq 0.05$) in the practice level of ESF students' TMSs attributed to academic year level, gender, and residence as well as interaction among them?

Operational Definitions

- ESF: Education Sciences Faculty is one of UNRWA institutions in Jordan. It is a private faculty that grants B.A degree in Classroom Teacher specialization only.
- Time Management Skills (TMSs): A set of skills utilized to make best use of time element in achieving one's various aims.

LITERATURE REVIEW

Time Related Studies at Society Level

Various studies have been conducted to explore time element at societal level in the developed countries. For example, Sayer (2005) analyzed trends and gender differences in time use. She used nationally representative time diary data from 1965, 1975 and 1998. The analysis revealed that women continue to do more house labor than men but men have increased time in core household activities. The study indicated that women and men are selectively investing unpaid work in family life activities while spending less time in routine work.

Moreover, Victorino and Gautheir (2005) examined trends in the patterns of time use of seniors in Canada since 1980s. They investigated whether today's seniors devote more or less time to productive activities than twenty years ago. They used data from a series of time-use surveys carried out in Canada since 1981. Results revealed that a shift towards active aging has taken place which involves a complex pattern of time reallocation

that varies by gender and age.

Further more, Mattingly and Sayer (2006) reviewed evidence on trends in free time and subjective perceptions of feeling rushed and reexamined the relationship between free time and time pressure. They used U.S. time -diary data collected from 78 individuals in 1975 and 964 individuals in 1998. They found that women's time pressure increased significantly between 1975 and 1998 but men's did not. They suggested that persistent inequality in gendered time-use patterns is paralleled by gendered experiences of time pressure.

Above all, Jäckel and Wollschheid (2007) examined the inequalities of leisure time and perception of time use beside income inequalities focusing on gainfully employed individuals. They used data of the German Time Use Survey 2001/2002, and a typology of life style groups was generated using cluster analysis. They found three types which differed in their leisure budgets, activities, temporal patterns, perception of time use, and socio demographic structure.

In short, these previous studies reveal prevailing differences between males and females in time use. They also reflect high interest in exploring time element and its various aspects due to its significant importance.

Time Related Studies at Students' Level

International interest in studying time and time management concepts at university level is reflected in the increasing number of conducted studies over the last decade. Besides, lack of time management skills affects students' academic and future outputs negatively. For instance, Aluede et al. (2006) surveyed the academic, career and personal needs of students at Ambrose Alli University in Nigeria. Participants were 920 undergraduates. Results indicated that regardless of students' residential status, gender, age and relationship status, the students ranked time management as the most imperative counseling need. They pointed out that students' time management problem may be responsible for the increasing unrest in Nigerian Universities. In the same vein, Mattingly and Sayer (2006) Besides, more educated individuals have more responsibility to produce high outputs which results in heightened time pressure (p.210).

In addition, Kachgal et al. (2001) confirmed that absence of self-regulation may expose students to increased risk for stress and anxiety. They considered time management and procrastination reduction as important academic interventions that can be implemented to make them better self-regulators since both are perceived by students as barriers to academic success. (Kachgal et al, 2001) discussed strategies for the prevention/intervention of academic procrastination based on needs assessment of students enrolled in an elective, credit-bearing study skills course at a large Midwestern University. The sample consisted of 141 students who were given the Procrastination Assessment Scale-Students and answered two open ended questions about success barriers. Participants reported a high degree of distress because of procrastination. Procrastination scores were positively correlated with six perceived barriers to academic success where poor time management was one of them.

In addition, Nonis and Hudson (2006) scrutinized the effect of both time spent studying and time spent working on academic performance. They also evaluated the interaction of motivation and ability with study time and its effect on academic performance. The study revealed that non-ability variables like motivation and study time significantly interact with ability to influence academic performance.

Besides, Horstmanshof and Zimitat (2007) explored interrelationships between elements of student engagement and relationship with time perspective. Participants were 347 first-year undergraduate students who had completed one semester of study and re-enrolled for a further semester of study at an Australian university. Participants were surveyed using instruments designed to measure academic application, academic orientation, time perspective, the shortened version of the Study Process Questionnaire and hours spent preparing for class. There were interrelationships between the elements of student engagement (e.g. Academic Application) with productive educational behaviors (e.g. deep approach to learning). Orientation to the Future emerged as a significant predictor of elements student engagement. They concluded that interventions focusing on the development of time perspective may be helpful in encouraging and supporting academic engagement and, eventually, persistence in higher education.

Furthermore, Tanrıögen and Işcan (2009) examined time management skill levels of Pamukkale University (PAU) students and the effects of these skills on their academic achievement. The sample consisted of 375 students attending five different faculties of PAU. A Time Management Scale including 25 items was

administered. The time management skills of PAU students were found at a moderate level. Results indicated that positive attitudes of students about time management affect their academic achievements by helping them into developing their skills in time management. They concluded that the students should start to acquire time management senses on their own in their primary school years and adopt effective time management attitudes and techniques to determine how and where they spend their time.

Likewise Sun and Yang (2009) surveyed the status quo of the student pressure and the relationship between their daily time management (time for sleep, time for getting up, time spent at schools, time for doing homework) and their learning outcomes in three different types of 14 higher secondary schools in China. Both qualitative and quantitative approaches were used.

Similarly, Van der Meer, Jansen & Torenbeek (2010) discussed the findings related to a number of research projects investigating first-year students' expectations and challenges with issues of time management. It was found that many students were realistic about having to plan their work independently, and having to spend a good amount of their time during the week on self-study. However, many of them found it difficult to regulate their self-study and keep up with the work. They were also not always sure how they were to organize their self-study time. It is argued that universities could and should play a more active role in helping first-year students to make sense of time management.

In short, this literature review reveals that despite the considerable amount of research on time related issues, further research is particularly needed regarding students' TMSs, their effects and factors that affect them at universities and higher education institutions. Moreover, education as well as individuals should focus on self-regulated learning strategies and TMSs as one of their components to overcome students' present and future problems. The current study attempts to redress the balance by focusing on practice and importance level of TMSs from students' perspective.

The Population

The population of this study consisted of 624 male and female ESF students during the second semester of the academic year 2006-2007. All of them were from a nearly similar socio-economic environment. Table 1 shows the distribution of the population according to academic level, gender and residence.

Table (1)

Population distribution by academic level, gender and residence

Level	Male			Female			Grand Total
	In campus	Off campus	Total	In campus	Off campus	Total	
1st year	5	6	11	32	163	195	206
2nd year	12	27	39	30	67	97	136
3rd year	10	18	28	34	69	103	131
4th year	5	8	13	23	115	138	151
Total	32	59	91	119	414	533	624

The Sample

Study data was secured from a sample of undergraduate students enrolled in ESF. To obtain a representative sample, a stratified random sample method was applied. the sample consisted of 306 male and female students, which is 49.04% of ESF population. Table 2 shows this.

Table (2)

Distribution of the sample by academic level, gender and residence

Level	Male			Female			Grand Total
	In campus	Off campus	Total	In campus	Off campus	Total	
1st year	5	4	9	18	78	96	105
2nd year	8	6	14	9	46	55	69
3rd year	7	11	18	9	27	36	54

Level	Male			Female			Grand Total
	In campus	Off campus	Total	In campus	Off campus	Total	
4th year	4	3	7	12	47	59	78
Total	24	24	48	48	198	246	306

The Instrument

The instrument was a questionnaire, consisting of (58) items and two Likert scales one to measure the importance level and another to measure the practice level. The questionnaire includes two parts: the demographic information and the measured skills with their scales. The questionnaire was constructed as follows:

1. Specifying precisely the questionnaire objectives based on the study questions.
2. Identifying TMSs based on the relevant literature and distributing them in a table of (11) compartments representing them.
3. Forming a checklist of items that measure the various aspects of every skill.
4. Distributing the items to the table to ensure representative distribution and correct assignment of each item to the most suitable skill. These skills were first, awareness. Second, planning which covered other sub skills including (goal setting, identifying activities, prioritizing, time estimating, scheduling and organizing).Third, implementation. Fourth, evaluation which covered other sub skills including (monitoring one's performance, modifying in light of feedback and celebrating success).
5. The final version of the questionnaire was translated into Arabic to ensure that students' full understanding of each item.

Questionnaire Validity

The questionnaire (English and Arabic versions) was content validated by a panel of (13) persons; (7) PhD. holders where (4) of them are ESF instructors, (3) supervisors and (3) school principals. They were asked to judge the validity of the questionnaire items in measuring importance and the practice levels of TMSs. They were also asked to judge the relevance and comprehensiveness of the items to their domains and sub domains. Moreover, they were asked to judge whether the questionnaire was convenient to students, accurate in its language and clear in what it requires. Some items have been modified or excluded in light of their remarks and suggestions.

Questionnaire Reliability

Questionnaire reliability was established by trying it out on a pilot group of (28) male and female ESF students from the study population to ensure that directions, suitability of the questionnaire design and time limits are precisely identified. This group was excluded from the sample. The questionnaire was applied on the same group a second time (14) days later. Pearson Reliability Correlation Coefficient between the two applications was calculated. It was (0.83) for importance level (0.89) for practice level. After administering the questionnaire on the pilot group, Alpha Cronbach, was calculated. Alpha was (0.94) for importance level and (0.91) for practice level that are considered acceptable for the study purposes.

Implementation

This is a descriptive study for which 350 questionnaires were distributed. 306 ones were usable. To analyze the results, the researchers depended on ordering the mean scores and percentages of the items. They specified the rating of the importance and practice levels of TMSs according to the following criteria:

Rating category	Mean Scores	Percentage
Very high	4.50-5.00	90%-100%
High	3.75-4.49	75%-89.9%
Medium	3.00-3.74	60%-74.9%
Low	2.00-2.99	40%-59.9%
Very low	Less than 2.00	Less than 40%

Findings

The results are presented with respect to the study questions. The study aimed at assessing the importance and practice level of ESF students' TMSs. Besides, it aimed at examining the relationship between importance and practice levels of ESF students' TMSs. It also attempted to discover if there are statistically significant differences between the importance and practice levels of ESF TMSs attributed to academic year level, gender or residence as well as interaction among.

Results Related To the First Question

To answer this question, mean scores, standard deviations, percentages and ranking for importance level of TMSs based on students' responses on the questionnaire and on every domain were calculated. Accordingly, the results are displayed in Table (3) below.

Table (3)

Mean scores, standard deviations, percentages and order for importance level of students' TMSs on the questionnaire and on every domain

No.	Domains	Mean	Std. Deviation	Percent.	Order	Importan. Level
1	Awareness	3.95	0.73	79.1%	1	High
2	Planning	3.66	0.70	73.2%	3	Medium
Sub domains	2:a-Goal setting	3.88	0.89	77.6%	2	High
	2:b-Identifying activities	3.22	1.06	64.4%	6	Medium
	2:c-Prioritizing	4.02	0.79	80.3%	1	High
	2:d-Time estimating	3.68	0.80	73.7%	4	Medium
	2:e-scheduling	3.41	1.05	68.2%	5	Medium
	2:f-Organizing	3.73	0.85	74.6%	3	Medium
3	Implementation	3.43	1.01	68.6%	4	Medium
4	Evaluation	3.72	0.82	74.5%	2	Medium
Sub domains	4: a-Monitoring	3.64	0.93	72.8%	3	Medium
	4:b-Modifying	3.83	0.93	76.6%	2	High
	4:c-Reinforcing	3.84	1.16	76.7%	1	High
	All Domains	3.68	0.68	73.7%		Medium

As is obvious from Table (3), importance level of ESF TMSs on the questionnaire total score was medium. The mean score for their values was (3.68) the standard deviation was (0.68) and the percentage was (73.7%).

The first domain "Awareness" came in the first rank with a high importance level on the questionnaire total score. Its mean score was (3.95) with a standard deviation of (0.73) and a percentage of (79.1%).The Table also reveals that the fourth domain " Evaluation" was ranked second with a medium importance level on the questionnaire total score. Its mean score was (3.72) with a standard deviation of (0.92) and a percentage of (74.5%). The sub domains of this domain came in the following order "reinforcing", then "modifying" with a high level and last came "monitoring" with a medium level. The second domain "planning" was ranked third with a medium level of importance. Its mean score was (3.66) with a standard deviation of (0.70) and a percentage of (73.2%). The sub domains of this domain came in the following order "prioritizing", then "goal setting" with high importance level then came "organizing", "time estimating", "scheduling" and last came "identifying activities". These sub domains took a medium level of importance. Regarding the third domain in the questionnaire namely, "implementation" came in the fourth and last rank with a medium level of importance. Its mean score was (3.43) with a standard deviation of (1.01) and a percentage of (68.6%).

The mean scores, standard deviations, percentages and ranking for importance level of ESF TMSs based on their responses on the items of the questionnaire according to the four domains were calculated.

The results reveal that ESF students' responses on the importance level of TMSs ranged between the high and the low categories. The number of items that took a high importance level was (32) while (24) items obtained a medium level of importance. At the same time two items only were rated low in importance. None of the items took a very high or a very low level.

The highest items as assessed by ESF students are ranked as follows:

Item number (4): I direct my efforts towards achieving my goals.

Item number (7): I have clearly defined achievable long-term goals for my academic level, career, life and immediate academic year.

Item number (1): I have a clear idea of how I use my time

Results Related To the Second Question

To answer this question, mean scores, standard deviations, percentages and ranking for practice level of ESF TMSs from their own perspective on the

questionnaire and on every domain were calculated. Accordingly, the results are displayed in Table (4) below.

Table (4)

Mean scores, standard deviations, percentages and order for practice level of students' TMSs on the questionnaire and on every domain

No.	Domains	Mean	Std. Deviation	Percent.	Order	Practice Level
1	Awareness	3.43	0.66	68.5%	1	Medium
2	Planning	3.09	0.60	61.7%	2	Medium
Sub domains	2: a-Goal setting	3.26	0.89	65.3%	3	Medium
	2:b-Identifying activities	2.40	0.96	48.0%	6	Low
	2:c-Prioritizing	3.58	0.82	71.5%	1	Medium
	2:d-Time estimating	3.17	0.77	63.5%	4	Medium
	2:e-Scheduling	2.61	0.89	52.1%	5	Low
	2:f-Organizing	3.37	0.80	67.3%	2	Medium
3	Implementation	2.72	0.90	54.5%	4	Low
4	Evaluation	3.00	0.77	60.1%	3	Medium
Sub domains	4:a-Monitoring	2.87	0.92	57.5%	3	Low
	4:b-Modifying	3.10	0.86	62.0%	2	Medium
	4:c-Reinforcing	3.35	1.24	67.1%	1	Medium
	All Domains	3.06	0.59	61.2%		Medium

Table (4) shows ESF students' rating of TMSs practice level on the questionnaire as whole was in medium. The mean score for their values was (3.06) the standard deviation was (0.59) and the percentage was (61.2%).

"Awareness" domain was in the first rank with a medium practice level on the questionnaire. Its mean score was (3.43) with a standard deviation of (0.66) and a percentage of (68.7%). The second domain "planning" was ranked second with a medium level of practice. Its mean score was (3.09) with a standard deviation of (0.60) and a percentage of (61.7%). The sub domains of this domain came in the following order "prioritizing", "organizing", "goal setting", and "time estimating" successively with medium practice levels. However, "scheduling" "identifying activities" got a low practice level. The Table also discloses that the fourth domain "Evaluation" got a medium practice level and ranked third. Its mean score was (3.00) with a standard deviation of (0.77) and a percentage of (60.1%). The sub domains of this domain came in the following order "reinforcing", then "modifying" with a medium level and last came "monitoring" with a low level. As for the third domain in the questionnaire namely, "implementation", it came in the fourth and last rank with a low practice level. Its mean score was (2.72) with a standard deviation of (0.90) and a percentage of (54.5%).

The mean scores, standard deviations, percentages and ranking for practice level of ESF TMSs based on their responses on the items of the questionnaire according to the four domains were calculated.

The results display that ESF students' ratings for the practice level ranged between high and low categories. (5) items only took a high practice level (25) items obtained a medium practice level. At the same time, (21) items took a low practice level while (3) items were rated very low in practice. None of the items took a very high practice level.

The highest items as assessed by ESF students are ranked successively as follows:

Item number (34): I schedule my difficult tasks for the time when my concentration is at its best.

Item number (16): I prioritize my obligations in terms of importance.

Item number (33): I schedule my difficult tasks for the time when I feel most energized.

Results Related To the Third Question

To answer this question, Pearson Correlation was calculated between importance level of ESF TMSs and their practice level for these skills on the four domains. Pearson Correlation results are illustrated in Table (5).

Table (5) reveals that the values of Pearson Correlation between the importance and the practice level of TMSs ranged between (0.32-0.53). These correlations are statistically significant at (α= 0.01). Therefore, there is a

positive correlation that is statistically significant between the importance and the practice level of TMSs. To illustrate more, whenever the importance of time management increases, the practice increases accordingly.

Table (5)

Pearson correlation values between importance and practice levels of students' TMSs

No.	Domains	Pearson Correlation	Significant level
1	Awareness	0.34	0.01
2	Planning	0.36	0.01
Sub domains	2:a-Goal setting	0.38	0.01
	2:b-Identifying activities	0.36	0.01
	2:c-Prioritizing	0.39	0.01
	2:d-Time estimating	0.34	0.01
	2:e- scheduling	0.35	0.01
	2:f-Organizing	0.43	0.01
3	Implementation	0.42	0.01
4	Evaluation	0.34	0.01
Sub domains	4:a-Monitoring	0.32	0.01
	4:b-Modifying	0.40	0.01
	4:c-Reinforcing	0.53	0.01
	All Domains	0.36	0.01

Results Related To the Fourth Question

To answer this question, mean scores, standard deviations for importance level of TMSs based on students' responses on the questionnaire according to academic year level (first, second, third and fourth), gender (Males and females) and place of residence (in campus i.e. inside and off campus i.e. outside) were calculated. The results are presented in Table (6).

Table (6)

Mean scores and standard deviations of students' ratings for the importance level of TMSs according to gender, residence and academic year level

Variables		Gender					
		Male		Female		Total	
Level	Residence	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
First	Inside	3.61	0.53	3.40	0.73	3.45	0.69
	Outside	3.26	0.43	3.68	0.66	3.65	0.65
	Total	3.44	0.49	3.62	0.68	3.60	0.66
Second	Inside	3.63	0.32	3.70	0.40	3.67	0.36
	Outside	2.94	0.62	3.62	0.71	3.54	0.73
	Total	3.31	0.58	3.63	0.67	3.57	0.66
Third	Inside	3.76	0.75	3.80	0.82	3.78	0.77
	Outside	3.80	0.64	3.88	0.65	3.86	0.64
	Total	3.78	0.66	3.86	0.69	3.84	0.67
Fourth	Inside	4.39	0.23	3.76	0.71	3.91	0.68
	Outside	4.21	0.38	3.74	0.70	3.76	0.69
	Total	4.31	0.29	3.74	0.70	3.79	0.69
Total	Inside	3.79	0.56	3.62	0.70	3.67	0.66
	Outside	3.52	0.69	3.71	0.68	3.69	0.68
	Total	3.65	0.64	3.69	0.68	3.68	0.68

Table (6) reveals superficial differences in the mean scores among students' ratings to the importance level of TMSs on the questionnaire total score according to gender, residence and academic year level. To scrutinize the significance of the means' differences, Univariate Analysis of Variance was utilized. The results are presented in Table (7):

Table (7)

Results of Univariate Analysis of Variance of students' ratings for the importance level of TMSs according to gender, residence and academic year level

Source	Sum of Squares	df	Mean Square	F	Sig.
Level	6.472	3	2.157	4.853	0.003
Gender	0.0005	1	0.0005	0.001	0.974
Residence	0.426	1	0.426	0.958	0.328
Level * Gender	3.118	3	1.039	2.338	0.074
Level * Residence	1.02	3	0.34	0.765	0.515
Gender * Residence	1.075	1	1.075	2.418	0.121
Level* Gender* Residence	0.638	3	0.213	0.478	0.698
Error	128.934	290	0.445		
Total	139.619	305			

Table (7) shows statistically significant differences among the mean scores of students' ratings to the importance level of TMSs according to academic year (First, Second, Third and Fourth). Calculated (F) was (4.853). These are statistically significant values at (α = 0.05). The results in the same Table do not show statistically significant differences among the mean scores of students' ratings to the importance level of TMSs according to gender and place of residence. Also, there were no statistically significant differences in importance level attributed to interaction among academic level, gender or residence. To detect the source of these statistically significant differences for the academic year level, differences among the mean scores of students' ratings to the importance level of TMSs, the researchers resorted to using post comparisons through (LSD) method. The results are displayed in Table (8):

Table (8)

Results of Post comparisons using (LSD) method of students' ratings for the importance level of TMSs according to academic year level

Level		First	Second	Third	Fourth
	Means	3.44	3.31	3.78	4.31
First	3.44	-	0.03	0.24	0.20
Second	3.31	-	-	0.26	0.22
Third	3.78	-	-	-	0.04
Fourth	4.31	-	-	-	-

The results of the post comparisons reveal that the source of the significant differences between students' ratings in the first and third year in favor of the third year and between students' ratings in the second and third year in favor of the third year students and finally between students' ratings in the second and fourth year in favor of the fourth year. In other words, students' ratings for the importance level of TMSs increases in third and fourth year students.

Results Related To the Fifth Question

Mean scores, standard deviations for importance level of TMSs based on students' responses on the questionnaire according to academic year level, gender and place of residence (in campus i.e. inside and off campus i.e. outside) were calculated. The results are presented in Table (9).

Table (9) indicates superficial differences in the mean scores among students' ratings of their practice levels of TMSs according to gender, residence and academic year

level. To know the significance of the means' differences Univariate Analysis of Variance was applied. The results are presented in Table (10):

Table (9)

Mean scores and standard deviations of students' ratings for the practice level of TMSs according to gender, residence and academic year level

Variables		Gender					
		Male		Female		Total	
Level	Residence	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
First	Inside	3.11	0.33	2.92	0.50	2.96	0.47
	Outside	3.07	0.30	3.00	0.57	3.01	0.55
	Total	3.09	0.30	2.99	0.55	3.00	0.53
Second	Inside	2.94	0.77	3.17	0.60	3.07	0.67
	Outside	3.18	0.50	3.12	0.50	3.12	0.50
	Total	3.05	0.65	3.13	0.51	3.11	0.54
Third	Inside	3.01	0.79	2.85	0.72	2.91	0.72
	Outside	3.16	0.78	2.91	0.61	2.98	0.66
	Total	3.11	0.76	2.90	0.63	2.96	0.67
Fourth	Inside	4.13	0.68	3.04	0.41	3.30	0.66
	Outside	3.13	1.36	3.14	0.57	3.14	0.61
	Total	3.70	1.07	3.12	0.54	3.18	0.62
Total	Inside	3.21	0.76	2.98	0.54	3.05	0.62
	Outside	3.14	0.68	3.06	0.56	3.07	0.57
	Total	3.17	0.71	3.04	0.56	3.06	0.59

Table (10)

Results of Univariate Analysis of Variance of students' ratings for the practice level of TMSs according to gender, residence and academic year level

Source	Sum of Squares	df	Mean Square	F	Sig.
Level	2.364	3	0.788	2.353	0.072
Gender	1.308	1	1.308	3.905	0.049
Residence	0.109	1	0.109	0.324	0.570
Level * Gender	1.407	3	0.469	1.4	0.243
Level * Residence	1.377	3	0.459	1.371	0.252
Gender * Residence	0.365	1	0.365	1.091	0.297
Level * Gender * Residence	1.915	3	0.638	1.906	0.129
Error	97.116	290	0.335		
Total	104.396	305			

Table (10) shows statistically significant differences among the mean scores of students' ratings of their practice level of TMSs on the questionnaire according to gender. The calculated (F) was (3.905). These are statistically significant values at (α =0.05). With reference to Table (10), the significance is in favor of male students where the mean score of their practice level of TMSs on the questionnaire was (3.17). This mean score is higher than females' mean score practice level which was (3.04) The results in the same Table do not show statistically significant differences in the mean scores of students' ratings of their practice level of TMSs on the questionnaire according to the academic year and place of residence. Above all, there were no statistically significant differences in practice level attributed to the interaction among academic level, gender or residence.

Discussion and Implications for Practice

Discussion of the Results Related to the First Question

The findings clearly disclosed that the importance level of ESF students' TMSs is medium. They indicated that their awareness level of the TMSs importance is high followed successively by: evaluation, planning and lastly implementation domain. This is contrary to the popular belief that ESF students rate TMSs as high except for the awareness domain. Such results should form the basis for the appreciation of students' problem with regard to time management. In addition, they lend support to training students on self-regulatory processes so that they can manage themselves as well as their time more effectively. They should realize the importance of specifying students' needs systematically to form a comprehensive database for specialized counseling programs that are built on these actual needs. This might be a potential concern for universities and colleges that do not have such programs. This is in line with Aluede et al. (2006) who stated that undergraduates ranked time management as the most pressing counseling need. These results have implications for faculty administrators.

Moreover, helping students to achieve their goals is an important issue for institutes of higher education (Nonis and Hudson, 2006). Bearing in mind that these students are high achievers who come from a relatively poor socioeconomic background lends support to the necessity of helping them to become more self regulators and manage their time effectively and smartly which eventually affect their performance positively. These undergraduates will become the future workforce, the teachers of our children, and may be the sole supporters for their families. Likewise, Nonis and Hudson (2006) state that high ability students who spend more time studying are most likely to excel in college, perform academically well and bring universities as well as individual programs a high-quality academic reputation. AL-Ansari (2005) also concluded that almost all motivational models entail that students with positive motivational orientation such as high self-efficacy, high task value, adoption of a learning goal etc. will work harder and harder at a task with an associated increase in performance.

Discussion of the Results Related to the Second Question

ESF students' rating of TMSs practice level on the questionnaire as whole was medium it was also close from low level. "Awareness" ranked first with a medium practice level. The same applies for the second domain "planning". The sub domains of this domain came in the following successive order "prioritizing", "organizing", "goal setting", "time estimating" with medium practice levels. However, "scheduling" and "identifying activities" got a low practice level. Similarly, the fourth domain "Evaluation" got a medium practice level and its sub domains were in the following order "reinforcing", then "modifying" with a medium level while "monitoring" with a low level. As for the last domain which is "implementation", it came fourth in the last rank of the questionnaire's total score with a low practice level.

These results might tentatively be attributed to the following reasons: First, ESF does not have a specialized counseling unit to survey students' needs and build systematic comprehensive programs to meet them. This suggested inadequacy is supported by Hoffman and Roller (2001) who confirmed that teacher preparation programs fail in preparing them with necessary knowledge and needed skills to be effective. This might be the case with other universities; however, further investigation should be carried out in this direction. Second, Students might not have the theoretical knowledge about TMS in the first place which might eventually lead to lower practice levels than expected in the second hypothesis. This is in harmony with Hammash (2004) who stated that those who do not have the theoretical knowledge are not expected to have a high level of effective professional practices. This also agrees with (Bost, 2002; Borg, 2003 and Dawani, 2003) who discussed the important effect of theory cognition on practice.

Based on the study results, such level of practice reveals real councelling needs for students. In the same vein Aluede et al. (2006) documented a number of studies that highlighted students' concerns for time management and rating it high as a need that deserves attention. One can conclude here that as the demand rises to meet the needs of these students, up to date solutions that attract students should be employed including the use of modern technology such as computer applications and software designed for these purposes coupled with use of internet websites and applications together with mobile technologies in systematic training programs as the case in industrial countries. Correspondingly, Corlett et al. (2005) affirmed that calendar and mobile learning

organizer timetable and deadlines were useful for university students' personal organization. They stated that university students made considerable use of the calendar and time tabling in all locations and pointed out that for some students; the Personal Digital Assistant (PDA) became a replacement for a traditional diary. This also lends support to Kachgal et al. (2002) suggestion that undergraduates are highly comfortable with technology so a utilization of websites with relevant time management content or other related resources such as online schedulers and personal digital assistants may be efficient and appropriate to supplement the formal study skills course curriculum.

Discussion of the Results Related to the Third Question

The results revealed a positive correlation that is statistically significant between importance and practice levels of TMSs. Whenever time management importance increases, the practice increases accordingly. This relationship might be justified basically in the light of cognition of these skills as well as insights to one's own practices. Cognition which leads to awareness gives direction and motivation towards practice. AL Zghoul (2004) defines awareness as an advanced process in information processing which means interpreting the complex characteristics of stimuli and giving them their special meanings in light of previous experiences. Awareness explains the differences among individuals in their behaviors and attitudes towards the various environmental stimuli since people are different in ways of interpreting and understanding these stimuli or the meanings they give to them because they assimilate them in different ways based on their previous experiences p. 366. Moreover, Qatami et al. (2002) state that learning in cognitive theory is goal driven and when learners become aware of what hey are expected to fulfill, they tend to concentrate more on the task which facilitates their learning.

Discussion of the Results Related to the Fourth Question

The study results did not show statistically significant differences in the importance level of TMSs on the questionnaire total score according to gender and place of residence. This might be attributed to the fact that ESF students are high achievers who come from almost the same socioeconomic background regardless to their gender or place of residence. Therefore, they are highly motivated towards success and at the same time had the same education at schools. This explains the absence of training these students on TMS and their value in schools. In the same vein, AL Awneh (2004) mentioned that highly motivated people tend to manage their duties more successfully than low motivated ones. They also tend to avoid difficult tasks and choose challenging tasks of moderate difficulty rather than easy unchallenging ones. Those highly motivated people have strong desire to get feedback about their performance. This is why they prefer tasks and jobs where reward is built on individual accomplishment p. 218. At the same time, the issue of how to promote teachers skills to produce more active and motivated learners is at the heart of education role (AL- Ansari 2005). These results seem to be also logical if we bear in mind that ESF does not have consistent co-curricular activities and programs inside or outside campus for its resident students related to sport, body exercise, activated entertainment facilities and activities or even equipment to practice hobbies such as drawing, chess, sculpture, photography, etc. At the same time, students off campus come relatively from the same poor socioeconomic background where most of the students are either hardship cases or come from UNRWA camps. This also does not give them the chance to appreciate the importance of time management and meeting its demands in balancing their real lives in a different way from those who are in campus.

On the other hand, the results revealed statistically significant differences among the mean scores of students' ratings of TMSs importance level according to academic year level in favor of third and fourth year students over first and second year students. This might be tentatively attributed to the fact that they become more mature and value time more as they think of their approaching graduation to support their families. In addition they become more involved in family issues and family social events which make them more attentive to the importance of time element as it might affect their priority of academic performance. Moreover, fourth year students feel the importance of time and time pressure as the General Competency Exam held by the Ministry of Higher Education and Scientific Research in Jordan for all universities' undergraduates in their fourth year approaches and the need to organize their time maximizes.

Discussion of the Results Related to the Fifth Question

There are statistically significant differences in students' practice level of TMSs attributed to gender in favor of males. This is in contrary to Bidgerano (2005) who stated that female undergraduates tend to over report the use of TMSs more than males. This might be because males work after study in part time jobs more than females. They reported to the researchers various types of jobs they are already involved in. Moreover, social duties that are required from males are more than females which seem to impose better practice on them. The results do not show statistically significant differences in the mean scores of students' ratings of their practice level of TMSs according to the academic year and place of residence. Although students of the third and fourth year valued TMS more, when it comes to practice, they all lack these skills to an almost similar degree. It should be remembered here that the results of the second question revealed that none of the items got a very high level of practice or a very low one. This affirms their almost similar performance.

RECOMMENDATIONS

- Utilizing information and communication technology in obtaining better awareness, training and practice on TMSs by students in light of the availability of many electronic time management alternatives such as mobiles calendars, specialized computer software, computer programs and specialized time management applications on the internet and emails.
- Cultivating time management and self-regulated learning strategies in students from a very early age by all stakeholders including parents, curricula, teachers and media.
- Establishing counseling centers at universities with special programs and courses where students are directed based on their measured individual needs and differences.
- Allocating special courses (obligatory and voluntary) with credit hours for freshman students to acquaint them with their new expected roles and responsibilities.
- Including time management as a basic training component in "Study Skills" course to be taught in Jordan's universities as a university requirement.
- Establishing specialized programs for directing students towards more balanced healthy lives by involving them in fruitful entertainment and co-curricular activities in campus and off campus to invest their efforts constructively towards more balanced lifestyles and implanting time management culture among them.
- Informing students about the results of this study using various means towards building awareness and remedy these weaknesses right from the beginning of the academic year.
- Informing students about the results of this study using various means towards building awareness and remedy these weaknesses right from the beginning of the academic year.

Directions for Future Research

Similar investigations should be carried out on the same topic in other universities and study levels. In addition, further investigation should be carried out on students' actual needs in general and time management in specific. Other related time management factors and variables can be explored to get more detailed view of students' time management.

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قياس مهارات ادارة الوقت لدى طلبة كلية العلوم التربوية من وجهة نظرهم

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ملخـص

تفحصت هذه الدراسة مستويات الأهمية والممارسة لمهارات إدارة الوقت لدى طلبة كلية العلوم التربوية من وجهة نظرهم. تم تطبيق استبانة مؤلفة من 58 فقرة على 306 ذكر وأنثى من طلبة كلية العلوم التربوية للعام 2006-2007م.

أظهرت النتائج مستويات متوسطة للأهمية والممارسة لمهارات إدارة الوقت، كما أظهرت الترتيب الآتي للأبعاد في مستوى الأهمية؛ الوعي، التقويم، التخطيط ثم التطبيق. أما مستوى الممارسة فقد أظهر الترتيب الآتي للأبعاد: الوعي، التخطيط، التقويم بمستوى متوسط ثم التطبيق بمستوى منخفض. وقد أظهرت الدراسة أيضاً ارتباطاً إيجابياً ذا دلالة إحصائية بين مستويات الأهمية والممارسة. وأظهرت النتائج وجود فروق ذات دلالة إحصائية في مستوى الأهمية تعزى للجنس أو مكان السكن، إلا أن هناك فروقاً ذات دلالة إحصائية تعزى للسنة الدراسية؛ فضلاً عن أن النتائج أظهرت أن مستوى الأهمية يزداد في السنتين: الثالثة والرابعة أكثر من: الأولى والثانية. ولم تظهر النتائج وجود فروق ذات دلالة إحصائية في مستوى الممارسة تعزى للسنة الدراسية ومكان السكن، إلا أن هناك فروقاً تعزى للجنس لصالح الذكور. ولم تظهر النتائج أيضاً وجود فروق ذات دلالة إحصائية في مستوى الأهمية والممارسة تعزى للتفاعل بين المستوى الأكاديمي والجنس ومكان السكن.

الكلمـات الدالـة: مهارات إدارة الوقت، الوعي، التقويم، التخطيط، التطبيق.

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