An investigation of the effect of time management on the academic improvement of Iranian graduate students

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Abstract

This research investigates the effect of time management on the academic improvement of Sirjani graduate students. Research's statistical population consists of 1588 Sirjani graduate students in the 2011-2012 class year. Based on Krejcie and Morgan's table, 310 students were selected as the sample and were tested using questionnaire. The results of research hypotheses test indicated that time management and its dimensions (commitment, current situation analysis, planning and follow-up and reanalysis) have a significant effect on students' academic improvement. At the end, some suggestions are made based on research findings in order to develop the current situation of time management and academic improvement.

Keywords: time management, commitment, analysis, planning, follow-up and reanalysis, academic improvement

Introduction

The youth are every society's human capital and the main axis of development. They will hopefully become efficient and effective workforce after entering the university. This important issue would be realized only when the main goal of entering the university meaning academic accomplishment and improvement is achieved (Bagher Zade et al, 2010). Students' academic improvement is one of the most important indicators in the assessment of academic systems. All efforts of academic systems are actually for the implementation of this issue (Ali Bakhshiand Zare, 2010). Nowadays, time management is becoming increasingly important as one of the determining factors for students' accomplishment and the status of acquiring relevant skills has been determined more than before (Arnold, and Pulich, 2004). With regard to the significance of time management (JahanSeyr, et al, 2007) and the fact that students face the issue of limited academic opportunities in universities (Saketi and Taheri, 2010), the main problem is that most students do not use their time properly during their learning process and consequently face many issues in their life and education. However, knowledge about time management and benefiting from it guarantees their academic accomplishment (JahanSeyr, et al, 2007). There is also an assumption that successful students make the most of their limited time (Saketi and Taheri, 2010). The application of time management increases the awareness of individuals of their available time so that they will perform their duties with a schedule more efficiently and achieve the maximum productivity (Arnold and Pulich, 2004). The factors affecting students' academic improvement and accomplishment and the contribution of each factor have always been of interest to researchers. Undoubtedly, a series of individual and environmental or cognitive and non-cognitive factors affect students' academic improvement. However, it is not possible to collect and analyze all these variables together in any research. Thus, this paper investigates the effect of time management on students' academic improvement.

Research's theoretical framework

Education is one of the most important parts of many society members' lives, i.e. students. It is one of the most obvious manifestations of their overall performance. Every educated person should have a

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goal in at least four areas: Self-improvement, family, business and social activities. He should be generally successful and efficient in his life so that he can have a good academic performance (Mousavi, 2010). Accomplishment in the field of education is known as academic improvement. Improvement is the achievement of the goals individuals consider for themselves (Hadzima, 2005). ShoariNejad defines academic improvement as follows: "general or private acquisitive knowledge and skills in academic topics which are usually measured by tests or signs or both of them" (Mard Ali and Kouski, 2008). Also Hall and Merchant stated that an individual's academic improvement is his application of his abilities and skills for using resources and his time (Hall, and Marchant, 2000). One of students' academic accomplishment factors is their familiarity with studying and learning skills (McIlroy & Bunting, 2002). Studies state that studying and learning strategies facilitates students' process of learning thus developing their academic improvement (Cano, 2006).

During the last three decades, the factors affecting academic improvement have been taken into consideration by education experts more than before (Paris, and Winograde 2001). Among these factors, the issue of time management has a special place as an effective factor (Saketiand Taheri, 2010). One of the obstacles to accomplishment and a problem affectingindividuals - especially university students - is improper time use (GhaedMohammadi, 2010).

In some cultures, time is a simple linear concept while in others, it's complex and non-linear (Kamran, 2006). Time management was introduced on 1950 as an approach for effectively dealing with various aspects of time in work. This method includes techniques such as defining goals, how to fulfill them, planning and prioritizing (Claessens, Eerde, Rutte, and Roe, 2007). Like most terms of humanities, there are many definitions for time management. Griggs states: "time management is the set of abilities and skills which result in optimal time control by the individual (Malek Ara, 2009). Some researchers such as Britton and Tesser(Britton, 1991), Kelly (Kelly, 2003) and Nonis and Hudson (Nonis and Hudson, 2006) have mentioned time management as an essential factor of accomplishment in life affairs including work and education. Researchers believe that method of time use can be effective in students' academic accomplishment and improvement (Saketi and Taheri, 2010). In other words, students' academic improvement is dependent on their time management ability (JahanSeyr, et al, 2007).

Research background

Different researches have been conducted worldwide on factors affecting academic improvement which are briefly mentioned in table 1.

The Conceptual Model of the Study

Various aspects are taken into consideration in previous studies for investigating time management skills. In this research, time management will be investigated based on time management dimensions by Javaheri Zadeh and Abofathi. These dimensions include:

1. Commitment: discipline and commitment in plan implementation
2. Current situation analysis: thinking about the process of doing tasks
3. Planning: preparation of daily, weekly, monthly and yearly plans
4. Follow-up and reanalysis: analysis and investigation of plans and eliminating time wasters (Javaheri Zade and Abolfathi, 2009)

Also with regard to the previous researches on academic improvement and consideration of average class grade as the criteria for academic improvement (JahanSeyr, et al, 2007; Labbafian, 2008;Sarandi, 1997; Parker, Summerfeldt, Hogan,&Majeski, 2004; Duff, Boyle, Dunleavy, & Ferguson, 2004; Toomas, 2001) the criteria for students' academic improvement is their average class grade in the 2011-2012 class year. Thus, the research's conceptual model is outlined as ahaown in Figure 1.

Hypothesis 1: Time management has a significant effect on the academic improvement of Sirjani graduate students.

Hypothesis 1-1 Commitment has a significant effect on the academic improvement of Sirjani graduate students.

Hypothesis 1-2 Current situation analysis has a significant effect on the academic improvement of Sirjani graduate students.

Hypothesis 1-3 Planning has a significant effect on the academic improvement of Sirjani graduate students.

Hypothesis 1-4Follow-up and reanalysis has a significant effect on the academic improvement of Sirjani graduate students.

Table 1. Research background

| Researcher(s)	Research title	Results
Salehi and Enayati	The relationship between the main elements of learning and studying strategies and students' academic improvement	There is a significant relationship between all three man elements of learning and studying and academic improvement
Mard Ali and Koushki(2008)	Self-regulation and academic improvement	There is a significant relationship between self-regulation and academic improvement
Parker et al (2004)	Emotional intelligence and academic accomplishment: investigating transition from high school to college	There is a significant relationship between some elements of emotional intelligence such as compatibility and tension management and academic improvement in the university
Duff et al (2004)	An investigation of the relationship between character, attitude towards learning and academic improvement	There is a significant relationship between age, high school tests and the personality factor of responsibility and academic improvement
Dehshiri(2004)	An investigation of the relationship between time management skill and student's academic skill and stress	There is a high relationship between time management and students' academic skills and stress
Terry (2002)	The effects of time management online training on learning academic self-regulation and self-efficacy	There is a positive significant relationship between time management and academic self-regulation and self-efficacy
Ghait(2002)	The relationship between collaborative learning, understanding social support, sense of alienation with the learning environment and students' academic improvement in English	There is a positive significant relationship between collaborative learning and social support and students' academic improvement
Malefo(2000)	An investigation of the effect of psychological – social factors on the academic condition of female university students	Among the investigated factors, there is a significant relationship only between age and academic improvement
Lehman (1999)	An investigation of the effect of social factors on students' academic improvement	There is a relationship between gender, ethnic origin and academic background and academic improvement
Britton and Tesser(1991)	The effect of time management skills on academic accomplishment	Time management training is effective on increasing self-efficacy beliefs and improvement
Labbafian(2008)	An investigation of students' educational condition and IQ	Men's average class grade and diploma average are less than women in all fields of study. Average class grade significantly decreases with increased age
Saei(1998)	An investigation of the factors affecting the academic improvement of agricultural university students and presentation of an appropriate training approach	Girls compared to boys, those living in dormitories compared to those who don't and upper class members compared to the members of other classes show greater academic improvement. No significant difference was observed between married and single students
Sarandi et al (1997)	Factors affecting students' academic condition	There is no significant relationship between gender and academic condition. However, there is a significant relationship between marital status, employment status, diploma average class grade, type of quota, occupation, father's education and residency status and students' academic accomplishment.
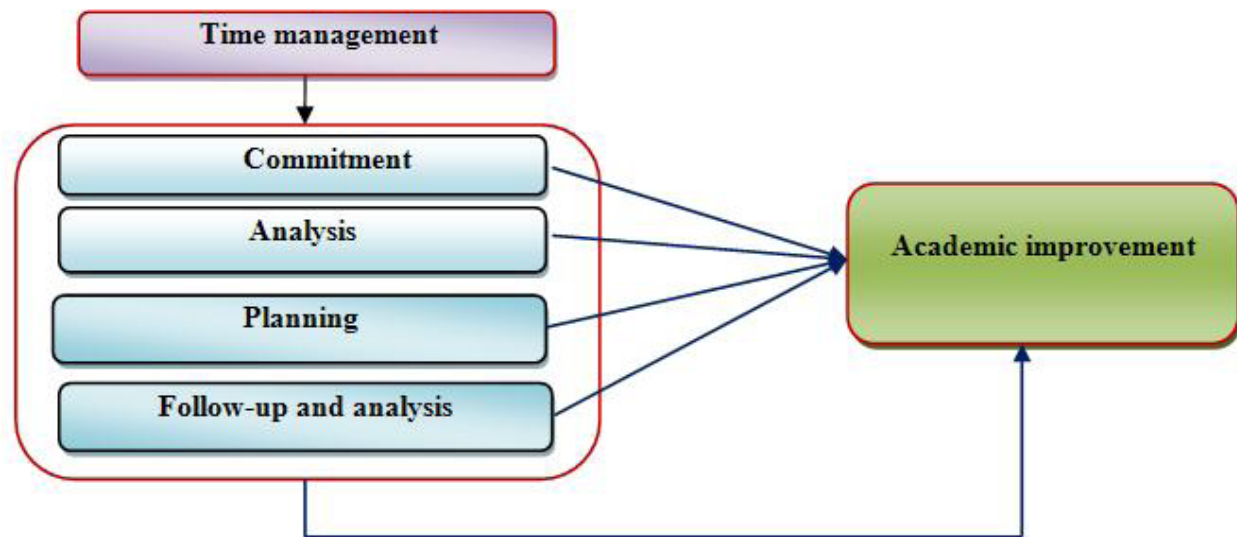
Figure 1. Conceptual Model of the Research

Methodology

The present research is applied regarding its goal, descriptive − correlational regarding its nature and method and cause and effect type. Field method and standard questionnaire were used to collect data. The research population includes 1,588 Sirjani graduate students in the 2011-2012 class year. The sample consisted of 310 students and was tested according to Krejcie and Morgan's table. Sampling method was stratified random sampling. The studied sample for each university is relatively presented in table 2.

Table 2. Statistical and samples of present study

University	Statistical Population	Statistical Sample
Sirjan's Science and Research Branch	1,082	211
Sirjan's Payam-e-Nour center	80	16
Sirjan's Pardis Islamic Azad University	426	83
Total	1,588	310

The questionnaire consists of two parts: general questions (gender, university and the last average class grade) and 22 questions for measuring time management skills. The questions measure the dimensions of commitment, analysis, planning and follow-up and reanalysis. The questionnaire's validity (according to expert opinion) was calculated at 0.94 using content validity method. Also its reliability (Cronbach's alpha) was calculated at 0.86.

Results

Hypothesis 1: time management has a significant effect on the academic improvement of Sirjani graduate students.

Linear regression test is used to investigate the effectiveness of time management on academic improvement. Table 3 shows the output of this test.

Table 3. The results of regression

	Unstandardized Coefficient		Standardized Coefficient	t	Sig	R	R Square	Adjusted R Square
Constant	0.630	0.228		2.763	0.006**	0.546	0.298	0.296
Time management	0.772	.0069	0.546	11.254	0.000**			

Independent variable: academic improvement   **significant at the 0.01 level

Hypothesis 1-1 Commitment has a significant effect on the academic improvement of Sirjani graduate students.

Linear regression test is used to investigate the effectiveness of commitment on academic improvement. Table 4 shows the output of this test.

Table 4. The results of regression

	Unstandardized Coefficient		Standardized Coefficient	t	Sig	R	R Square	Adjusted R Square
Constant	1.595	0.235		6.781	0.000**	0.365	0.133	0.130
Commitment	0.466	0.069	0.365	6.766	0.000**			

Independent variable: academic improvement   **significant at the 0.01 level

Based on the results of regression commitment directly predicts academic improvement and has additive effect (p<0.01 and Beta=0.365). Based on the coefficient of determination (R2), 13% of academic improvement variations are explained by commitment.

Hypothesis 1-2 Current situation analysis has a significant effect on the academic improvement of Sirjani graduate students.

Linear regression test is used to investigate the effectiveness of current situation analysis on academic improvement. Table 5 shows the output of this test.

Table 5. The results of regression

	Unstandardized Coefficient		Standardized Coefficient	t	Sig	R	R Square	Adjusted R Square
Constant	1.608	0.236		6.818	0.000**	0.361	0.131	0.128
Current situation analysis	0.437	.065	0.361	6.692	0.000**			

Independent variable: academic improvement   **significant at the 0.01 level

Based on the results of regression, current situation analysis directly predicts academic improvement and has additive effect (p<0.01 and Beta=0.361). Based on the coefficient of determination (R2), 13% of academic improvement variations are explained by current situation analysis.

Hypothesis 1-3 Planning has a significant effect on the academic improvement of Sirjani graduate students.

Linear regression test is used to investigate the effectiveness of planning on academic improvement. Table 6 shows the output of this test.

Table 6. The results of regression

	Unstandardized Coefficient		Standardized Coefficient	t	Sig	R	R Square	Adjusted R Square
Constant	1.739	0.147		11.863	0.000**	0.502	0.252	0.250
Planning	0.457	0.047	0.502	10.029	0.000**			

Independent variable: academic improvement   **significant at the 0.01 level

Based on the results of regression, planning directly predicts academic improvement and has additive effect (p<0.01 and Beta=0.502). Based on the coefficient of determination (R2), 25% of academic improvement variations are explained by planning.

Hypothesis 1-4 Follow-up and reanalysis has a significant effect on the academic improvement of Sirjani graduate students.

Linear regression test is used to investigate the effectiveness of follow-up and reanalysis on academic improvement. Table 7 shows the output of this test.

	Unstandardized Coefficient		Standardized Coefficient	t	Sig	R	R Square	Adjusted R Square
Constant	1.755	0.177		9.902	0.000**	0.426	0.182	0.179
Follow-up and reanalysis	0.444	.055	0.426	8.136	0.000**			

Independent variable: academic improvement   **significant at the 0.01 level

Based on the results of regression, follow-up and reanalysis directly predicts academic improvement and has additive effect (p<0.01 and Beta=0.426). Based on the coefficient of determination (R2), 18% of academic improvement variations are explained by follow-up and reanalysis.

Discussion

Time and accomplishment can be two sides of a coin. In other words, they are interdependent. The reason for this fact is that accomplishment finds its true meaning in the form of time. It's better to say accomplishment is measured over time (Saroughi, 2004). The logical relationship between time management and academic accomplishment has been explained by Bandura's theory of triadic reciprocal causation and cognitive - social theory. In Bandura's theory of triadic reciprocal causation, theorists regard time management as a combination of behavioral, environmental and personal effects. Behavioral effects include efforts for self-study, self-assessment, self-action and the results of academic performance. Environmental effects include using planning tools such as calendar and computer which help time management. Personal effects include learning and determining strategies such as goals, criteria and understanding self-efficacy. The ability to utilize the individual skill of time management is considered as an important factor for academic and non-academic accomplishment (JahanSeyr, et al ,2007). Time management is a type of proactive approach which guides university students towards self-order and development. It is also considered as a type of functional result by which students can bring order to their current and future learning and consequently, their academic performance (Saketiand Taheri, 2010).

Similar to those by Nonis and Hudson (2006), Kelly (2003), Britton and Tesser(1991), Dehshiri(2004), Terry (2002), Jahan Seyr et al (2007) and Saketi and Taheri(2010), the findings of this research indicated that time management and its dimensions have a significant effect on academic improvement. Students who have short-term and long-term plans in their academic life and are committed to them are more academically successful. Also those who analyze their affairs scrutinizingly and follow their plans have better academic improvement.

Suggestions and solutions based on the results

With regard to the strong positive relationship between time management and academic improvement, students are advised to pay special attention to time management during their education.

Because the positive relationship between the dimensions of time management (commitment, current situation analysis, planning and follow-up and reanalysis) and academic improvement has been indicated, university students are advised to consider these dimensions seriously in their time management process. The following items contribute greatly to this issue:

Order and commitment in carrying out plans

Analysis of the affairs and seeking performance improvement solutions

Thinking about the process of doing tasks

Prioritizing activities

Preparing a list of daily, weekly, monthly and yearly tasks and goals

Elimination or moderation of time-wasting factors

Having a schedule for sleeping and exercising and also having good nutrition

The lecturers of the studied universities and those of others are advised to allocate a session to

the basic training of time management and how to study properly to improve the efficiency of their classes.

Suggestions for further research

At the end, researchers who intend to perform study and research on time management and academic improvement are advised to simultaneously investigate important variables such as training facilities, social class, the quality of lecturers, etc. on academic improvement besides time management.

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