

The Dimensions That Affect the Students' Low Accumulative Average in Tafila Technical University

Mohammed Ahmed Al-Rofo

Faculty of Educational Sciences, Tafila Technical University (TTU), Tafila, Jordan

E-mail: D_Mohamed_U@yahoo.com

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ABSTRACT This study aimed at investigating the dimensions that affect student's low accumulative averages leading to earning academic warning. The sample of study consisted of 108 students including 68 males and 40 females. All subjects of the sample were identified as receiving academic warning by the end of the second semester for the year 2007/2008 at Tafila Technical University (TTU) in the south of Jordan. A valid and reliable questionnaire of 20 items covering three dimensions (personal, social, and academic) was used. The findings of the study showed that both personal and social dimensions were the most prominent dimensions affecting the student's low accumulative averages and then come the academic dimension. Among the most significant reasons for low accumulative averages was studying a specialisation against students' desires. It also showed that there were no statistically significant differences between male and female students attributed to student gender. There was no statistically significant difference between students attributed to specialisation (scientific, humanities). The study recommended a revision of the university division policy to be in accord with student desires and abilities in this specialisation.

INTRODUCTION

Academic achievement is one of the most serious problems that encounter students in both general and higher education. It is considered as a social and educational problem because it leads to a great loss of human potentials and materialistic wealth. Academic achievement received considerable attention from researches in education and psychology at all levels of teaching for the purpose of improving it.

Academic achievement is the basic criterion for passing from one educational stage to another or from an academic level to a higher one. It is also the information that a learner remembers of the subject matter in a semester, what relations among there pieces of information he or she recognizes, and what facts he or she deducts. All this is reflected in the learners' performance on a test prepared for this purpose and assessed quantitatively. Achievement can be measured by a various method including objective tests and conventional achievement tests administered at the end of semester (Wilkie et al.1992).

Al-Tawab (1992) defined academic achievement as the average grades a students gets in all studied courses, measured by average grades points earned at universities and this what's called accumulative average.

The following are among the dimensions that affect academic achievement:

1- personal dimension

2- social dimension

3- academic dimension

With regard to the personal dimension, Damanhory and Awadh (1995) reported that past experience, intelligence, physical status, psychological status, clear achievement objectives, ability to innovate, leadership and self-confidence are all factors affect students' level of achievement.

The social dimension while refers to students social and parental environment including family size, relations among its members, social level, parents behavior and attitudes towards students, location and nature of residence, and psychological and social atmosphere, all these affect positively or negatively student academic achievement.

The academic dimension in the educational establishment where the student learns has both direct and indirect impact on student academic achievement; increased numbers of student, overcrowded classrooms, increase of psychological stress, tendency to compete, negligence of guidance and counselling process and lack of equipment, all lead to negative educational phenomena such as school leaving, educational loss, poor scientific productivity, low achievement and other similar educational issues (Al-Zarad 1997).

In addition, students lack of understanding the subjects and academic system, weakness of

academic guidance system, university administration concentration of teaching disregard of social, cultural and sports activities necessary for activating students, procedures of punishment and reward all add their negative effect on the students level of achievement.

Al-Shami (1992) conducted a study of the "Reasons of low accumulative average as perceived by the students and faculty of King Faisal university at Al-Ihssa. The study sample consisted of (165) subjects including 65 faculty members and 100 male and female students. The researchers used a questionnaire including personal, educational, economical and social domains. The most prominent factors which led to student receiving academic warning were: having a specialisation without desire, students' bad psychological conditions, low readiness for studying, low awareness of the faculty toward students with low accumulative averages, students wasting a great deal of time watching TV and Video, ineffective guidance and counseling at secondary stage, absence of appropriate family atmosphere for studying. The study revealed that personal reasons were less influential on students' low accumulative average compared to the influence of educational reasons. It also showed that students and faculty were in agreement about the ordering of the impact of personal, educational, social and economic reasons. The study recommended a review of the university admission system, focus on students' low achievement, and educating students about the dangers of TV and video addiction.

Mahmoud and Abu-Araes (1992) conducted a study entitled "some of the reasons of students failure in Islamic subjects at faculties of Al-Azhar university." The study aimed at investigating the most important reasons for failure in Islamic subjects. The researchers utilized the descriptive method in analyzing students' failure reasons. For the purpose of study a questionnaire was constructed. To collect the study data, the questions were based on students time tables, courses methods of instruction and the faculty relations. The sample of study consisted of 300 male and female students. The study revealed that 78% of the students attributed their failure to problems regarding lectures time-table (late lectures) and over-crowded study rooms. 80% of them attributed their failure to instruction of method, in addition to the examination system.

Nelson and Bluenthan (1996) pointed out that

among the main factors for students' progress and success were "their commitment to attending lectures, paying enough attention, writing down the lectures main ideas, preparing in advance for lectures, completing home assignments systematically, using suitable study methods and habits".

Yaworski et al. (1999) conducted a study aimed at investigating reasons that led students to earn high accumulative averages and reasons that led students earn academic warning. The sample of study included 21 male and female students joined university with low grades in the both secondary school certificate and General Abilities Test. The personal interview and following up their achievements over several semesters, results showed that half of them got high cumulative average, due to the following reasons: attending and effectively participating in lectures, preparing in advance for lectures, positive attitude to instructors as experts in their field, organizing and utilizing methods of study efficiently, students use of fundamental strategies for study and learning and full responsibility for learning. The other group receive warnings due to not following the previous procedures.

Al-Ajez (2002) pointed, that the social and economical factors were more influential for low accumulative average, then the personal factors, and educational ones came last of all. The study also showed that there were no significant differences between male and female students attributed to gender variable.

Bobcheet (2005) found that educational factors were more influential on female students low accumulative averages, than social factors, and there were no significant differences among female students attributed to faculty variable.

By reviewing the previous studies, there were different reasons for low accumulative averages (Al-Shami 1992; Bobcheet 2005). These studies indicated that studying in a specialization without a desire, students busying themselves with things other than study, absence of appropriate family atmosphere for study all were reasons for low accumulative averages, and educational reasons were more influential than social reasons, while some studies stressed the role of students while timetable for courses and examinations timetable in creating stress and tension (Mahmoud and Abu-Araes 1992; Nelson and Bluenthan 1996). Also (Al-Ajez 2002; Popcheet 2005) focused on studying low accumulative averages with regard

to the variable of gender and faculty. This current study came to investigate the dimensions that led to students low accumulative averages as perceived by the students of Tafila Technical University who received academic warning at the end of 2nd semester of the year 2008 – 2008. It was unlike previous studies which focused only on studying low accumulative averages.

In addition, this study investigated the variation level of these dimensions with reference to the variables of gender and specialization.

The Statement Question of Study: The Problem

The problem of low accumulative averages of the university student has been considered one of major academic problems which encounter students and causing bad effects on students and their parents, and the teaching – learning process – This represents a major factor for educational loss which means that students have to stay longer at university to raise their accumulative averages required for graduation or transferring from a department to another or exclusion from the university and consequently losing a human potential. This in turn reduces the efficacy of university learning outcomes and slows down university pace in coping with development needs of qualified manpower in Jordan.

Therefore, this present study is an attempt to, investigate the dimensions that cause students low accumulative averages and led to an academic warning at the end of the second semester for the year 2007-2008 at Tafila technical University.

In view of the rise in the number of students on academic warning year after year; 321 in the year 2005-2006, 390 in the year 2006-2007, and 431 (15% of university students) in the year 2007 – 2008, the researcher viewed these increases as a real problem and demands a careful study. More precisely, the study aims to answer the following.

QUESTIONS

- 1- What are the dimensions that lead to low accumulative averages for some of TTU students as perceived by the students?
- 2- Are there any statistically significant differences in consistency degree of the sample study on the dimensions causing students low accumulative averages attributed to specialization variable (humanities, scientific)

- 3- Are there any statistically significant differences in consistency degree of the sample study on the dimensions causing low accumulative averages due to gender (male, female)?

The Objectives of Study

- 1- Investigating the dimensions causing students to receive academic warning due to low accumulative averages at TTU.
- 2- Recognizing the level variation among these dimensions as perceived by male and female students.
- 3- Recognizing the level variation among these dimensions as perceived by the students specialization (scientific, humanities).

The Importance of the Study

The importance of the study stems from its great role in recognizing the aspects of a very sensitive issue in the university instruction, that is recognizing the dimensions that lead to academic warning status due to low accumulative averages, causing decline in the efficiency of university instruction, educational, financial and human loss. The importance of study can be defined on the following aspects:

- 1- Being aware of the dimensions that lead to students' low accumulative averages and providing the people in charge at the university with these factors and dimensions, in order to arrive at solutions for improving quality and outcomes of instruction.
- 2- It's the first study of its type that ever dealt with the dimensions that led to low accumulative averages for TTU students, to the best of the researchers' knowledge.

Variables of the Study

- a- Gender variable (male, female)
- b- Specialization variable; humanities (arts, educational sciences, banking and finance sciences) and scientific (engineering and science).

Limitations of the Study

This present study was administered only on the students of TTU who were on academic warning in the second semester for the year 2007-2008 enrolled in both humanities specialization (

arts, educational sciences, banking and financial sciences), and scientific specialization (engineering and sciences)

Operational Definitions

Tafila Technical University (TTU): one of Jordan's higher Education establishments, founded in 2005, it's a governmental university in the southern region of Jordan, about 195 kilometers from Amman. It includes the following six faculties (arts, educational sciences, banking and financial sciences, engineering, science and the technical intermediate college).

Accumulative Average: It refers to the averages of the studied courses that student passed or failed in them till the end of 2nd semester of the year 2007 – 2008.

Academic Warning: It refers to the academic status which students will be on when their personal dimension social academic accumulative averages are below 59.99 each with regard to the regulations of (TTU).

METHODOLOGY AND PROCEDURES

Population and Sample of Study

Population of Study: The population of study includes all the enrolled students at the end of second semester 2007 – 2008 with a total number of 2860 (1320 male student) and (154 female students) the students who earned academic warning were 431 male and female students with a percentage of 15% of the whole total of student. Table 1 shows the distribution of population of study for the academically warned students at the end of 2nd semester 2007-2008

Table 1: The distribution of population of study according to their and gender.

Specialization	Social gender	No.	Total
Scientific	Male	149	222
	Female	73	
Humanities	Males	122	209
	Females	87	
Total			431

*Data taken from university department of admission and registration

The sample of study was 108 male and female students with a percentage of 25% of the population of the study as shown in table 2.

Table 2: The distribution of the sample of the study according to specialization and gender

Specialization	Social gender	No.	Total
Scientific	Males	37	55
	Females	18	
Humanities	Males	31	53
	Females	22	
Total			108

* 25% from population of study

Instrument of Study

For the purpose of study, a questionnaire was constructed depending on the problem of study, objectives, questions and theoretical framework and previous literature. The questionnaire was used to collect data from the subjects of the sample about the probable dimensions which lead to a low accumulative averages as perceived by the students of TTU.

The questionnaire consisted of two main parts. Firstly it includes general information about the subjects of the sample of study (name of faculty, specialization, social gender, and accumulative averages). Secondly it includes the following dimensions:

- personal dimension: it consists of 9 items.
- Social dimension: it consists of 8 items.
- Academic dimension: it consists of 8 items.

The researcher used likert pentagon scale to identify the consistency (agreement) level: agree strongly, agree, moderately agree, and don't agree.

Validity and Stability (Reliability) of the Questionnaire

- Validity of Questionnaire*: It was based on the arbitrariness estimation. The questionnaire was submitted to a panel of 8 experienced arbitrariness from TTU to revise it and report their remarks about the items. Thus 5 items were excluded, some were modified. After making the required modifications, the final version of the questionnaire consisted of 20 items: 7 for personal dimension, 6 for social dimension and 7 for academic dimension. Appenda showed the questionnaire last version.
- Reliability of the Questionnaire*: The cronbach alpha was used to detect the reliability of the questionnaire giving a score of (0.796) which indicated a suitable degree of consistency for the purpose of the study.

Statistical Analysis

The researcher used the following 2 statistical analyses: 1) the mean and the standard deviation. 2) t-Test

RESULTS AND DISCUSSION

By using the suitable procedures for the-
The First Question: What are the dimension that lead to students low accumulative averages to some of TTU students as perceived by the students ? to answer this question the mean and standard deviations for these subjects answers on the dimension which led to students low accumulative averages with regard to specialization (scientific, humanities) and table 3 explains the mean scores and standard deviation of the dimensions according to t, specialization (scientific, humanities).

Table 3 shows that the personal dimension came first in its effect on the students total accumulative average with mean 4.03, then the social dimension with mean 3.50 and finally the academic dimension with a mean at 2.85. this could be interpreted that the university students who were not free to choose their specialization might suffer from lack of willingness for study and develop a tendency to low achievement and consequently be on a academic warning. The students were obliged to specialize according to the ministry of Higher education system of admission. They had progressive feeling of frustration at the probability of unemployment after graduation.

The findings of study could be explained as follow:

Firstly: The first dimension (personal). Table 4 shows the descending order of items their means and standard deviations.

The table shows that the item "studying a specialization without desire" came first, accounting for a mean score of 4.81 and a standard deviation of 0.86 . This might be attributed to the system of admission in official universities that give consideration only to the students' total

average of scores at the General Secondary School Examination and thus obliging many students to be enrolled in specializations against their desires. In addition, some students are obliged by the parents to study a specialization for social and economic considerations, and this lowers motivation, and consequently leads to students low accumulative averages.

Item, "frustrating at unemployment after graduation" came second with a mean of 4.33, and standard deviation 0.89. This might be attributed to the state of many specialization that became so satiated that many graduate are unlikely to find a job especially in some humanities and scientific specializations. And this makes students constantly think of unemployment, question the benefit of their specializations and even the university study at large, leading to very low motivation to success.

The item "lack of time organization" came last of all with a mean of 2.80 and a standard deviation of 1.36. This could be interpreted as a result of students growing awareness of the importance of organizing study timetable with regard to time element.

Secondly: The second dimension (the social dimension), table shows that the item, "busy with behaviors irrelevant to studying," came first with a mean of 4.61 and a standard deviation 0.78, which can be interpreted as a result of the students of TTU who often look for relations with others irrelative to matters of study , waste much of their time on telephone calls, chatting and playing with their colleagues which eventually lead to having insufficient and unsuitable time for study. Thus the findings of this study are consistent with the findings of Al-Shami (1992). Whereas the item "parents force students to obtain a university degree "came second with mean of 4.11 and standard deviation 0.98. This could be interpreted that Jordan society views the university degree as part and parcel of individual's social and economic life and status, especially the females which can be regarded as a part of marriage "deal", in addition, Jordanians

Table 3: Means and standard deviations for students answers on the dimension leading to students low accumulative averages according to specialization (scientific, humanities)

Specialization Dimensions	Scientific		Humanities		Total	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Personal	4.08	0.68	3.98	0.65	4.03	0.67
Social	3.52	0.84	3.48	0.90	3.50	0.87
Academic	2.86	0.90	2.84	0.94	2.85	0.92

view university degree as an access to employment in Jordan and abroad. Therefore, some parents might oblige students to obtain a university degree although they are unwilling to do so, or even they don't want to get a job after passing the General Secondary School Examination. The item "low family follow-up for students" came last with a mean of 2.63 and standard deviation of 1.32.

Thirdly: as for the 3rd dimension (academic dimension), table 4 shows that the item 'difficulty of university courses' came first with a mean of 4.43 and standard deviation 0.73. This could be interpreted by the fact that university courses are controlled and guided by the philosophy of the university plan of specialization, the scientific development that requires university courses to be at certain level of difficulty that suits the university scientific courses in particular, in addition to students' busyness with things other than study, irregular attendance at lectures and their extreme dependence on textbooks.

The item "substandard teaching of some faculty members" came second with a mean of 4.41 and a standard deviation 0.92. This could be attributed to the large number of inexperienced, newly appointed faculty members negatively affecting the quality of their instruction and leading to students low accumulative averages.

The item "faculty focus on memorization rather than comprehension" with a mean score of 2.35 and a standard deviation of 1.52. This could be explained that students cared more about grades rather than understanding the material.

The Second Question: are there any significant statistical differences in the agreement degree of the study sample about the dimensions that lead to students low accumulative averages regarding specialization variable (humanities or scientific)? The answers for this question could be explained as follows: t-Test has been counted to recognize the differences among the subjects of the study sample on the dimensions leading to students' low accumulative averages regarding specialization variable. Table 5 illustrates the results.

The statistical analysis in table 5 indicates that there are no statistically significant differences in the agreement degree of the sample study subjects about the dimensions leading to students low accumulative averages. The means of the dimensions were similar or nearly identical indicating that students viewpoints from humanities faculties and scientific faculties were similar regarding these dimensions. This could be interpreted that students regardless of their specialization are exposed to nearly the same personal,

Table 4: The descending order of items, their dimensions, means and standard deviations

Descending order	Dimension	No. Item	Item	Mean	Standard deviation
1	Personal	5	Study a specialization without desire	4.81	0.73
2		2	Frustration at unemployment expectation after graduation	4.33	0.89
3		7	Poor mental abilities	4.11	1.14
4		6	Lack of knowledge of university regulations related to academic domain	3.91	1.26
5		1	Fear and anxiety of exams	3.16	1.46
6		4	Lack of knowledge of effective study habits and skills	3.11	1.48
7		3	Poor time management	3.8	1.36
1	Social	5	Making themselves busy with things irrelevant to study	4.61	0.78
2		6	Parents forcing students to hold university degree	4.11	0.98
3		1	Poor students instructor relations	3.29	1.02
4		2	Remoteness of students' residence from family	3.19	1.13
5		3	Low family income	3.10	1.23
6		4	Low family follow up	2.63	1.23
1	Academic	1	Difficulty of university courses	4.43	0.86
2		2	Substandard quality of some faculty to teach.	4.21	0.92
3		3	Insignificant role of guidance at university	3.36	1.12
4		7	Delaying studying till the exams days	3.22	1.32
5		4	Limited use of teaching strategies	3.0	1.22
6		5	Pressure of study resulted from intensive exams timetable	2.39	1.40
7		6	Faculty focus on memorization rather than understanding materials	2.35	1.52

Table 5: t-test for differences among study subjects' degree of agreement on the dimensions leading to students low accumulative averages with regard to specialization variable (Scientific, Humanities)

Dimension	Variable	Mean	Standard deviation	t-Value	Level of significance at (0.05)
Social	Scientific	3.52	0.84	0.065	Insignificant
	Humanities	3.48	0.90		
Academic	Scientific	2.86	0.09	0.054	Insignificant
	Humanities	2.84	0.94		
Personal	Scientific	4.08	0.68	0.813	Insignificant
	Humanities	3.98	0.65		

Table 6: t-test for difference among study subjects degree of agreement with regard to gender (male or female)

Dimension	Variable	Mean	Standard deviation	t-Value	Level of significance at (0.05)
Social	Male	3.56	0.91	0.193	Insignificant
	Female	3.44	0.89		
Academic	Male	2.88	0.88	0.196	Insignificant
	Female	2.81	0.85		
Personal	Male	4.06	0.59	0.192	Insignificant
	Female	3.97	0.61		

social and academic conditions which add their contribution to students low accumulative averages. These findings correspond with the findings of study of Bobcheet (2005).

The Third Question: Are there any statistically significant differences in the agreement degree of the subjects about the dimensions leading to students low accumulative averages with regard to gender (male or female)? To answer this question t-Test was administered and table 6 illustrates the results.

By examining table 6, the statistical analysis indicated no significant statistically difference among male and female viewpoints. This meant that students' viewpoints didn't differ about the dimensions that lead to students low accumulative averages according to students' gender. This may be explained because male and female students study in the same conditions and live in the same environment and come from the same social, economic background. These findings correspond with the findings of some studies such as (Al-Ajez 2002; Al-Shami 1992).

RECOMMENDATIONS

Study results in the researcher suggesting the following recommendations can be drawn: There is a need to revise the methods of enrolling students at the universities of Jordan, by designing a method based on students abilities and desires of specializations, activating the role of university academic and educational guidance and counselling in order to increase students' aware-ness about

the importance of the stage they pass by and avoid busyness with what negatively affect their study and providing students with seminars and workshops on efficient study habits and skills.

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