

**The Relationship between the Study Habits and the Academic Performance of Adult Leraners in Preparatory Year**

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## Abstract

The study aims to find out the relationship between varying study habits of adult learners in preparatory year on their academic achievement, as measured by their Grade Point Average (GPA). A self-prepared questionnaire was used for collecting data. An instrument designed by AL-Metwaly 1990 on Study Habits was used to find out the study habits of the respondents. The result shows that final study habits have its own impact on high/ low GPA. It is concluded that adult students study habits have an association of differing strengths and nature with the academic achievement of preparatory year students, as measured by their Grade Average Point (GPA).

Reseach Key words: Study Habits –young adult leanrers- adult learners- academic performance- higher education.

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## الملخص

هدفت هذه الدراسة إلى معرفة العلاقة بين العادات المختلفة للاستذكار والدراسة لدى المتعلمين الكبار (الراشدين)، في السنة التحضيرية وتحصيلهم الأكاديمي، وتمَّ قياس التحصيل بالمعدل التراكمي (GPA). كما تمَّ استخدام الأداة المصممة من قبل (المتولي، ١٩٩٠) لقياس عادات الدراسة، ولمعرفة عادات الاستذكار لدى العينة. وقد أظهرت النتائج أن هناك علاقة ذات دلالة إحصائية قوية بين عادات الدراسة وارتفاع أو انخفاض المعدل التراكمي (GPA) وبالتالي التحصيل الأكاديمي. كلمات البحث المفتاحية: عادات الاستذكار - الراشدين (المتعلمين الكبار) - التحصيل الأكاديمي - التعليم العالي.

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## Introduction

The term study habits refer to the learned patterns of studying that may occur with or without the conscious awareness or deliberate efforts of a student (Ogbodo 2010). Study habits are techniques or methods employed by the student to learn and achieve. As defined by Azikiwe 1998; study habits are the adopted way and manner, when a student plans his/her private readings, after classroom learning. So as to attain mastery of the subject (Azikiwe 1998).

The ability and the adoption of effective study habits are important for any student's academic success (Griffin 2013). Numerous studies have linked academic achievement and high grades with effective study habits (Danskin & Burnet 1952, Nonis & Hudson 2010, Ergene 2011). Gettinger and Seibert (2002) states that academic competence is associated with the knowledge and application of effective study habits and efficient study skills. Many students with academic difficulties are not aware of “tricks of the trade” that are used by academically competent students when they study) Gettinger and Seibert 2002). In addition, Robbins et al. (2004) found that study skills are one of the best predictors of academic performance.

Stanley et al. 1999 asserted that good study skills benefit students beyond improving their academic performance (Stanley et al. 1999). Eisenberg & Berkowitz, (1995) stated that homework is one of the effective study habits that actively engaged student in learning (Eisenberg & Berkowitz 1995).

Similarly, Wood et al. (1999) pointed out those students who have poor learning behaviors tend to have low academic performance. These and several other problems have compelled educators and researchers to introduce study skills such as note taking, mnemonic devices, association etc. as methods of improving students' academic performance (Taylor & Buku , 2006). It is upon this reason that the researchers investigated whether there is a relationship between students' study habits and their academic performance at a Senior High School and to verify whether these study habits will predict their academic performance (Allgood, Risko, Alvarez & Fairbanks, 2000).

Studying habits are qualitative techniques rather than quantitative (Nonis & Hudson 2010). Successful students tend to develop study habits that are less distractible and more inquisitive (Blummer & Richards 1997). Along with their efficient study habits, they have the need to success motivation. Whereas, those with low score and achievement will use rote memory learning habit (Arnold & Feighny 1995). Good study habits are time effective (Nonis & Hudson 2010), reduce exam anxiety (NAEP 1994) increase achievements and higher scores. They are also positively associated with GPA particularly if joined with motivation (Jegade 1997, Borro2006,

Ergene 2011, Awang & Sinnadurai 2011). Structured study habits contribute to successful performance and may even be a good predictor of academic performance (Anna 2004, Miyamoto 2007, Courtney West & Sadoski 2011). Study habits may be influenced by many factors such as cultural beliefs and background <sup>(19)</sup>. For example; Chinese would study both alone and in groups to compare their knowledge with peers, while, blacks were found to study alone (Nickerson GT & Kritsonis 2006). Small group studying habit has been associated with deep studying, understanding and increased learning (Boehler et al. 2001). Deep studying approach is positively correlated to GPA, while, Surface studying involves memorizing information to pass an exam (Elia 2005). Sleight and Mavis (2006) found that collaborative study habits improved examination performance among medical students. Formal education will enhance the development of effective study habits than non-formal (Bajwa et al. 2011). Information and Communication Technologies (ICTs) has its own impact, since 83% use the computers on daily bases to facilitate learning (Mbah 2010). A change and enhancement of study habits was reported in association with the increase of ICT use (Igun & Adogbeji 2007, Ziming & Xiaobin 2008). Lack of funds, not having scholarships, teaching staff shortage, poor infrastructure and alcohol habit are all barriers to good study habits (Powell et al. 2004, Ziming & Xiaobin 2008, Nonis and Hudson 2010). A wide range of personal variations exists among students. Third-year medical students were found to use active study habits such as formulating questions and making summaries (Boehler et al. 2001). On the other hand, second-year were more to rely on lecture notes, books and study aids such as charts to memorize rather than learning (Sleight and Mavis 2006). PBL students tend to use library, journals, textbooks and internet more (Boehler et al. 2001). Some studies show differences between males and females academic performance that is maybe due to their lifestyles and interests (Robinson et al. 1994, Nor Shahriza & Hasan 2005, Borro 2006, Ziming & Xiaobin 2008). Males and females with masculine characteristics have been correlated to effective study habits (Nor Shahriza & Hasan 2005). Understanding the differences in study habits and its effect on academic achievement may aid in students' academic support and advising.

Failure to recognize that students differ in the amount of time they need to complete a task not only ignores the fact that individuals work at different rates, but forces them into adopting undesirable ways of learning and processing information (Sperry, 1972).

The aim of this study was to evaluate the impact which tends to be produced because of varying study habits of of the adult leaeners of the preparatory year students on their academic achievement, as measured by

their Grade Point Average (GPA). For this purpose, the experimental hypothesis which was formulated to study this association was that there is a significant relationship between the academic performance of preparatory year students and the adoption of varying study habits. Therefore, the null hypothesis for the present research was that there is no significant relationship between the academic performance of preparatory year adult learners and the adoption of varying study habits.

The findings of this study would, therefore, be of utmost help to school heads as well as teachers and guidance coordinators as to the various study habits that may predict students' academic performance so they can liaise with each other themselves in helping to provide a more conducive atmosphere in the school and at home for students to learn (Richardson et al. 2000).

Onwuegbuzie et al. (2001) highlighted that self-regulated adult learners tends to be have better study habits which in turn leads to their enhanced academic achievements. He believed that self-regulated adult learners are better at using effective strategies and evaluating themselves. Moreover, research has shown that such students are more proficient in adopting study habits and in using study skills for acquiring, organizing, amalgamating, remembering and using information (Wood et al. 1999).

Research into effective study habits has produced very useful results, though they tend not to be widely disseminated and frequently encounter resistance from teachers. For example, a study has shown that testing (i.e., exams) is just as important to the learning process as is homework; tests help students with recall of information at a later time (Roediger & Karpicke, 2006). As far as studying, spacing learning out over time helps to increase retention, as does switching rooms while studying, switching topics while studying, and studying in a room with a nice view (Son & Kornell 2009).

Aluja-Fabregat and Blanch (2004) conducted a study to analyze the relationships among Cattellian personality factors, study habits, scholastic aptitudes, as well as the academic performance of students. Participants consisted of eight hundred eighty – seven student volunteers who belonged to the primary education background and were currently enrolled in twenty nine different public schools. Data indicated that the most predictive variables of the student academic outcomes were scholastic aptitudes, while the personality traits had a lower direct involvement with academic achievement, even though the students who scored high on socialized personality traits demonstrated better study habits as compared to students who scored lesser on the personality trait of socialization. On the whole, it was concluded that the study habits mediated the relationship between the

academic achievement and the personality traits of students (Aluja-Fabregat & Blanch 2004).

Ross, Salisbury-Glennon et al. (2003) investigated the interrelationships among adult learners perceptions of learning context, test complexity, study methods and study habits, and academic performance. Results showed that perceptions of the teaching format and test complexity had positive relations to the study methods and study habits (Ross, Salisbury-Glennon et al. 2003). Students reported using in various study situations, which ultimately tend to produce a significant impact on the academic achievement of the students (Wood et al. 1999).

The aim of this study was to evaluate the impact which tends to be produced because of varying study habits of adult learners preparatory year students on their academic achievement, as measured by their Grade Point Average (GPA). For this purpose, the experimental hypothesis which was formulated to study this association was that there is a significant relationship between the academic performance of preparatory year adult learners and the adoption of varying study habits. Therefore, the null hypothesis for the present research was that there is no significant relationship between the academic performance of preparatory year adult learners and the adoption of varying study habits.

The findings of this study would therefore be of utmost help to school heads as well as teachers and guidance coordinators as to the various study habits that may predict adult learners' academic performance so they can liaise with each other themselves in helping to provide a more conducive atmosphere in the school and at home for students to learn

## Research Methodology

### Materials and Methods:

One thousands two hundred twenty four (1224) Preparatory year adult learner students, King Saud University, Saudi, ages 18 to 20, participated in this study. A paper-based survey / questionnaire was distributed to male and female adult learner students, who had been selected with through the utilization of the simple random sampling technique. With the administration of this questionnaire, the participants' general demographic information was obtained along with the assessment of their studying habits that they tend to adopt. The administration of this survey / questionnaire took around fifteen to twenty five minutes to complete, however, with through its use, the evaluation of the mentioned aspects helped in the assessment of the relationship between the studying habits among preparatory year adult learners, and their academic achievements (GPA).

## Survey instrument

The study habit instrument used for the present research study was developed and tested by Mohammed N. AL-Metwaly (1990). It was designed for adult learners at universities cloThe questionnaire consisted of two sections.

Section one of this survey / questionnaire was intended to collect the participant's basic profile. It asked about their age, gender, their academic level and their Grade Point Average (GPA) enormously.

The survey instrument consisted of 52 self-evaluating questions. The survey questionnaire was developed in the form of a 5 point Likert scale, the options of which ranged from, strongly agree to strongly disagree. On the whole, these questions were designed to elicit responses regarding some of study habits or learning skills such as: utilization of time, scheduling, study methods, resources utilized during study, reading and library use, note taking, and final exams preparation.

## Data Analysis:

Statistical analysis was performed using SPSS® for Windows (IBM® SPSS® Statistics 19, Chicago, III, USA), and a p-value of <0.05 was considered statistically significant.

## Results

### Participants

The response rate was 84.069%% (1029/1224). There were 434 (42.2%) males and 595 (57.8%) females. Reliability analysis for study habits scale appeared to have a good internal consistency, Cronbach's Alpha = .752.

### Histogram and Normality of the Data

The outputs which were obtained for the assessment of normality of the data is presented in fig (1).

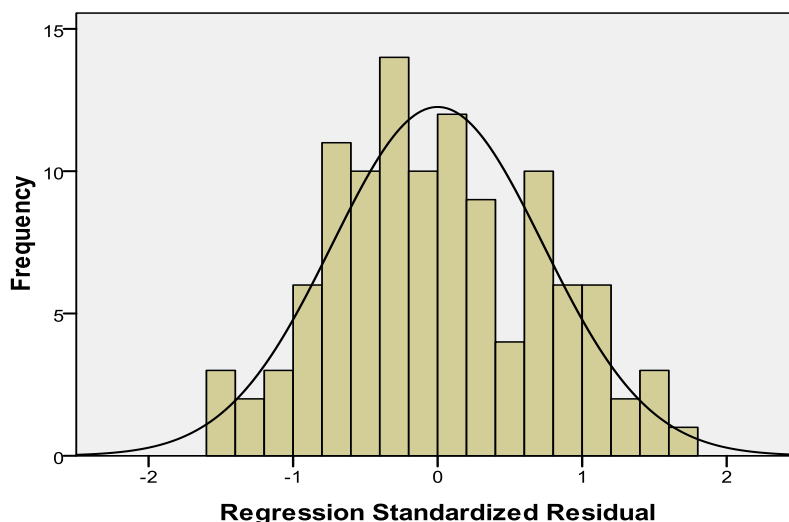


Fig (1): Normal distribution of the data obtained

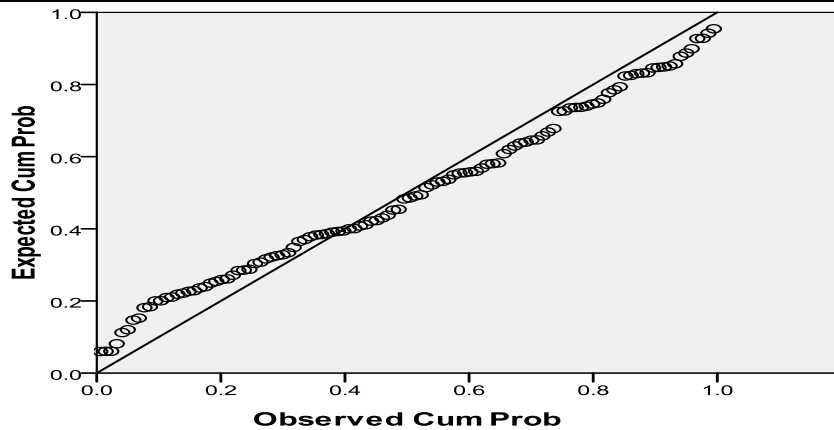


Fig (2): Histogram and the normal P – P plot of the sample.

A general observation of the histogram and the normal P– P plot, is represented in fig (2). It indicated that the collected data is normally distributed with the exception of a few outliers only.

#### Descriptive Statistics

The data collected for the present research is listed in table(1).The observation of the descriptive statistics of the participants’ responses on the utilized survey instrument indicated that their responses varied the most related to the adoption of or the following of a fixed way while studying. In addition, large variations were observed when these participants were questioned about their preferences. Responses of the participants showed the least level of variance related to the aspect of listening to the radio/ watching TV during studying. While studying on my own, taking a rest, setting the amount to be accomplished, studying in a quite atmosphere & underlying the mean ideas, scored the highest among the students. The most common studying habits as related to high & low GPA is represented in table 2.

Table 1. Study habits mean among students

Statement	Mean	Std. Dev
1-I study until late at night	3.70	1.149
2-I study in a loud voice.	3.18	1.233
3-I study on my own	4.29	.880
4-I stop studying when there are sounds & noises.	3.71	.993
5- I go to library to collect what I need from the data to help me in studying	2.45	1.064
6- I Do not adhere to the agenda of studying that I prepared myself.	3.45	1.133
7- I take a rest between each subject when studying.	4.26	.839
8- I like to listen to the radio during studying.	1.82	1.237
9- I like to study prior to the exam date.	3.68	1.178
10- I use the dictionary to find out the word that I do not understand while studying.	3.88	1.158



11-After studying subject I try to answer questions related to it.	3.27	1.036
12-I study my lessons while watching TV.	1.68	.965
13-before I start studying I set the amount of the subject that I will accomplish.	4.06	.888
14- I memorize laws and definitions and terminology without the need of understand.	2.38	.998
15- I do drawings & graphs to illustrate some of the points	3.43	1.141
16- my studying is random and do not meet the requirements of good studying	2.71	1.128
17- When the subjects are lengthy, I study the important parts only	3.40	.968
18-I feel bored when I study my homework fully.	3.63	.985
19 - I review basic facts and important theories from time to time in the course	3.42	.933
20-When studying I pay attentive to everything included topic you read it.	3.67	.868
21-When the subject is a very difficult I study the easy parts of it.	2.70	1.066
22-I postpone the completion of homework until the last minute.	3.12	1.117
23-I do not review the subject more than once before exam.	3.16	1.091
24- I Read the summary of the chapter before reading it.	2.55	1.151
25-I start studying by scanning the contents.	3.38	1.093
26- When I reach a state of boredom during studying, I turned to another job.	3.89	1.018
27- I Devote regular hours daily to study whether there is a test or not.	2.07	1.091
28- I prefer to study in a fixed place every day to avoid distractions.	3.38	1.158
29-If I reach a state of boredom during studying, I insisted on reading the same book.	2.54	1.143
30-I study in fixed times & I do not leave things without specifying.	2.76	1.141
31-I prefer to study in a quiet atmosphere.	4.37	.932
32-I prefer studying in couples or groups.	2.74	1.235
33-I prefer lying on the bed during studying.	2.47	1.236
34- I prefer to read when the book in a horizontal position during studying because it is suitable for my sight	3.06	1.203
35-I underlines the main ideas during studying	4.13	1.112
36- I put comments or on the subject during studying.	3.87	1.016
37-I put the book in inclined position during studying because it is suitable for my sight	2.96	1.127
38- I like to use silent reading during studying	2.81	1.243
39- I prepare a weekly schedule to study at the beginning of the academic year	2.13	1.293
40- I do not follow a fixed way during studying	3.67	1.305
41-After studying every textbook I structure a general summary of the book as a single unit	2.28	1.132
42-I prefer to review previous lessons before starting the new lessons	2.59	1.146
43- after I studying the lesson, I put for myself some questions and answer them	2.89	1.124

44- I review the previous chapters from time to time without waiting for exam	2.03	1.051
45- after I study the subject, I focus on the main ideas to remember	3.14	1.079
46-when studying I combine my lecture note lecture and the book	3.36	1.221
47-when studying, I stop every now and then to review the previous parts of the previously studied topics	3.26	1.016
48-I summarize topics during studying	3.34	1.117
49-I scan the headlines of the subject before reading it.	3.52	1.119
50-When studying I focus on the book without paying attention to what was stated in the lecture	2.38	1.152
51-I prefer studying at a fixed place.	2.46	1.221
52- I prefer moving or standing during studying rather than sitting	2.27	1.196

Table 2: Common study habits of students as related to high and low GPA

G P	Statement	Mean	Std. Dev	F	Sig
High GPA	I study in a loud voice.	3.18	1.233	22.14	.000
	I study on my own	4.29	.880	6.15	.002
	I go to library to collect what I need from the data to help me in studying	2.45	1.064	11.30	.000
	I like to listen to the radio during studying.	1.82	1.237	4.71	.009
	After studying subject I try to answer questions related to it.	3.27	1.036	8.02	.000
	I study my lessons while watching TV.	1.68	.965	18.41	.000
	I do drawings & graphs to illustrate some of the points	3.43	1.141	30.86	.000
	When the subjects are lengthy, I study the important parts only	3.40	.968	11.62	.000
	I put the book in inclined position during studying because it is suitable for my sight	2.96	1.127	3.52	.030
	After studying every textbook I structure a general summary of the book as a single unit	2.28	1.132	7.31	.001
	I review the previous chapters from time to time without waiting for exam	2.03	1.051	6.98	.001
	when studying I combine my lecture note lecture and the book	3.36	1.221	15.27	.000
	I prefer studying at a fixed place.	2.46	1.221	3.69	.03
Low GPA	I stop studying when there are sounds & noises.	3.71	.993	7.371	
	I Do not adhere to the agenda of studying that I prepared myself.	3.45	1.133	7.863	.000
	I like to study prior to the exam date.	3.68	1.178	14.663	.000
	I use the dictionary to find out the word that I do not understand while studying.	3.88	1.158	9.060	.000
	Before I start studying I set the amount of	4.06	.888	50.682	.000

the subject that I will accomplish.				
my studying is random and do not meet the requirements of good studying	2.71	1.128	20.158	.000
I feel bored when I study my homework fully.	3.63	.985	6.419	.002
When the subject is a very difficult I study the easy parts of it.	2.70	1.066	3.856	.021
I postpone the completion of homework until the last minute.	3.12	1.117	9.152	.000
I do not review the subject more than once before exam.	3.16	1.091	8.130	.000
If I reach a state of boredom during studying, I insisted on reading the same book.	2.54	1.143	7.299	.001
I prefer to study in a quiet atmosphere.	4.37	.932	4.932	.007
When studying, I stop every now and then to review the previous parts of the previously studied topics	3.26	1.016	8.521	.000
I summarize topics during studying	3.34	1.117	3.806	.023
When studying I focus on the book without paying attention to what was stated in the lecture	2.38	1.152	22.555	.000

#### Factor analysis:

52 items of study habits were subjected to principle component analysis (PCA) using SPSS Version 20. Prior to performing PCA the suitability of the data for factor analysis were assessed. Inspection of the correlation matrix showed the appropriateness of the data for factor analysis, few cases showed a correlation above 0.3 which is acceptable level. Kaiser-Meyer-Olkin Measure of Sampling Adequacy is more than 0.6, thus in an acceptable level to perform factor analysis for the presented data. In addition, Bartlett's Test of sphericity was significant (0.000).

Four factors were highlighted to be rotated for the final factor analysis with the method of Principal components analysis. The names of the factors were created based on the meaning of the variables included in each factor (Table3). Using the Rotated Component Matrix and the Extraction Method, rotation method was Varimax with Kaiser Normalization (Table 3). The results indicated that there were 11 factors with Eigenvalue more than 1 and it explains 55.6% of variance. Using Catell test and Horn's parallel analysis 4 eventual factors were isolated for further analysis. There was a significant differences between the high and low GPA in note taking ( $p = 0.0001$ ), final exams preparation ( $p = 0.004$ ) and scheduling ( $p = 0.092$ ) (table 4).

Table (3): Factor loadings, mean score of questionnaire items

Factor	Statement	Component				
		1	2	3	4	5
Utilization of Time	1-I study until late at night		.634			
	6- I Do not adhere to the agenda of studying that I prepared myself.	.700				
	7- I take a rest between each subject when studying.		- .561			
	22-I postpone the completion of homework until the last minute.	.708				
	27- I Devote regular hours daily to study whether there is a test or not.	- .576				
	39- I prepare a weekly schedule to study at the beginning of the academic year					
	40- I do not follow a fixed way during studying	.776				
Concentration	2-I study in a loud voice.		.562			
	4-I stop studying when there are sounds & noises.	.728				
	8- I like to listen to the radio during studying.		.634			
	12-I study my lessons while watching TV.		.556			
	18-I feel bored when I study my homework fully.			.760		
	26- When I reach a state of boredom during studying, I turned to another job.			.747		
	28- I prefer to study in a fixed place every day to avoid distractions.	.712				
	31-I prefer to study in a quiet atmosphere.	.763				
Study methods	3-I study on my own	.762				
	11-After studying subject I try to answer questions related to it.				.564	
	14- I memorize laws and definitions and terminology without the need of understand.			.710		
	29-If I reach a state of boredom during studying, I insisted on reading the same book.			.622		
	32-I prefer studying in couples or groups.	.818				

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	33-I prefer lying on the bed during studying.		.506			
	34- I prefer to read when the book in a horizontal position during studying because it is suitable for my sight			.629		
	37-I put the book in inclined position during studying because it is suitable for my sight					.774
	38- I like to use silent reading during studying					.562
	47-when studying, I stop every now and then to review the previous parts of the previously studied topics				.632	
	48-I summarize topics during studying				.771	
	51-I prefer studying at a fixed place.		.828			
	52- I prefer moving or standing during studying rather than sitting		.611			
Scheduling	13-Before I start studying, I set the amount of the subject that I will accomplish.			.731		
	17- When the subjects are lengthy, I study the important parts only		.766			
	21-When the subject is a very difficult I study the easy parts of it.		.830			
	24- I Read the summary of the chapter before reading it.	.710				
	25-I start studying by scanning the contents.	.819				
	49-I scan the headlines of the subject before reading it.	.675				
	50-When studying I focus on the book without paying attention to what was stated in the lecture			-	.728	
Note taking	15- I do drawings & graphs to illustrate some of the points	.616				
	35-I underlines the main ideas during studying	.894				
	36- I put comments or on the subject during studying.	.868				
	41-After studying every textbook I structure a general summary of the book as a single unit		.860			
	46-when studying I combine my lecture note lecture and the book		.620			

Final exams preparation	9- I like to study prior to the exam date.			.759		
	16- my studying is random and do not meet the requirements of good studying		.792			
	19 - I review basic facts and important theories from time to time in the course			.659		
	23-I do not review the subject more than once before exam.		.671			
	42-I prefer to review previous lessons before starting the new lessons	.707				
	43- after I studying the lesson, I put for myself some questions and answer them	.746				
	44- I review the previous chapters from time to time without waiting for exam	.777				
	45- after I study the subject, I focus on the main ideas to remember		.562			

Using t-Test, there was significant difference between high and low GPA for the following factors: Final exams preparation and not taking (Table 4).

Table (4): Study habits versus GPA

Variable	GPA	N	Mean	Mean Difference	p (2-tailed)
Final exams preparation	High GPA	511	3.49	.175	.004
	Low GPA	462	3.32		
Scheduling	High GPA	511	3.47	.117	
	Low GPA	462	3.35		
Note taking	High GPA	511	3.99	.229	.000
	Low GPA	462	3.76		
Study methods	High GPA	504	3.36	-.003	
	Low GPA	462	3.36		

Using Friedman Test, note taking was ranked by the respondents as the most significant concern followed by Scheduling, Final exams preparation and Study methods ( $p = 0.0001$ ) (Table 5).

Table (5): Study habits as preferred by students

Variable	Mean Rank
Note taking	2.94
Scheduling	2.40
Final exams preparation	2.39
Study methods	2.28
N	1029
Chi-Square	231.403
DF	3

When comparing different behavioral items; factor #31 (I prefer to study in a quiet atmosphere) was ranked as the first in rank (41.32); whereas, item #12 (I study my lessons while watching TV) had the least rank (Table 6).

**Table (6): Different study habits as ranked by the students**

No	Factors	Mean rank
1.	I prefer to study in a quiet atmosphere.	41.32
2.	I study on my own	40.32
3.	I take a rest between each subject when studying.	39.81
4.	I underlines the main ideas during studying	38.35
5.	Before I start studying, I set the amount of the subject that I will accomplish.	37.42
6.	When I reach a state of boredom during studying, I turned to another job.	35.79
7.	I use the dictionary to find out the word that I do not understand while studying.	35.44
8.	I put comments or on the subject during studying.	35.27
9.	I study until late at night	33.7
10.	I stop studying when there are sounds & noises.	33.54
11.	When studying I pay attentive to everything included topic you read it	32.95
12.	I do not follow a fixed way during studying	32.92
13.	I like to study prior to the exam date.	32.72
14.	I feel bored when I study my homework fully.	32.4
15.	I scan the headlines of the subject before reading it.	31.45
16.	I Do not adhere to the agenda of studying that I prepared myself.	30.36
17.	When the subjects are lengthy, I study the important parts only	30.19
18.	I review basic facts and important theories from time to time in the course	30.1
19.	I do drawings & graphs to illustrate some of the points	29.99
20.	when studying I combine my lecture note lecture and the book	29.83
21.	I start studying by scanning the contents.	29.7
22.	I prefer to study in a fixed place every day to avoid distractions.	29.63
23.	I summarize topics during studying	28.9
24.	After studying subject I try to answer questions related to it.	28.29
25.	When studying, I stop every now and then to review the previous parts of the previously studied topics	28.21
26.	I study in a loud voice	26.89
27.	after I study the subject, I focus on the main ideas to remember	26.83
28.	I do not review the subject more than once before exam.	26.47
29.	I postpone the completion of homework until the last minute.	26.2
30.	I prefer to read when the book in a horizontal position during studying because it is suitable for my sight	26.13
31.	I put the book in inclined position during studying because it is suitable for my sight	25.24
32.	after I studying the lesson, I put for myself some questions and answer them	23.98
33.	I like to use silent reading during studying	23.34
34.	I prefer studying in couples or groups.	22.59

35.	I study in fixed times & I do not leave things without specifying.	22.45
36.	When the subject is a very difficult I study the easy parts of it.	21.84
37.	my studying is random and do not meet the requirements of good studying	21.77
38.	I prefer to review previous lessons before starting the new lessons	20.52
39.	I Read the summary of the chapter before reading it.	19.78
40.	If I reach a state of boredom during studying, I insisted on reading the same book.	19.77
41.	I prefer lying on the bed during studying.	19.57
42.	I prefer studying at a fixed place.	19.45
43.	I go to library to collect what I need from the data to help me in studying	18.56
44.	When studying I focus on the book without paying attention to what was stated in the lecture	18.02
45.	I memorize laws and definitions and terminology without the need of understand.	17.91
46.	I prefer moving or standing during studying rather than sitting	17.3
47.	After studying every textbook I structure a general summary of the book as a single unit	16.73
48.	I prepare a weekly schedule to study at the beginning of the academic year	15.8
49.	I Devote regular hours daily to study whether there is a test or not.	14.63
50.	I review the previous chapters from time to time without waiting for exam	14.47
51.	I like to listen to the radio during studying.	12.43
52.	I study my lessons while watching TV.	10.76
N		1029
Chi-Square		14767.310
Df		51
Asymp. P		.000

### Correlation Analysis

The outputs which were obtained by carrying out a correlation analysis on the data which was collected for the present study is listed in table 7.

Table 7: Correlation between GPA and different study habits

		Scheduling	Study methods	Note taking	Final exams preparation
GPA	Pearson Correlation	.505	.034	-.102	.173
	Sig. (2-tailed)				.048

The observation of the outputs of correlation analysis mentioned above indicates that there exist a very strong positive correlation between the factors associated with the final exam preparation and the academic achievement of the adult learners, as measured by their GPA. Nonetheless, the observation of these outputs suggest the presence of a weak positive correlation between the student's GPA and their study practices related to



scheduling and the varying study methods adopted by the adult learners. On the other hand, a strong negative correlation was observed in the academic achievement of the adult learners and their study habit of note taking.

### Discussion

The aim of this study was to evaluate the impact which tends to be produced because of varying study habits of preparatory year adult learners on their academic achievement, as measured by their Grade Point Average (GPA). For this purpose, the experimental hypothesis which was formulated to study this association was that there is a significant relationship between the academic performance of the adult learners and the adoption of varying study habits. Therefore, the null hypothesis for the present research was that there is no significant relationship between the academic performance of the adult learners and the adoption of varying study habits.

With the analysis of the data collected for the present investigation, the null hypothesis was rejected. Hence, it was concluded that the study practices and habits of Scheduling, Note taking, varying study methods, Final exams preparation, utilization of other resources during studies, the efficient utilization of time and the study habits of Reading and library use tend to have an association of differing strengths and nature with the academic achievement of adult learners as measured by their Grade Average Point (GPA).

Researches has shown that adult learners' study habits are significant factors in determining how successful they are with their education (Bartling, 1988, Aluja - Fabregat & Blanch, 2004, Ogbodo 2010). Strategies for effective studying have been developed to enhance study habits and skills of students, which can increase their educational success. Okpala, Okpala, and Ellis (2000) reported that study habits/strategies has it is own impact on students' achievement influence and could explain average and below average score. Musch and Bröder (1999) investigated test anxiety, study habits and academic performance, they noted that study skills are effective test-taking skills and a measure of test anxiety contributed significantly to academic performance (Stanley et al. 1999).

The present investigation shows that final exam preparation, note taking, time management and study strategies/skills were crucial issues affecting achievement (Jones et al., 1991; Jones et al., 1992; Jones et al., 1995; Slate et al., 1993, Okpala, Okpala, and Ellis 2000, Jacobs 2008). Walter Pauk (2000) is renowned for his contributions to effective study strategies for students. Pauk (2000) focuses on the essential skills of goal setting, time management, concentration, memory, and note taking. These skills are the most influential on young adult learners' academic success.

Goal setting is essential because students need to set goals in order to make accomplishments. Time management is essential because if time is not managed correctly, it can have an adverse effect on students' grades. Concentration is a cognitive ability that is important because it allows students to complete tasks. Memory is a cognitive ability that is important because education is highly memory-based. Note taking is an essential study skill because good notes increase the potential for success on tests and assignments.

In agreement with others, note taking was one of the factors that assist in achieving. Marzano, Pickering, and Pollock (2001) identify note taking as one of the research based strategies for increasing adult learners achievement. Although researchers seem to agree that note taking is beneficial, they may disagree on the reason for this effectiveness. Beecher's (1988) analysis of note taking research identified a common theme: encoding versus external storage. If, as researchers such as Stahl, King, and Henk (1991) suggest, encoding is the most important aspect of note taking, then note taking helps students learn through additional processing of information—the process of a brain transferring the information into a different format helps the student learn the information. Moreover, note taking provides the students the opportunity to review relevant information in an accessible format when necessary—such as in preparation for a test.

Similar to others, Study habits were found to be associated with high and low academic performance (Borg et al. 1989, Darwin 2011). Waiting until the last minute has a negative effect on student performance and GPA (Stanley et al. 1999). Lack of concentration and motivation were two essential factors contributing to failure to achieve (Proctor et al. 2006, Marrs et al. 2009, Griffin et al. 2013). Students' perception of study strategies will depend on previous and current academic experiences (Bartling, 1988). For example, Post-baccalaureate students have been reported to own well-developed study strategies and more likely to successes (Soto & Anand 2009). Many students have been exposed to these strategies, but not enough students are taking advantage of these techniques. Students can benefit from incorporating these effective study strategies into their studying with improvements in their grades (Aluja - Fabregat & Blanch, 2004). In addition, some teachers may tend to deliver lectures and other instruction as though all students think alike. Students perceive and learn in different ways likewise they study in different ways. Students may have different learning styles. Some prefer to learn alone while others learn better in groups. They will also prefer to use specific study habits or skills while others may not (Wood et al. 1999).

Good study habits that have been reported in the literature to be efficient in learning, should be taught and reinforced to students. Similarly,

those habits associated with low performance must be discouraged. Teaching study habits and techniques at the entrance stage of the students may aid and ease learning process through all courses. This is of particular importance since most of the students lack knowledge and ability to decide which habits/strategy is effective (Kornell and Bjork 2007, Son & Kornell 2009).

### Limitations and Recommendations

The present research study, however, had certain potential limitations. It was assumed that students provided true reflection of their self and their habits, only. Like any survey, there is always the limitation of response bias by students, especially while reporting their academic achievements and their GPA. In addition to this, there is a possibility that some students may not have understood the statements of the used questionnaire, in the manner in which it was intended, which could have led to their inaccurately or inappropriate reflection of their opinions and behaviors.

To concrete the conclusions drawn and to validate the study findings, further studies should be conducted with a larger sample. Understanding the study techniques used adult learners in developing nations and the differences between those of the developed nations would help in developing techniques or opportunities for improvement in the adult learner's learning process and for their overall academic achievements as well.

### Conclusion

The purpose of this study was to evaluate the impact which tends to be produced because of varying study habits of preparatory year adult learners on their academic achievement, as measured by their Grade Point Average (GPA). The experimental hypothesis which was formulated to study this association was that there is a significant relationship between the academic performance of preparatory year adult learners and the adoption of varying study habits. Therefore, the null hypothesis for the present research was that there is no significant relationship between the academic performance of adult learners and the adoption of varying study habits.

With the analysis of the data collected from 1224 adult learners with the use of a survey questionnaire, developed by Mohammed N. AL-Metwaly, the null hypothesis of the study was rejected. Therefore, it was concluded that the study practices and habits of Scheduling, Note taking, varying study methods, Final exams preparation, utilization of other resources during studies, the efficient utilization of time and the study habits of Reading and library use tend to have an association of differing strengths and nature with the academic achievement of adult learners, as measured by their Grade Average Point (GPA).

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