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### Students' Perception of the Learning Support Center in Abu Dhabi University and its Impact on their Academic Achievement

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#### ABSTRACT

Learning Support Centers in universities play a very significant role in enhancing students learning and their retention. The current study is determined to examine students' perception of Learning Support Center in Abu Dhabi University and its impact on their academic achievements. The first phase of the research will focus on a survey conducted through a questionnaire to measure student perception of the existing Learning Support Center in Abu Dhabi University (ADU LSC). During the second phase, the research will examine the positive impact of the Learning Support Center on students' academic achievement. Pretest and post-test designs will be used to reveal the degree of change occurring in students' academic achievements. This paper is expected to provide useful information to the academic community to advocate and design programs to transform Learning Support Centers (LSCs) at university level, and simultaneously help undergraduate students to cope with their initial academic challenges as they transition from secondary school education into tertiary education. The unique specialty of this research is that, the study will be the first of its kind to examine students' perceptions of the LSC as well as its impact on their academic achievement. The study will also suggest recommendations to fill the void of empirical evidence about the effectiveness of the LSC program running at ADU.

**Keywords:** Learning Support Center, academic assistance, learning skills, attitude, Perception.

#### 1. INTRODUCTION

The Abu Dhabi University Learning Support Center (ADU LSC) aims to provide academic assistance and encouragement to students who find themselves struggling with academic challenges (Kelley-hall, 2010). In theory, students admitted to the university are not expected to struggle with academic challenges as they are the best crop selected from the best performing and qualifying high school students but that is so far from

the truth. The demand for higher education in the UAE has increased dramatically in the last two decades in response to UAE's Millennium Development Goals. That increase, in part, saw the inception of Abu Dhabi University as provider of good quality tertiary education for both its local citizens and its expatriate residents. However, increased popularity in higher education is wrought with contradiction because in some instances, there is a glaring gap between the academic ability of students' graduating from high school and their college readiness. Previously, this gap was bridged by Foundations Programs also dubbed Bridge Programs but they were banned owing to stringent education reforms in the country.

With the scrapping of Foundation and bridge programs, a gap in academic readiness of college students was revealed. Abu Dhabi University responded to this gap by opening the Learning Support Center (LSC) in 2012; the center has been lauded as a huge success within the university and outside. While the Abu Dhabi University's LSC has received a lot of acclamation from its patrons and external observers, there is an overall paucity of research indicating how it is perceived by students who patronize it. Such is the impetus that necessitated our study; we aim to establish students' perceptions of the LSC here in Abu Dhabi University.

Students patronize the LSC in order to influence change in their learning skills and attitudes in areas in which they are underperforming. The ADU LSC has been a facility for the learners by learners themselves. McIlhone (2012) heralded it as a great success in his report in *Arab Brains*. He said that within the span of one year, over 1,000 students had benefited from the center's services since its inception in 2012'. He also pointed out its success, by saying that:

'In what is set to be a remarkable case study of the power of student-to-student mentorship by ADU, Abu Dhabi's Learning Support Center has achieved an astounding 93% increase in 'A' grades among male participants, while their female counterparts have seen their 'A' grades soar by 88%, for an average increase of 91%.'

As we delve into our study, we know that 'learning support is a buzzword which carries with it many meanings and overtones', (Bojuwoye, Molla, Moletsane, Stofile, Sylvester: 2014), but we want to know how students perceive it. The ADU LSC was established with the sole purpose of nurturing students' abilities and enhancing their academic ability to pursue their degrees. With a conspicuous gap in college readiness of students admitted to various degree causes, the university could not afford to waste talent simply because of a reluctance to foster it (HEFCE, 2006 p. 9); hence, the need to establish a Learning Support Center was fostered.

Without a doubt, the ADU LSC was established out of a genuine need mostly driven by the teaching fraternity who found a learning gap in their students but in our study, we seek to establish how it is perceived by students who are its stake holders. To help us come to an understanding of these phenomenon we designed a survey to explore students' perceptions of the LSC here in ADU. The survey questions included items related to student perceptions of the LSC, their level of engagement, involvement, motivation and interest. Through our study, we hope to acquire information to increase knowledge and awareness of Learning Support Center through capturing the unique perceptions of the Learning Support Center that students have in order to create better ways of meeting their needs (Kelley-hall, 2010).

The investigators aimed at studying the perception of ADU students towards LSC. The tools used for this study are reliable and valid. The current study can be used to understand whether the LSC is providing

educational support to the students in a flexible manner. This will also enable us to understand various students' needs to enhance their learning. The report is organized in the headings like literature review, methodology, analysis & interpretation, conclusion and discussion.

## **2. LITERATURE REVIEW**

The ADU LSC has been a facility that has attracted students in large numbers, but what are their perspective of the facility? The center was not started by students but rather for students as an initiative to help them and to increase retention rates while reducing their learning challenges. The main mandate of the ADU LSC was to 'help students learn to learn' (Dearing Report 1997) by enhancing learning through peer tutoring among other things. Peer tutoring underpins the university's responsibility to direct students 'learning to learn' in order to improve student's own learning, to become independent learners, for both successes in the university, and consequently future employment (Allan & Clarke, 2007; Tarmuchi, Mohamed & Ismail, 2015; Chadyiwa & Mgutshini, 2015; Kongmanus, 2016). It should not come as a surprise that many students who register at the LSC have poor work ethics and lack good study habits which constitute as learning barriers (Mashau, 2000). For that reason, the LSC has become an indispensable panacea to the learning woes that befall many students who are registered at the university and struggle with the transitions from high school to university. The LSC provides the much needed learner training in an atmosphere aimed at making students feel appreciated, unthreatened and understood. Learner training is necessary for enhancing learning and yet it cannot be inculcated in normal every day lectures.

While there is a push by society and the job market to vouch for higher education, there is a myriad of challenges which betray the desire to learn with ease and earn a college degree. To begin with, language poses to be a huge barrier. Many students admitted in the university come from schools where the Arabic language was the medium of instruction. That is clearly a huge jump as the language of instruction in Abu Dhabi University is English. Furthermore, there is also the issue of college readiness; generally, there is a certain group of students who are admitted to the university who lack a proper foundation of knowledge such as literacy and numeracy (DeVillers, 1997). Other factors that drive students to enlist for learning support services are those that emanate from the students themselves; as observed by (Mashau, 2000; Chen, 2015) students have both poor work ethic and study habits. There are also socio-economic factors which come in to play; for example, the push for higher education has raised the bar in the job market and hence there is a burgeoning need to go to college for students who missed the opportunity in their heyday. Returning students find it hard to adjust to the routine of studentship and hence require acclimatization and that is where the LSC comes in handy. To compound the problem, some students take up part time jobs in order to offset their tuition fees. Juggling work and studies, and sometimes raising up a family, diminishes efficiency in studies hence students find themselves lagging behind their studies. Naturally, that myriad of challenges usually forces such students to look for remedial assistance which is available at the Learning Support Center either through individual voluntary pursuit or a recommendation by a professor. Professors may refer individual students to the LSC if they find them lacking rudimentary skills needed for a course. In most instances, such skills cannot be taught within the course and yet being deficient in them becomes an impediment to the students' study in that particular course.

Undoubtedly, the LSC was received with open arms by the Abu Dhabi University students' community. In the LSC, students endeavor to acquire skills which are not merely for the sake of learning but rather skills

that are geared towards training them to learn to learn. They develop study habits which are pre-conditions for learning; therefore, they learn to keep learning. A student who visits the LSC goes there with the sole purpose of being helped to upgrade his academic skills in order to meet a lacking academic skill. The LSC helps students to beat the education system by learning more within a short time span with great ease and confidence. This happens because while at the LSC, students get tutorial help in a non-threatening environment through learner orientated LSC tutors. LSCs provides peer-directed academic learning for individuals in high risk courses in traditionally challenging subjects such as math, writing, computing, reading etc. LSC tutors are students who are carefully selected on the basis of their academic achievement and then trained or supervised to become mentors or coaches. Unlike regular subject instructors and professors, these student peer tutors approach the subject from a student's point of view. Regular instructors approach the subject from an expert's point of view thereby not getting the message across to weak students since these weak students fail to make any headway by failing to recognize the subjects' complexity in the first place. Owing to its very non-judgmental and non-threatening nature, the LSC plays a pivotal role in learning. It promotes active learning strategies, encourages student engagement, through the provision of content support and academic support for at risk students, and thereby increasing retention, motivation, academic engagement and student performance. It is easy to extrapolate that since the ADU LSC is a facility which is frequented by students, then students perceive it in a positive way, but that is unknown, at least for now, since there has been no study done to that effect. The absence of a study to show what students' perception of the ADU LSC is, has made us carry out this study so as to provide an informed answer to the query.

### 3. OBJECTIVES

- To understand students' perception of the ADU LSC.
- To understand the effect of LSC in students' academic achievement.
- To understand the effect of various factors like peer tutoring, on students' academic achievement.

### 4. HYPOTHESIS

- Students have a positive perception towards the ADU LSC.
- There is a significant difference in students perception based on gender, age, major and year of study.
- There is a significant difference in the academic performance level of Psychology (PSY201) students' before and after attending LSC.
- There is a significant difference in the academic performance level of English (ENG200) students' before and after attending LSC

### 5. METHOD

In the present investigation the researchers employed quantitative method to examine the hypothesized relationship and the effect of the ADU LSC on student learning. The current study was descriptive and experimental in nature. **One group of Pre-test and Post-test design** was used to determine the effect

of LSC support on student's academic achievement. In this study, the Midterm Exam is considered as the Pre-test, and the Final Exam is considered the Post test. The subject chosen as the focus of our study were PSY201 and English 200. While collecting our data, the same pattern of questions was used in both the Midterm Exam and the Final Exam. The questions used in the survey for PSY 201 included MCQ, True or false and short answer questions. The topics were different during Midterm and Final Exam but the difficulty (toughness) and durability of the topics was same for the two exams. Similarly, for ENG200 survey questions included close type of questions such as yes/no, true/false, gap fill and short structured answer questions.

**Table 1**  
**One group Pre-test, Post-test**

<i>Pre-test</i>	<i>Treatment</i>	<i>Post-test</i>
O1	X	O2

O1- Midterm, X- LSC intervention, O2- Final exam

Survey method was adopted to understand the student's perception towards LSC.

## 6. TOOLS

A five-point attitude scale having 15 items was constructed to collect data from the students to demonstrate their perception of ADU LSC. The scale was an adapted and modified version of 'Self-administered questionnaire on perceptions of PBL learning' by Sang Yeoup Lee, et.al 2016. The scale covers two areas where students usually show their perceptions towards the ADU LSC and the tutors in the Center. The students were asked to respond to all the statements in the questionnaire. The responses varied from 'SA', which denotes 'Strongly Agree', 'A' denotes 'Agree', 'NS' denotes 'Not Sure', 'D' denotes 'Disagree' and 'SD' denotes 'Strongly Disagree'. The score of the individual fall between 15 and 75. The score above 45 shows favorable perception, while a score below 45 is unfavorable and exactly 45 is neutral. The item analysis was done using Mathew item Analysis Table (Mathew, 1982). The table given item criterion correlation (Phi-coefficient) and the (P value). Each items in the scale was selected from the highest correlation value and medium P values. Thus, items having a correlation value of 0.30 and above, and P value of 0.22 to 0.54, both inclusive, were chosen as the final items. The final scale consisted of 15 items, selected from the draft of 25 items.

## 7. VALIDITY

Each content was systematically examined and confirmed that the test covered a representative sample of the behavior domain to be measured. The content validity was built into the test from the inception through the choice of suitable items. This was done through a systematic examination of relevant reference materials, as well as by consultation with various experts in this field.

## 8. RELIABILITY

Split-Half method was used to establish the reliability of the test. The test was split into two halves on the basis of scores on the odd and even items of the test. When the two half screen was obtained for each person, it was correlated using Pearson-Product Moment method. The reliability of half test was found to be 0.84 (N=50). Using Spearman-Brown formula, the reliability of the test was found to be 0.95.



## **9. SAMPLE**

The sample of this study comprised of 88 undergraduate students (Male & Female) who attended ADU LSC and participated in the survey. Out of the overall 88 students surveyed, 50 students were participating in the LSC intervention program.

### **9.1. Selection of Sample for LSC Intervention Program**

Out of the 50 students selected for intervention program, 25 students were from PSY201 course, and the other 25 students were from ENG200 course. Students who got less than 60% marks in the Midterm, from both Psychology 201 and English 200 classes were identified and send to LSC for referred intervention. Majority of the participants were first year (2nd semester) students who had registered in different majors within the university. The students participated in approximately 42 hours of training in a period of 6 weeks. The sessions were broken down to a weekly 5 day-one-hour training session under a Peer Tutor. The Peer Tutors were selected after a rigorous selection process, and then given put through a thorough training and mentorship program. For the current study the researchers selected groups of students that were put under high-performing student mentors or peer tutors. One of the effective teaching strategies used by the peer tutors is comprehension which involves constructing meaning that is reasonable and accurate by connecting what has been read with what the reader already knows and then thinking about it until it is understood. Other strategies like rehearsal, elaboration, organization, were also put into practice. The trained peer tutors systematically taught students using all these effective learning methods. The criteria for selecting students in the intervention program were as follows:

- Students were selected only from ENG 200 and PSY 201 courses and all students were doing their second semester in the university.
- Students who scored less than 60 percentage during mid-term were asked to join the program.
- Students who have willingness to participate and who obtained parents' permission participated in the program.
- All the students' participating had an IELTS scores of band 5.5 & 6.
- All students' participants were Arabic speakers.
- All students involved in this program has taken only 4 General Education courses including English, Psychology, UAE Society and Math courses.
- The participating students were not attending any other tuitions other than LSC support program.
- The GPA of all participating students was between 2.5 & 3

The details of the students who participated in the LSC program is shown in the below table.

According to a total of 88 students who participated in this survey, the mean of 51.3864 of the entire sample is very close to the mean of each sub-category. 55% of participating students were male and 45% were female. It was observed that the majority (46%) of participating students ranged from the age of 19-20. 66% of the participants were from the College of Engineering (CoE). We can therefore extrapolate that students from CoE recognized the need of attending the LSC; consequently, they have learned to exploit the benefits of this facility which has been gracefully endeared to them by the university.

**Table 2**  
**Percentage distribution of the sample according to gender, age, major, GPA and their means and their standard deviation**

		<i>Count</i>	<i>Percent</i>
Gender	Male	48	55%
	Female	40	45%
Age Group	17-18	18	20%
	19-20	40	46%
	Above 20	30	34%
Study Year	1st year	27	30.7%
	2nd year	24	27.27
	3rd year	20	22.72
	4th year	17	19.31
Major	CoE	58	66%
	COBA	14	16%
	CAS	11	12%
	Others	5	6%
	Total	88	

### 10. ANALYSIS AND INTERPRETATION

Descriptive statistics were used for analysis. For each of the proposed hypotheses ANOVA and Wilcoxon Signed Rank Test (since the data lacks normality) were used to test the significant level.

**Table 3**  
**Percentage Distribution of the Sample according to perception**

<i>Perception</i>	<i>Count</i>	<i>Percent</i>
Negative	13	15%
Positive	75	85%
Mean ± SD	51.4 ± 10.03	

As shown in the Table: 3 the overall perception of students were found to be positive.

**Table 4**  
**Comparison of overall perception based on selected demographic variables**

		<i>One Way ANOVA</i>				
		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Gender	Between Groups	1.095	1	1.095	0.011	0.918
	Within Groups	8755.768	86	101.811		
Age Group	Between Groups	152.011	2	76.005	0.751	0.475
	Within Groups	8604.853	85	101.234		
Study Year	Between Groups	247.555	3	82.518	0.815	0.489
	Within Groups	8509.308	84	101.301		
Major	Between Groups	39.683	3	13.228	0.127	0.944
	Within Groups	8717.180	84	103.776		
Total		8756.864	87			

'F' test were done to find whether the perception differed on demographic variables such as gender, age group, year of study, and majors. The obtained 'F' values for gender  $F(1,86) = 0.011$ , age group  $F(2,85) = 0.751$ , year of study  $F(3,84) = 0.815$ , and majors  $F(3,84) = 0.127$  are to be compared with  $p$ -value and  $F$  critical taking in consideration  $\alpha = 0.05$ . The results do not show any significant difference on perception between students in different majors, gender, age groups or year of study. This could be due to various factors pertaining to the environment. For example, Abu Dhabi University is a student centered institution; without any discrimination, it offers its services (which include the LSC) free of charge to all its students. The timing of LSC (9am – 6pm) is convenient to all students. The other significant factor is the nature of tutoring in the LSC; students are tutored by their peers! This makes learning an exciting and non-threatening experience where students feel free to be taught and corrected. The LSC is always 'students' choice. It's very democratic nature, and the fact that there are no rules or policies to force students to patronize it makes it favorable to students. The Abu Dhabi University student population is diverse. As a matter of fact, ADU students hail from 42 different nationalities; however, that does not influence their perception of the LSC. Students from different cultural backgrounds have a similar perception of the LSC.

**Table 5**  
**Distribution of marks for PSY**

Marks for PSY	Before Count Percentage		After Count Percentage		Z#	p
Less than 60	25	100.0	0	0.0	4.46**	0.000
60 – 65	0	0.0	12	48.0		
65 – 70	0	0.0	9	36.0		
70 above	0	0.0	4	16.0		

#Wilcoxon Signed Rank Test

\*\*Significant at 0.01 level

Comparison of the effectiveness of LSC support on academic achievement of Psychology students are presented in the Table 5. A total of 25 participants got less than 60 percent during mid-term and after attending the LSC program it was noticed that, 48.0 percentage of students reached in between the score of 60-65 percent. Similarly, 36.0 percent reached in between the score of 65-70 and 16 percentage reached the score of above 70 percent during the final exam after attending the LSC support program. It was also noticed that none of the students has a score of below 60 percent. The Wilcoxon Signed Rank Test indicate that ( $p < 0.01$ ) there is a significant difference in the effectiveness of LSC support based on their academic achievement level in Psychology.

The Wilcoxon test of statistics ( $p < 0.01$ ) shows that the students who had taken LSC support differ statistically in their mid-term and final exam scores, therefore the hypothesis is accepted.

The above table presented the comparison of effectiveness of LSC support on the academic achievement level of ENG students before and after attending the LSC sessions. For the Midterm exam, 44 percent of student's scores were less than 60 percent and after attending the LSC support program only 4 percent of students got less than 60 percent. While 56 percent of the students' scores were in between 60- 65 percent before LSC support program, after the program their scores increased up to 65-70 percent. Finally, 16 percent of students got above 70 percent after attending the support services at the LSC. Wilcoxon test shows ( $p > 0.01$ ) that the students who followed LSC support program differ statistically in their Midterm



exam and Final exam scores. This shows that the supportive services and peer tutoring offering from ADU LSC is effective and this improves the academic performance of English students.

**Table 6**  
**Distribution of marks for ENG**

<i>Marks for P-ENG</i>	<i>Before (Mid-term scores)</i>		<i>After (Final exam scores)</i>		<i>Z#</i>	<i>p</i>
	<i>Count</i>	<i>Percent</i>	<i>Count</i>	<i>Percent</i>		
Less than 60	11	44.0	1	4.0	3.89**	0.000
60 – 65	14	56.0	6	24.0		
65 – 70	0	0.0	14	56.0		
70 above	0	0.0	4	16.0		

#Wilcoxon Signed Rank Test

\*\*Significant at 0.01 level

## 11. CONCLUSION AND DISCUSSION

The problem addressed in the research study was to understand the student's perception of the ADU LSC and whether LSC peer tutoring has any significant impact on students' academic achievement. The results indicate that students have a positive perception towards ADU LSC and attending its peer tutor led programs has indeed produced a positive effect on academic achievement of Psychology and English students. The study also revealed the positive impact of peer tutoring. It is evident that Peer tutoring has become an effective method. This could be attributed to the fact that the tutors and the tutee speak the same language and also the level of their communication might be the same but very different form that of their teachers. Both the tutors and tutees have benefitted from the program. Peer tutoring has improved the tutors social skills, self-esteem and communication abilities; a fact which has been supported by many previous studies. Previous researches have positively found a correlation between learning support centers and students' academic achievement level. A good example is the Dearing Report (1997) which revealed that LSCs help students learn to learn by enhancing learning through peer tutoring among other things. The same notion is echoed by Allan and Clarke where they have clearly shown that peer tutoring underpins the university's responsibility to direct students 'learning to learn' in order to improve student's own learning, to become independent learners, for both successes in the university, and consequently future employment (2007).

Evidence posits that through the LSC tutors, at risk students have registered remarkable success and have carried out their studies with ease. The emerging reality here is that there is a symbiotic relationship between subject specialists, students and the LSC tutors. Given that learning barriers are always going to be there, and that subject specialists cannot address them in class, then a workable solution has been stumbled on by accident. Learning support tutors have emerged to be the elixir to the rogue complexities brought about by learning barriers. To echo what has just emerged in our study, Hong-Nam & Leavele (2006) posited that peer-led teaching was one of the best strategies to increase student direct involvement and autonomous learning ... in addition to their performance progress. It is therefore imperative that there is a need to fully harness the untapped resource that the Learning Support Tutors are.

Social-cultural factors play a pivotal role in the learning process and it has huge implications on how students' and their professors' inter-relate. ADU students are predominantly Arabic while the professors

are sourced from all over the world. By nature, Arabic students tend to hid weakness, a behavior which stems from their culture where failure is 'losing face', and so students never want to 'lose face' by failing or exposing their weaknesses. As Springsteen (2014) observed in her paper "Examining student motivation in Saudi Arabia",

Every year, thousands of people from all over the world travel to Saudi Arabia to teach ... Similarly, thousands of Saudi students receive a large portion of their education from these expatriate teachers. Despite the millions of dollars spent on this educational process, the impact suffers greatly from a lack of understanding between teacher and student, often caused by undiscussed misconceptions.

To students, owing to social -cultural factors, failure in an exam or a test is a stigmatizing experience. To compound the problem, students would rather shy away from help from a professor rather than 'expose their weaknesses to him/her. This problem has somehow, found an arbiter through the learning support centers. Students feel freer to get help from Learning Support Tutors. The LSC environment is somehow non-threatening to the student. It is also less of a burden because the student there is not being judged through tests and marks. Tests and grades seem to compound the problem and students would rather approach a 'third party' for help rather than the professor who is deem superior and therefore would rather not expose their 'deficiencies' to him/her.

The current study enabled the LSC coordinators to have an in-depth understanding about the LSC students' needs. It was understood that the students were gaining valuable support from LSC, and in future the training programs for LSC tutors will add more value and will be well-structured and equipped to improve their teaching and communication skills.

Further research on this topic could explore the relationship between the LSC and other populations within the ADU community or even with other populations outside ADU. Experimental research can also be extended to other subjects and other students from other departments and not limit it to Psychology 201 and English 200 alone.

In summary the current study has emphasizes the impact of LSC on students' academic achievement. In view of its findings the study recommends that;

- A standardized selection criteria for choosing tutors be put in place.
- Develop a structured training program aimed at training and nurturing the talent of tutors to enable them to align their tutoring services with students' needs.
- LSC services be established as part of campus community services in order to remove the stigma that it is a place of challenged students that is attached to it.
- The right kind of awareness about LSC among students be created; in spite of the huge success of the LSC, majority of students have an assumption that LSC is only for academically challenged students, and therefore there is only a limited population of students who are chosen to be part of LSC services. This is a barrier which need to be addressed with proper communication and benefits of LSC even to apt students who can still hone their skills by availing the LSC services.

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