

RELATION OF USE OF FACEBOOK AND STUDENT RETENTION THOROUGH THE PATH OF STUDENT ENGAGEMENT

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Abstract:

This research is designed to check the relationship of Use of Facebook, Student Engagement and Student Retention. Use of Facebook is dealt as independent variables Student Engagement as mediating variable and Student Retention as dependent variable. This is quantitative research. Data is collected 600 respondents with the help of structured questionnaire. Multistage sampling techniques i.e. simple random sampling and Judgment sampling are used for selection of respondents. Results indicate that for direct relationship, Use of Facebook has significant positive impact on Student Engagement and Student Retention respectively. While, Student Engagement is partially mediating the relationship of Use of Facebook with Student Retention. In future, these kinds of researches may also conduct on different sectors like textile sector, telecommunication sector, and health sector. In future, more universities of heterogonous cities will also include for generalization of results.

Key Words: Use of Facebook, Student Engagement, Student Retention, Education Institutions, Pakistan.

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Introduction

Students retention is become important topic in over thirty years and this topic widely studied in higher education. (Braxton, 2002; Seidman, 2005). In higher education the student retention is the extensively studied areas. Now over four decades extensive research literature like, books and edited volumes, educational journal, conferences devoted solely to student retention. Extensive amount of theoretical work is under discussion on the behavior of student retention because many articles and edited volumes also discussed the advantages about different theoretical model and every model have been portray the right process of student's retention. The result has cosmopolitan conception that also the composite of web events that also shapes either student leaved or retain.

When the university level educational environment has been changed from one to another way deprecate resources, the institution and states focus on increasing the rate as to retain the student and graduate in four years colleges and universities. This is a shocking fact the consulting firm increases day by day and each of them claim that they have a unique strength to help out the institution to retain the student ratio. Nowadays student retention becomes a big and successful business for researchers, educators and

businessperson. Student retention is a difficult task, but some institution has ability to come up this problem through using basic tools to retain the student.

In past decade rate of retention and graduation have been little change. (NCES, 2005a). Despite of the fact our work of many years on this issue, there is still much we do not yet know and have yet to be explored. The significant is that we do not yet interpret theoretic and research work in form of productive action. It would not be unaccommodating to ask about the what else the need in future to success of own work on behalf to raise the student retention and upgrade the institutional success. This study is to evaluate the amount of student retention of Punjab University. Forman Christian college, Lahore college for women university and Superior University. And check the direct and mediating effect of the variables i.e. social media addiction, use of face book, student engagement and student retention.

Problem Statement

The main consideration of this research is that student retention is serious issue for higher education institutions. In Saudi Arabia student retention is a major problem in higher education (Abdul Jauad,1998; Almannie, 2002). The estimated percentage of Saudi student leavening higher education is 35

before completing their studies (Al-Saud, 2006). To solve the problem of student retention quantitative analysis is done with the help of social media addiction, use of face book and student engagement variables.

Rationale of the study

From the knowledge of researcher, no previous study has done to incorporate the use of face book and student engagement in a single model. Moreover, this study is an initial effort to check the mediating effect of student engagement between the relationships of use of face book and student retention.

Research Objectives

1-To check the effects of Use of Face Book on Student Engagement and Student Retention respectively.

2-To check the effects of Student Engagement on Student Retention.

3- To check the mediating effects of Student Engagement between the relationship of Use of Face Book and Student Retention.

Use of Face book

Face book is a popular website in students so, academicians and others are also immensely showed their interest about the effects of social media on students because of specific focus. In other way lots of professionals (Abramson, 2011; Kamenetz, 2011) have keen interest to understand the effects of Face book on student

academic performance as well their achievement.

Research showed that face book is famous (Hargittai, 2008a; Jones and Fox, 2009; Matney and Borland, 2009) in students and 85 to 99 percent of college student having account on Face book. Researchers who belongs to the Pew Internet and American Life Project they also describe that 67 to 75 percent who have in (Jones , Fox and; Lenhart, 2009; Zickuhr, Purcell, Smith, and Lenhart, 2010) college age but not going they also use the websites of social networking.

The present data that is collected from 126 universities of United States and one of the Canadian University by EDUCAUSE of Center for Applied Research. The size of sample is 36, 950 students showed that the 90 percent used social networking sites and 97 percent told that they used Face book. So, 97 percent (Smith & Caruso, 2010) of students also reported that who actively engage daily basis on site. Despite the fact those who use Face book and social networking sites their percentage is at higher level and also significant to recognize that there are (Hargittai, 2008) some unending differences along socio- economic, ethnic and gender ropes among the application of scientific knowledge (Junco, Merson, & Salter, 2010) user and follower, So, it is (Cooper & Weaver,

2003) pointed towards the digital divide. (DiMaggio, Hargittai, Celeste, and Shafer, 2004), (Kaiser Family Foundation, 2004).

There are Different studies also probe that the digital divide is on communication technologies and internet. (Hargittai 2008a) So, a single compiled academic study about the ethnic, gender and social economic differences also pointed out in that among the users and those who are used social networking sites. She also observed Latino are less user of Face book relatively the Caucasians students. Students whose parents are educated and have college degree are apparently use Face book more as compare to those whose parents are not educated and having no college degree (Hargittai, 2008).

In a research that is about the effects of Face book use by college students and some studies also investigate the connection among psychosocial outcomes and Face book use and there is effective connection (Valenzuela, Park, and Kee 2009) among the use of Face book and organized and retain the networks of relationships, which also outlined that (Ellison, Stein field, and Lampe, 2007, p. 1145). ‘‘the resources accumulated through the relationships among people’’. It is also discovered that the heavy usage of Face book belongs to the civic participation, satisfaction in life and societal trust. In a later study that

would be enlarged the previous study, (Ellison, Steinfield, and Lampe 2011) and find that behaviors of social information seeking on Face book connected to improve the networks of relationships and with the help of Face book they can also retain close relations and meeting with unfamiliar person without any pervious relationships.

A study by Tufekci (2008) found that the usage of internet in expressive way by students to create the web pages, emailing to friends, reading and writing of blogs also related to the use of networking sites. One thing also investigates that in two studies how students of college felt to use Face book. Discovered that only 15 percent reported that opposite to popular belief and they would realize that faculty member enters in their privacy who giving confidence to uses Face book for academic purpose (Roblyer, McDaniel, Webb, Herman, and Witty, 2010).

Those students who are reported in this study showing more interest than their faculty of using Face book for academic purpose activities. With the help of a survey (Mazer, Murphy, & Simonds, 2007) noticed students having more experienced and revealing information about teacher on Face book and also observed immense level of leaning and motivation. (Moran, Seaman, and Tinti-kane, 2011) reported in a study 75 percent of faculty

use social media in personal capacity and 60 percent member are also found that using social media in class. Only the 4 percent of faculty found that they use Face book in classroom.

According to data the students may feel comfort with academic application of Face book but Faculty members are not interested to occupy with them as such of uses, because of usage of Face book and other networking sites are growing fast among college going youngsters. (Jones and Fox, 2009; Matney and Borland, 2009; Smith & Caruso, 2010), So, there is significant yield for educational purpose and may have effect on student result by technologies (Abramson, 2011; Kamenetz, 2011).

Face book and Student Engagement

The relationship among use of Face book and student engagement are investigate for two major reasons. One reason is the usage of Face book at higher level in college students and statistics are presented at above. The second reason is the Face book (Heiberger & Harper, 2008; Morrin, 2007) also an engaging forum and their success will be measured through user's engagement. It is possible students may use Face book in manner and maybe their engagement is in real world.

Though, student usage and participation on Face book can conceptualize through five principles of engagement (Astin's, 1984).

Engagement allude to as a bodily and mental investment. Statistics are evidence that students invest psychological energy on using Face book.

Engagement is occurred through continuum because some students engaged on Face book more and some do not use it.

Engagement have qualitative and quantitative characteristics. Those who spend lot of time using Face book(quantitative) and if they are engage in various activities on the forum(qualitative)

Students learning and success is linked with educational program and quality of engagement is also linked with program. It is feasible Face book linked real world but engagement of students in physical ways.

Educational effectiveness is related to the potential of action who increases the student engagement. If the Face book enlarge the engagement level than it is possible to use Face book for academic purpose to boost the academic performance of students.

The two studies specially focused and describe that there is a link among student engagement and social media because time consume at online forum and engagement of student in real world as pointed out and measured by

single survey item Astin (1984). Heiberger and Harper (2008) conducting a study of 377 baccalaureate students of Midwestern institution. The (YFCY) survey is used by Higher Education Research Institute to gather the data of 31,000 students from 114 educational institution. (HERI, 2007)

Study on Face book usage and the HERI (2007) focused on all social networking sites and found that social networking sites and college students engagement have positive correlation. (Heiberger and Harper, 2008). The heavy users of social networking sites have higher percentage and spent more time in institute than less users.

Moreover, the social networking heavy users respond that they have strong connection with their friends due to daily basis communication (HERI, 2007). In other study no focus on student engagement but found that the contact increased with their friends comparatively those who are not user (Tufekci, 2008).

Student engagement

Student engagement term has concerned about the involvement of student and it also have historic roots in Australia and North America particularly. This matter can engrain by yearly immense scale of national surveys.

In higher education the student engagement is extensively recognized because his influence on success and learning and so this has been

extensively theorized and researched. Student engagement exist as an expression in higher education and that would be immensely theorized and research work under discussion with increasing affirmation and its commentative role in success and learning (Trowler's 2010, 9) student engagement is no longer questioned and he suggest in his recent review but the government extensively interested to measure the student outcome. (Zepke and Leach 2010a) also suggest that engagement of student can work as an agent for standard (Kuh 2009b).

Clearly understand about this necessary raise is vital and engagement is having many sides and complex. The overarching meta construct also aims to draw together showing the great deal of variety in different studies and also give the explanation about the success of student (Fredricks, Blumenfeld, and Paris 2004). All have same opinion it is most important because debate is established over the same issue but the main cause is an absence of variance among the engagement along its antecedents and results.

The engagement of student defines by (Kuh 2009) Krause and Coates, 2008 also used is a time that students dedicated to their activities and are empirically connected to suitable results of college and what educational institutions also doing to give rise

to their students who are participated in those events (Kuh,2009, p. 683).

Engagement is also expanded by the art of teaching and rest of the comes through by the spirits of students who invested in their academic or campus base tasks. e.g. groups events or campus engage, peer and teacher involvement, studying and meeting higher academic expected values) is firmly linked with a successful academic experience (Kuh 2008, 2009).

Many authors also focused about the effort made by their academic faculty and educational institution to give better situation to student to expand their learning chances (Krause & Coates, 2008, Pascarella&Terenzini,2005). Student engagement is also affected by several factors. For example, social and economic conditions, academic preparation, ethnic and racial background, generations experiences (first generation versus those students who have educated parents) all of them have taking action for (Pascarella, Pierson, Wolniakand Terenzini, 2004) (Terenzini and Pascarella, 2005) growth of student engagement. Pascarella and their teammate find out in a study engagement is affect by faculty towards students.

As the matter discuss earlier any attempt that universalize the student experiences may

become in an absence of identification and how those factors communicate in classroom of university. Despite of all factors this is a common view that accepted about engagement and educational success are closely twine together. An example is reflected about this thinking in (2003, p4). by the National Research Council and stated that the students in sequence to feel a motivation to gain something that would be have, the ability to do something and control, confidence about the importance of education and also a sense of belonging.

They also pointed and stated that engagement is a key for student success and their stay in institution. It should not be unexpected and investing into study how to maintain the engagement in institution. In other words, no surprising thing used to increase the engagement in classrooms also.

Certainly, the universities orcolleges also take the especially rational measures of the institutional learning results, decisions about the allocation of resources and also the strategies of curriculum (Ewell, 2008; Gonvea and Kuh, 2009).

Seven engagement points proposed by krause and coates (2008) in analysis of student engagement e.g. Online, Transition, Academic and Beyond the class, Peer, Student and Staff, Intellectual, but this research is considering the

three-dimensional model of (Welch & Bonnan-White, 2012) Academic Engagement, Peer Engagement and Intellectual Engagement.

Student Retention

The student retention issue firstly seen in higher educational system screening and four decades before this issue can be study through psychology, so this issue was connected with the individual person trait, proficiency and eager to work hard. Those students who did not retain himself and always think that to be less capable, no eager to work hard and no spirit to do something and also putt off that a college graduation was great esteem to him. At this time, we culpability the victim and referring to as institution not failed, student.

Student retention issue started to be enlarged in 1970's and become different in what way we understand that the connection between a person and society, our point of view regarding student retention changed to consider because certain institution environment and decision of student either quit or stay. For this change I'm not the first person who stated that (Spady, 1970, 1971),

and my book about leaving college published in 1975. Firstly discuss about the model that is longitudinally and it setup the link between the institutional, educational and our social environment, in this matter our social and educational system of the institution and that

person who modify it those system and retention of student over various period of time (Tinto, 1975, 1987). Though the model flourishes idea of merging and the way of contact between student and institution mainly with those who are freshmen and the levels of changed which that year evident. There are many students who are try too hard to get a college degree fail to continue up to graduation. In spite of that educational institution have reply about the issues of student retention by applying the plans and various services after all that the retention rate not having become better. (Seidman, 2005a).

In United States the six-year graduation rate of most of the public educational institutions also ranging from 50 to 56% (Berkner, He & Cataldi, 2002; Crosling, Thomas, & Heagney, 2008; Mortenson, 2005). The lower level of retention (Friedman, 2005; Seidman, p. xi, 2005a) not only effects the educational institutions but also bear the financial load that is linked to proper time leaving and aptitude of a country to "compete in a global economy".

Early work on student retention highlighted the significance of contact of student to a span of student outcome who did not retain (Astin, 1975, 1984; Endo & Harpel, 1982). We understand that those situations can come up during the first year in college and are more

unfavorable (Pascarella, 1980; Pascarella & Chapman, 1983; Pascarella & Terenzini, 1980; Terenzini, Lorang, & Pascarella, 1981).

The early outcome and exercises of ours about the student who are in first year but the mainly changeover is the student interaction with faculty specially outside of the class. we also rapidly move to the different service plans to enhance the quality of those student who are fresh year experience and vary from enlarge to extend out with the help of various activities in institution environment (Upcraft, Gardner, and Associates, 1989). During the time student retention has gone through with number of changes with the help of study and exercise.

Firstly, our perception and observation escalate regarding students who have different background (Allen, 1992; Bennett and Okinaka, 1990) Clewell and Ficklen, (1986) (Fleming, 1985; Hernandez, 2000; Hurtado, 1994; Hurtado and Carter, 1996; Johnson, et al. 2004-2005) Due to ours identification and extensive order of forces that are financial, customs of society and structure of institution about the student retention (Murguia, Padilla, and Pavel, 1991; Nora, 1987; Rendon, 1994; Richardson, 1987; Solorzano, Ceja, & Yosso, 2000; Thayer, 2000 Thompson and Fretz, 1991; Torres, 2003; Zurita, 2005). A study about student retention also showed (Berger, 2001; Braxton, Bray, &

Berger, 2000; Christie & Dinham, 1991; Herndon, 1984; St. John, Cabrera, Nora, & Asker, 2000) that the student departure phase. (Tinto, 1988). Retention must be considered essential once it was showed and escape from the past communities, we understand that somehow because of students ability those who have still touch with belongings (For e.g. Attinasi, et al 1989; London, 1989; Nora, 2001; Terenzini, Rendon, Upcraft, Millar, Allison, Gregg, and Jalomo, 1994; Tierney, 1992; Torres, 2003; Waterman, 2004) like spiritual places, ethnic groups and ancestry are extremely important for their long existence.

Secondly, we know and perceive the action of student retention that would be vary in distinct institutional environment, residential and day scholar who enrolled in four and two years degree programs (Allen, 1992; Borglum and Kubala, 2000; Padilla and Pavel, 1986; Pascarella and Chapman, 1983); As we know about the level of commitment in those students who are not living in institution hostel and we acknowledge it as we do not in previously and not the outer happenings effects on students' lives but the significant participation in classroom to student retention (Pascarella, Smart, and Ethington, 1986; Tinto, Russo, and Kadel, 1994). So, classroom is not the only spot where they engage with each other and met, possibly another place where

they met with each other and also faculty members. In other way if their participation would not be occurred in classroom then it would be occurred anywhere else.(Tinto, 1997; Tinto, Russo, and Kadel, 1994)

Thirdly we well informed about the problem of student retention and we recognize the limit of our early model of retention (Bean et al, 1980; Braxton & Brier, 1989; Cabrera, Castaneda, Nora, and Hengstler, 1992). We now have a diverse model in nature like, psychological, sociological and different economic situation that might be advocate as better way (Braxton and Hirschy, 2005; Nora, 2001; Tierney, 2000; Tinto, 1993, 2005). Different volumes also dedicated specially for this issue and to differentiate those models and probe the practical possibilities (Braxton, 2000; Seidman, 2005). One fact has remained clear all over those changes bring out of viable models. Involvement or what would be increased to be referred as engagement, those events arises when students are in their starting year of college (Tinto, 2001). How to form the situation of participation and how that makeup in several position like (Upcraft, Gardner, & Barefoot, 2005) non-residential institution and for different nature of students, those who work and how they increase the retention and graduation.

Now in all over the world student retention have a large commercial activity many consulting firms marketed their skills and strength to increase the institutional retention rates. Each consulting firms has given impression to have dig out the undisclosed matter of student retention.

Today many types of surveys available in market on student engagement and different journals are also bound for that certain course as well as academic seminars also held.

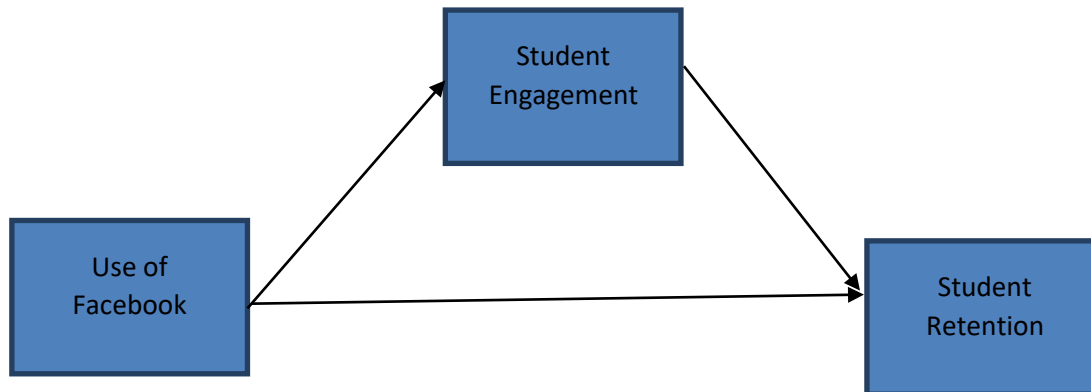
Conceptual Framework

For explanation of student engagement Finn (1989) proposed the theory of “Participation–Identification Model”. This model explains the important ingredients of student engagement. Furthermore, this model explains both procedures of completion and dropout students. This theory explains the term of completion as continues procedure of “participation school/college/university success identification (completion)”, (Finn 1989). Moreover, explain the term of dropout students as continues procedure of “non-participation poor school/college/university performance emotional withdrawal (dropout)” (Finn 1989).

Thus, current study considers the Media Addiction and Use of Face Book as cause of students’ participation/ non-participation and

student retention as the outcome of identification.

Hypothesized Research Model



Wang et al., (2011), argued that social media has effect on student retention. Face book is the part of social media. Thus, current study proposes the following hypotheses in this regard.

H1: Use of Face book has significant effects on student retention.

H2: Student engagement has significant effects on student retention.

Junco, (2012) has proved that use of Face book has significant effect on student engagement. Thus, current study proposes the following hypotheses in this regard.

H3: Use of Face book has significant effects on student engagement.

Junco, (2012) has proved that use of Face book has significant effect on student engagement. Bonet, & Walters, (2016), argued that student engagement has effect on student retention. Thus, current study proposes the following hypotheses in this regard.

H4: Student engagement mediates the relationship of use of Face book and student retention.

Measurement

This scale was adopted from the old researcher (Al-Menayes 2015). Use of Face Book is evaluated by 9 items scale. This scale was adopted from the old researcher (van den Eijnden et al., 2016). Student Engagement is evaluated by 18 items scale. This scale was adopted from the old researcher (Welch & Bonnan-White 2012). Student retention is evaluated by 11 items scale. This scale was adopted from the old researcher (Al-Dossary 2008)

Procedure of Data Collection

Data collected for this research with the help of a structured questionnaire.

Population

Students of Punjab university, Forman Christian college, Lahore college for women university and Superior University are the target population of the study.

Sampling Method

Multi-stage sampling technique is incorporated for data collection. First of all, 2 public and two private universities of Lahore are selected with the help of simple random sampling techniques. Then 600 students are selected with the help of Judgment sampling.

Reliability of Student Engagement

Reliability Statistics

Cronbach's Alpha	N of Items
.824	18

If the value of Cronbach's Alpha is greater than 0.50 then the data is reliable and result in above table shows that the value of Cronbach's Alpha for Student Engagement is 0.824 this means data is reliable.

Correlation Analysis

Correlations

	UOF	SE	SR
UOF	1		
SE	.222(**)	1	.
SR	.669(**)	.211(**)	1

** Correlation is significant at the 0.01 level (2-tailed).

Reliability of Use of Facebook

Reliability Statistics

Cronbach's Alpha	N of Items
.932	9

If the value of Cronbach's Alpha is greater than 0.50 then the data is reliable and above table indicates that value of Cronbach's Alpha for Use of Facebook is 0.932 so the data is reliable.

Reliability of Student Retention

Reliability Statistics

Cronbach's Alpha	N of Items
.867	11

Data is the reliable because the value of Cronbach's Alpha is greater than 0.50 and above table shows that the value of Cronbach's Alpha for Student Retention is 0.867 and this means that data is reliable.

Above table also show that there is a strong correlation among all variable and all variables represents correlation matrix. All variables in this table are significantly correlated with each other by Pearson correlation reports. The coefficient of correlations between the relationship of SE and UOF is 0.222. This shows that relationship between these variables is significant and positive. The coefficient of correlations between the relationship of SR and SMA is 0.580(**). This

shows that relationship between these variables is significant and positive. The coefficient of correlations between the relationship of SR and UOF is 0.669(**). This shows that relationship between these variables is significant and positive. The coefficient of correlations between the relationship of SR and SE is 0.211(**). This shows that relationship between these variables is significant and positive.

Effects of Student Engagement on Student Retention

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.62	.31	.32	.79691

a Predictors: (Constant), SE

ANOVA(b)

Mode		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.748	1	17.748	27.946	.000(a)
	Residual	379.774	598	.635		
	Total	397.521	599			

a Predictors:(Constant), SE

b Dependent Variable: SR

Coefficients(a)

Mode	Unstandardized	Standardized	t	Sig.
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1	Coefficients		Coefficients		
	B	Std. Error	Beta	B	Std. Error
1 (Constant)	1.969	.219		9.007	.000
SE	.318	.060	.211	5.286	.000

a Dependent Variable: SR

In above Table the result shows that unit change in Student engagement will result relationship of Student engagement on Student 31.8% change in Student Retention.

Retention. The value of R square: 0.31 which is greater than 0.25, $F= 27.946$, $p= 0.00$ i.e. $< .01$. and value of $\beta= .318$ this mean that one-

Use of Face Book on Student Retention

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.669(a)	.448	.447	.60572

a Predictors: (Constant), UOF

ANOVA(b)

Mode		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	178.119	1	178.119	485.477	.000(a)
	Residual	219.403	598	.367		
	Total	397.521	599			

a Predictors: (Constant), UOF

b Dependent Variable: SR

Coefficients(a)

Mode		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	1.723	.068		25.457	.000
	UOF	.507	.023	.669	22.034	.000

a Dependent Variable: SR

Above table represent the result that .01. and value of $\beta = .507$ this mean that one-relationship of Use of Facebook on Student unit change in Use of Facebook will result Retention. The value of R square: .448 which 50.7 % change in Student Retention. is greater than 0.25, $F = 485.477$, $p = 0.00$ i.e. <

Use of Face Book on Student Engagement

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.65	.31	.30	.52803

a Predictors: (Constant), UOF

ANOVA(b)

Mode		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.625	1	8.625	30.934	.000(a)
	Residual	166.732	598	.279		
	Total	175.357	599			

a Predictors: (Constant), UOF

bDependent Variable: SE

Coefficients(a)

Mode		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	3.286	.059		55.694	.000
	UOF	.111	.020	.222	5.562	.000

a Dependent Variable: SE

In above Table the result shows that .01. and value of $\beta = .111$ this mean that one-relationship of Use of Face book on Student unit change in Use of Facebook will result Engagement. The value of R square: .65 which 11.1 % change in Student Engagement. is greater than 0.25, $F = 30.934$, $p = 0.00$ i.e. <

For Mediation Use of Face Book and Student Engagement on Student Retention

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672(a)	.452	.450	.60394

a Predictors: (Constant), SE, UOF

ANOVA(b)

Mode		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	179.770	2	89.885	246.433	.000(a)
	Residual	217.752	597	.365		
	Total	397.521	599			

a Predictors: (Constant), SE, UOF

b Dependent Variable: SR

Coefficients(a)

Mode		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	1.396	.168		8.316	.000
	UOF	.496	.024	.655	21.076	.000
	SE	.100	.047	.066	2.128	.034

a Dependent Variable: SR

Analysis of Mediation

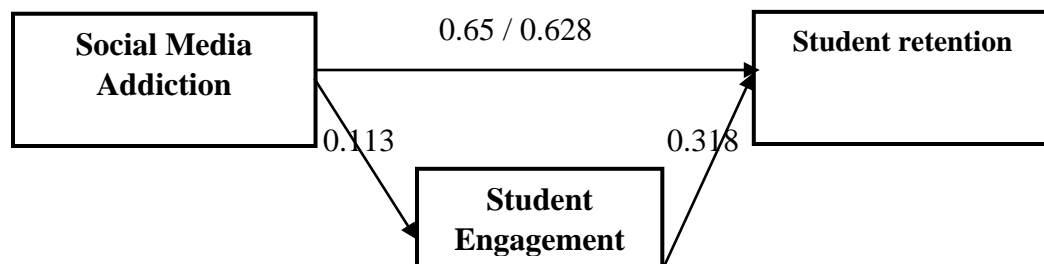
The relationships of mediation check by three procedure steps Baron and Kenny (1986). In a first step to regress the dependent variable on the independent variable and to confirm that the independent variable is a significant predictor of the dependent variable or not.

So, in second step to regress the mediator on the independent variable to confirm that the independent variable is a significant predictor

of the mediator. If the mediator is not associated with the independent variable, then it could not possibly mediate anything.

In a third step dependent variable regress on both the mediator and independent variable to verify that the mediator is a significant predictor of the dependent variable, and standardized coefficient value reduce from the step one standardized coefficient, so the condition of mediation fulfilled.

Mediation effects of Use of Face book (IV) Student Engagement (MV) and Student Retention (DV)



Mediation of relationship Social Media Addiction (IV) Student Engagement (MV) and Student Retention (DV)

Testing Step of Mediation					
	B	S. E	F	r ²	Decision
Step 1 (Path c)					
Outcome: Student Retention					
Predictor: Social Media addiction	0.650	0.037	303.640	.337	0.000<0.01
Step 2 (Path a)					
Outcome: Student Engagement					
Predictor: Social Media addiction	.113	.030	14.130	0.26	0.000<0.01
Step 3A (Path b)					
Outcome: Student Retention					
Predictor: Student Engagement	.31	0.045	61.863	0.312	0.000<0.01
Step 3B Path (c')					
Outcome: Student Retention					
Mediator: : Student Engagement	0.19	0.050			0.000<0.01
Predictor: Social Media addiction	0.628	0.037			0.000<0.01

For mediation analysis, Media Addiction has significant effect on Student Retention (p< 0.01), its value of standardized regression coefficient is 0.650 This employee that first condition of mediation meets. This is step 1 path c. For second path “a” in which Media

addiction has significant effect on Employee Engagement (p< 0.01), its value of standardized regression coefficient is 0.113. This employee that 2nd condition is fulfilled. In step 3a, Student Engagement has significant effect on Student Retention (p< 0.01), its value of standardized regression coefficient is 0.31

which is path “b”. In step 3b, check the combine effect of Media Addiction and Student Engagement on Student Retention, results are significant ($p < 0.01$), its value of standardized regression coefficient is 0.628. Therefore, Beta value is reduced from 0.650 to 0.628 which shows that partial mediation exists and value of mediation is calculated as $(a-b)/c = (0.650 - 0.628) / 0.650 \Rightarrow 0.034$ these results show that 3.4% mediation exist.

Conclusion

The purpose of this study is to check the relationship of Use of Facebook, Student Engagement and Student Retention. Results indicate that for direct relationships, Use of Facebook on Student Engagement has positive impact on student engagement. Whereas, for direct relationship of Use of Facebook on Student Retention same trend of previous result is also seen i.e. Use of Facebook has positive influence of student retention. Also, Student Engagement has significant positive impact on Student Retention. While, Student Engagement is partially mediating the relationship of Use of Facebook with Student Retention.

Limitations of Research

Following are limitations of the study.

Data is not collected from all the Universities of Lahore.

Data is not collected from different cities of Pakistan such as Karachi, Faisalabad, Bahawalpur, Multan and Peshawar.

This is cross sectional research.

Some other potential predictors of student engagement and employee retention for example student satisfaction, student benefits are not included in this research.

Future Researches

Following are future researches of the study.

In future, Data will be collected from all the Universities of Lahore.

Data will also collect from different cities of Pakistan such as Karachi, Faisalabad, Bahawalpur, Multan and Peshawar.

Longitudinal data collection method will also conduct for generalization.

Some other potential predictors of student engagement and employee retention for example student satisfaction, student benefits will also include in this future research.

References

- Al-Dossary, S. (2008). A study of the factors affecting student retention at King Saud University, Saudi Arabia: structural equation modelling and qualitative methods.
- Allen, W. (1992). The color of success: African-American college student outcomes at

- predominantly white and historical black colleges and universities. *Harvard Educational Review*, 62, 26-44.
- Attinasi, L. C. Jr. (1989). Getting in: Mexican American's perceptions of university attendance and implications for freshman year persistence. *Journal of Higher Education*, 60, 247-277.
- Astin, A. (1984). Student involvement: a developmental theory for higher education. *Journal of College Student Personnel*, 25(4), 297-308.
- Astin, A. (1975). Preventing students from dropping out. San Francisco: Jossey-Bass
- Abramson, L. (February 9, 2011). Can social networking keep students in school? NPR: Morning Edition, Retrieved January 14, 2010, from. <http://www.npr.org/2011/02/09/133598049/can-social-networking-keep-students-in-school>.
- Abdul Jauad, N. (1998). Al-taleemalali [Higher Education]. In A. Alsunbil et al., *Nedamaltaleem fi almamlakaalarabiaalsaudiah* [Educational system in Saudi Arabia] (6th ed.) (pp. 293-326). Alriyadh, Saudi Arabia: Dar Alkhriji.
- Almannie, M. (2002). Motatalbatalertigabmoasataltaleemalaliletan meatalmawaridalbasharia fi almamalkaalrabiaalsaudiah [Developing requirements for Higher Education institutions to enhance Saudi HR: A futuristic vision]. Paper presented in the international symposium of economic futuristic vision for Saudi economy till the 1440 A.H. Alriyadh, Saudi Arabia.
- Al-Saud, F. (2006). Alatharalegtisadialialrossobwaaltasarob fi altealeem ma bad algamiei [Economic effects of university student retention]. Alriyadh, 11 July, p. 35.
- Al-Menayes, J. J. (2015). Social media use, engagement and addiction as predictors of academic performance. *International Journal of Psychological Studies*, 7(4), 86.
- Abramson, L. (February 9, 2011). Can social networking keep students in school? NPR: Morning Edition, Retrieved January 14, 2010, from. <http://www.npr.org/2011/02/09/133598049/can-social-networking-keep-students-in-school>.
- Braxton, J. (Ed.). (2000). Reworking the student departure puzzle. Nashville: Vanderbilt University Press.
- Bonet, G., & Walters, B. R. (2016). High impact practices: Student engagement and retention. *College student journal*, 50(2), 224-235.
- Berkner, L., He, S., & Cataldi, E. F. (2002). Descriptive summary of 1995-96 beginning post-secondary students: Six years later (NCES 2003151). Washington, DC: U.S.

Department of Education, National Center for Education Statistics.

Berger, J. B. (2001). Understanding the organizational nature of student persistence: Recommendations for practice. *Journal of College Student Retention: Research, Theory & Practice*, 3, 3-22.

Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12, 155-187.

Braxton, J., & Brier, E. (1989). Melding organizational and interactional theories of student attrition: A path analytic study. *Review of Higher Education*, 13, 47-61.

Braxton, J., and Hirschy, A. (2005). Theoretical developments in the study of college student departure. In A. Seidman (Ed.), *College student retention: Formula for student success*. Westport, CT: ACE/Praeger.

Braxton, J., Bray, N., & Berger, J. (2000). Faculty teaching skills and their influence on the college student departure process. *Journal of College Student Development*, 41, 215-227.

Borglum, K., & Kubala, T. (2000). Academic and social integration of community college students: A case study. *Community College, Journal of Research and Practice*, 24, 567-576.

Bennett, C., & Okinaka, A. M. (1990). Factors related to persistence among Asian, Black,

Hispanic, and White undergraduates at a predominantly white university. *Urban Review*, 22, 33-60.

Clewell, B. C., & Ficklen, M. S. (1986). Improving minority retention in higher education: A search for effective institutional practices. *Princeton: Educational Testing Service*.

Christie, N. G., & Dinham, S. M. (1991). Institutional and external influences on social integration in the freshman year. *Journal of Higher Education*, 62, 412-436.

Cabrera, A., Castaneda, M., Nora, A., & Hengstler, D. (1992). The convergence between two theories of college persistence. *Journal of Higher Education*, 63, 143-164.

Crosling, G., Thomas, L., & Heagney, M. (2008). Conclusions and curriculum-based retention approaches: Some suggestions for future action. In G. Crosling, L. Thomas, & M. Heagney (Eds.), *Improving student retention in higher education: The role of teaching and learning* (pp. 166-182). *London: Routledge*.

Cooper, J., & Weaver, K. D. (2003). *Gender and computers: Understanding the digital divide*. Mahwah, NJ: *Lawrence Erlbaum Associates*.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "Friends:" social capital and college students' use of online social network sites. *Journal of*

- Computer Mediated Communication*, 12(4), 1143–1168.
- DiMaggio, P., Hargittai, E., Celeste, C., & Shafer, S. (2004). Digital inequality: from unequal access to differentiated use. In K. Neckerman (Ed.), *Social inequality* (pp. 355–400). New York: Russell Sage Foundation
- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: social capital implications of Facebook-enabled communication practices. *New Media & Society*.doi:10.1177/1461444810385389.
- Ewell, P. T. (2008). US accreditation and the future of quality assurance: A tenth anniversary report from the Council on Higher Education Accreditation. Washington,DC: *CHEA Institute for Research and Study of Accreditation and Quality Assurance*
- Friedman, T.H. (2005). *The world is flat*. New York: Farrar, Straus and Giroux.
- Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117–142.
- Fleming, J. (1985). *Blacks in college*. San Francisco: Jossey-Bass.
- Fredricks, J.A., P. Blumenfeld, and A. Paris. 2004. School engagement: Potential of the concept, state of the evidence. *Review of Educational Research* 74: 59– 109.
- Gonyea, R. M., & Kuh, G. D. (2009). NSSE, organizational intelligence, and the institutional researcher. *New Directions for Institutional Research*, 2009(141), 107–113.
- Hargittai, E. (2008a). Whose space? Differences among users and non-users of social network sites. *Journal of Computer-Mediated Communication*, 13(1), 276–297.
- Hargittai, E. (2008b). The digital reproduction of inequality. In D. Grusky (Ed.), *Social stratification* (pp. 936–944). Boulder, CO: Westview Press.
- Higher Education Research Institute. (2007). College freshmen and online social networking sites. Retrieved March 1, 2011 from. <http://www.gseis.ucla.edu/heri/PDFs/pubs/briefs/brief-091107-SocialNetworking.pdf>.
- Hernandez, J. (2000). Understanding the retention of Latino college students. *Journal of College Student Development*, 41, 575-588.
- Hurtado, S. (1994). The institutional climate for talented Latino students. *Research in Higher Education*, 35, 210-241.
- Hurtado, S., & Carter, D. F. (1996). Latino students' sense of belonging in the college community: Rethinking the concept of integration on campus. In *College students: The evolving nature of research*. Needham Heights, Massachusetts: Simon & Schuster Publishing.
- Heiberger, G., & Harper, R. (2008). Have you Facebooked Astin lately? Using technology to

increase student involvement. In R. Junco, & D. M. Timm (Eds.), Using emerging technologies to enhance student engagement. *New Directions for Student Services*, Issue 124 (pp. 19–35). San Francisco, CA: Jossey-Bass.

Herndon, S. (1984). The impact of financial aid on student persistence. *Journal of Student Financial Aid*, 14, 3-9.

Junco, R., Merson, D., & Salter, D. W. (2010). The effect of gender, ethnicity, and income on college students' use of communication technologies. *Cyber Psychology, Behavior, and Social Networking*, 13(6), 37–53.

Jones, S., & Fox, S. (2009). Generations online in 2009. Data memo. Washington, DC: Pew Internet and American Life Project. Retrieved March 7, 2010, from http://www.pewinternet.org/w/media/Files/Reports/2009/PIP_Generations_2009.pdf.

Johnson, N. Earnest, K., Huntley, H., Hensen, K., Reason, R., Saunders, K., & Schuh, J. H.(Eds.). (2004-2005). Retention and persistence issues of historically underrepresented

J. Braxton (Ed.). Reworking the student departure puzzle (pp. 29-47). *Nashville: Vanderbilt University Press*.

Junco, R. (2012). The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement. *Computers & Education*, 58(1), 162-171.

Kuh, G. D. (2009). What student affairs professionals need to know about student engagement. *Journal of College Student Development*, 50(6), 683–706.

Krause, K. and Coates, H. (2008) Students' Engagement in First-Year University. *Assessment and Evaluation in Higher Education*. 33 (5), pp. 493–505.

Kuh, G.D. (2009a) What Student Affairs Professionals Need to Know about Student Engagement. *Journal of College Student Development*. 50 (6), pp. 683–706.

Kamenetz, A. (February 9, 2011). Gates Foundation bets on Facebook app to help kids graduate. Fast Company, Retrieved February 14, 2011, from <http://www.fastcompany.com/1725665/gates-foundation-bets-on-facebook-app-to-help-kids-graduate>.

Kaiser Family Foundation. (2004). The digital divide survey snapshot. Menlo Park, CA: Kaiser Family Foundation. Retrieved March 1, 2011, from <http://www.kff.org/entmedia/loader.cfm?url¼/commonsport/security/getfile.cfm&PageID¼446366>

Kamenetz, A. (February 9, 2011). Gates Foundation bets on Facebook app to help kids graduate. Fast Company, Retrieved February 14, 2011, from <http://www.fastcompany.com/1725665/gates-foundation-bets-on-facebook-app-to-help-kids-graduate>.

- London, H. B. (1989). Breaking away: A study of first-generation college students and their families. *The American Journal of Sociology*, 97, 144-170.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social media and young adults. Washington, DC: Pew Internet and American Life Project. Retrieved February 12, 2011, from: <http://pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx>
- Morrin, D. (August 29, 2007). A shift to engagement. Facebook Developer's Blog, Retrieved April 17, 2011, from: <https://developers.facebook.com/blog/post/30>.
- Murguia, E., Padilla, R. V., & Pavel, M. (1991). Ethnicity and the concept of social integration in Tinto's model of institutional departure. *Journal of College Student Development*, 32, 433-439.
- Matney, M., & Borland, K. (2009). Facebook, blogs, tweets: how staff and units can use social networking to enhance student learning, Presentation at the annual meeting of the National Association for Student Personnel Administrators, Seattle, WA.
- Moran, M., Seaman, J., & Tinti-kane, H. (2011). Teaching, learning, and sharing: How today's higher education faculty use social media. Research report published by Pearson, The Babson Survey Research Group, and Converseon. Retrieved July 20, 2020 from. <http://www3.babson.edu/ESHIP/research>
- Mazer, J. P., Murphy, R. E., & Simonds, C. J. (2007). I'll see you on "Facebook": the effects of computer-mediated teacher self-disclosure on student motivation, affective learning, and classroom climate. *Communication Education*, 56(1), 1-17.
- National Center for Education Statistics (2005a). College persistence on the rise?: Changes in 5-year degree completion and postsecondary persistence rates between 1994 and 2000. National Center for Education Statistics, Statistical Analysis Report 2005-156. Washington, DC, U.S. Department of Education, Office of Educational Research and Improvement.
- Nora, A. (2001). The depiction of significant others in Tinto's "Rites of Passage": A reconceptualization of the influence of family and community in the persistence process. *Journal of college Student Retention: Research, theory and Practice*, 3, 41-40.
- Nora, A. (1987). Determinants of retention among Chicano college students. *Research in Higher Education*, 26, 31-59.
- Pascarella, E. T., & Terenzini, P. T. (2005). How college affects students. San Francisco: Jossey-Bass.
- Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). Firstgeneration

- college students: Additional evidence on college experiences and outcomes. *The Journal of Higher Education*, 75(3), 249–284.
- Pascarella, E. (1980). Student-faculty informal contact and college outcomes. *Review of Educational Research*, 50, 545-595.
- Pascarella, E., & Chapman, D. (1983). A multi-institutional, path analytic validation of Tinto's model of college withdrawal. *American Educational Research Journal*, 20, 87-102
- Padilla, R., & Pavel, D. M. (1986). Successful Hispanic community college students: An exploratory qualitative study. Tempe: Hispanic Research Center, *Arizona State University*.
- Pascarella, E. T., Smart, J., & Ethington, C. (1986). Long-term persistence of two-year college students. *Research in Higher Education*, 24, 47-71.
- Pascarella, E., & Terenzini, P. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *Journal of Higher Education*, 51, 60-75.
- Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010, June). Findings on Facebook in higher education: a comparison of college faculty and student uses and perceptions of social networking sites. *The Internet and Higher Education*, 13(3), 134–140.
- RESEARCH AND PRACTICE OF STUDENT RETENTION / 15 students. *Special issue of Journal of College Student Retention: Research, Theory & Practice*, 6(1).
- Rendon, L. (1994). Validating culturally diverse students: Toward a new model of learning and student development. *Innovative Higher Education*, 19, 33-51.
- Richardson, C. R. Jr. (1987). Fostering minority access and achievement in higher education. San Francisco: Jossey-Bass.
- Seidman, A. (2005a). Introduction. In A. Seidman (Ed.), *College student retention* (pp. xi-xiv). Westport: Praeger Publishers.
- Spady, W. (1970). Dropouts from higher education: *An interdisciplinary review and synthesis. Interchange*, 1, 64-85.
- Spady, W. (1971). Dropouts from higher education: Toward an empirical model. *Interchange*, 2, 38-62.
- Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 69, 60-73.
- St. John, E., Cabrera, A., Nora, A., & Asker, E. (2000). Economic influences on persistence reconsidered: How can finance research inform the reconceptualization of persistence models?

- Smith, S. D., & Caruso, J. B. (2010). Research Study. ECAR study of undergraduate students and information technology, Vol. 6. Boulder, CO: EDUCAUSE Center for Applied Research, Retrieved March 1, 2020, from <http://www.educause.edu/Resources/ECARStudyofUndergraduateStudents/217333>.
- Seidman, A. (2005). Introduction. In A. Seidman (Ed.), College student retention (pp. xi-xiv). Westport: Praeger Publishers.
- Tinto, V. (1997). Colleges as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68, 599-623.
- Tinto, V. (2005). Epilogue: Moving from theory to action. In A. Seidman (Ed.). College student retention: Formula for student success. Westport, CT: ACE/Praeger
- Tinto, V. (1993). Leaving college: Rethinking the causes and cures of student attrition (2nd Ed.). Chicago: University of Chicago Press.
- Tinto, V. (2001). Rethinking the first year of college. *Higher Education Monograph Series*,
- Terenzini, P., Rendon, L., Upcraft, M. L., Millar, S., Allison, K., Gregg, P., & Jalomo, R. (1994). The transition to college: Diverse students, diverse stories. *Research in Higher Education*, 35, 57-73.
- Tierney, W. (1992). An anthropological analysis of student participation in college. *Journal of Higher Education*, 63, 603-618.
- Tierney, W. (2000). Power, identity, and the dilemma of college student departure. In J. Braxton (Ed.), Reworking the student departure puzzle (pp. 213-234). Nashville: Vanderbilt University Press.
- Tufekci, Z. (2008). Grooming, Gossip, Facebook and Myspace. *Information, Communication & Society*, 11(4), 544-564.
- Trowler, V., and P. Trowler. 2010. Student engagement evidence summary. York, UK: *Higher Education Academy*.
- Terenzini, P., Lorang, W., & Pascarella, E. (1981). Predicting freshman persistence and voluntary dropout decisions: A replication. *Research in Higher Education*, 15, 109-127.
- Tinto, V. (1988). Stages of student departure: Reflections on the longitudinal character of student leaving. *Journal of Higher Education*, 59, 438-455.
- Thompson, C. E., & Fretz, B. R. (1991). Predicting the adjustment of black students at predominantly white institutions, *Journal of Higher Education*, 62, 437-450.
- Torres, V. (2003). Influences on ethnic identity development of Latino students in the first two years of college. *Journal of College Student Development*, 44, 532-547.
- Tinto, V., Russo, P., & Kadel, S. (1994). Constructing educational communities: Increasing retention in challenging

- circumstances. *Community College Journal*, 64, 26-30.
- Tinto, V. (1975). Dropouts from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45, 89-125.
- Upcraft, M. L., Gardner, J., & Associates. (1989). The freshman year experience. *San Francisco: Jossey-Bass Publishers*.
- Upcraft, M., Gardner, J., & Barefoot, D. (Eds.). (2005). Challenge and support: Creating climates for first-year student success. *San Francisco: Jossey-Bass*.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a Social Network Site?: Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, 14(4), 875–901.
- Van den Eijnden, R. J., Lemmens, J. S., & Valkenburg, P. M. (2016). The Social Media Disorder Scale: Validity and psychometric properties. *Computers in Human Behavior*, 61, 478-487.
- Waterman, S. J. (2004). "The Haudenosaunee college experience: A complex path to degree completion." Unpublished doctoral dissertation, *Syracuse University, Syracuse, New York*.
- Wang, Q., Chen, W., & Liang, Y. (2011). The effects of social media on college students.
- Welch, B. K., & Bonnan-White, J. (2012). Twittering to increase student engagement in the university classroom. *Knowledge Management & E-Learning: An International Journal (KM&EL)*, 4(3), 325-345.
- Zurita, M. (2005). Dropping out and persisting: Experiences of Latino undergraduates. *Journal of College Student Retention: Research, Theory and Practice*, 6, 301-324.