

AN EXAMINATION OF STUDENT SELF-REGULATION
LEARNING STRATEGIES IN ONLINE COURSES
AT A HISPANIC SERVING INSTITUTION

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DOCTORAL PROGRAM IN EDUCATIONAL LEADERSHIP AND ADMINISTRATION

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DEDICATION

I want to dedicate this dissertation to my son William who has taught me that failure is never an option is only another learning experience. For my wife Rocio that has been supporting me during my educational journey, 4 degrees later, I am stronger and more focused than ever to fulfill my dreams and ambitions, thank you for your love. To my parents who gave me life and inspired me to become better and to all my family, always remember, yes we can. This dissertation is for all the people that believed and for all the people that doubted in me, is because of all of you that I was able to finish this long and exhaustive journey. I want to thank God for the incredible opportunities, challenges, and happiness that I have had in the first-half of my life. I expect an amazing reinvigorated, re-born and full of success, prosperity, and opportunities in the second-half of my life. I see this milestone as an intellectual, professional, personal, and spiritual renaissance in the quest to contribute to society and to serve the ones in need, in particular low socioeconomic and First Generation students.

In my doctoral journey, with all the adversities and rewards, I redefined myself.

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Submitted

by

RICARDO ACEVEDO, MBA, M.S.

DISSERTATION

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ABSTRACT

The study examined student utilization and application of learning strategies in college level online courses and the context was a Hispanic Serving Institution (HSI) in the Southwest. Even though online courses continue to grow at a steady pace, few research studies have taken the task to analyze the utilization of learning strategies and their utility in online learning programs and under the fold of student success. The overarching purpose of the present study was to delve into important student factors across learning strategies under this instructional format. For the present study a multivariate analysis of covariance with five outcome variables and a covariate (GPA) was used with observational data obtained from a sample of 582 college students. The study examined the main and interaction effects between gender, college student's generational level, level of online learning experience across the five Motivated Strategies for Learning Questionnaire (i.e., Rehearsal, Elaboration, Organization, Critical Thinking, Metacognitive Self-Regulation) employed by students in an online learning environment. All in all, there were few observed differences across these factors with the largest significant differences contributing to no more than 4 percent of the variance accounted for. These findings seems to indicate that regardless of gender, generational level, and level of online experience, students are making, for the most part, similar use of these strategies with especial note on the prevalent use of the critical thinking learning strategy. Thus, this indicates that there is a need to further examine other important educational and instructional strategies for this learning environment. The study provides a series of recommendations for future practice and research not only for student self-regulation learning but also for faculty and administrators as well.

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CHAPTER I: THE PROBLEM

The Power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect.

Tim Berners-Lee

INTRODUCTION

Online learning is challenging the status quo in higher education with over six million students enrolled, taking at least one online course coupled with an observed drop of one million face-to-face students on campuses across the nation in the fall of 2015, (Distance Education Enrollment Report, 2017). As academic technologies continue to be utilized in higher education, its uses and integration have transformed online learning from its origins in 1969 with the inception of Britain's Open University, which introduced the first iteration of online learning. Lumsden and Ritchie (1974) stated:

“An innovative institution... The Open University of the United Kingdom constitutes the first major attempt in university education to use the media of television and radio for all formal lectures in every course offered” (pg. 1).

As new advancements in telecommunications spread, including the development of Internet, a new era of distance learning was born in the form of computer-based instruction delivered over networks (Moore & Kearsley, 2005). As access to the Internet became widely available, anyone with technical skills was offered a space to publish, share their own ideas and knowledge with others via the internet (Ball, 1995).

Since 1999, online learning has been evolving in the United States as an innovative way to improve instruction. It has been described as “an open and distributed learning environment that uses pedagogical tools enabled by the Internet-based technologies, to facilitate learning and knowledge building through meaningful action and interactions” (Dabbagh and Bannan-Ritland,

2005, p. 15). The significance of distance education is its potential to connect students around the world that share similar interests, its ability to integrate different learning styles, to facilitate student success. According to Reynard (2017), online learning continues to evolve as new academic technologies to enrich the learning experiences for many of its users through social media, smart phones, gamification, competency-based learning, and virtual reality, to name just a few. Even though distance education is rapidly expanding and its potential and use in higher education is without a rival, there is very little research evidence on how students are able to acquire new knowledge and concepts. Little is known about the specific learning strategies that facilitate or improve their academic work. Moreover, there is no sufficient research-based evidence on how online college students are using such learning strategies across gender, first generation, and level of experience in online learning.

Indeed, several factors have made distance education highly used/endorsed in higher education learning; it is also permeating higher education due to its accessibility, convenience, and the flexibility it provides to the non-traditional student population full-time and part-time students or working people, single parents, and those pursuing different career paths would not enroll at a traditional university or college (Killon, 2000). This enrollment is illustrated by the significant growth in student matriculation in which online enrollment figures in 2002 were recorded at 9.3%; and ten years later in 2012, the student enrollment growth increased to 32% (Allen and Seaman, 2013; National Center for Education Statistics, 2014). Certainly, those numbers continue to increase even more according to the latest Babson Report (2017) as shown in Figure 1.

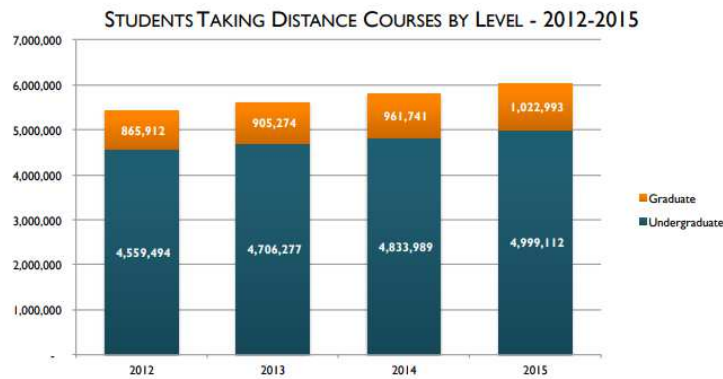


Figure 1. Students Taking 100% Online Classes in Higher Education, Babson Report (2017).

The total number of college students taking at least one online course was approximately 5,425,406 in 2012. According to Allen & Seaman (2013), in 2015 this number increased to 6,022,105, an increase in enrollment of 9%. From the 6,022,105 distance education students, 4,999,112 were studying at the undergraduate level and 1,022,993 at the graduate level (as shown in Figure 1). Even though enrollment for online learning has been continuously rising, the main delivery method of instruction in higher education continues to be face-to-face teaching.

Figure 2 portrays the steady increase on the use of distance courses taken by students from 2012 to 2015.

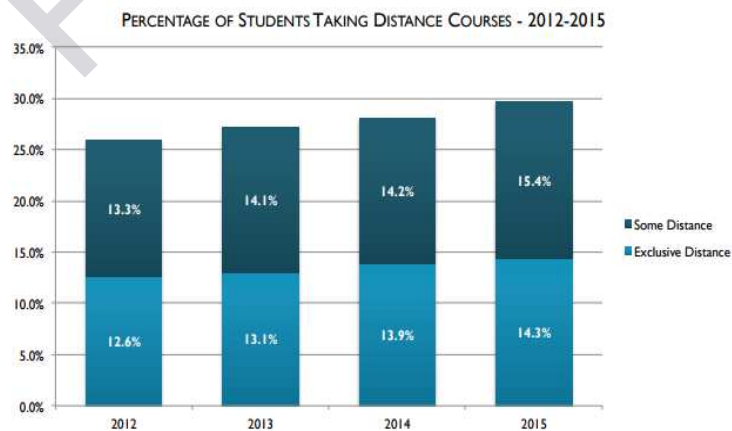


Figure 2. Percentage of Students taking line Classes in Higher Education, Babson Report (2017).

As shown in figure 2, in 2012 the percentage of college students taking at least one online class was 25.9%, this number increased to 29.7% by 2015. The reason this change in enrollment is important is because many universities are using online learning as a long-term sustainability measure to increase tuition revenue as one of their strategic goals.

Even though enrollment in online learning has steady increases from 2012-2015, not all institutions of higher education have witnessed the same incremental enrollment as shown here:

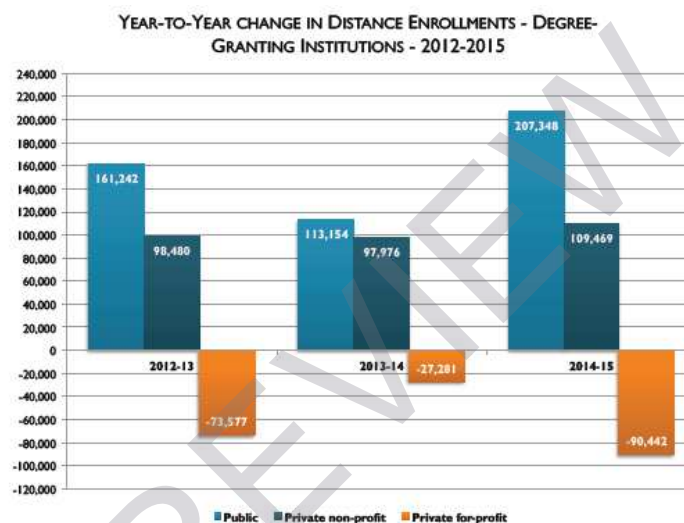


Figure 3. Enrollment changes in Degree Granting Institutions, Babson Report (2017).

Public universities increased the enrollment from 161,242 students in 2012 to 207,348 students in 2015 or 22 percent increase, while private for-profit institutions lost 73,577 in 2012 to 90,442 or 19 percent decrease. Those numbers clearly indicate how online learning students are opting for public universities as their first choice when pursuing online courses. As universities continue to adopt online learning as a long-term institutional sustainability strategy, educational administrators around the country are competing to position their universities to meet the infrastructure, connectivity, high quality learning experiences, and pre-established outcomes that other online institutions are successfully providing in their online programs (Allen &

Seaman, 2013; Ficklen and Muscara, 2001; Hernandez-Ramos, 2005). In the Babson Survey Research Group report, Allen & Seaman (2013) reported that when this report series began in 2002, “Less than one-half of all higher education institutions reported that online education was critical to their long-term state and that number is now close to seventy percent” (p. 4). This statement is crucial since tuition revenue has been declining despite enrollment growth; this is supported by Hogan (2012) who stated that, “Universities are turning to online learning to increase tuition revenue by serving more students” (p. 15). As a way to increase additional revenues, most universities are implementing online learning programs and charging additional distance learning fees.

Institutional and educational technologies are evolving at a very fast pace and administrators should be cognizant of all those changes in order to develop better academic programs and curricula including online programs with courses that are more interactive, engaging, and pedagogically designed. Also, these academic technologies can tailor the course content and materials to meet or exceed the students’ learning needs and demands. Moreover, attrition rates in online learning are as high as 70-80% in some programs (Flood 2002, Tyler-Smith 2006). Recent news in the field of online learning clearly reflects some of these issues.

In 2017, the Higher Learning Commission a regional accreditor denied an Arizona Community College’s bid to increase its online degree offerings when a Scottsdale Community College requested to add 48 new online certificates and degree programs (Smith, 2017). The main issue was that the accreditor found several inconsistencies in their existing online program to students, including a decentralization of many of their own online programs. This is crucial because as universities and community colleges expand their online programs, quality standards need to be established in order to guarantee that the student learning is happening. Another

similar case happened to Western Governors University when it lost its federal student-aid programs and were required to repay over \$713 million to the Department of Education (Fain, 2017). One of the complaints from the auditor was that there were no regular and intentional interactions with the instructors and therefore limited, social presence that is an important pedagogical factor for online learning. This university, with almost 83,000 students, faced negative publicity that not only affected enrollment but also the reaccreditation process by the Northwest Commission on College and Universities. These two examples may be seen as isolated incidents at a glance, but they have shown the complexities involved in the stakeholder's governance in online learning. Therefore, as enrollment in online courses is surpassing over 6,000,000 students in the U.S., the main question arises in relation to whether students are indeed utilizing the appropriate learning strategies in online learning when compared to face-to-face classes.

STATEMENT OF THE PROBLEM

Online learning has been proliferating around the world. As a result, this industry is expected to reach near \$325 billion by 2025, making this industry a very lucrative one. The impact in distance education is generating business opportunities ranging from learning management system (LMS), mobile, apps, virtual classroom, and other academic technologies (Globe Newswire, 2017). However, little is known about the different learning strategies used in online classes by college students (Angelino, Williams, and Natvig, 2007; Lei and Gupta, 2010; Nichols, 2010; Wang, 2004). Specifically, for the present study, we were interested in examining the different types of learning strategies that college students used in online courses. Examining the type of learning strategies used by students may assist colleges and universities given that they rely heavily on distance education to increase tuition revenue by bringing more students

who can successfully complete their studies. Online learning is becoming mainstream in the 21st century higher education model. Nevertheless, how do we know if distance education students are leaning? This study focused on examining how male and female students who are either first generation or continuous generation college attendees, including their level of online use experience in the past, used the learning strategies that helped them succeed in online learning in a Hispanic Serving Institution (HSI) in the Southwest region.

This Hispanic Serving Institution is located in the world's largest bi-national metropolitan area, totaling 2.5 million residents. Also, this HSI is an economic engine to the region with a direct impact of \$1.3 billion dollars and is becoming a leading institution in producing Hispanic graduates. It is the only research-doctoral university in the United States with a Mexican-American majority student population or about 80 percent Hispanics, emulating the region that it serves.

RESEARCH QUESTIONS

The proposed research project was guided by the following research questions:

1. Are there gender mean differences in the use of learning strategies as measured by the Motivated Strategies for Learning Questionnaire MSLQ (Rehearsal, Elaboration, Organization, Critical Thinking, Metacognitive Self-Regulation) as controlled by the student's self-reported Grade Point Average (GPA)s?
2. Are there differences between first generation and 2nd generation college students in the use of learning strategies as measured by the MSLQ (Rehearsal, Elaboration, Organization, Critical Thinking, Metacognitive Self-Regulation) as controlled by the student's self-reported GPAs?

3. Are there differences between college student's level of online experience in the use of learning strategies as measured by the MSLQ (Rehearsal, Elaboration, Organization, Critical Thinking, Metacognitive Self-Regulation) as controlled by the student's self-reported GPAs?
4. What are the 3 first-order interactions and their relation to the MSLQ learning strategies (Rehearsal, Elaboration, Organization, Critical Thinking, and Metacognitive Self-Regulation) as controlled by the student's self-reported GPAs?
 - Gender X Generational Level
 - Gender X Level of Online Experience
 - Generational Level X Level of Online Experience
5. What are the second-order interaction and its relation to the MSLQ learning strategies as measured by the MSLQ (Rehearsal, Elaboration, Organization, Critical Thinking, Metacognitive Self-Regulation) as controlled by the student's self-reported GPAs?
 - Gender X Generational Level X Level of Online Experience

PURPOSE OF THE STUDY

The proposed study was an attempt to discover what learning strategies are being used in online courses by college students in a Hispanic Serving Institution in the U.S. Southwest. Even though online courses are growing at a steady pace, few research studies have analyzed the learning strategies in online learning programs. Furthermore, this study provided some guidance for higher education administrators, policy makers, and other stakeholders such as tax-payers, governing board members, and other decision makers about the use of learning strategies in today's digital world, an important aspect in higher education institutions (Angelino, Williams, and Natvig, 2007). Also, it helped online students identify some of the characteristics of self-

regulation, self-direction, and self-efficacy, which fall under the scope of learning strategies (i.e. an individual's approach to complete a task). Faculty members were able to reflect on what learning strategies were being used by online learning students, and by doing so, faculty was able to find better delivery methods for knowledge transfer, assessment and teaching strategies in online settings (Angelino, Williams, & Natvig, 2007). Few studies have examined factors such as gender, generational level of student, and student levels of prior experiences with online learning (Ishitani, 2006; Yukselturk and Bulut, 2009), thus the overarching purpose of the present study was to delve into these factors across important learning strategies under this instructional format. Finally, the proposed study may have given stakeholders (i.e. University Senior Administrators) some degree of assurance that their students are using different or a variety of learning strategies to acquire their degrees, which in turn may have encouraged senior administrators to continue investing in online programs.

ASSUMPTIONS

An assumption of the study was that the participating student may report truthful and accurate perceptual information when responding to the self-reported MSLQ survey items and demographic questions. Another assumption was that the MSLQ instrument was developed predominantly for white, middle class students, but the validity and reliability results from previous studies, in particular the research conducted by Arend (2007), made this instrument sufficiently psychometrically robust for any self-report college student research study that measures learning strategies online for Hispanic and first-generation college students. Even though the MSLQ was constructed for a different normative group, the assumption was that it works similarly for Hispanic students, as well. In other words, its psychometric properties were sound.

LIMITATIONS

Some of the limitations of the study were that the MSLQ is a self-reported measure, thus there was no control on the type of a personal perception response elicited by its items and on the response rate by the participants. Second, the study participants were randomly selected at the course level, therefore, the generalizability of the study was limited to only similar college student populations that employ similar learning management systems and technologies, including type of courses and the level of those courses. The use of a selecting sampling technique that may not be random may also have limited the generalizability of the study to other college population of students who may not possess similar demographics of the participating students in this study. And, since randomization did not occur at the individual participant, self-selection could be an issue.

DELIMITATIONS

As results provided by other studies, the present study included some important delimitations. The first delimitation for this study was that it focuses primarily on students attending a Hispanic Serving Institution in the Southwest. Another delimitation was that this study focuses on gender, college student's generational level, level of online learning experience, and the five MSLQ learning strategies that are employed by college students in online learning. Additionally, each of the MSLQ learning strategies: Rehearsal, Elaboration, Organization, Critical Thinking, and Metacognitive Self-Regulation was a delimitation.

RESEARCHER'S BIAS

The researcher worked as an academic advisor at the same institution in which the study was conducted. In this capacity, the researcher advised pre-science and science students to take the courses that were suited for their degrees as well as recommended the most appropriate