Exploring the Impact of Structured Learning Assistance (SLA) on College Writing

Regina J. Giraldo-García and Edward J. Magiste

Abstract

This study determined that the addition of Structured Learning Assistance (SLA) attendance increased passage rates (from 66.5% to 82%) of first year students in English 101 courses. The model predicts first year students’ performance in college writing, controlling for variables such as American College Test scores, and gender. A quasi-experimental design and a logistic regression model of analysis were used. The results indicate that attendance to SLA has a significant and positive impact on passing English 101. The authors
discuss the importance of formal peer-tutoring and support and recommend increasing the number of SLA sessions for first-year college students.

Introduction

Many graduating high school students enter college to begin higher education with excitement but also with big expectations. Embarking on this journey of learning can be challenging, particularly for first year student that are underprepared for the academic rigors and the psycho-social transition from learning in a secondary environment to learning in a college setting. Indeed, the National Center for Public Policy and Higher Education (2010) estimated that as many as 60% of incoming freshman need some remedial course work. The impact of this transition is evident in the percentage of college students who are placed on academic probation, who do not complete a regular course of studies in anticipated time frames, and who leave the tertiary academic system without completing a degree. Considering the students’ characteristics as well as institutional goals, higher education institutions have begun to implement supplemental instruction in order to help students with this transition (Price, Lumpkin, Seemann, & Calhoun-Bell, 2012).

Determining what support interventions are needed for first year students and which ones are most effective becomes an integral part of this examination. This study looks at the effectiveness of implementing Structured Learning Assistance (SLA) as one support intervention at a Midwestern, urban, commuter university. In particular, the purpose of the study is to further explore the effect of attendance to (SLA) sessions, gender and American College of Education and Human Services. She received her Ph.D. in Urban Education from CSU. Her research is grounded in social justice in education and examines individual and institutional factors that influence the academic achievement of minority students, and the impact of socioeconomic and class-based systems on academic performance. She serves as a reviewer for the Journal of Latinos and Education, the journal of Youth and Society, and is a member of the Editorial Review Board of the Journal of Urban Learning, Teaching, and Research (ULTR), a journal of the American Educational Research Association.

Edward J. Magiste

Edward J. Magiste is currently an adjunct faculty member at the Cleveland State University School of Social Work and has taught in the intensive
College Test (ACT) scores on predicting the odds of passing English 101, a first-year college writing course. It is hypothesized that the influence of Gender, ACT scores, combined with attendance to SLA sessions increases the probabilities of passing ENG 101 during the first year of college. In the higher education institution in which the study takes place passing English 101 is defined as having earned a grade of C or higher.

The study addresses the following research questions:

a. Are ACT scores, attendance to SLA sessions and students gender significant predictors of success in English 101?

b. To what extent does student gender increase the likelihood of passing or failing English 101?

c. To what extent does Structured Learning Assistance (SLA) attendance increase the likelihood of passing or failing English 101? and,

d. To what extent does ACT increase the likelihood of passing or failing English 101?

Theoretical Framework

The study uses a replication approach which supports the possible evaluation of new and existing programs, particularly when those programs’ effects are relatively unknown, have not been tested, or need to be implemented in a different context (Moss & Yeaton, 2013). This is often the case in newly implemented programs, where changes due to curricula, as well as instructor delivery methods are present from one educational environment to another. Programs considered successful in one environment may have different effects when implemented in a setting within a different urban context, and as new cohorts of students
reach higher education levels (Moss & Yeaton, 2013). The current study was influenced by the socio-cultural theory of learning and development posited by Vygotsky (1978), which focused on the effect of more advanced or knowledgeable others (MKO) in the learning process of the student. The concept highlights how learners reach higher levels when they interact with more advanced peers (Vygotsky, 1978). This interactive process is evident in the setting where the study takes place when first year students work with SLA leaders, more advanced peers, in content related to their English 101 class.

According to Vygotsky (1978), there is a zone of proximal development that represents the distance between the individual’s actual developmental level or capacity to solve problems and the level of potential development in which his or her more knowledgeable peer is. The socio-cultural theory states that a learner can go from one side of the zone to the other in collaboration with more advanced peers; the phenomenon is observed in SLA programs wherein first year students are paired with more advanced students (Miller & Goodnow, 1995).

Review of the Literature

First-Year Students’ Characteristics

The review of the literature indicates that characteristics such as effort, attendance, conformity, and motivation can become more challenging for students as they leave the more structured environment of high school and enter the college setting; it can become a highly stressful transition (Lu, 1994). The experience includes social, academic, and emotional stressors. While most students are able to cope with this transition by themselves, many
are not. Those might benefit from collaborative work with more knowledgeable peers as suggested in Vygotsky’s learning theory. Bettinger, Boatman, and Long (2013) found that women had a better experience than men when placed in support programs. The authors attributed the finding to females’ learning styles, levels of engagement, or amount of time they dedicated to studying. Truly exploring what impediments or opportunities exist for first-year students may include not only looking at admission criteria and students’ academic goals, but also understanding what academic supports are necessary to bolster their learning process and success.

Caison (2007) argued that successful students enter college with background characteristics (e.g., family background, individual attributes, aptitude, and motivation) that are the foundation for their initial contact with the institution. Likewise, Kuo, Hagie, and Miller (2004) suggested that first-year students are less immersed in campus activities due to use of Internet to complete projects and increased number of off-campus jobs worked, which limit direct support and access to the modeling by other self-regulated learners. The interaction with more advanced peers in SLA programs may provide important guidance and organized learning activities, making a difference for students who need to build up self-regulation skills.

The literature on first-year students discussed that focusing on increasing academic and social support may prove to be a practical approach (Nelson, Quinn, Marrington, & Clarke, 2012; Caison, 2007). For example, Nelson, et al. (2012) stated that institutions need to provide that “support” in a way that integrates it into
regular teaching and learning activities and reaches all students. In order to begin addressing the multiplicity of needs faced by first year students, universities and colleges need to incorporate strategies that include building stronger relationships between faculty and students, as well as developing and implementing strategies that can occur in the classroom and across the campus (Marsh, Vandehey, & Diekhoff, 2008; Cutright, 2002).

Context of Study: Structured Learning Assistance

The concept of SLA was first developed at Ferris State University in 1993. Originally, SLA leaders were described in the Ferris State University program as more advanced students that serve as support for underperforming students. According to Price et al. (2012), SLA programs are designed to help students determine which learning and study strategies will help them pass a course, and implementing the program has resulted in increased pass rates as well as increased retention rates (Ferris State University, 2014). Nevertheless, SLA leaders at Ferris State University noted that additional impacts of SLA may include increases in student academic independence and increased study and learning strategies, such as test preparation for class exams and standardized language exams, memory devices, discussion formats, games, and presentations, creating a learning environment that supports increased success in the course. In this sense, Glasser (1990) emphasized that successful learning environments are based on the four psychological needs: belonging, freedom, power, and fun. Such psychological needs seem to be met through the learning strategies described above and implemented in SLA programs.
SLA Sessions and English 101 Courses at the Study Site

The English 101 SLA sessions implemented at the Midwestern University where the study was conducted take into account the particular characteristics of the student population and their academic needs, attempting to address them by keeping groups that include both genders, and diverse cultural backgrounds. SLA leaders attend class lectures along with the students, take notes, and learn along with the students. In replication of the original program approach, the SLA leaders in the current study stayed in the classroom with the new students and were able to see exactly what the students were learning and where they might be experiencing difficulty; consequently, they provided assistance to build the specific skills needed for the class assignment. Particularly, the role of the SLA Leader is to be a model student, who is organized, punctual, takes notes, and is actively involved in classroom discussions. In addition, the leader works closely with the faculty person to plan student progress.

The program was adapted at this Midwestern urban university in 2009. The program is designed to support courses with high enrollment and low success rate (e.g. students earning grades of C- or lower). During SLA sessions, study skills and learning techniques are integrated into the course content review and practice in order to boost students’ understanding and mastering of the content. One of the primary goals of SLA programs is to increase the number of students passing historically difficult courses at no additional cost to the student. Additional goals for English 101 SLA include offering more practice for the learners in the areas of listening
and speaking, enhancing vocabulary acquisition and reading comprehension, improving pronunciation and grammar, while improving self-efficacy for learning to speak academic language.

Overall, the SLA program provides English 101 students with more time on task, especially when students are scoring below the department established baseline. In such case, attending SLA sessions becomes a requirement instead of an option. For instance, the baseline score in English 101 at this college is 80%, and students scoring a 79% or lower are required to attend the SLA sessions held right after the course lecture.

The rationale for conducting this study is the recent implementation of the program in this Midwestern University; it was anticipated that, based on the analysis of the positive results regarding first year student academic success found at Ferris State University, this University could have similar results. The authors found important to measure the extent to which SLA was having a significant effect on local students’ academic success, given that English 101 is a college writing course considered foundational and an important predictor of college success and retention. This study contributes to the literature on first-year college students by providing additional evidence of the effectiveness of structured learning assistance programs as a way to propel student success during their transitional period into higher education. The SLA program used in this study targets courses rather than students, and implements in-classroom strategies that link to services across campus in this Midwestern University. Nelson et al. (2012) found that student success programs can be effectively applied to different learning contexts and student enrollment.
situations and have a positive impact on student persistence and retention, both linked to successful transition into tertiary education.

Methodology

Research Design

This quantitative research study uses a quasi-experimental design that looks at retrospective performance data of students in English 101 classes who had attended SLA support sessions. The study seeks to examine the predictive power of SLA attendance, ACT scores, and gender on English 101 first-year students’ passage rate.

Participants

The university used as the setting for the study has a liberal enrollment process, which means that applicants who score lower than 20 but higher than 16 on the ACT are admitted as developmental students. This particular university has approximately 45% of its incoming first year students in this category. All applicants to the university are required to take an English placement exam which determines if a student must take English 101 before taking English 102. The participants were selected from a convenience sample of 625 first year students, 329 males and 296 females, college students enrolled in English 101 in either Fall 2010 or Fall 2011 semesters. Students were included if they remained enrolled beyond the initial enrollment period and had an ACT score on file with the university.

Data Source

The data was facilitated by the office of Academic Programs at the university, where developmental courses
are locally designed and assessed. Data were drawn from student records including the participants' final grade in English 101, as well as ACT scores, reported gender, and SLA attendance records. These types of data are routinely collected by the University in order to determine effectiveness of programming. Particularly, the data about SLA attendance was provided by the tutoring and academic success center, which is part of the department of undergraduate programs. The authors followed ethical procedures by removing all identifying information from the participants’ records and assigning sequential numbers to the records before proceeding with the analysis of the data and drawing final conclusions.

Variables

The study used the following independent (predictor) variables: a. The students’ American College Test’s scores (ACT); b. Number of hours the students attended to the Structure Learning Assistance sessions (SLA#Hrs); and c. The gender of the students attending the sessions (Gender: 1= Male; 0= Female). Likewise, the study used the students’ final grades in English 101 as a measure of success (English 101 success: Pass = 1, Fail = 0) as the sole dichotomous dependent variable. More specifically, success (Pass = 1) was defined by earning a letter grade of A, B, or C, while Fail (Fail = 0) was defined as earning a grade of D, F, I, X, or W. In this institution, a grade of I (Incomplete) is entered if a student does not complete the entire course within the allotted time of the semester and has negotiated with the instructor to complete the work within the following semester. A grade of X is entered for a student who began attendance at class, perhaps even completed one or more assignments, but
stopped attending, did not complete assignments, and
did not negotiate for an Incomplete. A grade of W is
entered for a student who began the class, stayed in the
course after the initial add-drop period, and later
withdrew from the course.

Data Analysis and Procedures

The study utilized the logistic regression model to
determine the extent to which SLA attendance, ACT
scores, and gender predict the likelihood of success vs.
failure among college students enrolled in English 101 in
Fall 2010 and Fall 2011 semesters. This method of
analysis is appropriate for the study given the
characteristics of the data that includes a dichotomous
outcome variable (Success = 1 vs. Failure = 0), and the
purpose of the study. As stated by Hair, Anderson,
Tatham, and Black (1998), a logistic regression, as a
specialized form of regression, is a better suit to explain a
binary (two group) categorical outcome variable rather
than predicting a metric dependent measure. The linear
logistic regression model derives from the mathematical
function:

\[ y_i = \beta_0 + \beta_1 (ACT_i) + \beta_2 (SLA_i) + \epsilon_i \]

As a probabilistic value, \( f(y) \) ranges from 0 to 1 in a
monotonically increasing way as \( y \) increases its value
from \(-\infty\) to \( \infty \). The logistic regression model provides the
maximum likelihood estimation by transforming \( Y (1, 0) \)
into a logit or log of the odds of falling into the “1”
(success) category (Menard, 2002).

Structured Learning Assistance is measured in hours of
attendance, even though each section of the course had
varying lengths of time devoted to SLA (e.g. some classes
ran for 45 min, while others 1:20 min long, depending on
the students’ needs), total time in SLA was converted from minutes to hours. Gender was dummy-coded as male = 1 and female = 0; and ACT is a continuous variable. The outcome variable, English 101 success, was dummy-coded as Pass = 1 and Fail = 0 during the data organization process considering the logistic model of analysis.

Findings

A logistic regression analysis using hierarchical method was performed to predict success in English 101. The variables included are English 101 grades (A, B, and C = Pass; < C = Fail) as the dependent variable, and SLA attendance in number of hours (SLA#Hrs), Gender (1 = Male; 0 = Female), and ACT scores, as the predictor variables. Data from 625 students referred in the analysis as “cases”, including 329 males and 269 females, were analyzed and the results show that the model significantly predicted English 101 status (Pass/Fail). Therefore, it indicates that there is a statistically significant relationship between the independent variables (ACT, SLA#Hrs, & Gender) and the dependent variable (Pass/Fail) in the model (omnibus chi-square = 41.656, df = 3, p< .001). The model correctly predicted passing or failing for 80% of the students in the study, as the observed cases. The Hosmer and Lemeshow test (goodness-of-fit test) chi-square = 8.529, df = 8 with a p = .384 indicates that the model provides better fit than a null model with no predictors.

Table 1. Classification of Cases

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>Percentage</td>
</tr>
</tbody>
</table>
In addition, SLA#HRS coefficient indicates that odds of passing increase .09 by every hour increase in SLA sessions. SLA#HRS is statistically significant (p< .05) and increases the odds of a participant falling into the passing group by 9.4%. Likewise, the positive coefficient for ACT scores shows that the odds of passing English 101 increase .163 by every unit increase in ACT scores. ACT is statistically significant (p< .001) and increases the odds of passing English 101 by approximately 18%.

However, the variable Gender was found to be not significant in predicting success in passing English 101. Previous passage rate of ENG 101 at this university, prior to Fall 2010 was 66.5%; however, since the addition of SLA in all English 101 courses offered in this university, the passage rates in Fall 2010 increased to 70% and in Fall 2011, to 79%, for an overall gain of 12.5%.

Table 2. Predictors of Academic Success in English 101 (N = 625)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>S.E</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-2.266</td>
<td>.634</td>
<td>.000*</td>
<td>.104</td>
</tr>
<tr>
<td>SLA#Hrs</td>
<td>.090</td>
<td>.001</td>
<td>.007**</td>
<td>1.094</td>
</tr>
<tr>
<td>ACT</td>
<td>.163</td>
<td>.030</td>
<td>.000*</td>
<td>1.177</td>
</tr>
</tbody>
</table>
Discussion

The study used a replication approach to measure the predictive effect of implementing the SLA program in an English 101 class in a considerably different academic environment (Moss & Yeaton, 2013). The results practically reflect those of the original program and support the authors’ hypothesis that attendance to SLA, combined with ACT scores, would increase the probabilities of passing ENG 101 successfully. More specifically, the results showed that only ACT scores and attendance to SLA sessions increased the odds of succeeding in English 101. However, the analysis did not show any statistical significance based on whether being a male of a female predicted passing or failing English. Interestingly, this finding differs from the findings of Bettinger, Boatman, and Long (2013) that women had a better experience than men when placed into academic support programs. In the current study, the key variable was SLA attendance, and it was found to have a positive and significant effect on academic success for first year students enrolled in English 101.

This finding might be explained by the fact that SLA sessions take place in an informal learning environment and develop into learning communities that provide robust opportunities for students to galvanize their identities as successful students (Smith, 2013; Dean & Jolly, 2012; Widick, Parker, & Knefelkamp, 1978). The peer-to-peer interaction in SLA can ameliorate some of the anxieties about risk-taking while gaining effective...
learning strategies. Students can “try on” the new identity of successful learning in a low-risk environment during SLA sessions. Learner-centered teaching, particularly in the case of this study in which learning is guided by peers, becomes very engaging to first year college students because it helps them develop effective learning strategies, problem solving skills, as well as engage in collaboration that will directly benefit them during and after their first college experience (Stephenson, Peritore, Webber, & Kurzynske, 2013).

The experience in this Midwestern University is that the students in SLA sessions are not afraid to speak up, ask questions, and participate openly. Also important, the SLA leaders, who are the more advanced peer-students, are advanced students in the same subject and are trained by the student academic success center in this institution to become peer-tutors acting as SLA leaders. Tinto (2006, 1987) reported that college freshman attrition rates are among the highest (20-30%), resulting in earning less income over the lifetime of the dropout (National Center for Educational Statistics, 1989). This reality underlines the need for more structured learning assistance for the students in order to succeed during their transition during the first year of college.

Prior to the addition of SLA in English 101 courses at this university, the overall passage rate was 66.5%. In the successive fall semesters, which were analyzed in this study, the rates rose to 70% (Fall 2010) and 79% (Fall 2011). The passage rate in Fall 2012, as anticipated, continued to rise and was 82%, thus indicating that the university can anticipate an increase in its passage rate in this course. However, more targeted research is needed to determine the prediction power of SLA on English
passage rates, especially when ACT scores are out of the model. Using the findings of this study is a place to start.

The dynamics between the learners in SLA sessions are different than the dynamics in the classroom setting in that students experience more freedom to express their ideas and needs and so drive the planning of the sessions. One explanation to the passage rate increase could be that as the students gain more knowledge and practice, they begin to feel more empowered, confident and perform more efficiently. Lastly, there is plenty of laughing and fun throughout the sessions, which may motivate the students to attend, providing a sense of belonging to the group. The SLA leaders at this Midwestern University reported observing that the demeanor of the students in SLA sessions varies and becomes more active if compared to their behavior in a regular classroom.

**Recommendations for Implementation**

Based on the findings of the study using English 101 classes, the authors recommend the implementation of SLA support programs in a wider number of introductory college classes in order to guarantee a successful transition for first-year students and overall higher passage rates. This recommendation is based on the findings indicating that peer support from the SLA leaders is making a positive difference for new students in higher education. SLA programs offer students support within their zone of comfort (e.g. clapping for each other after presenting or role playing in SLA sessions) where, at times, the facilitators provide incentives for positive and healthy competition.

The 79% successful pass rate in Fall 2011 indicated here
also underscores the fact that many first-year students do not fare well in college; it says as much about the 21% who did not pass the course in the same semester. It remains to be studied what could be implemented to facilitate better academic outcomes for the latter group as well as the former group of students. Since this study only looked at students’ enrollment in one course for each of the semesters, it is also recommended that the effect of SLA attendance on other classes taken by first-year students and on the students’ overall performance be explored. More research is needed regarding how SLA sessions impact students’ success in other entry level courses. As well, identifying other possible factors that might have an effect on students’ overall academic success needs to be addressed.

**Recommendations for further research**

An important recommendation for further research is to use a more complex analytical model that includes variables such as individual academic majors and psycho-social factors (as well as motivation, educational goals, and students’ self-efficacy,) in order to measure the predictive power of SLA on academic success in connection to other variables. Similarly, a new analytical model would benefit from measuring the impact of SLA on students’ academic outcomes in other core courses such as mathematics.

**Conclusion**

Formal peer-tutoring and institutional supports, through the implementation of SLA programs make a difference for many struggling students in English 101. Students taking the first-year writing course and participating in SLA sessions in 2010 or 2011 had a 12.5% overall pass
rate increase compared to previous years’ before the inclusion of SLA into the course. These findings must be viewed cautiously and considered as applicable in universities where such a program is in place and where the students share similar characteristics to the ones included in the current study. This study confirms the positive impact of SLA attendance for first-year students in English 101.

Limitations

Although the quantitative nature of the study allows for an objective analysis of the students’ performance in English 101 as a result of attending SLA sessions, it does not provide a perspective from the students’ point of view regarding particular experiences in the program that could have influenced their academic performance in that course. Lastly, the study looked only at students’ performance in English 101 – overall passage rate – as the sole outcome variable of analysis, and while this is an important core course, including courses such as mathematics would provide a better picture of the students’ first-year academic experience and the effectiveness of the SLA program as an institutional support tool.

References


Caison, A. L. (2007). Analysis of institutional specific retention research: A comparison between survey and


Smith, P.R. (2013) Psychosocial learning environments and the mediating effect of personal meaning upon


