

Journal of Access, Retention & Inclusion in Higher Education

(formerly the Act 101 Journal)



VOLUME 1

FALL 2018

wcupa.edu/adp

Journal of Access, Retention, and Inclusion in Higher Education

(formerly the ACT 101 Journal)

Edited by Dr. John Craig

Foreword by

Dr. Deborah Daiek

ACKNOWLEDGEMENTS

Editor

John B. Craig, Ed.D.

Editorial Board and Peer Reviewers

Francis Atuahene, Ph.D. (Editorial Board and Peer Reviewer)
West Chester University of Pennsylvania

Chuck Baker, Ph.D. (Editorial Board and Peer Reviewer)
Delaware County Community College

Marie Bunner, Ed.D. (Editorial Board and Peer Reviewer)
West Chester University of Pennsylvania

Michael Burns, Ph.D. (Editorial Board and Peer Reviewer)
West Chester University of Pennsylvania

Elizabeth McCloud (Editorial Board and Peer Reviewer)
Pennsylvania Higher Education Assistance Agency

Ilknur Sancak-Marusa (Editorial Board and Peer Reviewer)
West Chester University of Pennsylvania

Juanita Wooten, Ed.D (Editorial Board and Peer Reviewer)
West Chester University of Pennsylvania

Ann L. Colgan, Ed.D. (Peer Reviewer)
West Chester University of Pennsylvania

EDITOR'S NOTE

John B. Craig, Ed.D.

John B. Craig, Ed.D., is Assistant Professor of Educational Development and Director of the Academic Development Program at West Chester University of Pennsylvania and has been in the field of higher education for over 20 years.

This inaugural edition of the Journal of Access, Retention and Inclusion in Higher Education (JARIHE), formerly the ACT 101 Journal is an important contribution to the field of education, in general, and developmental education, in particular. The work published herein represents research, best and promising practices which add to the overall student experience and leads to student success. Students who enter post-secondary institutions by way of special admissions programs and students who enter college having to take at least one developmental course are often stigmatized, marginalized and made to feel intellectually inferior. In some cases, faculty and staff have viewed such students from a deficit perspective rather than from a strengths-based perspective. This must change such that all faculty and staff view all students from a strengths-based perspective. All students must be supported and deserve to be taught by faculty who appreciate what each student's strengths are; and, when those strengths have been identified, faculty and staff must work to build upon those strengths. As educators committed to the success of students in developmental programs, we must continue to advocate, sometimes loudly for our students.

This issue of JARIHE contains work which reports on successful programs, learning support strategies and discusses the history of developmental education. These articles are meant to be useful for practitioners and faculty, policy makers/legislators and college/university administrators. The authors who contributed to this issue are also committed to student success and have presented very cogent pieces which are to be utilized in our work with students.

TABLE OF CONTENTS

Editor’s Note, *Dr. John Craig*. iii

Foreword, *Dr. Deborah Daiek*. v

ARTICLES

The Education Bridge: A Longitudinal Analysis of the ACT 101 Programs’ Effectiveness on Student Success 1

Sustainable Development Goal 4: When Access to Education is Not Enough. 17

The History of Developmental Education 28

Success or Fraud? Exploring the Impacts of the Imposter Phenomenon Among High Achieving Racial/Ethnic Minority and First-Generation College Students 33

A Comprehensive Engagement Theory 46

A Collaborative Model for Diagnosing First Year Minority College Student’s Academic Needs: Establishing a Plan for Academic Success Through Academic Coaching and Tutoring. 50

Mind the Gap: Decolonizing the Developmental Writing Classroom Through a Theory of Cultural Rhetorics 65

Lessons Learned from Using the Effective Lifelong Learning Inventory (ELLI) to Support Student Growth and Success 74

Creating Dynamic Practices: NJCU’s Programs for Student Success. . . . 95

Mentoring McNair Scholars: A Qualitative Study of Faculty Mentors’ Perceptions 105

FOREWORD

Dr. Deborah Daiek, *NADE President*

As the current President of the National Association for Developmental Education, NADE, I applaud the work of the Journal of Access, Retention and Inclusion in Higher Education, JARIHE, for its critical contributions to our field. More research initiatives from those within our field who advocate for access and support are necessary, especially for underserved students. Access without support is not access.

The Journal's decision to change its name was timely and intelligent. Developmental education is currently the focus and hot topic of debate and discourse throughout our country. It is one of the most complex and misunderstood fields in higher education. Most educators, outside of the field, limit its scope to remedial courses and reduce the recommended changes to a "one-size-fits-all approach." NADE is experiencing the same need to consider a name change. Regarding the confusion with the term and work within the field, developmental education, it is good to have a title that explains precisely the Journal's mission. The Journal has done just that: The Journal of Access, Retention and Inclusion in Higher Education. The new title supports the heart of our work.

JARIHE, provides a comprehensive understanding of the field through its support of research in all areas of developmental education; from access to completion, through scholarly research. The articles examine our work in relevant and applicable ways. It provides a national opportunity to share and discuss growing and wide-ranging concerns, such as current retention rates, student placement, access and inclusion, as well as financial obstacles related to developmental education courses, services and programs. It is written by practitioners, for practitioners. It attempts to take in hand all aspects, levels and current trends within the field. It is also written to address current reform concerns so that decision makers, i.e., administrators and legislators who wish to expand their knowledge and understanding of the field may use the journal to make more informed decisions regarding institutional and state policy changes.

Kudos!

The Education Bridge: A Longitudinal Analysis of the ACT 101 Programs' Effectiveness on Student Success

Dr. Chuck A. Baker, *Delaware County Community College*

ABSTRACT

Scrutiny has been placed upon the K-12 program and its ability to effectively prepare students as learners and SAT performance has been used as a barometer of the efficacy of K-12 programs. Colleges keep records on academic performance and job placement rates to examine effectiveness. Less is known about the utility of compensatory programs' linking poor students from high school to college. One of these programs is ACT 101. The purpose of this research is to examine the ability of the ACT 101 program to be supportive assisting students in adequately preparing for college. During the summers of 2005, 2010, and 2016, students in the Act 101 program were analyzed for their levels of skill, will, and self-regulation using the LASSI assessment. Findings show that the ACT 101 program sufficiently establishes student competencies that aide successful navigation of college and enhance the likelihood that students have productive results as learners.

Poverty and Academic Achievement

Substantial information has been written about socio-economic class and SAT performance and results suggest that socioeconomic background is associated with SAT outcomes (Zwick et al., 2007; Zwick et al., 2011; Dixon-Roman et al., 2013). Since many institutions of higher education use the SAT scores as a sifting and sorting mechanism for who gets accepted in, the relationship between socio-economics and college access establishes a tautological process in which well-to-do parents begat well-to-do college students. Since education is a means of upward mobility, this circular process establishes impediments for equity for poorer families. Recent data shows that the average income for those with high school degrees was \$19,422. Those with Associates Degrees had mean incomes of \$21,539 and Bachelor Degrees had mean incomes of \$35,121. Given that education is the gateway out of poverty, intergenerational mobility as measured through econometric elasticity models should reflect positive gains between baby boomers, generation X cohorts, and millennials unless these impediments dilute the upward mobility of the poor. Mazunder in Corak (2013) examined the elasticity scores of intergenerational mobility in the United States of America from 1950 to 2000. Lower elasticity scores occurred in the 1950s, 1960s, and 1970s (i.e., .30, .32, .35 respectfully) the time period in which baby boomers were entering the job market when compared to the 1990s, and 2000s when elasticity scores reflect less intergenerational mobility (i.e., .55, .57) for generation Xers and millennials upward mobility. Decreases in intergenerational mobility intensify resource scarcity for those who already experience impoverishment.

Those who suffer from resource scarcity are more likely to attribute negative outcomes to be a result of personal flaws (e.g., a lack of industriousness) and less likely to attribute them to structural factors (e.g. race, gender) (Godfrey & Wolf, 2015) and yet, students who learn to take control of their academic performance through attributional information designed to encourage, personal-effort, and motivate perform better (Noel et, al, 1987). In addition, resource scarcity may provoke out-group hostilities and increase ethnocentrism (Hobfoll & Lily, 1993; Hobfoll & Shirom, 2001; Hobfoll, 2004). Furthermore, since at least 1977, research has supported the association between economic impoverishment and lower scholastic expectations. Samuel Bowles showed that students whose families were poor were less likely to desire to go to college than were students who lived with families of wealth. In addition, research supports that poor students are significantly more likely to drop out of school, have lower grades than other students who do not live in poverty, and perform worse on standardized tests (Balfanz & legters, 2004; Guskey, 2011; Hopson & Lee, 2011; Reardon, 2011; Stuart & Hamel, 2011). In essence, the relationship between childhood impoverishment and less-than-satisfactory academic performance is well corroborated (Center of Education Policy, 2011; Reardon, 2011; Tavernise, 2012).

Support Programs and Academic Achievement

The desire to help disadvantaged groups can be dated back to Lyndon Johnson's War on Poverty in 1964. An attribute of the program was the desire to eliminate the gap between the rich and poor by increasing the academic benefits that poor students receive. During this epoch, compensatory education programs, like head start and kindergarten have been utilized to establish a solid foundation for the education of youth. Along this route, compensatory programs have become one of the primary means to diminish or eradicate the learnings gap (Office of Head Start, 2017).

Several studies have supported the importance of compensatory programs and academic achievement. Research by Matthews and Mellon (2012) shows that English-themed programs implemented over one month during the summer increase positive student attitudes and behaviors important to academic achievement and diminish the learnings gap for English as a Second Language learners. Li, et, al (2009) found that students who participated in a summer enrichment program during middle school were more likely to take Advance Placement (AP) courses, major in math/science courses, and were more likely to desire to earn a doctorate while in high school. According to Crosnoe et al, (2015) children who come from low income families received substantial benefits from participation in school activity programs when examining academic performance results. Goldstein et al, (2017) shows that for students who live in highly concentrated poverty tracks, early intervention substantially increases vocabulary acquisition. In the United States Military Academy, Ince and Priest (1998) used the LASSI to compare the student performance of three groups after one of the three went through a student success course. The other two

groups were control groups. Results indicated that the student success course group had improved performance on LASSI test measures when compared to the control groups.

LASSI Assessment Tool

Education has been described as a middle class pedagogy. School curriculum are designed to teach middle class norms, values, language, and beliefs (Henslin, 2014). Ray Rist's (1970) research supports that students who use middle class words and appear to come from affluent families get higher levels of interaction in the classroom and by the end of the academic year, more favorable results. Rist's (1970) work is corroborated by Sternberg and Zhang (2000) who show the importance of student comprehension of the processes involved in the institution of education increases student outcomes.

The Learning and Study Strategies Inventory (LASSI) instrument has been used as an assessment tool to examine academic abilities of students from a variety of backgrounds. The LASSI is a good assessment tool for students to utilize. As a means of understanding college level learning, Kovach and Wilgosh (1999) used the LASSI as a tool to examine students with learning difficulties and highlighted skill deficiencies requiring remedial courses before the students had irreducible academic problems. The LASSI is an assessment tool that is widely accepted for its reliability and validity when examining several important factors in student learning. It is typically used as a means to assess student's levels of skill, will and self-regulation for successful academic results (Gornick, 1997; McDonald, 1997; Reaume, 1997). In essence the LASSI is an assessment tool that:

Focus(es) on both covert and overt thoughts, behaviors, attitudes and beliefs that relate to successful learning and that can be altered through educational interventions. Research has repeatedly demonstrated that these factors contribute significantly to success in college and that they can be learned or enhanced through educational interventions such as learning and study skills courses (www.hhpublishing.com).

Act 101 Program

K. Leroy Irvis was a civil rights leader and political visionary who spent almost three decades in politics. The first African American to be elected Speaker of the House in Pennsylvania, he created ACT 101 in 1971 (Associated Press, 2006). Every summer, students from economically disadvantaged homes participate in the ACT 101 program in many of the universities in the Commonwealth of Pennsylvania.

The ACT 101 program is a demanding learning curriculum implemented that extends aid to students who meet rudimentary financial prerequisites. The program is designed to help students who need to develop scholastic skills that may enhance their capabilities of successfully navigating college and earning their degree. A college in Southeast Pennsylvania, for example, has an Act 101 program implemented during the summer that offers courses in Developmental

English, Developmental Reading, Developmental Math, Computer Processing, Personal Growth and a Study Skills curriculum (www.dccc.edu). After completion of the summer Act 101 program, students have access to college skills and career exploration workshops, on-campus tutoring, academic advising, college classes and other student services and support mechanisms.

The program has shown success. In the 2012-2013 academic year, for instance, approximately 71 percent of the students who participated remained in college. The two year retention rate was almost 65 percent. In addition to strong retention rates, ACT 101 student course completion rates mimicked those of non-ACT 101 students. In 2012-2013, almost 89 percent of ACT 101 students successfully completed courses while a little less than 91 percent of non-ACT

Methodology

This research examines student academic performance at a college in South-eastern Pennsylvania. The college has approximately 13,000 students. About 56 percent of the population is non-minority and 61 percent are under the age of 25. The researcher gathered data from the ACT 101 program to examine student performance in 2005, 2010, and 2016. These three cohort groups allow for a longitudinal assessment of the program's efficacy by incorporating a pre-posttest design to analyze changes in each cohort group's level of skill, will, and self-regulation. To measure the possible cohort changes, this research design incorporates the Learning and Study Strategies Inventory (LASSI) tool.

The LASSI was selected because of its easy administration, its association with the types of programs offered by the Act 101 program, the relatively quick computational results it presents and the rich data which it can provide. The LASSI is composed of ten subscales and can be used as a diagnostic instrument and a prescriptive tool. The ten subscales are measure a student's: Motivation, Attitude, Anxiety, Concentration, Information Processing, Use of Study Aids, Test Taking Strategies, Selecting the Main Idea in Readings, Use of Time Management, and Self Testing. With its three primary components (skill, will, and self-regulation), the LASSI subscales are designed to measure each of these components. The Skill component of the LASSI scale is measured by the subscales of information Processing, Selecting Main Ideas and Test Strategies. The Will component of the LASSI scale is measured by the subscales of Anxiety, Attitude and Motivation, and the Self-Regulation component of the LASSI scale is measured by the subscales of Concentration, Self-Testing, Study Aids, and Time Management. The LASSI can be used to provide information about student weaknesses when compared to similar students so that interventions can be developed to strengthen those weak areas of learning, test taking, self-regulation, motivation, time management and study skills. The alpha coefficients of each subscale component are shown below. Each of these components has a coefficient alpha over .70. Table 1.1 lists the coefficient alphas for each subscale.

Table 1.1

Subscale	Coefficient Alpha
Anxiety	.87
Attitude	.77
Concentration	.86
Info. Processing	.84
Motivation	.84
Self-Testing	.84
Select Main Ideas	.89
Study Aids	.73
Time Management	.85
Test Strategies	.80

The subscales illustrate that the internal consistency of each factor is relatively sound. Study Aids has the lowest alpha coefficient at .73 and Selecting Main Ideas has the highest alpha coefficient at .89 (www.hhpublishing.com). The LASSI instrument has been proven to have validity and reliability.

From the literature reviewed it was apparent that the Act 101 course programs offered during the summer of 2005 relate to the LASSI subscales to an appreciable degree. The following key illustrates the association and thus, one of the rationale for selecting the LASSI as a pre and posttest.

LASSI Key:

- Motivation (MOT)
- Attitude (ATT)
- Anxiety (ANX)
- Concentration (CON)
- Information Processing (INFO PRO)
- Study Aids (STU AID)
- Test Strategies (TEST STR)
- Selecting Main Idea (SMI)
- Time Management (TM)
- Self Testing (ST)

LASSI Key Association with Act 101 Programs

- Speech and Communication
ATT, CON, INFO PRO
- Computer Processing
INFO PRO, CON, STU AID, TEST STR

Mathematics

INFO PRO, CON, STU AID

Study Skills

MOT, ANX, CON, INFO PRO, STU AID, ST, TEST STR

Reading

CON, INFO PRO, STU AID, ST, SMI, TEST STR, ST

Personal Growth

MOT, ANX, CON, INFO PRO, TM

After analyzing changes in student perceptions of skill, will, and self-regulation, this research utilizes an ANOVA design to compare the persistence of cohort groups who were in the ACT 101 program for the years 2005, 2010, and 2016 at the college in Southeastern, PA.

Implementation Process

During the first week of the Act 101 program in the summer of 2005, thirty-four students completed the LASSI 80 question, ten subscale questionnaire. During the next five weeks of the Act 101 program, in addition to tutoring, students were in Speech and Communication, Computer Skills, Mathematics, Reading, Study Skills, and Personal Growth classes. These courses are designed to enhance student development, personal growth and prepare them for the rigors of college. During the last week of the program, the LASSI was administered once again. Due to attrition, twenty-nine students completed the LASSI posttest. Students who did not take LASSI posttest had their scores omitted from the research (N=5 omitted).

During the summer of 2010 and 2016, the same pre-test, posttest LASSI implementation design was administered to ACT 101 students. In 2004-2005 fiscal year PA government allocated \$9.32 million to the ACT 101 program. As previously stated, there were 34 students who participated in the ACT 101 program that year. Over the next decade there was a 76 percent reduction in ACT 101 funding and currently the state apportions \$2.24 million. The student participation rate in the program dropped by three-quarters over the next decade (Sturla, 2015). Given such significant budget cuts in ACT 101 funding throughout the Commonwealth of Pennsylvania, student participation rates diminished in the Southeastern, PA College in which data was collected for this research. From the 34 students in 2005, the program participation diminished to twelve students who participated in 2010 and thirteen in 2016.

Findings

The 2005 ACT 101 Cohort

Table 1.2 shows the results of the 2005 ACT 101 cohort's mean LASSI scores on each subscale component and shows the national mean scores for comparison purposes. Column one lists each of the subscale components of the LASSI instrument. The second column lists the pretest mean scores for the 2005 ACT

101 cohort for each subscale. The pretest scores range from 21.69 (anxiety) to 32.72 (attitude). Recall that the Will component of the LASSI scale is measured by the subscales of Anxiety (pretest score 21.69), Attitude (pretest score 32.72) and Motivation (pretest score 30.21). Will power is an important characteristic distinguishing college degreed students from those who drop out. The fourth column is a computation of the difference between the pretest score and the national average score for each subscale component. Notice that for the Will component of the LASSI the difference between the ACT 101 2005 cohort mean scores and the national mean scores are -3.83 (anxiety), -.69 (attitude), and -.98 (motivation). The ACT 101 students have lower perceptions on their levels of Will capabilities than the national student average. The post-test scores (column fifth column) show substantial increases in perceptions of Will capabilities in 2005. When looking at the differences between posttest scores and the national averages (column seven), Anxiety scores increased to 1.69 above the national average. Increases of 1.59 and 3.95 above the national averages for attitude and motivation respectively.

The Skill component of the LASSI scale is measured by the subscales of Information Processing (pretest score 26.59), Selecting Main Ideas (pretest score 24.97) and Test Strategies (pretest score 25.86). At the pretest comparison stage (see column four) Information Processing had a -.66 score when compared to the national average. Selecting Main Ideas had a -3.09 difference between the LASSI pretesting of the ACT 101 cohort from 2005 and the national average. Test Strategies had a -3.27 difference. Student's beliefs about their skill levels for the 2005 cohort were below the national mean on all three Skill components. When examining posttest scores, Information Processing increased to 5.92 above the national mean, Selecting Main Ideas increased by 2.01 and Test Strategies increased by 1.39 above the national mean.

The Self-Regulation component of the LASSI scale is measured by the subscales of Concentration (-.69 comparing pretest to the national average), Self-Testing (-.70 comparing pretest to the national average), Study Aids (1.13 comparing pretest to national average), and Time Management (.09 comparing pretest to the national average). Interestingly, the comfort with using study aids and time management had pretest scores above the national means. When looking at Self-Regulation after post-testing, Concentration increased by 4.55, Self-Testing increased by 7.27, Study Aids increased by 5.09, and Time Management increased by 5.26 above the national mean scores.

Table 1.2 shows that the ACT 101 program that was implement between the pretest and posttest of the LASSI was important in increasing student's Skill, Will, and Self-Regulation. While eight of the ten subscales had scores below the national mean at the beginning of the ACT 101 program, every subscale component was above the national average after the six week program was completed at the posttest period.

TABLE 1.2

TABLE 1.2: ACT 101 (2005) LASSI Subscale Mean Scores (pretest – posttest administration)

Subscale	Group Mean Score (Pretest)*	National Mean Score ***	Pretest & National Difference	Group Mean Score (Posttest)**	National Mean Score ***	Posttest & National Difference
Anxiety	21.69	25.52	-3.83	27.21	25.52	1.69
Attitude	32.72	33.41	-0.69	35.00	33.41	1.59
Concentration	26.62	26.97	-0.35	31.52	26.97	4.55
Info. Process	26.59	27.25	-0.66	33.17	27.25	5.92
Motivation	30.21	31.19	-0.98	35.14	31.19	3.95
Self-Testing	23.83	24.53	-0.70	31.80	24.53	7.27
Select Main Idea	24.97	28.06	-3.09	30.07	28.06	2.01
Study Aids	26.38	25.25	1.13	30.34	25.25	5.09
Time Manage	26.17	26.08	0.09	31.34	26.08	5.26
Test Strategies	25.86	29.13	-3.27	30.52	29.13	1.39

*The scores for the Act 101 group in Table 1.2 are group mean scores at pretesting.

**The scores for the Act 101 group in Table 1.2 are group mean scores at post-testing

***Means of the national sample of students who took the LASSI are from 2002. The scale is Appendix C (Table 24) in the LASSI overview

When comparing the pretest scores and posttest scores from the 2005 ACT 101 program, the results are significant. The t-test statistical finding is 4.145. The level for $p = .05$ is 1.7344 and for $p = .01$ it is 2.552 at 18 degrees of freedom. The results are statistically significant and support that the ACT 101 program increases student Skill Will, and Self-Regulation.

The most satisfactory result of the ACT 101 program is the ability to prepare students for college level learning and eventually success by graduating. The program collects data on student performance and the average GPA of the 2005 ACT 101 cohort at graduation was 2.43 (see appendix A for each student’s GPA).

The 2010 ACT 101 Cohort

The results of the 2010 cohort are presented in Table 1.3 below. Recall this is the period in which ACT 101 program funding had diminished substantially. Given that it is a needs based program, funding requirements became much more stringent and only twelve students participated. Yet, the results showed to be similar. Once again the LASSI pretest scores had eight of the ten subscales below the national average. It is only Motivation and Study Aids in which the 2010 cohort had pretest scores above the national mean scores. Yet, when looking at the posttest scores, the cohort performed substantially better after the six-week ACT 101 program. Scores at the posttest period range from a .88 increase in Anxiety to Self-Testing 4.87.

TABLE 1.3

TABLE 1.3: ACT 101 (2010) LASSI Subscale Mean Scores (pretest – posttest administration)

Subscale	Group Mean Score (Pretest)*	National Mean Score ***	Pretest & National Difference	Group Mean Score (Posttest)**	National Mean Score ***	Posttest & National Difference
Anxiety	22.20	25.52	-3.32	26.40	25.52	0.88
Attitude	33.00	33.41	-0.41	34.40	33.41	0.99
Concentration	24.70	26.97	-2.27	28.40	26.97	1.43
Info. Process	25.30	27.25	-1.95	29.90	27.25	2.65
Motivation	32.50	31.19	1.31	34.80	31.19	3.61
Self-Testing	24.10	24.53	-0.43	29.40	24.53	4.87
Select Main Idea	25.30	28.06	-2.76	29.40	28.06	1.34
Study Aids	26.70	25.25	1.45	28.40	25.25	3.15
Time Manage	25.10	26.08	-0.98	28.60	26.08	2.52
Test Strategies	26.70	29.13	-2.43	31.20	29.13	2.07

*The scores for the Act 101 group in Table 1.3 are group mean scores at pretesting.

**The scores for the Act 101 group in Table 1.3 are group mean scores at post-testing

***Means of the national sample of students who took the LASSI are from 2002. The scale is Appendix C (Table 24) in the LASSI overview

The t-test result is 2.530 which is significant at $p < .05$ at 18 degrees of freedom. The mean GPA for the 2010 ACT 101 cohort was 2.45 (see Appendix B for individual student GPAs). In addition to students acquiring stronger levels of academic skill, motivation, will, and self-regulation, these characteristics seem durable and encourage academic success.

The 2016 ACT 101 Cohort

In 2016, thirteen students participated in the ACT 101 program. According to Table 1.4, students had lower levels of Skill, Will, and Self-Regulation on every LASSI subscale component than the national average. Given that ACT 101 students have lower discernments about their capability levels than the national student average at pretesting, once again, the LASSI scores show that student’s perceptions about Skill, Will, and Self-Regulation increased by post-testing.

TABLE 1.4

TABLE 1.4: ACT 101 (2016) LASSI Subscale Mean Scores (pretest – posttest administration)

Subscale	Group Mean Score (Pretest)*	National Mean Score ***	Pretest & National Difference	Group Mean Score (Posttest)**	National Mean Score ***	Posttest & National Difference
Anxiety	21.20	25.52	-4.32	21.9	25.52	-3.62
Attitude	28.40	33.41	-5.01	32.9	33.41	-0.51
Concentration	23.30	26.97	-3.67	29.6	26.97	2.63
Info. Process	26.00	27.25	-1.25	31.6	27.25	4.35
Motivation	28.10	31.19	-3.09	34.1	31.19	2.91
Self-Testing	24.00	24.53	-0.53	30.4	24.53	5.87
Select Main Idea	24.00	28.06	-4.06	28.1	28.06	0.04
Study Aids	24.80	25.25	-0.45	30.6	25.25	5.35
Time Manage	22.50	26.08	-3.58	29.3	26.08	3.22
Test Strategies	23.90	29.13	-5.23	29.2	29.13	0.07

**The scores for the Act 101 group in Table 1.4 are group mean scores at pretesting.*

***The scores for the Act 101 group in Table 1.4 are group mean scores at post-testing*

****Means of the national sample of students who took the LASSI are from 2002. The scale is Appendix C (Table 24) in the LASSI overview*

The t-test result for the 2016 cohort pretest-posttest comparison is 3.879.

ANOVA

The fact that the ACT 101 program focuses upon offering a new group of students from low-income families its program services each year, the expectation is that these students should have similar skills sets when entering and leaving the program. Therefore, unlike the typical Analysis of Variance assessment in which the researcher desires statistically significant differences between groups, this research hopes to accept the null hypothesis at both the pre-ACT 101 and post-ACT 101 stages. Consistency would support that the program acquires similar successful results from each of the cohorts in the longitudinal study.

TABLE 1.5

TABLE 1.5: ANOVA for LASSI Subscale Mean Scores (Pretest Scores 2005, 2010, 2016)

	Degrees Freedom	Sum Squares	Mean Squares	F-Ratio
Between	2	24.39	12.19	1.35
Within	27	243.80	9.03	

*** p<.01 significant and *p< .05 significant*

Table 1.5 shows that at df 2, 27 the F-Ratio is 1.35 and is not statistically significant. When comparing the pretest scores between the 2005, 2010 and 2016 ACT 101 cohorts, there is no statistically significant difference. The students come into the program with similar capabilities in skill, will, and self-regulation.

TABLE 1.6

TABLE 1.6: ANOVA for LASSI Subscale Mean Scores (Posttest Scores 2005, 2010, 2016)

	Degrees Freedom	Sum Squares	Mean Squares	F-Ratio
Between	2	19.35	9.68	1.22
Within	27	213.85	7.92	

**** p<.01 significant and *p< .05 significant**

The findings in Table 1.6 shows that at df 2, 27 the F-Ration is 1.22 and again not statistically significant. Therefore, the growth in the program is consistent and the program provides utility in enhancing student’s skill, will and self-regulation capabilities.

TABLE 1.7

ACT 101 Cohort 2005 Mean GPA = 2.43
ACT 101 Cohort 2010 Mean GPA = 2.45
ACT 101 Cohort 2016 Mean GPA = 2.47

The mean grade point averages (GPAs) of ACT 101 students at this college in Southeastern Pennsylvania supports its success. The average GPAs were persistently well over a 2.00 and typically coalesced around a C+ for each cohort group.

Conclusion

Data from the Bureau of the Census corroborates the well-established relationship between academic achievement and income. In 2015, the mean income for those with high school degrees was \$19,422. Those with Associates Degrees had mean incomes of \$21,539 and Bachelor Degrees had mean incomes of \$35,121. The nature of education and its manner of funding bends toward students who come from affluent families (Bowles, 1977; Porter, 2015). The ACT 101 program is a mechanism that helps to level the opportunity structure for under-privileged students. Recall that the ACT 101 program is a needs based program that serves college students in the Commonwealth of Pennsylvania. In the 2013-2014 school year, the median family income for ACT 101 students was \$20,381 and the median for Pennsylvania families at-large was \$66,522 (Sturla, 2015). It has been established that students who suffer financially tend to show lower academic competence and success than do those who come from financially stable homes (Reardon, 2011; Tavernise, 2012). In addition, income inequality has been associated with self-esteem with those youth from lower socio-economic backgrounds having less self-esteem (Osborne, 2015) and the self-confidence students have influences their scholastic capabilities (Imran, 2013; Srivastava, 2013)

This research examined the competencies in the ACT 101 program to instill skill, will, and self-determination in students as measured by the LASSI. In the initial 2005 analysis, the data supported that students receive substantial benefit from ACT 101. Across the Commonwealth of Pennsylvania, \$9.3 million was allocated to the program. In 2010, the follow-up analysis shows that the funding fell to \$2.7 million and yet, the program maintained its utility showing important and statistically significant results. In the third analysis during the 2016 assessment, the results were yet significant and still, funding has not rebounded. The research shows that ACT 101 program increases student’s skill, will, and self-determination (as measured by the LASSI) and these students were subsequently more capable of matriculating through their respective college programs. These findings are established through the t-test and ANOVA results in tables 1.2 through 1.7 as well as appendices A, B, and C.

While this research is longitudinal and robust, the design has some limitations. Initially, although the research focuses upon analyzing ACT 101 student’s skill, will, and self-regulation growth; the program offers much more than the fostering of these capabilities for increasing academic proficiencies. Future research could focus upon the tutoring, writing assistance and other support services encouraged by and linked through the ACT 101 program. In addition, the LASSI was used due to its easy administration. Measuring student competence and self-esteem with supplementary measures would further corroborate the importance of compensatory programs designed to bridge the gap between impoverished students and their peers.

APPENDIX A: Student GPA

SUMMER 2005		STUDENT NAME	OVERALL GPA
1		Student One	2.36
2		Student Two	2.28
3		Student Three	3.00
4		Student Four	3.45
5		Student Five	1.61
6		Student Six	2.28
7		Student Seven	2.77
8		Student Eight	2.00
9		Student Nine	2.61
10		Student Ten	3.48
11		Student Eleven	3.00
12		Student Twelve	3.21
13		Student Thirteen	1.96
14		Student Fourteen	2.30
15		Student Fifteen	3.14
16		Student Sixteen	2.92
17		Student Seventeen	1.91
18		Student Eighteen	2.83
19		Student Nineteen	2.53
20		Student Twenty	2.45
21		Student Twenty-one	1.00
22		Student Twenty-two	2.41
23		Student Twenty-three	2.85
24		Student Twenty-four	3.00
25		Student Twenty-five	1.81

APPENDIX B: Student GPA

SUMMER 2010	
STUDENT NAME	OVERALL GPA
Student One	2.32
Student Two	2.48
Student Three	2.96
Student Four	2.96
Student Five	1.97
Student Six	2.26
Student Seven	3.25
Student Eight	2.81
Student Nine	2.91
Student Ten	2.36
Student Eleven	.69
Student Twelve	2.48

APPENDIX C: Student GPA

SUMMER 2010	
STUDENT NAME	OVERALL GPA
Student One	2.32
Student Two	2.48
Student Three	2.96
Student Four	2.96
Student Five	1.97
Student Six	2.26
Student Seven	3.25
Student Eight	2.81
Student Nine	2.91
Student Ten	2.36
Student Eleven	.69
Student Twelve	2.48

Work Cited

Associated Press (March 18, 2006). K. Leroy Irvis, first Black chosen as Speaker of Pennsylvania House, dies. The New York Times. Retrieved from <http://www.nytimes.com/2006/03/18/politics/k-leroy-irvis-first-black-chosen-as-speaker-of-pennsylvania-house.html>

Balfanz, R.; & Legters, N. (2004). Locating the dropout crisis: Which high schools produce the nation's drop outs? In G. Orfield (Ed.), *Dropouts in America: Confronting the graduation rate crisis*, Cambridge, MA: Harvard Education Press. pp 57-84.

Census Bureau (2015). Mean earnings of workers 18 years and over by educational attainment, race, Hispanic origin, and sex (1975-2015). Table 3, Historical Tables. <https://www.census.gov/data/tables/2016/demo/education-attainment/cps-detailed-tables.html>

- Corak, M. (July, 2013). Income inequality, equality of opportunity, and intergenerational mobility. *Journal of Economic Perspectives*, 27 (3), pp. 79 – 102.
- Crosnoe, R.; Smith, C.; & Leventhal, T. (August, 2015). Family background, school-age trajectories of activity participation, and academic achievement at the start of high school. *Applied Developmental Science*, 19 (3), pp. 139-152.
- Dixon-Roman, E.J.; Everson, H.T.; & McArdle, J.J. (2011). Race, poverty and SAT scores: Modeling the influences of family income on black and white high school students' SAT performance. *Teachers College Record*, 115 (4), pp. 1-33.
- Godfrey, E.B. & Wolf, S. (2015). Developing critical consciousness or justifying the system? A qualitative analysis of attributions for poverty and wealth among low-income racial/ethnic minority and immigrant women. *American Psychological Association*, 22 (1), pp. 93-103
- Gornick, Sally. 1997. Project START. Essex Community College. Baltimore, Maryland.
- Guskey, T.R. (May 25, 2011). Stability and change in high school grades. *NASSP Bulletin*, Sage Journals, 95 (2), pp.85-98. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/0192636511409924?journalCode=buld>
- Henslin, J. (2014). *Sociology: A Down to Earth Approach*. Pearson Publishing.
- Hopson, L.M., & Lee, E. (2011). Mitigating the effect of family poverty on academic and behavioral outcomes: The role of school climate in middle and high school. *Children and Youth Services Review*, 33, 2221=2229. Retrieved from <http://psycnetapa.org/record/2011-16865-001>
- Hobfoll, S., & Lilly, R. (April 1, 1993). Resource Conservation as a Strategy for Community Psychology. *Journal of Community Psychology*, 21, 128-148.
- Hobfoll, S., & Shirom, A. (2001). Conservation of Resources Theory. In R. Golembiewski (Ed.). *Handbook of Organizational Behavior*. Dekker.
- Hobfoll, S. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing Conservation of Resource Theory. *Applied Psychology: An International Review*, 50 (3), 337-421.
- Hobfoll, S. (2004). *Stress, Culture and Community: The Psychology and Philosophy of Stress*. Springer Publishing.
- Hobfoll, S., & Dekel, R. (March, 2007). The impact of resource loss on holocaust survivors facing war and terrorism in Israel. *Aging Mental Health*, 11 (2), 159 – 167.
- Hobfoll, S., Jackson, A., & Hobfoll, I. (December, 2002). The impact of communal-mastery versus self-mastery on emotional outcomes during stressful conditions: A prospective study of Native American women. *American Journal of Community Psychology*, 50 (6), 853-871.
- Ince, Elizabeth J. and Robert Priest. (1998). "Changes in LASSI scores among Reading and Study Skills Students at the United States Military Academy." *Research and Teaching in Developmental Education*. Vol.14 (2). P.19.
- Imran, H. (Dec. 1, 2013). Self-esteem manifestation in students with high and low academic achievement. *Pakistan Journal of Psychology*, 44(2), p. 53-67.

Kovach, Karen and Lorraine.R. Wilgosh. 1999. Learning and Study Strategies, and Performance Anxiety in Postsecondary Students with Learning Disabilities: A Preliminary Study. *Development Disabilities Bulletin* Vol 27 (1).

Li, Y.; Alfeld, C.; Kennedy, R.P; & Putallaz, M. (Spring, 2009). Effects of summer academic programs in middle school on high school test scores, course-taking, and college major. *Journal of Advanced Academics*, 20 (3), pp. 404-436.

Matthews, P.H. & Mellom, P.J. (2012). Shaping aspirations, awareness, academics, and action: Outcomes of summer enrichment programs for English-learning secondary students. *Journal of Advanced Academics*, 23 (2), pp. 105-124.

McDonald, Lucy. 1997. Chemeketa Community College. Salem, Oregon.

Noel, J.G.; Donelson, R.F.; & Kelley, K.N. (1987). Improving the performance of failing students by overcoming their self-serving attributional biases. *Basic and Applied Social Psychology*, 8 (1&2), pp. 151-162.

O'Donnell, J. & Kirkner, S.L. (2014). Effects of an out-of-school program on urban high school youth's academic performance. *Journal of Community Psychology*, 42 (2), pp. 176 – 190.

Office of Head Start (June 15, 2017). History of Head Start. An Office for the Administration of Children and Families. <https://www.acf.hhs.gov/ohs/about/history-of-head-start>

Osborne, D.O; Sibley, S.G; & Sengupta, N.K. (April 1, 2015). Income and neighborhood-level inequality predict self-esteem and ethnic identity centrality through individual and group-based deprivation: A multilevel path analysis.

Palen, John. J. (2000). *Social Problems or the Twenty-First Century*. McGraw-Hill. CA.

Porter, E (Sept.22, 2015). Economic scene: Education gap between rich and poor is growing wider. *New York Times*. <https://www.nytimes.com/2015/09/23/business/economy/education-gap-between-rich-and-poor-is-growing-wider.html>

Reardon, S.F. (2011). The widening academic achievement gap between the rich and poor: New evidence and possible explanations. In R. Murnana & G. Duncan (Eds.), *Whither opportunity? Rising Inequality and the Uncertain Life Chances of Low-Income Children*. New York: Russell Sage Foundation Press.

Reaume, Denise. 1997. The University of Western Ontario. Learning Skills Services. Ontario, Canada.

Right to Know (2015). <https://www.dccc.edu/about/about-college/right-know>

Rist, R. (1970) Student social class and teacher expectations: The self-fulfilling prophecy in ghetto education. *Harvard Educational Review*: September 1970, 40 (3), pp. 411-451

Srivastava, S.K. (Jan. 1, 2013). To study the effect of academic achievement on the level of self-confidence. *Journal of Psychosocial Research*, 8(1), pp. 41-51.

Sternberg, R.J. and L.F. Zhang. 2000. *Perspectives on Cognitive, Learning and Thinking Styles*. NJ: Lawrence Erlbaum.

Stuart, L., & Hahnel, C. (2011). A report card on district achievement: How low-income African American and Latino students fare in California school districts. K-12 Policy. Education Trust-West, CA. Retrieved from <https://eric.ed.gov/?id=ED520738>

Sturla, M. P. (May 26, 2015). The ACT 101 Program. House Democratic Policy Committee. House of Representatives. Drexel University, PA. Retrieved from http://www.pahouse.com/files/Documents/Testimony/2015-05-26_17-18-58__hdpc052615.pdf

Tavernise, S. (Feb., 9, 2012). Education gap grows between the rich and poor, studies say. The New York Times. Retrieved from <http://www.nytimes.com/2012/02/10/education/education-gap-grows-between-rich-and-poor-studies-show.html>

Weinstein, Claire. E., David R. Palmer and Ann C. Shulte. 2002. Learning and Study Strategies Inventory. Second Edition. H&H Publishing Company, Inc.

www.dccc.edu/student-services/act101.html

www.hhpublishing.com

Zwick, R; Himelfarb, I (June, 2011). The effect of high school socioeconomic status on the predictive validity of SAT scores and high school grade-point average. Journal of Educational Measurement, 48 (2), pp. 101-121.

Zwick, R.; Greif, G. (March, 2007). New perspectives on the correlation of SAT scores, high school grades, and socioeconomic factors. Journal of Educational Measurement, 48 (2), pp. 23-45.

Biography

Dr. Chuck A. Baker is a professor of sociology at DCCC. He teaches diversity courses and acknowledges the importance of differing perceptions among people. He has worked to foster intellectual diversity and pushes classroom dialogue into areas beyond the traditional topics of discrimination, promoting conversation independent of emotional talking points.

Sustainable Development Goal 4: When Access to Education is Not Enough

Christina M. Chiarelli-Helminiak, *West Chester University*

Terrence O. Lewis, *West Chester University*

ABSTRACT

The fourth United Nations Sustainable Development Goal “ensure[s] inclusive and quality education for all and promote[s] lifelong learning” which aspires that by 2030, all women and men will have equal access to affordable and quality education, including at the university level. This critical policy analysis questions whether access is enough in the United States’ (U.S.) system of post-secondary education; as social injustices and human rights violations affect students’ access and degree completion at colleges and universities in the U.S. The evidence suggests that socio-economic disparities may have a significant negative impact on the academic success of students who are from underrepresented and marginalized populations, even when access has been gained.

Keywords: human rights, higher education, social justice, sustainable development goals, United States

Sustainable Development Goal 4: When access to education is not enough

In September 2015, the United Nations (UN) General Assembly adopted the Sustainable Development Goals (SDG) in its pursuit of global justice. With the intention to affect policy change, the SDGs strive to positively impact vulnerable and oppressed groups across the globe. Yet, there are sure to be debates, challenges, and limitations associated with many, if not all, of the SDGs.

The fourth SDG “ensure[s] inclusive and quality education for all and promote[s] lifelong learning” which aspires that by 2030, all women and men will have equal access to affordable and quality education, including at the university level (United Nations, 2015). Such a lofty goal is relevant not only in the Global South, but in the Global North as well. This paper will focus on education at the university level using the United States as its focal point. In this critical policy analysis, the authors question whether access to education is enough, as social injustices and human rights violations affect students’ success in the classroom. The authors provide recommendations to work towards SDG 4 in the context of complexities related to the United States post-secondary educational experience from recruitment through graduation.

Case Vignette

Before continuing on to the main body of the paper, it is helpful to consider an all too common college experience in the United States. The character presented below is based on real students’ experiences. This example will be referred to throughout the body of the paper.

Danielle was born to young African American parents who married soon after high school graduation. Her father held an assortment of jobs in the auto industry, but never really pursued a career; while Danielle's mother was always employed in the service industry, earning well below minimum wage instead depending on tips. Life in the family's home was tumultuous as both parents drank and Danielle's father was abusive towards her mother. The parents almost divorced, but decided not to after having a second daughter. Danielle's mother frequently moved out with her daughters only to return to her husband again. During her primary and elementary school years, Danielle changed schools every year due to the frequent moves. The schools were often under resourced and located in low-income, urban communities. After her parents finally divorced, her mother engaged in a series of relationships with other abusive men and primarily worked in the evenings leaving Danielle home to care for her younger sister. When Danielle was entering the seventh grade, the family moved into a home located in a low-income area of a wealthy suburban community. Now somewhat stabilized in one school, teachers began to identify the effects moving around so much during her early schooling had on Danielle, including deficiencies in her writing abilities. During her high school years, Danielle attended vocational training in data processing, in addition to attending college-preparation classes at her high school and caring for her sister after school. Danielle felt that college was the only way she could get out of the city she grew up in, a desire she had especially after her father was killed when she was 15. Danielle was conditionally accepted at a state university pending successful completion of a pre-freshman summer program designed to assist students with academic and financial disadvantages transition into college. Upon completion of the program, Danielle began her freshman year as a computer science major with a work-study campus job. Being over two hours away from home, Danielle also maintained an additional part-time job to pay for gas and upkeep of her vehicle. Unfortunately, by her third semester Danielle failed out of the university due to her low grade point average.

Education as a Right

The right to education is a critical freedom that has been included in international human rights treaties and documents since the formation of the United Nations. Along with civil and political rights, the Universal Declaration of Human Rights (UDHR) includes six significant social and economic rights, including the rights to social security (Articles 22, 23, and 25), work (Articles 23 and 24), food, health, and housing (Article 25), and education (Article 26). While Article 26 of the UDHR promotes access to learning across the lifespan, it specifically states higher education "shall be equally accessible to all on the basis of merit" (United Nations, 1948).

The right to higher education has been reinforced in other key human rights documents. Article 13 of the International Covenant on Economic, Social, and Cultural Rights states "higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular by

the progressive introduction of free education” (United Nations, 1966). Article 28 of the Convention on the Rights of the Child also states “higher education [shall be] accessible to all on the basis of capacity by every appropriate means” (United Nations, 1989). The inclusion of the right to education in these, and other, human rights documents highlights the role education plays in realizing other social, economic, and cultural rights, as well as political and civil rights.

MDG to SDG: Inclusion of Higher Education

While the right to higher education has historically been included in human rights treaties and documents, it was excluded from the Millennium Development Goals (MDG). The eight MDGs, launched in 2002, were touted as a blueprint to improve the lives of the world’s poorest populations in the Global South. The focus of the second MDG was to “achieve universal primary education,” a necessary stepping stone if higher education is to be accessed later in life. Largely ignored in the U.S., the MDGs were instrumental in increasing primary school enrollment and literacy rates in the Global South (United Nations, 2016).

While the MDGs unified the development targets of the United Nations, the SDGs further this mission by strengthening the capacity of the Global North and Global South nation states. Extending from the MDGs, education is one of 17 goals and includes 10 of the 169 targets in the SDGs. Most notably, equal access for men and women is important as girls and women continue to lag behind boys and men in terms of access to education at all levels. In addition to gender equity, the SDGs are rights-based and consider systemic causes of poverty (Kumar, Kumar, & Vivekadhis, 2016; United Nations, 2015).

Human Rights and the United States

The U.S. is exceptional in terms of human rights. Human rights violations and practices are often considered appropriate for other countries, but not the U.S. When making an allowance for human rights violations in the U.S., it is often in the context of specific issues such as sex trafficking, rather than poverty, education gaps, and other inequities that result from historical and systematic-level policies and practices (Hertel & Libal, 2011). In the U.S., the intersections of race, class, and gender in relation to quality education and success are often ignored. This extends to other economic and social rights, including access to quality food, health care, and housing; work with a livable wage, security, and benefits; and sufficient social security when intersected with educational access and success also being disregarded (Fukuda-Parr, Lawson-Remer, & Randolph, 2015).

The U.S. is the only member state of the UN (1989) that has yet to ratify the Convention on the Rights of the Child. Regardless of the status of ratification, child abuse is a human rights violation that has long-term consequences related to school success. In 2014, approximately 702,000 children in the United States were victims of maltreatment. Neglect was found to be the most frequent form of maltreatment (75%), with 17% of children physically abused and 8% sexually abused. Additionally, children suffered psychological maltreatment, medical

neglect, and various other forms or multiple forms of maltreatment. While in general, more children found to be maltreated were white, when examining abuse within specific racial groups, children from minority groups have the highest incidence rates (U.S. Department of Health and Human Services, 2016). Child abuse and neglect is just one of what are now termed Adverse Childhood Experiences (ACEs) that have lasting consequences for a person's long-term health and social success.

ACEs are characterized as negative events that occur before the age of 18. In addition to incidents of child abuse, ACEs include experiences of food insecurity, parental alcohol and/or drug use, parental separation and/or divorce, as well as the presence of someone in the household going to prison or experiencing mental health issues. Individual scores are totaled based on the existence of each ACE during childhood with higher ACEs scores being linked to greater risks in behavioral and health outcomes in adulthood, including academic achievement and graduation (Centers for Disease Control and Prevention [CDC], 2016). Danielle, based on what we know from the case vignette, would have an ACEs score of 4 out of 10 based on witnessing the abuse of her mother which also caused her to fear for her own safety, living with problem drinkers, and her parent's divorce.

In the U.S., numerous studies have found the commonality of experiencing ACEs (Clarkson Freeman, 2014; Dong et al., 2004; Larkin, Felitti, & Anda, 2014). In the seminal study on ACEs, a quarter of participants (26%) reported having one ACE. Nearly 64% of participants reported one or more ACEs with 12.5% reporting four or more ACEs (Felitti et al., 1998). Starting in 2009, 32 states and the District of Columbia have included the ACEs questionnaire in their Behavioral Risk Factor Surveillance System. Thus far, the findings from 10 states and Washington, DC are similar to the seminal research in that 24% of participants reported at least one ACE, while almost 60% reported one or more ACEs and 14% reported four or more (CDC, 2016). Researchers, such as Giovanelli, Reynolds, Mondri, and Suh-Ruu (2016), have begun to link higher ACEs with decreased high school graduation rates, which will in turn affect opportunities associated with college.

Education in the United States

The U.S. is an appropriate venue to consider the promise and limitations of SDG 4 specific to access to higher education. While some may argue that focus should be placed on evaluating the potential and confines of the SDGs in the Global South, the UN felt it necessary to expand the SDGs to the Global North. Not addressing the SDGs in the context of the U.S. allows for the ongoing perception of US exceptionalism. Evaluation of its policies and practices is an opportunity to hold the U.S. accountable in terms of access to higher education.

Education is a crucial resource and tool for social mobility, especially in the U.S., where a university degree is seen as the way to advance in terms of economic stability, social class, and status (United Nations Educational, Scientific,

and Cultural Organization, 2014). Unfortunately, education achievement gaps highlight stark differences between socio-economically privileged and disadvantaged students; with students coming from resource-rich communities more likely to not only access higher education, but to graduate with a university degree (Berliner, 2006; The Pell Institute, 2015; Shireman, 2016). Success in higher education is dependent on the quality of primary through secondary education. Unfortunately, many U.S. students from traditionally underrepresented and marginalized groups are inadequately prepared to succeed at the university level (Nichols & Schack, 2017; Schak & Nichols, 2017; Tinto, 2012).

Due to the frequent school changes, Danielle experienced during her primary and elementary school years, her foundational learning was affected. This is not an uncommon experience for children in the U.S. The U.S. General Accounting Office (2010) reported statistically significant differences between children who moved schools frequently (four or more times) and those who moved two or less times. The frequent movers, 13% of a cohort followed for nine years starting in kindergarten, were more likely to be African American and poor and were less likely to live with a father or in a home owned by their family. In a meta-analysis, Mehana and Reynolds (2004) found frequent moves before the sixth grade resulted in lower academic achievement due to disruptions in teaching, interference with peer and social environments, and students' lower socio-economic status. The authors went on to report that low income, minority children, who moved during their foundational years of school experienced more negative effects of frequent moves. The U.S. General Accounting Office (2010) also found that schools with a high percentage of mobility (10% or more of the student population moving within the school year) were more likely to receive school-wide Title I federal funding for low-income students, 45% vs. 21%, and participate in the National School Lunch Program, 92% of schools with high mobility vs. 68% of schools with low mobility. The higher mobility schools also reported higher rates of absenteeism, more students with limited English proficiency, and a greater need for special education services compared to schools with low mobility (data presented for eighth grade only). While frequent moves are associated with lower academic achievement, researchers agree that other familial and structural issues also affect students' educational progress (Alexander, Entwisle, & Dauber, 1996; Tucker, Marx, & Long, 1998)

In an effort to level the playing field, former U.S. President Barack Obama proposed free, universal community college education. Utilizing public secondary education as a model, America's College Promise would equate to an average savings of \$7,600 per student for the two years spent at community college. An estimated 9 million students per year would benefit from such a program (Hudson, 2015). The proposal would greatly benefit minorities and women who make up 40% and 57%, respectively, of community college students (Executive Office of the President, 2015). America's College Promise Act of 2015 (H.R. 2962) was introduced in the House of Representatives in July 2015 and subsequently sent to the Subcommittee on Higher Education and Workforce Train-

ing in November 2015. Such an ambitious plan would have been a step in the direction of working towards providing equal access to higher education in the U.S., yet the proposal gained no bi-partisan support. President Donald Trump and Department of Education Secretary Betsy DeVos have not provided any movement in support of such higher education policies or priorities.

While the SDGs and America's College Promise are valiant efforts, neither are by any means sufficient. While it could be argued that each policy is beginning to address the intersectionality of college access and socioeconomic status, race, gender, and other statuses, both proposed policies focus on access to higher education while neglecting retention and degree completion. Once accepted in to a program of higher education, students from traditionally underrepresented and marginalized groups are less likely to graduate (The Pell Institute, 2015), as was the case with Danielle.

When Access In Not Enough

As tuition-driven institutions, U.S. colleges and universities are motivated to increase their recruitment and enrollment of students. Seen as a leader in higher education worldwide, the U.S. has faced a decrease in public funds allocated for higher education forcing universities look to business models and fundraising professionals for guidance on diversifying their incomes sources (Mitic, 2015; Tierney, 2014). Such movement mirrors trends occurring in the U.S. social welfare system, where less public funding is put into social programs and more social services are privatized. In higher education, faculty are increasingly encouraged to solicit funding for their own research as faculty development and research funds are cut and students are directed to private lenders as student financial aid in the form of public grants diminish. According to the U.S. Department of Education's National Center for Education Statistics (2016), over a ten year period beginning with the 2003-04 academic year, the cost at a public institution increased by 34%, while the cost of at a private institution grew by 25% (calculated after inflation adjustment for undergraduate tuition, housing, and associated fees). Rising costs and declining financial aid continue to jeopardize not only access to higher education for many potential students who lack financial resources, but the very basis of the mission of higher education (Mitic, 2015). Relative to this trend of increased costs and decreased aid, college debt in the U.S. is at an all-time high, making many potential students question whether a college degree is worth the expense.

Research indicates that the socio-economic diversity of college students has gradually improved in response to modest efforts to develop more inclusive recruitment and admission strategies (Tinto, 2012). Despite these new strategies, higher education is not effectively addressing multiple barriers that still exist for students from underrepresented and marginalized communities. Some of the admissions barriers include poor academic and psychosocial preparation for college, inadequate financial aid, and the continuation of advisement strategies that favor traditional students (Carlson, 2016; Jed Foundation et. al., 2015).

In addition to admission barriers, most colleges and universities struggle with significant attrition rates. A significant number of students drop out during their first two years in a four undergraduate degree program (Jed Foundation et. al, 2015; Tinto, 2012). For many of these students, successful completion of a college degree becomes an unachievable goal due to multiple barriers. Documented barriers to graduation include financial fragility, healthcare fragility, inadequate emotional support on campus, inadequate academic support services, and maintaining multiple underpaying jobs to meet basic living needs, as seen in Danielle's case. An additional barrier, especially relevant for women, is competing caregiver responsibilities, typically for minor children and elderly family members, which is not reimbursed in the U.S. (Jed Foundation et. al., 2015; Lang, 2008; Tinto, 2012). While managing these life stressors, many students give up on their dreams to pursue a college degree, a profession, and a better standard of living for themselves and their families (Carlson, 2016; Lang, 2008; Tinto, 2012). These challenging realities support the United Nation's call for increasing access to higher education for all individuals.

Unfortunately, the complexity of the current inequalities in the U.S. educational system requires a multi-dimensional assessment and intervention plan to achieve the SDG related to education, taking into consideration systemic inequality, historical oppression, and the unique needs of underrepresented minority and first generation college students. Therefore, it seems pertinent to question whether access to education is enough as systemic social injustices and human rights violations contribute to and result in the presence of these multiple barriers.

Promoting a Human Rights Culture within Higher Education

A human rights culture within institutions of higher education is a critical issue to be considered. While an in-depth conceptualization is beyond the scope of this article, a few key features are suggested to begin the conversation to develop a model for an academy-wide human rights culture.

Collaboration and Interdisciplinary Engagement

The academy is built around divisions and silos, whereas a human rights culture revolves around collaboration and interdisciplinary engagement as an academic priority. Supportive relationships between faculty, staff, administrators, and students should be encouraged as no one department or office can claim to know it all. Therefore, the traditional silos built up in institutions of higher education must be dismantled to be replaced with a human rights-oriented organizational structure that fosters interdisciplinary collaborations and learning environments (Holley, 2009; Linde & Arthur, 2015). While sure to be a long and arduous process, assessing and retooling all aspects of university policies and practices to promote a human rights culture has the potential to provide better academic support for students from traditionally underrepresented and marginalized groups from recruitment to graduation.

Faculty and Staff Development

Seminars, such as Garran, Kang, and Fraser's (2014) mutual aid model for supporting faculty teaching content related to social justice, can be used as a starting point to promote a human rights-based campus culture. Purposely engaging the university community to encourage collaboration and interdisciplinary engagement will reduce isolation of faculty and staff, encourage discussion on success and challenges, create a supportive learning environment, and enhance collegial solidarity.

Teaching Human Rights

Finally, a human rights culture can be facilitated by the inclusion of teaching human rights across curricular content. As human rights are universal, inclusion across disciplines will promote knowledge and understanding of human rights documents, processes, and principles. Resources related to teaching human rights at the college level are often discipline specific, but interdisciplinary course offerings will help to promote collaborative engagement as described above.¹ Teaching from a human rights perspective has potential to impact society, facilitate the realization of human rights beyond the ivory tower, and overcome U.S. exceptionalism (Chiarelli-Helminiak, Eggers, & Libal, 2018).

Conclusion

This critical policy analysis of SDG 4 in the context of U.S. higher education provides the impetus for more empirical research. A body of literature related to underrepresented minority students must consider historic and personal social injustices and human rights violation when considering access to higher education through graduation. Fukuda-Parr, Lawson-Remer, and Randolph (2015) found the promotion of one human right, such as education, is an immediate investment in the promotion of other rights. Highlighting the indivisibility and interdependence of human rights, the right to education is vital to the realization of other social, economic, and cultural rights, in addition to political and civil rights.

¹ Teaching Human Rights website (<http://teachinghumanrights.uconn.edu/>) offers over a hundred syllabi and a growing number of lesson plans geared toward integrating human rights content at the university level.

References

- Alexander, K. L., Entwisle, D. R., & Dauber, S. L. (1996). Children in motion: School transfers and elementary school performance. *Journal of Educational Research*, 90(1), 3-12.
- America's College Promise Act of 2015, H.R. 2962, 114th Cong. (2015). Retrieved from <https://www.congress.gov/bill/114th-congress/house-bill/2962>
- Berliner, D. C. (2006). Our impoverished view of educational reform. *Teachers College Record*. Retrieved from <http://www.tcrecord.org/content.asp?contentid=12106>
- Carlson, S. (2016). On the path to graduation, life intervenes. *The Chronicle of Higher Education*. Retrieved from: http://chronicle.com/article/On-the-Path-to-Graduation/235603?key=_t1evXzPTHB77ORZEYLjJV0xgtxHxYYcpwueDjj04tiYy02cDhB-Z3dVNIIDWG1HRVpLVmNFb19vZXJnLWdQbm91VmZfMEXEOXZ3
- Centers for Disease Control and Prevention. (2016). Adverse childhood experiences (ACEs). Retrieved from <https://www.cdc.gov/violenceprevention/acestudy/index.html>
- Chiarelli-Helminiak, C. M., Eggers, M., & Libal, K. R. (2018). The integration of human rights in US social work education: Insights from a qualitative study. *Journal of Human Rights & Social Work* 3(2), 99-107.
- Clarkson Freeman, P. A. (2014). Prevalence and relationship between adverse childhood experiences and child behavior among young children. *Infant Mental Health Journal*, 35, 544-554.
- Dong, M., Anda, R. F., Felitti, V. J., Dube, S. R., Williamson, D. F., Thompson, T. J., Loo, C. M., & Giles, W.H. (2004). *The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction*. *Child Abuse & Neglect*, 28(7), 771-784.
- Executive Office of the President. (2015). America's college promise: Progress report on free college education. Retrieved from <https://www.whitehouse.gov/sites/default/files/docs/progressreportoncommunitycollege.pdf>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. *American Journal of Preventive Medicine*, 14(4), 245 – 258.
- Fukuda-Parr, S., Lawson-Remer, T., & Randolph, S. (2015). *Fulfilling social and economic rights*. New York: Oxford University Press.
- Garran, A. M., Kang, H-K., & Fraser, E. (2014). Pedagogy and diversity: Enrichment and support for social work instructors engaged in social justice education. *Journal of Teaching in Social Work*, 34(5), 564-574. doi: 10.1080/08841233.2014.952868
- Giovanelli, A., Reynolds, A. J., Mondt, C. F., & Suh-Ruu, O. (2016). Adverse childhood experiences and adult well-being in a low-income, urban cohort. *Pediatrics*, 137(4), 8. doi: 10.1542/peds.2015-4016
- Hertel, S., & Libal, K. (2011). *Human rights in the United States: Beyond exceptionalism*. New York: Cambridge University Press.

- Holley, K. A. (2009). Best practices related to interdisciplinary education. In *Understanding interdisciplinary challenges and opportunities in higher education* (pp. 89-99). San Francisco: Wiley.
- Hudson, D. (2015, January 8). The president proposes to make community college free for responsible students for 2 years [Web log comment]. Retrieved from <https://www.whitehouse.gov/blog/2015/01/08/president-proposes-make-community-college-free-responsible-students-2-years>
- Kumar, S., Kumar, N., & Vivekadhis, S. (2016). Millennium development goals (MDGs) to sustainable development goals (SDGs): Addressing unfinished agenda and strengthening sustainable development and partnership. *Indian Journal of Community Medicine*, 41, 1-4.
- Lang, J.M. (2008). *On course: A week-by-week guide to your first semester of college teaching*. Cambridge, MA: Harvard University Press.
- Larkin H., Felitti, V.J., & Anda, R.F. (2014). *Social work and Adverse Childhood Experiences (ACE) Research: Implications for practice and health policy*. *Social Work in Public Health*, 29(1), 1-16.
- Linde, R., & Arthur, M. (2015). Teaching progress: A critique of the grand narrative of human rights as pedagogy for marginalized students. *Radical Teacher*, 103, 26-37.
- Mehana, M., & Reynolds, A. J. (2004). School mobility and achievement: A meta-analysis. *Children and Youth Services Review*, 26, 93-119. doi: 10.1016/j.childyouth.2003.11.004
- Mitic, R. R. (2015). Challenges to positive leadership in US higher education: Lessons from US political economy. *Perspectives on Global Development and Technology*, 14, 278-286. doi: 10.1163/15691497-12341345
- Nichols, A.H. and Schack, J.O. (2017). *Degree Attainment for Black Adults: National Trends*. Washington, D.C.: The Education Trust.
- Pell Institute. (2015). *Indicators of higher education equity in the United States*. Retrieved from http://www.pellinstitute.org/downloads/publications-Indicators_of_Higher_Education_Equity_in_the_US_45_Year_Trend_Report.pdf
- Schack, J.O. and Nichols, A.H. (2017). *Degree Attainment for Latino Adults: National Trends*. Washington, D.C.: The Education Trust.
- Shireman, R. (2016). The real value of what students do in college. Retrieved from The Century Foundation website <http://tcf.org/content/report/the-real-value-of-what-students-do-in-college/>
- Tinto, V. (2012). *Completing college: Rethinking institutional action*. Chicago: University of Chicago Press.
- Tierney, W. G. (2014). Higher education research, policy, and the challenge of reform. *Studies in Higher Education*, 39(8), 1417-1427. doi: 10.1080/03075079.2014949534
- Tucker, C. J., Marx, J., & Long, L. (1998). "Moving on:" Residential mobility and children's school lives. *Sociology of Education*, 71(2), 111-129.
- United Nations. (1948). *Universal declaration of human rights*. Retrieved from [http://www.un.org/en/universal-declaration-human-rights/United Nations. \(1966\).](http://www.un.org/en/universal-declaration-human-rights/United Nations. (1966).)

International covenant on economic, social, and cultural rights. Retrieved from <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx>

United Nations. (1989). Convention on the rights of the child. Retrieved from <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx>

United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. Retrieved from <https://sustainabledevelopment.un.org/post2015/transformingourworld>

United Nations. (2016). We can end poverty: Millennium development goals and beyond 2015. Retrieved from <http://www.un.org/millenniumgoals/>

United Nations Educational, Scientific, and Cultural Organization. (2014). Position paper on education post-2015. Retrieved from <http://unesdoc.unesco.org/images/0022/002273/227336E.pdf>

U.S. Department of Health and Human Services, Administration on Children, Youth and Families. (2016). Child maltreatment 2014. Washington, DC: Government Printing Office. Retrieved from <https://www.acf.hhs.gov/sites/default/files/cb/cm2014.pdf>

U.S. Department of Education, National Center for Education Statistics. (2016). Digest of Education Statistics, 2014 (NCES 2016-006). Retrieved from <http://nces.ed.gov/fast-facts/display.asp?id=76>

U.S. General Accounting Office. (2010). Many challenges arise in educating students who change schools frequently (GAO-11-40). Retrieved from <http://www.gao.gov/assets/320/312480.pdf>

Biographies

Christina M. Chiarelli-Helminiak, PhD, MSW, is an Associate Professor and serves as the Department Chair and MSW Program Director in the Graduate Social Work Department at West Chester University of Pennsylvania. Her research focuses on the intersection of social justice and human rights especially within higher education.

Terrence O. Lewis, PhD, LICSW has clinical practice experience with individuals, groups, and families. In community-based research, he focuses on the bio-psychosocial and spiritual health of LGBTQIA individuals in ethnic minority communities. Dr. Lewis is an Associate Professor in the Graduate Social Work Department at West Chester University of Pennsylvania.°

The History of Developmental Education

Dr. Marie Bunner, *West Chester University*

ABSTRACT

Developmental education has a long history in American higher education and is a means to providing increased access and opportunities to a broader spectrum of students. Historically, students have come to American colleges and universities with varying backgrounds and skill strengths and those institutions have provided academic support for them. The value of a historical perspective of the profession of developmental education is to recognize the significance of the field to student academic achievement in higher education, to reflect on the evolution of the profession, and inspire us to consider future directions in the field.

The History of Developmental Education

Developmental education has a long history in American higher education. The National Association for Developmental Education defines developmental education as “a comprehensive process that focuses on the intellectual, social, and emotional growth and development of all students. Developmental education includes, but is not limited to, tutoring, personal/career counseling, academic advisement, and coursework” (National Association for Developmental Education, 2018, para. 4). These elements are often organized into a comprehensive developmental program providing a framework for academic support. Typical developmental programs assist students in improving basic academic skills in reading, writing, and mathematics and provide academic support through academic advising, tutoring, mentoring, and counseling (Boylan, 2001).

The mission of many developmental programs is to provide an opportunity for students who do not meet regular admissions criteria to attend college (Boylan, 2001; Looby, 2008; Smith, 2012; Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). This mission is important as it provides increased access to and opportunities in higher education to a broader spectrum of students. In addition, developmental programs contribute to the fiscal viability of the institution by fulfilling enrollment targets while maintaining academic standards through course remediation and academic support (Casazza & Silverman, 1996; Thelin, 2004).

According to Boylan (2001), American colleges and universities have historically enrolled underprepared students and provided academic support for them. For example, Harvard University provided tutors for students as early as 1636 to assist privileged and elite children who did not know Latin (Looby, 2008). “Most of the colonial colleges both bent admissions requirements and provided preparatory and elementary instruction as a way of gaining revenues and cultivating future student cohorts” (Thelin, 2004, p. 18). In order to maintain stu-

dent enrollment for financial stability, early American universities had to admit students with less training because there was a very small pool of eligible college applicants. The narrow definition of “qualified” at the time was “males with proper family backgrounds” (Casazza & Silverman, 1996, p. 8). For colleges and universities, financial viability has always been as much of a concern as academic preparation and standards. Even colonial colleges recognized the need to admit students who were not ready for college-level work in order to cover costs. The preparatory and elementary instruction provided to these students constituted developmental education.

Any assumption that all students admitted to college would progress at the same level and pace was quickly dispelled, requiring institutions to provide accommodations to help less qualified students learn basic academic skills. The concept of bridging the academic preparation gap has been a constant presence in the history of American higher education. For example, the University of Wisconsin developed a preparatory department in 1849 to “bridge the gap” and by 1915, 350 colleges had preparatory departments (Wyatt, 1996). Preparatory departments were designed to provide academic skills preparation to students who were not ready for college-level work by teaching them basic skills necessary to be successful in college. Colleges that did not have preparatory departments would still often offer pre-college courses in reading, writing, and mathematics and/or provide tutoring for students who needed assistance (Casazza & Silverman, 1996). Preparatory departments and other forms of developmental education were not a means to recruit students, but to provide services to students who were already present on campus.

Admission exams eventually became a strategy utilized by colleges to determine in advance the needs of their incoming students. In 1871, Harvard required entrance exams to address concerns that the freshman class exhibited poor writing skills, including grammar, punctuation, and “inelegant” writing. By 1879, half of Harvard’s applicants were failing this exam and were admitted “on condition,” resulting in the provision of additional support to help prepare students for college-level courses (Casazza & Silverman, 1996, p. 19). Although entrance exams were initiated as a method of screening more qualified applicants (e.g., students who possessed more elegant writing skills), students who performed poorly on the exam were still admitted and accommodations were provided by the institution to help those students succeed.

In 1907, over half of the students enrolled at Harvard, Yale, Princeton, and Columbia did not meet the entrance requirements. As a result, all four institutions added formal, college-level developmental courses to their curriculum (Wyatt, 1996). Often referred to as remedial courses, they were designed to specifically address deficiencies in prior learning. Remedial courses were commonly offered in reading, writing, and mathematics. Such courses served students who were adept at poetry, writing, or philosophy but lacked mathematical skills, or students who possessed science or mathematics acumen but were unable to express themselves through writing. Reading, and eventually

study skills, courses were the most common developmental courses offered as they are necessary academic skills common to all students across disciplines.

Early American professors and administrators often expressed dismay that students were not prepared for college-level work. For example, “Harvard educators blamed the poor showing of their college freshmen on a literacy crisis in America” (Wyatt, 1996, p. 12). Much like today, blame for the underpreparedness of new college students was placed on deficient preparatory and grammar schools, underprepared teachers, lazy students, and “sensationalist press” (i.e., popular culture and the media) (Wyatt, 1996, p. 12). Also like today, students were underprepared for college-level work for a myriad of reasons, and only one of them was lack of academic preparedness. Socio-economic disadvantages, ability, and study habits had as much to do with academic achievement as writing well or possessing strong mathematics skills.

In 1926, half of the incoming class at the University of Indiana failed to meet course requirements (Wyatt, 1996). In response, William F. Book developed a study skills course in 1927 at the University of Indiana. He determined that students had difficulty with reading and studying, and intelligence was less of a factor in their difficulties. Book’s course was determined to be effective in improving students’ time management, reading, and study skills. By the 1940s, college reading courses were widespread. By the 1970s, college reading and study skills courses and tutoring programs were common. By the late 1970s, formal learning centers were established and learning assistance had become more integrated into higher education (Wyatt, 1996).

Throughout history, colleges and universities have been conflicted over the continuing presence of underprepared students and have questioned if resources are best spent on developmental education. Bonham and Boylan (2011) found, “there is considerable debate about the underpreparedness of students entering colleges today and the efficacy of responses to this underpreparedness” (p. 2). However, there remain educational disparities among racial-ethnic groups and economically and educationally disadvantaged students. Therefore, identifying underdeveloped skills/knowledge and establishing early interventions is necessary to promote student achievement and persistence in both the short term and the long term.

It has been 64 years since the landmark Supreme Court ruling in *Brown v. Board of Education* that ended segregation in public schools. However, despite civil rights legislation, societal barriers affecting prospective college students remain. Inequality in education persists and there remains a significant correlation between economic disadvantage and poor academic preparation (Lang, 1992; Rothstein, 2014; Casazza & Silverman, 2013). Rothstein (2014) observes the “academic achievement of African Americans has improved dramatically in recent decades, but whites’ has as well, so racial achievement gaps remain huge” (para. 1). In addition, minority students are often less adequately prepared for higher education considering resources are generally poorer in racially

and economically isolated schools and family resources that can contribute to learning and enrichment experiences outside of school are often lacking (Lang, 1992; Rothstein, 2014). Studies indicate the range of academic support services students receive in developmental programs contribute to academic success, as well as improved retention and graduation rates for these students (Murphy, T. E., Gaughan, M., Hume, R., & Moore, S. G., 2010; Stolle-McAllister, K., 2011; Boylan, 2001; Casazza & Silverman, 1996; Casazza & Silverman, 2013).

The focus of developmental education today is on creating learning opportunities that will help to close the achievement gap. Curricular innovations and trends, as well as research and teaching are significant in the evolution of developmental education. For example, supplemental instruction is a widely accepted and successful method of “mainstreaming practices of developmental education with college-level courses” (Arendale, 2000, p. 15). Similarly, concerns for educational equity, progress toward graduation, and debt load are driving institutions to seek alternatives to remedial coursework while continuing to assist students develop the necessary skills required for academic achievement (Bunner, 2018). These examples represent a paradigm shift in the field of developmental education to make learning assistance more integral in students’ higher education experience.

Developmental education has existed since the beginning of American higher education and has an amazing history. The diversity of student populations, the democratic philosophy of access to higher education, and the maintenance of academic standards ensure that the need for developmental education will continue. The value of a historical perspective of the profession of developmental education is to recognize the significance of the field to student academic achievement in higher education, to reflect on the evolution of the profession, and inspire us to consider future directions in the field.

References

- Arendale, D. (2001). History of supplemental instruction (SI): Mainstreaming of developmental education. In D. B. Lundell, & J. L. Higbee (Eds.), *Histories of developmental education* (pp. 15-27). Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, University of Minnesota.
- Bonham, B. S., & Boylan, H. R. (2011). Developmental mathematics: Challenges, promising practices, and recent initiatives. *Journal of Developmental Education*, 34(3), 2-10.
- Boylan, H. R. (2001). Making the case for developmental education. *Research in Developmental Education*, 12(2), 1-4.
- Bunner, M. (2018, March 20). Developmental education: The latest trends to support, engage, and retain at risk Students [Webinar]. In Paper Clip Communications Webinar Series. Retrieved from <https://www.paper-clip.com/Main/Product-Catalog/Campus-Licence-Developmental-Education-The-Latest-3830.aspx>
- Casazza, M. E., & Silverman, S. L. (1996). *Learning assistance and developmental education*. San Francisco, CA: Jossey-Bass.

Casazza, M. E., & Silverman. (2013). Meaningful access and support: The Path to College Completion. Council of Learning Assistance and Developmental Education Associations. Retrieved from <http://www.nade.net/site/documents/breaking%20news/CLADEA%20White%20Paper%20REVISED%20FINAL.pdf>

Lang, M. (1992). Barriers to blacks' educational achievement in higher education: A statistical and conceptual review. *Journal of Black Studies*, 22 (4), 510-522.

Looby, M. B. (2008). Developmental education: Its long history. Retrieved from <http://www.delta.edu/files/DevEd/DEVELOPMENTAL%20EDUCATION%20timeline.pdf>

Murphy, T. E., Gaughan, M., Hume, R., & Moore, S. G. (2010). College graduation rates for minority students in a selective technical university: Will participating in a summer bridge program contribute to success? *Educational Evaluation and Policy Analysis*, 32(1), 70-83.

National Association for Developmental Education. (2018). Mission, vision, and goals. Retrieved from <https://thenade.org/Mission-Vision-and-Goals>

Rothstein, R. (2014). Brown v. Board at 60: Why have we been so disappointed? What have we learned? Economic Policy Institute [Blog post]. Retrieved from <https://www.epi.org/publication/brown-at-60-why-have-we-been-so-disappointed-what-have-we-learned/>

Smith, R. (2012). Towards a clearer understanding of student disadvantage in higher education: Problematising deficit thinking. *Higher Education Research and Development*, 31(3), 369-380.

Stolle-McAllister, K. (2011). The case for summer bridge: Building social and cultural capital for talented black STEM students. *Science Educator*, 20(2), 12-22.

Theelin, J. R. (2004). *A history of American higher education*. Baltimore, MD: The Johns Hopkins University Press.

Wathington, H. D., Barnett, E. A., Weissman, E., Teres, J., Pretlow, J., & Nakanishi, A. (2011). Getting ready for college: An implementation and early impacts study of eight Texas developmental summer bridge programs. National Center for Postsecondary Research [serial online]. Retrieved from <http://www.eric.ed.gov/PDFS/ED525149.pdf>

Wyatt, M. (1996). The past, present, and future need for college reading courses in the U.S. *Journal of Reading*, 36(1), 10-20.

Biography

Dr. Marie Bunner is the Associate Director of the Academic Development Program and an Assistant Professor in the Department of Educational Development Services at West Chester University of Pennsylvania. Her research interests include non-cognitive measures for predicting academic success and teaching and learning strategies in developmental education.

Success or Fraud? Exploring the Impacts of the Impostor Phenomenon Among High Achieving Racial/Ethnic Minority and First-Generation College Students

Nicole Pulliam, *Monmouth University*

Carolina E. Gonzalez, *Montclair State University*

ABSTRACT

This conceptual article explores the impacts of the impostor phenomenon among high-achieving racial and ethnic minority and first-generation college students. Utilizing existing literature, the authors analyze how the interplay between the impostor phenomenon and the two historically underrepresented groups impacts key focus areas in the retention of college students – a.) academic self-efficacy, b.) student engagement, and 3.) mental health. The article concludes with implications and practical recommendations and strategies for higher education professionals.

Keywords: impostor phenomenon; first-generation college students; racial and ethnic minority students

Success or Fraud?: Exploring the Impacts of the Impostor Phenomenon Among High Achieving Racial/Ethnic Minority and First-Generation College Students

“Each time I write a book, every time I face that yellow pad, the challenge is so great. I have written eleven books, but each time I think, ‘Uh oh, they’re going to find out now. I’ve run a game on everybody and they’re going to find me out.’”

Maya Angelou

Literature citing the unique challenges faced by undergraduate students from racial/ethnic minority backgrounds who are also firsts in their families to attend college is plentiful (Consolacion, Russell, & Sue, 2004; Hertel, 2002; Roscoe, 2015). In addition, research focused on high achieving students from these two marginalized groups has grown throughout the past two decades (Fries-Britt & Griffin, 2007; Harper, 2005; 2015). As college campuses continue to become more diverse, research focused on necessary retention efforts for students in underrepresented groups (e.g., racial/ethnic minority students; first-generation college students) is critical. According the National Center for Education Statistics (2013), by 2021 enrollment for Latinx students is projected to increase by 42%, African American/Black students by 25%, and 20% for Asian/Pacific Islanders. The most updated data for first-generation college students shows that there are approximately 4.5 million low-income, first-generation college students enrolled in post-secondary institutions, making up about 24% of total enrollment. As the number of racial and ethnic minority college bound students increase, the number of first-generation college students enrolled in post-secondary education is also expected to rise (Engle, Tinto, & The Pell Institute for the Study of Opportunity in Higher Education, 2008). Multiple minority identities such as racial/ethnic minority and first-generation

college student status add to the already existing socioemotional and college adjustments for students (Consolacion et al., 2004).

While research exists citing the experiences of racial/ethnic minority and first-generation college students, literature addressing the impacts of the impostor phenomenon (IP) on these populations is scarce (Clance & Imes, 1978; Cokley, McClain, Ensio, & Martinez, 2012; Cokley et al, 2017; Peteet, Montgomery, & Weekes, 2015). Impostor phenomenon (IP) occurs with great frequency among successful, high-achieving individuals and describes feelings of intellectual phoniness and an inability to attribute one's success to internal contributions, rather, to some other external factors other than one's level of intelligence or ability (Clance & Imes, 1978; Harvey & Katz, 1984). To address the gap in literature, an in-depth exploration of the impostor phenomenon for high-achieving racial/ethnic minority first-generation college students will be discussed.

Student Populations

Racial and Ethnic Minority Students

Research on high-achieving students is primarily centered on upper to middle class high school students, their GPAs, standardized test scores, and transitions to college. Thus, we have a very limited understanding of the experiences of high-achieving racial and ethnic underrepresented populations in a college setting. Adding to the lack of insight into this group is the many ways the research community defines high-achieving students. Some use the term "gifted" (Baldwin, 1991); others define high-achieving students as those who not only have earned exceptional grade point averages and in-class achievements, but also those who are engaged leaders on their campus community (Harper, 2005). High-achieving and gifted students often experience socio-emotional adjustment issues, as they try to formulate self-concept and negotiate relationships with peers (Baldwin, 1991, Frees-Britt, 1998). But for underrepresented students with exceptional academic abilities, race and ethnicity interplays with their identity as a talented scholar. As a result, their academic experiences are oftentimes racialized and they often find themselves negotiating their high-achieving racial and ethnic identities within and outside of their academic circles. Examples include being accused of "acting White" (Fordham, 1986), having their intelligence questioned, or being thought of as one-of-a-kind among his or her community (Frees-Britt, 1998).

Another dearth in the research of high-achieving racial and ethnic underrepresented groups is whether and how they experience the impostor phenomenon. The few studies (Peteet, 2015; McClain, Beasley, Jones et al., 2016; Fordham, 1986) conducted on this topic address it from a mental health or psychological lens, which helps in understanding the socio-emotional and academic tensions that students experience. The stress that stems from negotiating their predominantly White academic circles provokes unhealthy behaviors causing high-achieving racial and ethnic diverse students to withdraw, become invis-

ble, and dismiss their high academic aptitude (Fordham, 1986). To gain acceptance, they often employ strategies to make themselves look less academically threatening to their peers (Fordham, 1986).

Studies have found impostorism positively correlated with psychological distress and negatively associated with self-esteem (Peteet, 2015). For students from underrepresented backgrounds, this is already problematic as they often find themselves experiencing anxiety from the academic stressors stemming from their White faculty and peers' disbelief of their academic abilities (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman 2003; Williams and Williams 2000). To demystify their White peers' and professors' assumptions about their intellect, they are also forced to prove repeatedly their belongingness and intellectual abilities in the classroom (Fries-Britt & Griffin, 2007; Harper, 2015).

First-generation College Students

To date, there are approximately 4.5 million low-income, first-generation college students enrolled in post-secondary institutions, making up about 24% of total enrollment. By the year 2021, enrollment is expected to increase significantly, well beyond 25% (NCES, 2013). This critical data signifies the need for higher education professionals to be more prepared and intentional when advising, counseling, programming, and creating policies that directly impact the success of a vulnerable population (Havlik, Pulliam, Malott, & Steen, 2017). Challenges and barriers for first-generation college students include lower levels of academic readiness as compared to their non-first-generation peers and ultimately, reduced rates of retention and persistence and an extended time to graduation (Havlik, Pulliam, Malott, & Steen, 2017; Smith, 2015). Moreover, first-generation college students are more likely to have limited academic and social supports specific to their unique needs. They often lack the social capital needed to navigate the college environment. As a result, first-generation college students are often less adept at academic and co-curricular decision-making (Havlik et al., 2017; Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007).

Havlik and colleagues (2017) examined both the strengths and struggles of first-generation college students at a mid-sized predominantly White institution (PWI) (n=18), citing specific challenges related to their first-generation college student status, in addition to their racial/ethnic minority and low-income status. Themes that emerged highlighted significant feelings of otherness both in and out of the classroom environments. While this study did not seek to explore IP feelings of participants, this type of self-comparison has been noted in other IP studies focused on students from marginalized groups such as first-generation racial/ethnic minority students (Cokley et al., 2017; Peteet et al., 2015; September et al., 2001; Wheeler, 2016).

First-generation college students benefit most from intentional advisement and guidance since navigating a campus environment is a foreign experience (Engle, Tinto, & The Pell Institute for the Study of Opportunity in Higher Education, 2008; Hertel, 2002). In a study investigating the impact of self-esteem and social

support on historically underrepresented students' abilities to get acclimated to the academic and social college environments (Grant-Vallone, Reid, Umali, & Pohlert, 2003-2004), lower levels of self-esteem and perceived social support had a significant impact on the level of campus engagement, both in and outside of the classroom. Again, since we know that IP feelings are related to feelings of self-doubt and fear of inadequacy despite success and high achievement, a correlation can be made that IP feelings in racial/ethnic minority first-generation student populations can play a direct role in student engagement and overall persistence to graduation (Cokley et al., 2017; Peteet et al., 2015).

Impostor Phenomenon

The Impostor Phenomenon (IP) is a psychological pattern based on intense feelings of fraudulence despite success and high achievement (Harvey & Katz, 1984). Key constructs of IP include: (a) feelings of intellectual phoniness; (b) the attribution of one's success to external factors (luck, coincidence, assistance from others), rather than internal factors (intellect and ability); (c) fear of replicating past success in the future; (d) extreme fear of failure; (e) inability to enjoy one's achievements; (f) fear of being exposed as a fraud (Harvey & Katz, 1984; September, McCarrey, Baranowsky; Parent, & Schindler, 2001). Those who experience IP believe they are undeserving of their success and worry that others may have overestimated their intelligence (Clance, 1985; Harvey & Katz, 1984). Moreover, those experiencing IP feelings experience intense feelings of anxiety due to their feelings of being a fraud. One of the most dominant characteristics in individuals struggling with IP is an inability to believe and accept compliments and praise from others, though, paradoxically, they desperately want to hear and know that they are competent and well-liked (Clance, 1985). While the original IP research focused primarily on high-achieving women, some research has expanded to include other minority groups (Bernard et al., 2017; Cokley et al., 2013; 2017; Peteet et al., 2015).

Peteet and colleagues (2015) investigated the predictors of IP in academically talented Black and Latinx students (n=161) at a large, midwestern PWI. Predictors in this study included college generational status and psychological well-being. Results from this study posited that first-generation college student status served as a predictor of IP feelings, while racial identity served as a less significant predictor. Gardner and Holly (2011), in their qualitative study examining the experiences of 20 first-generation doctoral students, cited significant IP feelings in students from racial/ethnic minority groups specifically.

In another study (Cokley et al., 2017) investigating whether impostor feelings would both moderate and mediate the relationship between perceived discrimination and mental health in a sample of diverse racial/ethnic minority college students (n=316) at an urban public university, IP was experienced at significantly greater levels for African American students and Asian students and at moderate levels for Latinx students. Results from a similar study (Bernard, Lige, Willis, Sosoo, & Neblett, 2017) examining the relationship between racial and

gender discrimination, mental health, and IP among African American college students (n=157) revealed that IP feelings may interact with gender and racial discrimination experiences which, in turn, influence mental health outcomes.

Other studies (Peteet et al., 2015; Fries-Britt, 1998) suggest that first-generation college students, especially those who come from racial/ethnic minority backgrounds, exhibit lower levels of self-esteem, academic self-efficacy, greater anxiety, and fear of academic failure. In addition, because they are the firsts in their families to attend college, support from parents and/or immediate family members is scarce (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). These issues may predispose first-generation college students from racial/ethnic minority backgrounds to greater impostor feelings (Peteet et al., 2015).

Impostor Phenomenon Impacts

Academic Self-Efficacy

Academic self-efficacy is a person's belief that they can successfully achieve their academic goals. Bandura (1977) coined the term to explain how someone's achievement of a goal is the result of the interaction between one's behaviors, personal factors and environmental conditions. The academic self-efficacy of high-achieving students is characterized by the decisions they make to focus on their academics and engage in co-curricular high impact activities. For a high-achieving student, the choices that he or she makes is determined by their level of confidence in their ability to excel. Consequently, this influences the level of effort they will dedicate to an activity, as they gain self-control and perseverance attitudes through the constant self-reflection and evaluation of their social circles, which can also influence emotional reactions (Pajares & Schunk, 2002).

Studies have confirmed the negative relationship between the impostor phenomenon and self-efficacy, which suggests that the higher the feelings of impostorism, the lower the levels of self-efficacy in students (Ives, 2010). These students are more prone to high anxiety and depression, which places them at risk since they tend to not be as successful as their peers (Zajacova, Lynch, & Espenshade, 2005). Students with low academic self-efficacy question their competence, sense of belonging, achievements and shy away from decisions and situations they perceive as potential opportunities for exposure to their impostorism (Hutchinson, Follman, & Antoine, 2006; Cokely, McClain, Enciso, & Martinez, 2013). When self-efficacy beliefs in high-achieving racial and ethnic diverse students wane, students limit their pursuit of highly selective opportunities such as summer research internships, scholarships and awards, or leadership positions. Instead, they seek opportunities they are confident in succeeding, which continues the cycle of experiencing self-doubt, guilt about success, and fear of failing in their endeavors (Clance & Imes, 1978).

Student Engagement

The role of student engagement or involvement in a collegiate setting is critical to the success and satisfaction of students. It is one of the major drivers

in the retention of students, as co-curricular opportunities are purposeful and facilitate student learning outside of classroom (Astin, 1993; Pascarella & Terenzini, 1991, 2005; Hu & Kuh, 2002). The process of student engagement provides ample opportunities for students to make deep and meaningful connections with the university, their peers, faculty, and administrators, especially for African American males (Harper, 2005; Cuyjet, 1997). The National Survey of Student Engagement (NSSE) has developed engagement indicators to represent the multifaceted nature of student engagement in a collegiate setting. These indicators are organized in four themes/categories: academic challenge, learning with peers, experiences with faculty, and campus environment. These categories acknowledge how meaningful and engaging opportunities can occur throughout an institution of higher education. This suggests that there is not a monolithic approach to student engagement and that everyone, including faculty, can have a role in providing students with meaningful high impact practices. But not all engagement opportunities are experienced the same by all students, as their lived realities, backgrounds, and racial and ethnic makeup impact their outlook on how they experience the campus climate.

While the research supports the positive impact of student engagement on the mental health of college students, especially those from underrepresented populations (Low, 2010), it also discusses how student engagement can be a marginalizing experience for some students in predominantly White institutions (PWI) (DeSousa & King, 1992; Smedley, Myers, & Harrell, 1993). For underrepresented populations, being enrolled in a PWI can be an alienating experience, especially when it is riddled with microaggressions. African American students have reported that their White peers and supervisors appeared surprised when they spoke eloquently or demonstrated mastery and effectiveness in their roles as leaders (Harper, 2005). Further, African American males tend to not be well-represented in leadership positions or be actively engaged in predominantly White institutions, neglecting to make deep connections and productive use of their time outside of the classroom (Harper, 2005; Harper et. al., 2004). Some reasons that discourage these students from deepening their connection to the university setting include stress and anxiety stemming from their self-concept as leaders and believing that they have to be “10 times as smart as White students” (Bonner, 2001)—all behaviors that align with the imposter phenomenon. To better understand the link between patterns of student engagement in high-achieving underrepresented students, more research is needed explicitly looking at the link between the impostor phenomenon, student engagement, and high-achieving college students from underrepresented populations.

Mental Health

While much of the seminal research on the Impostor Phenomenon (IP) focused on the impacts on career development (Clance, 1985; Clance & Imes, 1978; Harvey & Katz, 1984), then later, the impact on academic success, its impacts on students’ mental health have increased (Bernard et al., 2017; McGregory

et al., 2008; Peteet et al., 2013; 2015). While IP is not necessarily linked to mental health issues, many studies have made the argument that IP sufferers are more likely to be predisposed to feelings of depression, anxiety, fear, and stress (Clance, 1985; McGregor, Gee, & Posey, 2008). Individuals experiencing impostor feelings live in a constant state of fear that others will eventually discover they are not as intelligent as they have shown to be. Moreover, the impostor phenomenon often interferes with one's ability to accept his or her abilities, making it hard to enjoy success and daily life (Clance, 1985; Harvey & Katz, 1984, McGregor et al., 2008). IP sufferers live in constant fear and dwell on all the things they do not know, rather than thinking about their knowledge gained. Because of the paralyzing feelings of worry, fear, and doubt, IP sufferers often procrastinate and find it hard to move beyond those feelings to get their tasks completed. For those who procrastinate, they work frantically in a state of anxiety to get the job done. On the contrary, IP sufferers may overprepare and overwork on a project more so than needed, robbing them of precious time that could be spent on other tasks (Clance, 1985; Harvey & Katz, 1984). Other common characteristics of those suffering from the IP include: (a) the need to be the very best (though once they are told so, they do not receive it); (b) superwoman/man attributes; (c) fear of failure; (d) denial of competence and discounting praise; (e) fear of and guilt about success (Clance, 1985).

For underrepresented college student populations like racial/ethnic minorities and first-generation college students, these IP feelings are compounded by the already existing academic and socioemotional issues present (Havlik et al., 2017; Wang & Castaneda-Sound, 2008). For example, racial/ethnic minority students often experience stressors related to racial discrimination, feelings of otherness and isolation, especially at PWIs where they are underrepresented amongst peers, leading to intense feelings of impostorism. Peteet and colleagues (2014) investigated impostorism with psychological distress and self-esteem in African American college students (n=112) and found that the higher the feelings of impostorism, the higher levels of psychological stress and lower self-esteem exist. In a similar study (McClain et al., 2015) examining ethnic identity, racial centrality, minority status stress and impostor feelings as predictors of mental health with a sample of Black college students (n=218), minority status stress and IP had a relatively equal effect on the mental health of Black students. These results were contradictory to those of Cokley and colleagues (2013), whose results showed that impostor feelings were stronger predictors of mental health than minority status stress. While results differed, a correlation can be made about the direct effects of IP on the mental health of racial/ethnic minority students.

Since we know that first-generation college students already experience feelings of self-doubt, fear, and inadequacy related to their academic ability (Consolation et al., 2004; Engle et al., 2008), IP feelings experienced by those who are high achieving and come from racial/ethnic minority backgrounds can lead to mental health concerns. While being first in one's family to attend college

brings a sense of pride and accomplishment for most first-generation college students, other contradictory feelings and cognitive beliefs are in concert with those, such as guilt for abandoning their friends and family and fear of the unknown (Wheeler, 2016). Again, when considering high-achieving students in this category, IP feelings are compounded by the already existing challenges faced by these students (Consolacion et al., 2004; Engle et al., 2008; Havlik et al., 2017). More research is needed on the impact of IP on the mental health of racial/ethnic minority first-generation college students, as there has only been one study to date that directly discussed these impacts (Petee et al., 2015).

Implications & Strategies for Higher Education Professionals

We believe there are strategies that higher education faculty and professionals can utilize to retain high-achieving racial/ethnic minority and first-generation college students with feelings of impostorism in their institutions. To begin, campuses must find ways to acknowledge the impostor phenomenon in students and address its impact on the well-being of all students, especially those from underrepresented high-achieving populations. This can impact the support structures for offices that oversee the retention and development of students from underrepresented populations such as opportunity and access programs, male academic leadership programs, cultural student organizations, women's centers, multicultural affairs, etc. Creating opportunities for learning and spaces for dialogue about the impostor phenomenon can help the campus community develop a critical consciousness. Discussions on this topic can also influence trainings provided to student staff such as resident assistants, peer educators/counselors, and student ambassadors. Trainings for these campus leaders can include helping students find their voice; learning to identify and articulate their strengths; and helping them identify role models and mentors that empower their development, growth and self-efficacy beliefs.

Furthermore, it is important for student role models to know how to navigate a conversation when students exhibit signs of the impostor phenomenon so that they can validate the student's accomplishments and belongingness at the institution. Critical consciousness can also help student crisis response teams and counseling offices develop comprehensive approaches in supporting students who display signs of anxiety or mental health concerns as a result of the impostor phenomenon. These very same offices can also support the faculty in knowing how to engage students who seem to have exceptional academic talent, yet display elements of impostorism. Lastly, leadership development programs, certifications and curriculum can also be shaped by the research on impostor phenomenon and its relationship to self-efficacy, engagement and student success.

Counselors and Advisors

College counselors and advisors serve as critical key players in the success and development of students (Havlik et al., 2017; Roscoe, 2015; Smith, 2015). Within their roles, advisors and counselors have an opportunity to work one-on-one

during individualized sessions that can allow for a more in-depth exploration of one's fears, doubts, stress, and anxiety. To assist students combating feelings of impostorism, counselors and advisors should first remain mindful of the multifaceted, multiple minority identities at play with racial/ethnic minority first-generation college students (McClain et al., 2015). Intentional culturally responsive interventions including counseling and advising strategies and programming efforts that meet the unique needs of this student population should be designed to help students, first, make sense of their feelings, then provide strategies to help mitigate them (McClain et al., 2015). To help students understand their IP feelings, counselors and advisors can provide the labels and language behind the definition of the impostor phenomenon so that they can begin to recognize these feelings as they emerge. Helping students understand they are not alone in their IP feelings can help normalize the process and, perhaps, connect them with others who may be experiencing similar feelings.

Once students understand their impostor feelings, strategies such as journaling can help students recognize each feeling in the moment. For example, students can write and reflect in a journal anytime feelings of impostorism arise. This journal should be small enough to carry around daily and can be brought into the counseling/advising session. They can begin to label each feeling (e.g., fear, doubt, anxiety, perfectionism) while reflecting upon past successes when they were able to overcome these feelings. Since we know that IP sufferers will once again fall into the cycle of self-doubt and fear of inadequacy, counselors and advisors can write down their praises for students so they can refer back and enjoy the successes of daily life (Clance, 1985).

Additionally, counselors and advisors should empower their students by affirming their worth and abilities while challenging faulty cognitive distortions about their abilities (McClain et al. 2015). Validation of one's experiences in relation to racial/ethnic identity and college generational status is also critical. An open discussion related to diversity (i.e., legitimizing the role of race, validating the experiences of students of color and first-generation college students) should be embraced in counseling/advising sessions (Cokley et al., 2017). Lastly, counseling/advising sessions with students suffering from IP feelings should be ongoing, since IP sufferers fall into a cycle of IP feelings, accomplishment, feelings of pride, then feelings of self-doubt once again (Clance, 1985).

Conclusion

In conclusion, the impostor phenomenon continues to be an under-researched, yet critical subject as it pertains to racial/ethnic minority first-generation college students (Cokley et al., 2017; Peteet et al., 2015). Given the intense feelings of self-doubt, fear of intellectual phoniness, and anxiety related to repeating previous success and achievements, students from historically underrepresented groups are predisposed to the maladaptive thoughts, given their already existing challenges related to their racial/ethnic identity and college generational status. IP can have significant impacts on students' academic self-effi-

cacy, mental health and level of engagement in-and-out of the classroom. It is important for higher education professionals (e.g., faculty, administrators, counselors/advisors) to understand feelings of impostorism to help this student population cope with these feelings. Intentional practices, including intentional advising, counseling, programming and higher-level decision-making should embody cultural competence, recognizing the intersection of identities at play. While breaking the cycle of impostorism can be challenging, higher education professionals can serve as critical players in the ultimate success and persistence of students experiencing IP feelings.

References

- Astin, A.W. (1993). *What matters in college?: Four critical years revisited*. San Francisco, CA: Jossey-Bass.
- Baldwin, A. Y. (1991). Gifted Black adolescents: Beyond racism to pride. In M. Birely & J. Genshafts (Eds.), *Understanding the gifted adolescent: Educational, developmental and multicultural issues*, 231-239.
- Bernard, D.L., Lige, Q.M., Willis, H.A., Sosoo, E.E., & Neblett, E.W. (2017). Impostor phenomenon and mental health: The influence of racial discrimination and gender. *Journal of Counseling Psychology*, 64(2), 155-166.
- Bonner, F. A. (2001). *Gifted African American Male College Students: A Phenomenological Study*. Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Clance, P.R. (1985). *The impostor phenomenon: Overcoming the fear that haunts your success*. Atlanta, GA: Peachtree Publishers, Ltd.
- Clance, P.R., & Imes, S. (1978). The impostor phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy Theory, Research and Practice*, 15(3), 241-247.
- Cokley, K., McClain, S., Enciso, A., & Martinez, M. (2013). An examination of the impact of minority status stress and impostor feelings on the mental health of diverse ethnic minority college students. *Journal of Multicultural Counseling and Development*, 41(2), 82-95. 10.1002/j.2161-1912.2013.00029.x
- Cokley, K., Smith, L., Bernard, D., Hurst, A., Jackson, S., Stone, S., . . . Roberts, D. (2017). Impostor feelings as a moderator and mediator of the relationship between perceived discrimination and mental health among racial/ethnic minority college students. *Journal of Counseling Psychology*, 64(2), 141-154. 10.1037/cou0000198
- Consolacion, T. B., Russell, S. T., & Sue, S. (2004). Sex, race/ethnicity, and romantic attractions: Multiple minority status adolescents and mental health. *Cultural Diversity and Ethnic Minority Psychology*, 10(3), 200-214.
- Cuyjet, M. J. (1997). African American men on college campuses: Their needs and their perceptions. *New Directions for Student Services*, 1997(80), 5-16.
- DeSousa, D. J., & King, P. M. (1992). Are White Students Really More Involved in Collegiate Experiences than Black Students?. *Journal of College Student Development*, 33(4), 363-69.

- Engle, J., Tinto, V., & Pell Institute for the Study of Opportunity in Higher Education. (2008). *Moving beyond access: College success for low-income, first-generation students*. Pell Institute for the Study of Opportunity in Higher Education.
- Fordham, S., & Ogbu, J. U. (1986). Black students' school success: Coping with the "burden of 'acting White'". *The Urban Review*, 18(3), 176-206.
- Fries-Britt, S. (1998). Moving beyond Black achiever isolation: Experiences of gifted Black collegians. *The Journal of Higher Education*, 69(5), 556-576.
- Fries-Britt, S., & Griffin, K. (2007). The Black box: How high-achieving Blacks resist stereotypes about Black Americans. *Journal of College Student Development*, 48(5), 509-524.
- Gardner, S. K., & Holley, K. A. (2011). Those invisible barriers are real: The progression of first-generation students through doctoral education. *Equity & Excellence in Education*, 44(1), 77-92. doi: 10.1080/10665684.2011.529791
- Grant-Vallone, E., Reid, K., Umali, C., & Pohlert, E. (2003-2004). An analysis of the effects of self-esteem, social support, and participation in student support services on students adjustment and commitment to college. *Journal of College Student Retention*, 5(3), 255- 274.
- Harper, S. R., Carini, R. M., Bridges, B. K., & Hayek, J. C. (2004). Gender differences in student engagement among African American undergraduates at historically Black colleges and universities. *Journal of College Student Development*, 45(3), 271-284.
- Harper, S. R. (2005). Leading the way: Inside the experiences of high-achieving African American male students. *About Campus*, 10(1), 8-15.
- Harper, S. R. (2015). Black male college achievers and resistant responses to racist stereotypes at predominantly White colleges and universities. *Harvard Educational Review*, 85(4), 646-674.
- Harvey, J.C. & Katz, C. (1984). *If I'm so successful, why do I feel like a fake?: The impostor phenomenon*. New York, NY: St. Martin's Press.
- Havlik, S., Pulliam, N., Malott, K., & Steen, S. (2017). Strengths and Struggles: First-generation college goers persisting at one predominately White institution. *Journal of College Student Retention: Research, Theory, & Practice*, 1-23. doi: 10.1177/1521025117724551
- Hertel, J. B. (2002). College student generational status: Similarities, differences, and factors in college adjustment, *The Psychological Record*, 52, 3-18.
- Hu, S., & Kuh, G. D. (2002). Being (dis) engaged in educationally purposeful activities: The influences of student and institutional characteristics. *Research in Higher Education*, 43(5), 555-575.
- Hutchison, M. A., Follman, D., & Antoine, D. J. (2006). The undergraduate research experience as it relates to research efficacy beliefs and the impostor phenomenon. In *American Society for Engineering Education, 113th Annual ASEE Conference and Exposition*. June 18-21.
- Ives, S. K. (2010). *The impact of an online orientation program on the impostor phenomenon, self-efficacy, and anxiety*. Walden University.

- Kuh, G. D. (2008). High-impact educational practices: A brief overview. Association of American Colleges & Universities. Accessed from: <http://www.aacu.org/leap/hip.cfm>.
- McClain, S., Beasley, S.T., Jones, B., Awosogba, O., Jackson, S., & Cokley, K. (2015). An examination of the impact of racial and ethnic identity, impostor feelings, and minority status stress on the mental health of Black college students. *Journal of Multicultural Counseling & Development*, 44, 101-117.
- McGregor, L. N., Gee, D. E., & Posey, K. E. (2008). I feel like a fraud and it depresses me: The relation between the imposter phenomenon and depression. *Social Behavior and Personality: An International Journal*, 36(1), 43-48. 10.2224/sbp.2008.36.1.43
- Nadler, J. T., & Clark, M. H. (2011). Stereotype threat: A meta-analysis comparing African Americans to Hispanic Americans. *Journal of Applied Social Psychology*, 41(4), 872-890.
- National Center for Education Statistics (2013, January). Projection of Education Statistics to 2021. Retrieved from <http://nces.ed.gov/programs/projections/projections2021/sec5c.asp>
- Pajares, F., & Schunk, D. H. (2002). Self and self-belief in psychology and education: A historical perspective. In Aronson, J (Ed.) (2002). *Improving academic achievement: Impact of psychological factors on education*, 3-21.
- Peteet, B. J., Brown, C. M., Lige, Q. M., & Lanaway, D. A. (2015). Impostorism is associated with greater psychological distress and lower self-esteem for African American students. *Current Psychology*, 34(1), 154-163. 10.1007/s12144-014-9248-z
- Peteet, B. J., Montgomery, L., & Weekes, J. C. (2015). Predictors of imposter phenomenon among talented ethnic minority undergraduate students. *Journal of Negro Education*, 84(2), 175-186. 10.7709/jnegroeducation.84.2.0175
- Roscoe, J. L. (2015). Advising African American and Latino students. *Research & Teaching in Developmental Education*, 31(2), 48-60.
- Saenz, V. B., Hurtado, S., Barrera, D., Wolf, D., & Yeung, F. (2007). *First in my family: A profile of first-generation college students at four-year institutions since 1971*. Los Angeles: UCLA, Higher Education Research Institute.
- Sellers, R. M., Caldwell, C. H., Schmeelk-Cone, K. H., & Zimmerman, M. A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social Behavior*, 302-317.
- September, A.N., McCarrey, M., Baranowsky, A., Parent, C., & Schindler, D. (2001). The relation between well-being, impostor feelings, and gender role orientation among Canadian university students. *The Journal of Social Psychology*, 141(2), 218-232.
- Smedley, B. D., Myers, H. F., & Harrell, S. P. (1993). Minority-status stresses and the college adjustment of ethnic minority freshmen. *The Journal of Higher Education*, 64(4), 434-452.
- Smith, A. A. (November, 2015). Who's in first (generation)? Inside Higher Ed. Retrieved from <https://www.insidehighered.com/news/2015/11/10/who-are-first-generation-students-and-how-do-they-fare>
- 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*, 60-73.

- Terenzini, P.T., Springer, L., Yaeger, P.M., Pascarella, E.T., & Nora, A. (1996). Influences affecting the development of students' critical thinking skills. *Research in Higher Education*, 36(1), 23-39. 10.1007/BF02207765
- Wang, C.D.C., & Castaneda-Sound, C.C. (2008). The role of generational status, self-esteem, academic self-efficacy, and perceived social support in college students' psychological well-being. *Journal of College Counseling*, 11(2), 101-118.
- Wheeler, M. (2016). Potential family and mental health considerations for working with first-generation college students exploring careers. *Career Planning and Adult Development Journal*, 32(1), 112-119.
- Williams, D.R., & Williams-Morris, R. (2000). Racism and mental health: The African American experience. *Ethnicity and health*, 5(3-4), 243-268.
- Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-efficacy, stress, and academic success in college. *Research in higher education*, 46(6), 677-706.

Biographies

Dr. Nicole Pulliam is an Assistant Professor and Graduate Program Director for the Educational Counseling program at Monmouth University. Her research focuses on college access issues for historically underrepresented college students, career development for first-generation college students, and the experiences of graduate students from racial and ethnic minority groups.

Carolina E. Gonzalez, PhD has over 12 years of leadership experience in higher education in the areas of diversity, access and retention. She currently serves as the Director of Teacher Education Admissions, Recruitment and Diversity in the Center of Pedagogy at Montclair State University.

A Comprehensive First Year Engagement Theory

Dr. Craig Smith, *Montgomery County Community College*

ABSTRACT

Several student retention theorists have purported unique models to support First Year Engagement theory. The scholarly contributions of Vincent Tinto (1993), Alexander Astin (1984), and Carol Goodenow (1993) inform much of the literature. Astin (1984) provided an extensive foundation of knowledge of the factors that contribute to academic and social engagement. Similarly, Tinto's (1993) research addresses the role of student engagement in relation to student persistence and Goodenow (1993) discusses how a sense of belonging contributes to student success. However, with all this knowledge, first year experience programs are not consistently achieving desirable results and colleges and universities struggle to retain admitted students. This proposal utilizes the existing theoretical underpinnings connected to first year experience to reveal the need for a more robust examination of the first year experience and deeper investigation of factors that support and thwart student success and persistence and ultimately propose the first comprehensive first year engagement theory.

Keywords: Student retention theory, higher education, persistence, first year experience, first year engagement theory

A Comprehensive First Year Engagement Theory

In 1962, Nevitt Sanford, a professor of psychology at Stanford University wrote *The American College*, a text that dealt with the challenges students experienced during their first year of college. His belief asserted that first-year students need to be challenged and engaged with experiences that fostered learning and personal development in order for them to persist. Sanford (1962) believed that first-year students needed to be engulfed in a positive campus climate and perceive that they were supported by the campus community. The work of critical retention theorists shaped the notion that academic engagement, sense of belonging and social support are all crucial parts of the first year experience (Astin, 1984; Tinto, 1993).

Astin's Student Involvement Theory

Astin's (1984) theory of student involvement stemmed from his longitudinal investigations of the factors that contributed to student persistence. Astin's (1984, 1985) Student Involvement Theory concluded that the factors important to college student development were synonymous to the factors important to college student attrition. Simply put, increasing students' level of involvement in an institution was directly linked to student development and success. Whereas, involvement was defined as "the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1984,

p. 297)-Astin (1984) viewed the phenomenon of student persistence from a behavioral perspective.

Tinto's Student Integration

Tinto's theory claimed that students were more likely to remain in an institution and persist if they connected socially and academically while at that institution. Students who integrated into the campus community by making friends, joining student clubs and/or organizations, or engaging in academic activities were more likely to persist than those students who did not have these type of meaningful connections. Students - who did not feel at home in an institution or believed that there was no place for them at that institution - struggled with institutional fit and were unlikely to persist (Tinto, 1993). Similarly, students who isolated themselves by remaining in dormitories away from social aspects of college life fell into a similar category. Tinto (1993) stated that both incongruence and isolation inhibited the integration process, thereby inhibiting persistence. Tinto also pointed out that student integration into an institution can occur along two dimensions, the academic and the social.

Goodenow's Sense of Belonging

Goodenow (1993) proposed that a sense of belonging at school reflects ...'the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment' (p. 80). According to Goodenow, without a sense of belonging, students are more prone to feelings of social isolation, alienation, and loneliness – which are often the reasons why students are not retained. On the other hand, proper, adequate, and timely satisfaction of the sense of belonging leads to physical, emotional, behavioral, and mental well-being (Maslow, 1968). Moreover, the feeling of belonging may have a direct and powerful influence on students' motivation (Goodenow, 1993).

Theory of First Year Engagement

The theories of Astin, Tinto and Goodenow collectively increase a student's sense of belonging and motivation and forge "meaningful connections" on campus. As students experience successful integration, both academically and socially, at their institution through a commitment to interact and engage, inside and outside of the classroom, the result will be a greater sense of connectedness and belonging to the institution. Academic integration occurs when students become attached to the intellectual life of the college, fully engaging in all things academic, while social integration occurs when students create relationships and connections outside of the classroom that are meaningful. These two concepts interact with and enhance one another, collectively enhancing the likelihood that a student would persist at an institution. And, while students must be integrated into the institution along both dimensions to increase their likelihood of persistence, there needs to be a fine balance between the two (Tinto, 1993). Student integration and belonging complement one another.

The framework for a new comprehensive theory of first year engagement is based upon the work of Vincent Tinto (1993), Alexander Astin (1984), and Carol Goodenow (1993). Tinto’s Theory of Student Integration, Astin’s Theory of Student Involvement, and Goodenow’s Theory of Belonging collectively speak to the factors that impact student success. The author established an integrated theoretical framework (see figure 1.0) by integrating each of these theories. Collectively, the combination of the student belonging, integration and involvement may shape and illuminate the first year college experience in higher education.

FIGURE 1.0

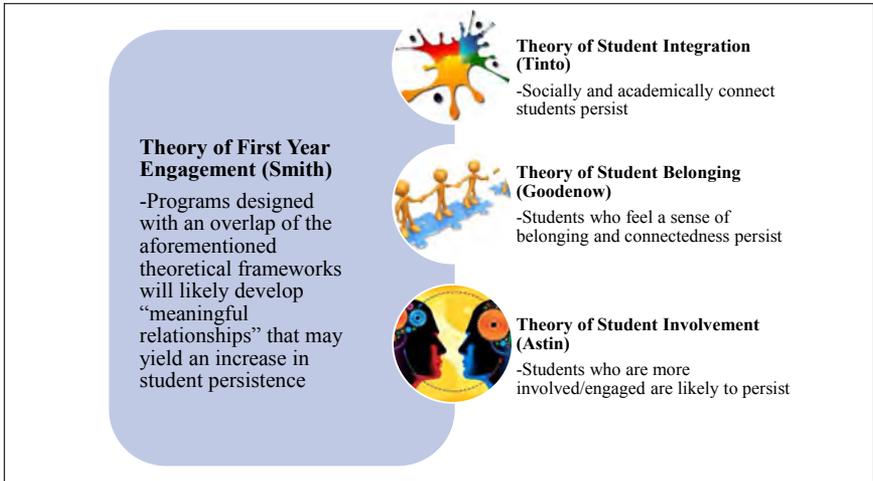


Figure 1.0 Comprehensive First Year Engagement Theory

First Year Experience programs could design effective programs that employ the theoretical framework proposed through the theory of First Year Engagement.

A First Year Experience Model

Smith (2016) proposes the First Year Engagement Theory which states that co-occurrence of Tinto, Astin and Goodenow’s theories on student retention and success, enhances the likelihood that first year students will develop meaningful connections at an institution and be more likely to persist to and through completion. It is believed that in order for social and academic integration at an institution to occur, students must feel a sense of belonging. Astin’s Student Involvement Theory, Tinto’s Student Integration Theory and Goodenow’s Theory of Belonging collectively speak to the factors that impact student success. Consistent with Townsend’s (2006) notion of social involvement, social involvement has a huge positive impact on student retention similar to those who participated in the FYE program included in this chapter.

The First Year Engagement Theory is relevant to student success through the proper design of the first year experience. It is imperative that key design components are included in program designs to ensure a successful first year

experience program. Smith (2016) proposes five components gathered from a host of successful FYE programs that may serve to be useful in future program design. Design a program that:

Allows the students the opportunity to take credit bearing courses during the summer,

Maintains a consistent program format throughout entire first year,

Incorporates a formal early warning alert system i.e. alerts prior to week 6 of a fifteen week semester,

Implement intentional first year scheduling that includes major courses, required developmental education courses, and appropriate credit load,

Recruit faculty and staff who are committed to student success and who can serve in a mentor capacity.

Palmer, Wood et al (2014) has explored student success in higher education and indicated that there is a benefit to: having knowledge of the theoretical underpinnings that help to increase student retention, and to being well versed in first year experience programs designed specifically to assist underprepared and underrepresented students in their persistence on college campuses.

In summary, it was found that student participation in FYE programs do have an overall positive impact on academic success during the first year of college. It was discovered that early social integration into the campus community, establishing sound mentor relationships and having a strong sense of belonging all play a key role in student persistence from year one to year two.

References

- Astin, A.W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Goodenow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence*, 13, 21-43.
- Maslow, Abraham H. (1968). *Toward a psychology of being*. New York : Van Nostrand
- Palmer, R. T., Wood, L. J. (2015). *Black Men in Higher Education: A Guide to Ensuring Student Success*. Routledge: New York, NY.
- Sanford, N. (Ed.). (1962). *The American college*. New York, NY: Wiley.
- Smith, C. (2016). Too Important to Fail: Assessing the role of a First Year Experience Program in the persistence of African American males at a predominantly white university. Retrieved from <http://hdl.handle.net/1860/idea:6889>.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.) Chicago, IL: University of Chicago Press.

Biography

Dr. Craig Smith holds a Bachelor of Science Degree in Psychology. He earned his Master's in Education with a concentration in Curriculum and Instruction and a Doctor of Education from Drexel University. Dr. Smith has been a leader in the arena of social justice. He has fifteen years of experience in education.

A Collaborative Model for Diagnosing First-Year Minority College Students' Academic Needs: Establishing a Plan for Academic Success through Academic Coaching and Tutoring

Tiffany E. Jones, Ed. D., *West Chester University*

Jocelyn A. Manigo, Ed. D., *West Chester University*

ABSTRACT

The persistence of first-year minority college students remains a critical task for higher education institutions. Although postsecondary enrollment of minority college students has grown over the past few decades, many students enter college academically unprepared. The literature reveals numerous programming initiatives designed to promote the academic success of first year college students. This paper introduces the Jones Academic Skills Assessment (JASA) as a diagnostic tool for assessing the academic strengths and needs of first-year minority college students. Furthermore, results from the JASA guide academic support representatives in developing individualized tutoring and academic coaching skill plans for students to maintain throughout the first year of college. Numerous anticipated academic outcomes through use of the diagnostic tool include self-regulated learning, increase in grade point average, and student persistence. The JASA along with academic supports and collaborative communication promote access for minority college students and level the playing field for their academic success.

Introduction

The transitional period from high school to college is a critical developmental stage for first-year undergraduate students. During this time students undergo a tremendous amount of academic, personal, social, and financial transitions (Connolly, Flynn, Jemmott, & Oestreicher, 2017; D'Lima, Winsler, & Kitsantas, 2014). Swanson, Vaughn, and Wilkinson (2017) proclaimed "although the college transition is challenging for all students, specific groups of students are even more at risk. These groups include males, first generation, and minority students" (p. 387).

The persistence of first-year college students is an ongoing high priority issue in higher education institutions within the United States of America (Crissman Ishler & Upcraft, 2005; Jacobs & Archie, 2008). Academic preparedness is noted as a challenge experienced by many first-year college students (Dennis, Phinney, & Chuateco, 2005; Swanson et al., 2017). "When students have limited access to resources, their academic options are lessened or 'constrained'. This constraint creates risk" (Cabrera, Miner, & Milem, 2013, p. 484, as cited in O'Connor, 2002). As a result, students from underserved populations are most at-risk for being academically unprepared for college and persisting beyond the first year (Cabrera et al., 2013; Dennis et al., 2005; Robbins & Smith, 1993;

Swanson et al., 2017). Jacobs and Archie (2008) stated that dropout rates of first-year college students are problematic among higher education institutions across the country. As a result, higher education institutions have implemented various initiatives to enhance the persistence of first-year college students.

This promising approach identifies the process of diagnosing the academic needs of first-year minority college students as a measure for promoting academic success and persistence. Diagnosing first-year minority college students' academic needs may be a complex and challenging task for faculty and administrators. The Jones Academic Skills Assessment (JASA) along with collaborative academic support services, communication, and assessment is suggested as a best practices tool in identifying the academic needs of first-year minority college students, thus determining ways in which tutoring and or academic coaching would be most effective for their academic success. Furthermore, it is an individual method of assessing students' academic preparedness and plan for academic success. A review of the literature, description of the diagnostic tool, collaborative academic support services, methods, assessment procedures, anticipated outcomes, and implications for research will be discussed in this best practices paper.

Review of the Literature

The First-Year Minority Student

First-year college students comprise a diverse make up of various backgrounds, genders, races, and ethnicities (Miller & Lesik, 2014). According to Crissman Ishler (2005), "the number of racial and ethnic groups accessing higher education has grown dramatically in the past twenty-five years and reflects the changing nature of our nation's population" (p.18). The literature reveals an intersection between first-year minority college students and first-generation college students. First-generation students are described as individuals who are the first in their immediate families to attend college, as their parents may have earned a high school diploma or less (Crissman Ishler, 2005). When compared to students whose parents or guardians earned a bachelor's degree or higher, first-generation college students' family income tended to be much lower (Crissman Ishler, 2005; Hurd, Tan, & Loeb, 2016). Dennis et al. (2005) also reported that first-generation college students may be academically unprepared for college. As a result, initiatives have been established to support the academic endeavors of both first-generation and first-year minority students (Atherton, 2014; Crissman Ishler, 2005).

The Evolution of Tutoring and Academic Coaching

Tutoring remains one of the oldest forms of instructional support in the history of higher education. Students have expressed a need for some form of supplemental individualized instruction since the establishment of the first colleges in the United States during the 1600's. Applicants who struggled to meet college entrance requirements and foreign language requirements hired private tutors to reinforce their content knowledge (Arendale, 2011). By the early 1800's, the

number of institutions increased as did the need for academic support. Consequently, pre-collegiate preparatory academies were formed to offer remedial assistance in reading, writing and mathematics. Such remediation became more embedded within the college curriculum throughout the twentieth century (Arendale, 2011).

By the 1920's, the academic support structure in higher education expanded in scope. Whereas educators focused primarily on students' acquisition of content knowledge through tutoring, the focus broadened to address students' needs in the learning process (Association for the Study of Higher Education (ASHE), 2010). As a result, many colleges and universities formed programming that would support student learning and foster learning skills. More than two hundred 'how-to-study' manuals surfaced in the 1920's and 1930's (Brown & Holtzman, 1955 as cited in Thompson, 1976). Moreover, study skills courses introduced strategies for exam preparation, reading and study techniques (Thompson, 1976). Over the next few decades, these services would evolve into various forms - learning-to-learn courses, first year experience courses, academic counseling, success coaching and academic coaching.

First-Year Programming Initiatives

The literature reveals the evolution of programming initiatives that derived from early academic coaching models. These programs are designed to address the transitional needs of first-year college students by promoting academic success and increasing persistence (Jacobs & Archie, 2008). Cabrera et al. (2013) stated that "programmatically efficacy is largely determined not only by how practitioners develop participants' cognitive abilities, but also how effectively they connect them to social and academic support networks during their first year of college" (p. 481). Some of the most common first-year initiatives include pre-college, summer bridge, and First Year Experience (FYE) programs (Atherton, 2014; Connolly et al., 2017). Pre-college programs are typically offered to middle and high school aged students in various regions across the United States. Atherton (2014) cited Gullatt and Jan (2003) by stating the following: "Precollegiate outreach programs such as TRIO, GEAR UP, Upward Bound, and AVID seek to assist identified academically disadvantaged populations and provide academic, informational and career outreach to students to facilitate college participation and success" (p. 828). The purpose of these precollege programs is to expose students to the rigors of college and provide them with tips and strategies to succeed academically, socially, and financially (Atherton, 2014; Newman & Newman, 1999).

Similar to pre-college programming, summer bridge programs are designed to introduce accepted or pre-conditionally accepted students to the college experience during the summer prior to the start of the first year of college and arrival of the larger population of students (Rita & Bacote, 1997). The mission of summer bridge programs is to guide students in attaining academic skills and social networks necessary for thriving in a collegiate environment (Atherton, 2014; Cabrera et al., 2013). Summer bridge programs are typically held for four

to six weeks and enroll students in college level courses that introduce them to time management, study preparation, and test taking skills necessary to succeed in those courses (Rita & Bacote, 1997). In addition to academic enrichment support, most summer bridge programs provide students with the opportunity to reside on campus and participate in social events (Cabrera et al., 2013). These early experiences provide students with the opportunity to establish relationships with their peers and professors as well as become acclimated to campus buildings and resources (Atherton, 2014; Cabrera et al., 2013)

First-Year Experience (FYE) is a third common type of programming initiative intended to promote the academic success and persistence of first-year college students. The mission of the First-Year Experience courses is to help new college students successfully navigate the academic, social, and personal expectations of college (Siegel, 2015). First-Year Enrichment seminars or courses are typically offered to first-year college students during the fall semester. In addition to developing courses to aid in the collegiate transition, first-year students are also provided with various academic resources to support their academic development (Atherton, 2014). This early and regular contact with students assists faculty in identifying students who may be at-risk for succeeding in the course and persisting at the institution (Connolly et al., 2017). Siegel (2015) expressed the importance of faculty, administrators, and staff collaboration in providing a successful experience for students.

The Evolution of Learning Assessment Tools

In order to evaluate the effectiveness of various programming efforts, educators have utilized a number of instruments and assessment tools. One of the first study habits inventories was created in 1933 by Gilbert Wrenn, who explored the concept of study skills as a predictor of academic success (Wrenn & McKeeown, 1933 as cited in Thompson, 1976). The 28-item inventory evaluated students' reading, note taking, concentration, study time and level of exam stress. Brown and Holtzman (1955) expanded on Wrenn's research and in 1953 introduced the Survey of Study Habits Attitudes (SSHA) Inventory, which measures students' study methods, delay avoidance and attitudes toward academics (Thompson, 1976).

In the decades that followed, a wave of additional questionnaires and inventories were published. The Students Attitudes Inventory (SAI) and the Entwistle Student Attitudes Inventory expanded on the structure of the SSHA (Fitkov-Norris & Yeghiazarian, 2013). Learners' self-regulated learning and motivation were further explored in the creation of the Academic Self-regulated Learning Scale (Magno, 2011), Metacognitive Awareness Inventory (Schraw and Dennison, 1994), Motivated Strategies for Learning Questionnaire (MSLQ) and Learning and Study Strategies Inventory (LASSI) (Weinstein, Palmer, & Schulte, 2002). To date, countless institutions of higher education, as well as high schools, utilize either one or a combination of the published inventories or self-made questionnaires in an effort to appropriately diagnose learners' academic needs.

Diagnostic Tool

To properly diagnose academic skill level and prescribe the appropriate content for tutoring and or academic coaching services, the Jones Academic Skills Assessment (JASA) will be administered to first-year minority college students. The JASA is an intake tool designed for students to self-report their academic strengths and needs. This intake tool provides the following Likert Scale rating options for students to select: always, often, sometimes, rarely, never, and not applicable. It is recommended that Academic Support representatives administer the JASA to students in addition to academic support initiatives as a best practice for diagnosing students' academic strengths and needs.

The JASA includes the following nine sections pertaining to academic and inner personal skill development: Classroom Engagement, Goal Setting, Time Management and Organization, Textbook Reading, Writing, Utilization of Academic Resources, Lectures/ Note Taking/ Power Points, Study Prep/ Test Taking, and Inner/ Personal. The Classroom Engagement section determines students' classroom attendance, participation, attentiveness, completion of work, and etiquette in classes. The Goal Setting section measures if students regularly set specific, measurable, achievable, realistic, and time-oriented (SMART) goals pertaining to their academic success and monitor them regularly. The Time Management and Organization section inquires about the students' ability to create and maintain a weekly time management schedule, study two to three hours for every hour of class time, write important dates in a calendar or planner, complete a daily or weekly task list, maintain a separate folder or binder for each course, and regularly track grades and academic progress in each course.

The Textbook Reading section of the JASA assesses whether students read textbook chapters in their entirety, pre-read textbook chapters for major headings and subheadings, identify main ideas, and supporting details within a text, utilize strategies to check comprehension of text, recall important facts after reading, and are able to summarize content within the textbook. The Writing section inquires if students are able to clearly and concisely draft and outline their thoughts and ideas, use appropriate grammar and punctuation in writing assignments, and are confident in their writing abilities. The Utilization of Academic Resources section measures whether students attend tutoring sessions, visit the Writing Center for assistance with writing assignments, attend Academic Success Workshops throughout the semester, meet with professors during office hours, meet with assigned academic advisors for required advising sessions and communicate with him or her regarding academic progress, and uses supplemental resources for courses.

The Lectures/Note Taking/ Power Points section of the JASA evaluates students' ability to identify main ideas within a lecture, take notes during lectures, record class lectures, review notes and PowerPoints after class, organize notes by grouping ideas, creating headlines, etc., and link PowerPoint and class notes with textbook material. The Study Prep and Test Taking section addresses skills

and practices before and after an exam consisting of the following: preparation for quizzes and exams five to seven days in advance, incorporation of various active study methods or aids for each course, ability to memorize key course information, ability to concentrate when studying and taking tests, review previous exams and quizzes, participate in study groups, study in distraction-free locations, aware of the content to be covered on exams, aware of the format of exams, ability to eliminate feelings of test anxiety, review test content and instructions prior to beginning tests, check answers after completing exams, and ability to refrain from changing test answers many times prior to submitting the test. The final section of the Jones Academic Skills Assessment (JASA) is the Inner/Personal section. This section is important as it plays a key role in students' ability to achieve academic success. It assesses students' motivation to perform well in classes and ability to maintain at least eight hours of sleep each night, eat three or more meals each day, exercise three or more times a week, and regularly implement positive strategies for coping with stressful situations.

Methods

The intake, referral, and collaboration processes regarding diagnosing first-year minority students' academic needs are identified in this section.

The Intake

The Jones Academic Skills Assessment (JASA) serves as the catalyst of the best practices collaborative model. Like other instruments of its kind, the JASA serves as both a diagnostic and prescriptive tool for student performance. As such, it can be used to identify academic needs and to devise a plan for success. The modes through which the form is administered may vary. Students can complete a hardcopy version on site or follow a link to access the form electronically, which would allow students to complete it at any location. In addition to the varying modes of administration, students also have the option to complete the evaluation individually or rather in the presence of a service provider, in which case the form becomes an impetus for discussion. Given the importance of the JASA's role to guide individual programming, students should be encouraged to provide honest feedback with the reminder that they will not be penalized in any way. If the JASA will be used as a post-measure following an intervention or time period, then the administrator should clarify its purpose as a pre/post evaluation tool.

The Referral Process

The referral process of the Jones Academic Skills Assessment (JASA) promotes the collaborative academic support and communication of this best practices model. Once the JASA has been completed, the student will meet with a service provider to discuss the results and trends. The following questions might be addressed: In which areas did the student receive the highest score? Which areas show the lowest score? Is there a large discrepancy in scoring or performance? What previous academic experiences contributed to the student's current ratings? Based on the students' scoring, the service provider will make

the appropriate referral for either academic coaching and/or tutoring services. For example, if the student marks a score of 0 or 1 for the following items - “able to summarize content within text”, “able to identify main ideas within a lecture” – the provider might recommend tutoring support to assist with content review. Similarly, if the student shows low scoring for the following items – “Create and maintain a weekly time management schedule”, “Incorporate various study methods/ aids for each class” – the provider would refer the student to academic coaching for assistance with time management and study skills strategies. There are additional categories noted on the JASA that do not fall within the scope of academic coaching or tutoring. Issues such as motivation and adequate sleep for example may require other forms of intervention. Thus, administrators should be prepared to refer students to additional support services at the institution if needed.

The frequency of academic coaching and tutoring meetings is to be determined by the student and service provider. Research shows that weekly or biweekly meetings with an academic support representative yields improved student performance than less frequent visits (Bettinger & Baker, 2011; Farrell, 2007). Therefore, this collaborative model proposes regular weekly meeting times between the student and service provider during the first year. The student may meet weekly with a tutor in addition to attending a separate meeting with an academic coach.

The Collaboration

The success of this promising approach depends heavily on the collaboration and communication between academic support units. With such disparate units at an institution, students may potentially connect with multiple service providers who do not consult with each other to discuss or strategize support efforts. This best practice model, however, offers a less divided approach. In addition to the weekly meetings between the student and coach or tutor, there will also be weekly contact between tutoring and academic coaching units to discuss students’ progress and to troubleshoot issues. Additionally, the students’ responses from the JASA will be shared between units. The collective sharing will allow providers to have a more complete perspective of the student’s academic readiness. Consequently, providers will be able to strategically address academic needs and monitor progress. For example, if a student has indicated deficiencies in the areas of time management and note taking, then the academic coach and tutoring service provider would work jointly to reinforce strategies in these areas. A tutor might utilize a student’s class notes as a basis for content review, which might lead to an impromptu discussion on how to best capture content through note taking. Moreover, the tutoring session might conclude by having the student create a task chart in preparation for the next session. In turn, these strategies would complement the time management assistance that a student might receive from the academic coach. The entire process of this best practices model is captured in Figure 1.

FIGURE 1. Proposed Collaborative Model to Promote Academic Success

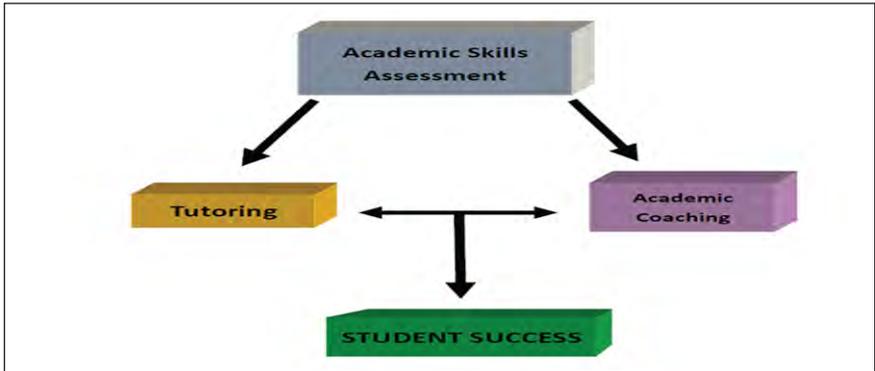


Figure 1: The best practices collaborative model. 1) Students complete the JASA, the results of which prompt a service provider to recommend tutoring or academic coaching. 2) As the student receives services, tutoring and academic coaching representatives consult regarding student progress. 3) Students experience greater success as a result of the JASA and collaborative academic support services.

Assessment Procedures

Assessment is an essential component to this collaborative model. To assess the effectiveness of the Jones Academic Skills Assessment (JASA) and collaborative academic support initiatives in diagnosing first-year minority students' academic needs and placement in tutoring and academic coaching services, the following procedures will be conducted: Jones Academic Skills Assessment Pre/Post Tests, Tutoring and Academic Coaching Satisfaction Survey, and Course Grade and GPA Analysis.

The Jones Academic Skills Assessment (JASA) will be administered via a Pre and Post Test format to assess the effectiveness of the tool in referring students to academic coaching and tutoring for academic assistance. The Pre-Test will be administered to incoming first-year minority college students during placement testing which occurs in late spring and prior to the start of the summer and fall semesters. Students' self-reported academic strengths, needs, and undeveloped areas will be noted in identifying an academic success plan for their first year of college. During the academic year, the students will receive academic coaching and tutoring services specifically outlined via the JASA. By the end of the students' first year spring semester, the post-test will be administered to students. Identical to the Pre-Test, students will self-report their skill levels in the nine areas of the JASA. Each section of the students' JASA responses would then be reviewed to determine if the pre and post-tests demonstrate an increase, decrease, or no change in scores. Effectiveness is noted by an increase in individual skill areas in which the student may have received support throughout the academic year.

The Tutoring/Academic Coaching Satisfaction Survey is administered at the end of each semester to gauge students' experience with tutoring or academic coaching services. This survey is available to students electronically and includes a Likert Scale Survey ranging from Strongly Disagree to Strongly Agree in most areas of the survey. First, students are asked to provide demographic information such as class year, major and residential status. Students also indicate the number of times that they have utilized tutoring or academic coaching services during the semester. They also specify what other support services they have utilized during that time frame. Students then indicate the subjects for which they received tutoring as well as their primary reason for seeking services. The second part of the evaluation prompts students to rate the tutor or academic coach in areas regarding punctuality, knowledge, ability to convey information and patience. The student also indicates his/her level of satisfaction with the services and is then prompted to rate the level to which tutoring/academic coaching has impacted his/her understanding of the content and GPA. The final portion of the evaluation prompts students to rate the degree to which tutoring/academic coaching has affected reading, note-taking, organizing and retaining information, test-taking, and communication skills. The survey concludes with final questions regarding suggestions for improvement.

Course grades and grade point averages (GPA) will also be assessed to determine the effectiveness of the Jones Academic Skills Assessment (JASA), tutoring, and academic coaching services. Final grades for courses tutored will be assessed to compare minority first-year student completion versus general population first year students who did not complete the JASA or receive regular academic coaching and tutoring services. Grade point average (GPA) is also an important component to assess first-year minority students' overall academic progress at the institution and likelihood of academic success as compared to the general population of first year students. The researchers anticipate comparable if not higher cumulative grade point averages for first year students who completed the JASA and regularly attended tutoring and academic coaching services.

Anticipated Outcomes

There are numerous anticipated outcomes linked to the collaborative model including the implementation of the JASA, tutoring and academic coaching services. These include increased GPA, persistence, motivation, self-regulated learning and enhanced mindset regarding learning potential. Each outcome is further explained in this section.

One of the most observable, short-term outcomes of the best practices collaborative model is the student's ability to achieve and maintain a satisfactory grade point average of 2.0 or higher. Research shows that students who engage in one or more academic counseling sessions within a semester experience greater gains in GPA than students who do not attend any sessions (Wlazelek & Coulter, 1999). Similarly, the number of tutoring sessions attended has been found to have a positive correlation with a student's grade point average

(Arco-Tirado, Fernández-Martín, & Fernández-Balboa, 2011). In general, students who regularly attend peer tutoring sessions generally earn higher course grades than those who do not.

Academic coaching within the context of a first year experience course may also significantly impact student grades. In a study involving newly-admitted at-risk undergraduate students, the majority of whom were minority students (95%), earned a significantly higher grade point average following their full participation in an FYE course than a control group of non-participants (Connolly et al., 2017). The increased performance is largely attributed to their high level of interaction with university staff as well as their exposure to various learning skills.

In addition to promoting improved grades, individualized support through academic coaching or tutoring services generally leads to increased persistence, particularly among freshmen students (Bettinger & Baker, 2011; Farrell, 2007; Tait, 2004). Flavell (2007) discovered that first-year students who met weekly with an academic coach experienced a five percent increase in retention from the fall to the spring semester. Likewise, students who met weekly with tutors, especially tutors of historically difficult courses, generally persisted within their major to a greater degree as compared to students within similar cohorts (Batz, Olsen, Dumont, Dastoor, & Smith, 2015; Higgins, 2004).

Tutoring has been found to positively affect students' attitudes and self-concept. A meta-analysis review of tutoring studies reveals that students exhibited more positive attitudes and favorable self-concepts within classrooms with tutoring programs (Cohen & Kulik, 1981). Academic coaching has been shown to have a similar impact on students' affective learning. Research shows that students who receive academic coaching develop positive attitudes overall and experience increased motivation toward learning (Lemcool, 2009).

A long-term benefit of the recommended collaborative model is that students will gain strategies to self-regulate their own learning. Self-regulated learning involves a learner's control of his/her cognition, motivation and behavior in the pursuit of a learning goal. Through continued exposure with an academic coach and a tutor who teaches and models self-regulated learning behaviors, a student is more likely to implement these strategies independently. Furthermore, when confronted with academic difficulty, the self-regulated learner is equipped with the academic strategies to find a solution (Zimmerman, Bonner, & Kovach, 1996.)

In addition to increased academic performance, enhanced or growth mindset toward academic success is a sixth anticipated outcome of the recommended diagnostic tool and collaborative model. Dweck (2006) asserted that individuals maintain one of two mindsets about intelligence; it is either fixed or it has potential to grow. Research further indicates that mindset can significantly impact students' experiences in academia. McGuire (2015) introduced the use of various tools and strategies as methods for fostering growth mindsets in students. By diagnosing students' academic needs via the Jones Academic Skills

Assessment and creating a collaborative and individualized plan for tutoring/academic coaching, it is very likely that students will feel more empowered to take on academic tasks and challenges. Furthermore, it is anticipated that first-year minority college students' mindset regarding their ability to succeed academically will grow.

Limitations of the Approach

There are several limitations associated with effectively diagnosing students' academic needs. First, the validity of students' abilities to accurately self-report their academic skill levels may be problematic regarding this practice. Bowman (2010) stated that higher education institutions heavily rely on self-reported assessments to measure student development and progress but argued that they may not necessarily produce objective results. Bowman (2010) asserted that "in the context of self-reported gains, students probably feel that they have a great deal of insight into their own learning and development, but their judgments may be quite erroneous" (p. 470). For example, overconfident students may overestimate their academic abilities whereas students with lower levels of confidence may underestimate themselves when completing the skills assessment. For that reason, it is important to provide students with examples of the various skill areas and Likert ratings to determine where they accurately fit on the scale.

In addition to accurately self-reporting academic skills, the overall academic motivation of students is another limitation to this practice. Roksa and Whitley (2017) acknowledged the growth of research regarding academic motivation over time as well as the correlation between motivation and academic achievement in higher education. Students lacking motivation may not fully take advantage of tutoring and academic coaching and not reap the benefits of full participation. Consequently, disparities in student motivation may skew results. Future studies may benefit from assessing student motivation prior to implementing the diagnostic tool and collaborative support services.

In addition to self-reported responses and students' levels of motivation, institutional support structures pose as a limitation to this population of students. Means and Pyne (2017) defined "institutional support structures as academic and social spaces, such as departments, programs, residence halls, classrooms, and student organizations designed to support student learning and success" (pp. 907-908). Institutions may vary in academic support resources which may affect students' access and experiences with tutoring and academic coaching.

Implications for Research

There are several implications to research to consider regarding diagnosing first-year minority students' academic needs and identifying the ways in which tutoring and or academic coaching would promote their academic success. Level of preparedness of first-year minority college students is a critical area to be explored in further studies. Academically prepared students may have prior exposure to the rigor of college-level courses, advanced study and

test taking skills, and institutional support. Academically underprepared students may lack in those types of skill areas and experiences. Melzer and Grant (2016) asserted that “although underprepared students exhibit a great deal of resiliency and perseverance to reach the college level, they still underperform academically and socially compared to more prepared students” (p. 100). “As student populations continue to become more diversified, institutions must understand students’ academic preparedness to better serve them” (Atherton, 2014, p. 824). It is extremely important to discover methods of diagnosing students’ levels of academic preparedness during the first year of college to level the playing field for all first year students.

The administration of a longitudinal study beyond the first year of college is another implication for research. It would be helpful to monitor the effectiveness of the diagnostic tool, collaborative academic support efforts, student academic progress, and persistence over a longer span of time. Perhaps students’ academic needs could also be diagnosed during their sophomore, junior, and senior years of college to recommend tutoring and academic coaching strategies for upper-level course work. The longitudinal study could further assess the effectiveness of the diagnostic tool and methods throughout the students’ academic trajectory, thus aiding persistence.

The self-efficacy of first-year minority college students is a final implication for further research. Bandura (1997) linked self-efficacy with an individual’s perception to change and thrive in various environments. D’Lima, et al. (2014) emphasized the relevance of self-efficacy and the initial year of college. D’Lima et al. (2014) also noted self-efficacy as bearing more importance to academic persistence than high school demographics, standardized scores, and grade point average. Academic self-efficacy plays a role in the way that students perceive and approach new tasks and challenges (D’Lima et al., 2014). It would be an interesting research initiative to study the self-efficacy of first-year minority students and examine differences among gender, race, region, and institutional types for more conclusive data in this area.

Conclusion

Research indicates disparities in the academic preparedness, persistence, and graduation rates of ethnic and minority college students. Student dropout rates are highly correlated with academic performance and preparedness (D’Lima et al., 2014). The literature indicates that students of color experience enhanced hardships during the transition of the first year of college. To address this issue, it is extremely important for higher education institutions to implement strategies to appropriately diagnose and assess the academic needs of first-year minority college students. In addition to first-year programming initiatives, academic support units could administer the Jones Academic Skills Assessment (JASA) as a best practice in determining the methods in which students could appropriately utilize academic coaching and tutoring. This individualized method would then enhance the collaboration between academic coaching and tutoring staff. Although minority college students may encounter challenges

as they transition to college, academic success is possible with the support of faculty and staff (Melzer & Grant, 2016).

References

- Arco-Tirado, J.L., Fernández-Martín, F. D. & Fernández-Balboa, J. (2011). The impact of a peer-tutoring program on quality standards in higher education. *Higher Education*, 62 (6), pp. 773-788
- Arendale, D. R. (2011). Then and now: The early history of developmental education. *Research & Teaching in Developmental Education*, 27(2), 58-76. Retrieved from http://www.academia.edu/2996536/Then_and_Now_The_Early_Years_of_Developmental_Education
- Association for the Study of Higher Education. (2010). History of learning assistance in U.S. postsecondary education. ASHE Higher Education Report, 35(6), 23-54.
- Atherton, M.C. (2014). Academic preparedness of first-generation college students. *Journal of College Student Development*, 55(8), 824-829.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman and Company.
- Batz, Z., Olsen, B.J., Dumont, J., Dastoor, F. & Smith, M.K. (2015) Helping struggling students in introductory biology: a peer-tutoring approach that improves performance, perception, and retention. *CBE-Life Sciences Education* 14 (2).
- Bettinger, E. P., & Baker, R. (2011). The effects of student coaching in college: An evaluation of a randomized experiment in student mentoring (Working Paper No. 16881). Retrieved from <http://www.nber.org/papers/w16881>
- Bowman, N. A. (2010). Can 1st-year college students accurately report their learning and development? *American Educational Research Journal*, 47(2), 466-496.
- Brown, W. F. & Holtzman, W. H. (1955) A study-attitudes questionnaire for predicting academic success. *Journal of Educational Psychology*, 46 (2), 75-84 cited in Thompson, M. (1976) A New Study Habits Inventory. *Reading Horizons*, 16(3), 143-48.
- Cabrera, N. L., Miner, D. D., & Milem, J. F. (2013). Can a summer bridge program impact first-year persistence and performance?: A case study of the new start summer program. *Resources in Higher Education*, 54, 481-498.
- Cohen, P. A. & Kulik, J. A. (1981). Synthesis of research on the effects of tutoring. *Educational Leadership*, 39(3), 227-229.
- Connolly, S., Flynn, E. E., Jemmott, J., & Oesstricher, E. (2017). First year experience for at-risk college students. *College Student Journal*, 51(1), 1-6.
- Crissman Ishler, J. L. (2005). Today's first year students. In Upcraft, M. L., Gardner, J. N., Barefoot, B. O., & Associates. (Eds.), *Challenging & supporting the first-year student: A handbook for improving the first year of college*. San Francisco, CA: Jossey-Bass.
- Crissman Ishler, J. L., & Upcraft, M. L. (2005). The keys to first-year student persistence. In Upcraft, M. L., Gardner, J. N., Barefoot, B. O., & Associates. (Eds.), *Challenging & supporting the first-year student: A handbook for improving the first year of college*. San Francisco, CA: Jossey-Bass.

- Dennis, J.M., Phinney, J. S., & Chuateco, L. I. (2005). The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. *Journal of College Student Development*, 46(3), 223-236.
- D'Lima, G. M., Winsler, A., & Kitsantas, A. (2014). Ethnic and gender differences in first-year college students' goal orientation, self-efficacy, and extrinsic and intrinsic motivation. *The Journal of Educational Research*, 107(5), 341-356.
- Dweck, C.S. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.
- Farrell, F. (2007). Some colleges provide success coaches for students. *Education Digest*, 73 (3), 44-47.
- Fitkov-Norris, E.D. & Yeghiazarian, A. (2013) *Journal of Physics: Conference Series*. 459 (1).
- Gullatt, Y., & Jan, W. (2003). *How do pre-college academic outreach programs impact college-going among underrepresented students?* Washington, DC: Pathways to College Network Clearinghouse.
- Higgins, B. (2004) Relationship between retention and peer tutoring for at-risk students. *Journal of Nursing Education*, 43(7), 319-321.
- Hurd, N. M., Tan, J. S., & Loeb, E. L. (2016). Natural mentoring relationships and the adjustment to college among underrepresented students. *American Journal of Community Psychology*, 57, 330-341.
- Jacobs, J., & Archie, T. (2008). Investigating sense of community in first-year college students. *Journal of Experiential Education*, 30(3), 282-285.
- Lemcool, K. (2009). *Effects of coaching on self-regulated learning strategy use and grades: A study using coaching to improve self-regulated learning strategy use and academic performance in an entry-level nursing course*. Saarbrücken, Germany: VDM Verlag Dr. Müller Aktiengesellschaft & Co
- Magno, C. (2011). Validating the academic self-regulated learning scale with the Motivated Strategies for Learning Questionnaire (MSLQ) and Learning and Study Strategies Inventory (LASSI). *The International Journal of Educational and Psychological Assessment*, 7(2).
- McGuire, S., Angelo, T., & McGuire, S. (2015). *Teach students how to learn: Strategies you can incorporate into any course to improve student metacognition, study skills, and motivation* (First ed.). Sterling: VA: Stylus.
- Means, D. R., & Pyne, K. B. (2017). Finding my way: Perceptions of institutional support and belonging in low-income, first generation, first-year college students. *Journal of College Student Development*, 58(6), 907-924.
- Melzer, D. K., & Grant, R. M. (2016). Investigating differences in personality traits and academic needs among prepared and underprepared first-year college students. *Journal of College Student Development*, 57(1), 99-103.
- Miller, J. W., & Lesik, S. S. (2014). College persistence over time and participation in a first-year seminar. *Journal of College Student Retention: Research, Theory, and Practice*, 16(3), 373-390.
- Newman, P.R., & Newman, B.M. (1999). What does it take to have a positive impact on minority students' college retention? *Adolescence*, 34(135), 483.

- O'Connor, C. (2002). Black women beating the odds from one generation to the next: How the changing dynamics of constraint and opportunity affect the process of educational resilience. *American Educational Research Journal*, 39(4), 855-903.
- Rita, E. S., & Bacote, J. B. (1997). The benefits of college discovery prefreshmen summer program for minority and low-income students. *College Student Journal*, 31(2), 161.
- Robbins, S. B. & Smith, L. C. (1993). Enhancement programs for entering university majority and minority freshmen. *Journal of Counseling & Development*, 71, 510-514.
- Roksa, J., & Whitley, S. E. (2017). Fostering academic success of first-year students: Exploring the roles of motivation, race, and faculty. *Journal of College Student Development*, 58(3), 333-348.
- Schraw, G., & Dennison, R. S. (1994). Assessing metacognitive awareness. *Contemporary Educational Psychology*, 19(4), 460-475.
- Siegel, B. L. (2015). Inviting first-year student success: A president's perspective. In Upcraft, M. L., Gardner, J. N., Barefoot, B. O., & Associates. (Eds.), *Challenging & supporting the first-year student: A handbook for improving the first year of college*. San Francisco, CA: Jossey-Bass.
- Swanson, N. M., Vaughn, A. L., & Wilkinson, B. D. (2017). First-year seminars: Supporting male college students' long-term academic success. *Journal of College Student Retention: Research, Theory & Practice*, 18(4), 386-400.
- Tait, J. (2004). The tutor/facilitator role in student retention. *Open Learning*, 19(1), pp. 97-109.
- Thompson, M. (1976) *A New Study Habits Inventory*. Reading Horizons, 16(3), 143-4
- Weinstein C.E., Palmer D.R. & Schulte, A.C. (2002). *LASSI: Learning and Study Strategies Inventory* (2nd ed.). Clearwater, FL.: H & H Publishing Company, Inc.
- Wlazelek, B. & Coulter, L. (1999). The role of counseling services for students in academic jeopardy: A preliminary study. *Journal of College Counseling*, 2(1), 33-41.
- Wrenn, C. G. & McKeown, R. B. (1933) *Manual for Directions for Study Habits Inventory*. Stanford, California: Stanford University Press cited in Thompson, M. (1976) *A New Study Habits Inventory*. Reading Horizons, 16(3), 143-48.
- Zimmerman, B., Bonner, S. & Kovach, R. (1996). *Developing self-regulated learners: beyond achievement to self-efficacy*. Washington, DC: American Psychological Association.

Biographies

Dr. Tiffany E. Jones is an Assistant Professor and Learning Specialist for the Academic Development Program at West Chester University. She earned a Doctorate of Education in Higher Education Administrative Leadership at Widener University. Her research interests include first year students, minority student empowerment, academic advising, learning strategies, and faculty development.

Dr. Jocelyn Manigo serves as Director of the Learning Assistance and Resource Center at West Chester University. She earned a Doctorate of Education from Widener University in school administration with an emphasis on curriculum, instruction and staff development. Her research interests include academic coaching, peer tutoring, and self-regulated learning.

Mind The Gap: Decolonizing the Developmental Writing Classroom Through a Theory of Cultural Rhetorics

K. Jamie Woodlief, *West Chester University*

ABSTRACT

This article argues that many assumptions made about developmental students and their capabilities are rooted in the colonized classroom. Common best practices in introductory college composition tend to work within the confines of dominant culture, particularly in the structure, genres, and language choices we teach. Strides have been made to create innovative pedagogies using multimodal forms and unexpected genres to better serve the traditionally underserved populations in academics. Many of these innovations fall under the broader theory of cultural rhetorics. Applying a theory of cultural rhetorics can break down some common assumptions and improve pedagogical practices in the developmental writing classroom. This article shows that practices such as translingualism and the narrative genre have the potential to better serve under-represented minority students, who are often over-represented in the basic writing classroom.

Mind the Gap: Decolonizing the Developmental Writing Classroom through a Theory of Cultural Rhetorics

In the summer of 2014 I began teaching for my university's Academic Development Summer Bridge Program. I had experience with these types of programs from teaching at a local community college, previous to my current full-time position. Due to this previous experience, I was eager to take on the opportunity once again in 2014. The student population in these programs tend to be more diverse than non-developmental students as minorities are overrepresented in remedial courses (Bernstein, 2013, p. 115). They often start at an academic disadvantage coming from under-funded schools with fewer resources to aid their students. Students may also face a non-traditional home life with less support, limited access to a distraction free environment both inside and outside of school, and a lack of financial support to buy the needed school supplies. In my experience, these factors contribute to an increased motivation, just one of the many reasons I prefer working with this student population. However, these factors also contribute to a lack of knowledge about standard practices in academic writing. In fact, many of these students have a deficiency in academic standards in general including study skills, time management, critical reading and thinking, and expectations regarding classroom behavior. This deficiency leads to a lack of confidence which may lead to frustration with the rigorous coursework of college, particularly if professors have not taken these factors into consideration. "Minority students' underprepared status often serves to compound their marginalization and oppression" (Bernstein, 2013, p. 115). Sanchez and Paulson suggest, "A more progressive and democratic pedagogical approach to teaching academic literacy would be one in which students

learn not only how to read and write academic texts, but also how to examine critically the discourse that makes up their world(s)” (qtd. in Bernstein, 2013, p. 115), and cultural discourse is best conveyed through narrative; stories from those who have lived the experience. Instructors in these classes often have the added burden of incorporating these skills and managing a more rigorous support system. However, the added benefit of seeing these students succeed after all of the hard work is gratifying.

I had no training in teaching developmental courses; I had to learn through my experiences, and I made quite a few mistakes in the first few years. I did not consider where these students were coming from and how that may affect their learning styles. I conducted the class much like a high school English class with basic paragraph writing and grammar tests, believing developmental meant they were not able to handle a more challenging curriculum. I soon learned this was not the case at all. In fact, studies have shown these students can handle the same coursework as non-developmental students if they have more support and the right pedagogical methods. Janikka Charlton immersed her students in writing studies “to disrupt common assumptions about the purpose(s) of first-year writing classes and to make the familiar... strange again (Bernstein, 2013, p. 105). This writing studies curriculum had students reading and discussing scholarly articles about composition; a practice that many of her colleagues were dubious about. And it worked. Students were more engaged, gained confidence, and improved their writing when they were held to higher expectations (Bernstein, 2013, p. 110). Our assumptions about developmental students and their capabilities are rooted in the colonized classroom.

Cultural rhetorics can improve our pedagogies in the developmental writing classroom. Common best practices in introductory college composition tend to work within the confines of dominant culture, particularly in the structure, genres, and language choices we teach. Strides have been made to create innovative pedagogies using multimodal forms and unexpected genres to better serve the traditionally underserved student population in academics. Under-represented minority students often end up in developmental writing courses which follow strict curriculum guidelines and usually do not require, nor encourage, innovative thinking. Malea Powell, Daisy Levy, Andrea Riley-Mukavetz, Marilee Brooks-Gillies, Maria Novotny, and Jennifer Fisch-Ferguson would see this type of a curriculum as working within colonial rhetorical practices. However, in their essay, “Our Story Begins Here: Constellating Cultural Rhetorics” these authors also believe, “Academia can be an indigenous, decolonial space as well” (2014, p. 2). The authors refer to decolonial as relating, “specifically to stories from the perspective of colonized cultures and communities that are working to delink from the mechanisms of colonialism. This delinking encourages a shift to a set of knowledge-making practices that don’t reinforce colonial logics, which also form the roots of systems like capitalism” (2014, p. 3). In this article, I will show how instructors can create an “indigenous, decolonial space” in first-year writing classrooms, and I will attempt to explore solutions to a long

standing pedagogical question: how do we acknowledge, encourage and teach students from colonized cultures?

Malea Powell et al. describe a different way of looking at cultural rhetorics. The article is written in narrative form to stress the importance of narrative to voice and agency amongst underrepresented populations, “If you’re not practicing story, you’re doing it wrong” (2014, p. 3). The authors explain their choice to use the narrative form:

First, because of its imaginative power in our own writing and thinking process. Second as a dual nod to the Greco-Roman-centricity of our discipline and to the performance-focused nature of much of cultural rhetorics practice. Third, as a way to emphasize the fluid and shifting nature of this thing we’re calling cultural rhetorics, and the necessity of deliberately reflexive practice that such methodology requires. Fourth, as a way to clear a path through the complex tangle of theory and practice we want to embody in this writing--as a way to show how we’re navigating the intellectual trade routes that cultural rhetorics gathers together. (2014, p. 2)

I restate this quote in its entirety because these reasons coincide with my own reasons for applying this theory to the classroom, specifically the developmental writing classroom I described in the introduction. The culture of the developmental writing classroom is diverse, and much of the research done about best practices in these classrooms, and for the developmental student, is what Powell et al. call object oriented studies of culture. We cannot consider the needs of our developmental students, and how best to teach them, without considering their cultural backgrounds. As detailed above, the backgrounds of these students often shape their prior knowledge, confidence, support systems, and access to academic materials, that other students may take for granted. The authors believe, “An object-oriented approach to understanding culture also erases the human bodies involved in their makings” essentially “recapitulat[ing] a colonialist/capitalist paradigm” (2014, p. 4). Certainly, reinforcing the status quo and establishing a colonized environment in the classroom should not be the intent for any college instructor. How then do we “decolonize” the classroom? Malea Powell and company believe that narrative is the answer to decolonizing our scholarship, and I believe the same solution can be applied to the writing classroom.

Before talking about how to decolonize the developmental writing classroom, I think it is necessary to provide evidence that the classroom is indeed a colonized space. Instructors of composition, particularly in the first-year writing classroom, teach their students about the expectations of academic discourse. Most curriculums include lessons on academic language, writing styles, genres, and sometimes even proper topic choices. These lessons work within the dominant culture’s rules and expectations for academia, and come with a set of assumptions about what students already know and do. However, many under-represented minority (URM) students in developmental classes are miss-

ing a connection to what Rebecca Williams Mlynarczyk calls, “the work, the words and the world of the academy” (2014, p. 11). Mlynarczyk argues that the academy’s definition of “academic language” values persuasive and argumentative genres, writing that provides logic and evidence rather than experience and intuition. Those students who have not had the privilege of being exposed to the world of the academy, must feel lost and frustrated, reaffirming the notion that their words, their experiences, have no place in the college classroom.

I have often heard the disbelief in my students’ voices as they ask, “I can write about that?!” Last summer a male student of color, let’s call him Samuel, in my developmental writing class struggled to find a topic for his problem posing essay. I had asked the students to first write about a personal experience or struggle, and then consider whether their experience could also be a problem for others in society. This personal narrative assignment was meant to not only help them find a topic, but also to validate their own personal experience, hopefully giving them confidence in their writerly voice. In my experience, this sequence of assignments works after they get over the initial surprise that they can choose topics that relate to their lives. His personal experience essay had been about finding out he was accepted into our University’s Academic Development program. We spent some time talking about his high school experience and why he was nervous to come to college. He felt he was not a good writer, claiming he did not have to write much in high school and that he failed to turn in his senior essay on time. When I wondered why he had not turned it in on time, he told me about his female friend getting shot and killed in their last year of high school. She was a cheerleader and was shot walking home from practice one afternoon; an innocent victim of a drive by shooting. I had to wonder how typical this story was to my other URM students. Surely, events like this tragedy speak to the disadvantage URM students must often overcome. Instead of writing about this event that clearly affected him, and clearly could be attached to a larger social and political problem in our country, Sam chose a topic he thought I would rather hear about. One he thought would be considered more “academic” because it had to do with school in some way.

My experiences with Samuel made me realize I needed to change my approach to brainstorming topics, particularly with URM students, who somewhere along the way were made to believe their experiences did not matter, did not have meaning, in the academic world. This belief in a strident definition of what counts as academic discourse can be dangerous, “If this attitude finds support in the courses that students take, if teachers insist that students begin by writing only ‘academic discourse,’ that they should never use the word ‘I’ in an essay, that their stories and their languages are not appropriate in college, they will get a very clear and discouraging message: Your language is not valued here, and your stories don’t belong” (Mlynarczyk, 2014, p. 11). This is a belief that FYW instructors must reverse in order for students to gain agency over their academic work and succeed in college. While it does not seem likely that we will overhaul academic standards that have been in place for hundreds of years

(never mind the fact they were created by and for white men only), there are ways to work within the system, teaching students what they need to succeed in the academic world while at the same time validating their personal experience and language use outside of the classroom. This is where we begin to decolonize the classroom. This is where the theory of Cultural Rhetorics and its focus on narrative enter the picture.

The narrative genre is useful, in fact maybe even essential, to creating a decolonized space that welcomes the diverse experiences students bring into the classroom. Malea Powell stresses the importance of stories in creating livable, safe spaces, “Stories take place, stories practice place into space, stories produce habitable spaces” (2012, p. 391). As a teacher of mostly first year students, my goal is to create a safe space, a “habitable space” in the classroom, a space my students feel comfortable participating in discussion and choosing essay topics that relate to their experience. Too often participation is lacking in classroom discussion, and I admit I first thought my students must just be lazy, or I took it personally. I soon realized they just have not yet learned that they have a voice, and that their voice matters. It matters to me, their classmates, and anyone else who can be bothered to listen. They have opinions, beliefs, and values but they do not always match up with those of the dominant culture, those they have been taught are the values that matter. They do not always realize, “how their bodies are marked and mobilized in dominant culture, their language and how their language is represented in dominant culture, their lives and how their lives are denigrated as not quite good enough without the fix of Western literacy instruction, how so many of us believe they should be ‘saved’ from their lowly, savage lives” (Powell, 2012, p. 401). It is our job as instructors of composition and rhetoric to show them their experiences, though outside the dominant culture, still have value. It is “our job as teachers to always reframe ‘the’ way as one way, as a set of specific cultural values embodied in particular practices so that all of our students learn to see those value systems at work” (Powell, 2012, p. 401). How then do we begin the process of reframing a learning process that presents dominant cultural practice as innate rather than carefully constructed?

The answer to this question goes back to the writing we assign our students and the importance of the narrative genre. As mentioned above, however, we must also give our students the skills they need to work within the presiding world of academic language. I propose we start by creating a course unit focused on narrative; literacy narratives work well when URM students make up the majority of the class, which they often do in developmental writing courses. There should be freedom and flexibility in the narrative assignment. Students write their stories, in their language, in whichever form they choose. I will give further detail on form later in this essay, but for now I want to focus on the stories and the language used to tell them. Intuition tells us to instruct our students on using descriptive and figurative language, making use of the five senses, and creating a clear, chronological timeline when constructing a narrative. We are compelled to correct comma splices and clean up slang if it is not part of

dialogue. What kind of stories would we hear if we did not force students to conform to the rules of one certain genre? What can we learn from our student's voices when we do not ask them to follow academic discourse conventions? Once as I was reading a student narrative written by an Asian American student in my basic writing class, I came across a simile I could not make sense of. When I questioned this student about the phrase, offering a suggestion that fit within the language of the dominant culture, she told me this simile was common in her country. It was bad luck to spill salt on the floor, so one got an unspeakable feeling of dread when doing so. Her phrase now made perfect sense within the context of her story. It is worth noting that most of her narrative, a detailed account of leaving her family to be a nanny for an American family so she could attend an American high school, was written in "broken English." And it was also beautifully descriptive and significant. Appreciating and valuing this student's work is an example of practicing Translingualism. This "approach to language is one that minimizes or even ignores an either/or approach to storytelling vs. 'academic discourse'" which "eliminates the need to prescribe a particular form of discourse for our students" (Mlynarczyk, 2014, p. 12).

Forms of discourse are more varied than in the past thanks to our increasing reliance on technology. Scholarly buzz words such as translinguality and multimodality have begun to inform our pedagogy, particularly in composition and communication courses. These theories express the importance of bridging the divide between our student's knowledge, experience, and expertise with our own, now slightly outdated, ways of communication. For instance, most of our students are writing and communicating online through social networks. Coupled with the misguided notion of what constitutes "formal writing," students have more and more difficulty connecting the elements of composition to their real-world experiences and thus lose interest. This loss of interest can be particularly true for URM students in developmental writing classes. Multimodal theory allows students to "use creatively a much wider repertoire of conventions, language varieties, and other meaning-making resources than are typically afforded them in, say, traditional college writing courses" (Shipka, 2016, p. 254). Using multimodality increases the chances that students will be able to connect their writing outside the classroom to the academic conventions we teach, further increasing student agency and confidence. For under-represented minority students, translingual theory may help them to feel equal to those students who are already familiar with academic conventions due to unequal life circumstances. By "encourage[ing] a consideration of texts, materials, and practices from the past, from other cultures and nations, as well as those associated with one's projected future," students are able to find value in conventions and forms of communication outside the status quo (Shipka, 2016, p. 255). These theories call on instructors and students to examine their practices and thought process:

Asking students (and asking ourselves) to consider the differences between the texts, practices, and communicative technologies encountered in one sociocul-

tural context versus those associated with another helps facilitate discussions about how and why certain linguistic forms, cultural conventions, materials, or rhetorical strategies might be favored, and so, pursued and valued (and/or standardized) over any number of others one imagines capable of doing the same or similar type of work. (Shipka, 2014, p. 255)

One way for students to begin this consideration is through what Christina Cedillo calls “multimodal home places.” Cedillo defines these “home places” as, “A complex of personal ties, cultural and communal values, and linguistic conventions that make existence a life—plus the established modalities and technologies needed to express and maintain those relations” (Cedillo, 2017, p. 3). She stresses that it is important to “embrace communal and personal literacies that permit students to enter and negotiate different discourse communities organically rather than focusing strictly on finished texts and discrete scenes of composition” (Cedillo, 2017, p. 6). Students working within multimodal home places may choose to communicate through a meme, a rap, or even a recipe, “transforming the prescriptive space of the classroom into one that recognizes and reinforces those real-world community literacies” (Cedillo, 2017, p. 6).

However, I would be remiss if I did not admit that the rules and conventions of academic language are necessary knowledge for student success. Our institutions live by these conventions and this mindset is not changing anytime soon. There are various definitions and lists of requirements for academic language. One such list that I have my students read to begin the conversation on academic discourse, privileges the following skills:

- > Writers respond to what others have said about their topic.
- > Writers state the value of their work and announce the plan for their papers.
- > Writers acknowledge that others might disagree with the position they’ve taken.
- > Writers adopt a voice of authority.
- > Writers use academic and discipline-specific vocabulary.
- > Writers emphasize evidence, often in tables, graphs, and images. (Thonney, 2011, p. 348)

There are several points on this list that prove problematic to both students and instructors of composition. First, this list leaves no room for the narrative genre. Writers of narratives do not have to “state the value of their work” it is implied through the story’s significance. They also do not have to “respond to what others have said about their topic” or “acknowledge that others might disagree” with them. Not to mention, teaching students to “adopt a voice of authority” is difficult, if not impossible. Students find confidence and authority through writing what they know in a familiar style and form. Thonney argues that, “There are shared features that unite academic writing, and that by introducing these features to first-year students we provide them with knowledge they can apply and refine in each new discipline they encounter” (2011, p. 247).

It may be true that these features are common across disciplines in academic writing, but Thonney does not seem to take into consideration that all of these valued elements are constructed by the dominant culture. Standard methods of teaching these elements does not apply to all students. Where then can we find a “point of contact between stories and academic discourse” (Rose, 1989)? As I mentioned previously, my narrative assignment eventually turns into an analysis essay that examines a societal problem that they hopefully discovered while writing their narrative. There is much scaffolding that comes between the narrative assignment and the final analysis essay, all steps working towards the goal of understanding how academic conventions work and why they dominate while simultaneously giving students confidence in their voice and their real-world life experience.

A focus on “real-world community literacies” brings me back to Malea Powell et al. and their focus on a “cultural rhetorics practice” through the narrative form. This practice, “opens the door for rhetoric (lowercase intended) to be seen and heard as a series of stories, none of which can really be heard without listening for other stories, and all of which impact and are impacted by the relationships between them” (Powell et al., 2014, p. 14). If students in a developmental writing class are able to write their stories and share them with the class in a form that makes the most sense to their cultural home place, imagine the interactions that could take place, widening their definition of discourse and broadening their understanding of valued conventions. Thereby giving voice to their experience and reshaping the cultural norms for what constitutes valid, valuable writing. A practice of cultural rhetorics, “is never a practice of individuals making knowledge on their own; it’s always a part of a larger community, a larger conversation, a network of relations” (Powell et al., 2014, p. 27). Our classrooms are a community, and we can create a sense of mutuality and respect by acknowledging the discourses of our student’s cultures even if they fall outside the dominant culture’s definition of academic language.

References

- Bernstein, S. N. (2013). *Basic writing: In search of a new map*. Teaching Developmental Writing: Background Readings. Ed. Susan Naomi Bernstein. Bedford/St. Martin, 4th edition.
- Cedillo, C.V. (2017). Diversity, technology, and composition: Honoring students’ multi-modal home places. *Present Tense: A Journal of Rhetoric in Society*. Vol. 6 Issue 2.
- Charlton, J. (2013). Seeing is believing: Writing studies with ‘basic writing’ students. *Teaching Developmental Writing: Background Readings*. Ed. Susan Naomi Bernstein. Bedford/St. Martin, 4th edition.
- Mlynarczyk, R.W. (2014). Storytelling and academic discourse: Including more voices in the conversation. *Journal of Basic Writing*. Vol. 22 No. 1. Pgs. 4-22.
- Powell, M. (2012). *Stories take place: A performance in one act*. CCCC Chair’s Address.
- Powell, M., Levy, D., Riley-Mukavetz, A., Brooks-Gillies, M., Novotny, M., Fisch-Ferguson, J. (2014). *Our story begins here: Constellating cultural rhetorics. enculturation: a journal of rhetoric, writing, and culture*.

Rose, M. (1989). *Lives on the Boundary: The Struggles and Achievements of America's Underprepared*. New York: Free Press.

Shipka, J. (2016). Transmodality in/and processes of making: Changing dispositions and practice. *College English*. Vol. 78 No. 3. Pgs. 250-257.

Thonney, T. (2011). Teaching the conventions of academic discourse. *Teaching English in the Two Year College*. May 2011. Pgs. 347-362.

Biography

K. **Jamie Woodlief** has taught Composition and Literature for West Chester University of Pennsylvania at the tenure track instructor level for the past ten years. Her research is focused on best practices in first year writing courses as well as equitable pedagogy in developmental writing programs.

Lessons Learned from Using the Effective Lifelong Learning Inventory (ELLI) to Support Student Growth and Success

Suzanne C. Shaffer, Sukhdeep Gill, & Amber Seidel, *Penn State York*

Jackie Schwab & Robin Yaure, *Penn State Mont Alto*

Lauren Jacobson-McConnell, *Penn State Altoona*

ABSTRACT

Developing lifelong learning attributes has been shown to help people in personal, academic, and professional realms. The Effective Lifelong Learning Inventory (ELLI) was used in multiple contexts to measure lifelong learning attributes in order to strengthen student success. First-year and senior benchmark studies, in-class applications across multiple content areas, and cross-campus comparisons were completed using ELLI with college students at a large land-grant university. Taken together, these studies provide insights about the learning attributes and needs of students. The benchmarks also make it possible for future cross-institutional comparisons as well as campus-based longitudinal follow-up studies. Outcomes from classroom-based projects support the conclusion that critical self-reflection plays a key role in developing students as lifelong learners. Cross-campus comparisons suggest commonalities across campuses within the larger system. The findings demonstrate that students can acquire lifelong learning attributes through direct instruction and critical self-reflection, as well as by completing their college studies.

Keywords: ELLI, lifelong learning, critical reflection, transformative learning, student success

Lessons Learned from Using the Effective Lifelong Learning Inventory (ELLI) to Support Student Growth and Success

Introduction & Background

Undertaking this project provided an opportunity to revisit the goals of our teaching and focus on new avenues for intervention to enhance the prospects of student success. Do we teach to impart content knowledge, to ensure readiness for a professional life, to provide students with a quality general education which fosters critical thinking, quantitative and advanced literacy skills, or something more? What more could be done to ensure success during and after college?

In response to our own questions, we explored the benefits of helping students to develop as lifelong learners. Multiple projects were conducted across several campuses of a large land-grant university and the results are shared herein.

The attitudes, mindsets, and beliefs that students have about learning – those things underlying the academic skills and knowledge they possess - have as much impact on their success as what they can do academically (Dweck, 2008; Shaffer, Eshbach, & Santiago-Blay, 2015, Terenzini & Reason, 2005; Tinto, 1987). The extant research on growth mindsets (Dweck, 2008), locus of control (Rotter, 1966), and self- efficacy (Bandura, 1982) stands as an important

foundation of our understanding of and approach to fostering student success. Because these areas are already so well studied and incorporated into our work, we decided to probe a different direction, namely the nexus between the work on transformative learning (Brookfield, 1994; Christie, Carey, Robertson, & Grainger, 2015; Fook, 2010; Mezirow, 1978, 1990, 1998, 2009; Morley, 2014; Cranton, 2006) and developing students as lifelong learners (Candy, 1991; Deakin-Crick, Broadfoot, & Claxton, 2004; Deakin-Crick, 2012; Field, 2012; Horrigan, 2016; Houle, 1961; Smith & Spurling, 1999) to better understand and support our students' long-term growth and success. We hypothesize that training students to reflect critically on their experiences, attitudes, and beliefs about themselves as learners, and providing them with the knowledge and skills necessary to make positive change, can help them grow as lifelong learners. This may, in turn, have a positive impact on their lives personally, academically, and professionally.

Why Lifelong Learning?

Field (2012), in a meta-analysis of longitudinal studies conducted on lifelong learning, found strong evidence to support efforts to increase lifelong learning attributes in adults. These studies revealed that "lifelong learning has a measurable impact on people's lives... in three main areas: the economic impact, the impact on individual well-being, and the impact on the wider community" (Field, 2012, p. 894). In a similar vein, a 2016 Pew Research report on lifelong learning and technology states that 73% of respondents consider themselves as lifelong learners, highlighting the value that many Americans place on it (Horrigan, 2016). Personal fulfillment was identified as an important reason for continued learning through the lifespan (87%) as was improving job skills (63 - 83%). Personal, social, and professional benefits were reported in high percentages (65 - 87%) for respondents. Importantly, however, respondents "on the lower end of the socio-economic ladder are less likely to take advantage of lifelong learning opportunities" (p. 22) thus making it even more imperative to provide instruction to economically at-risk students in college. Students from all socio-economic levels can benefit from attending college which can provide opportunities to develop the underlying attitudes and beliefs about continued growth that can support students professionally and personally after graduation.

What is lifelong learning? Smith and Spurling (1999) described lifelong learning as learning that (1) takes place over the course of a lifespan and in many contexts such as formal, informal, or self-directed learning, (2) is intentional on the part of the learner or organization, and (3) occurs through a chosen strategy which can change over time (as cited in Deakin Crick et al., 2004). Candy (1991) described lifelong learning as something that requires the quality of self-direction (e.g., personal autonomy, managing the learning act, independent learning, and learner-controlled activities). The qualities of self-direction and intentionality are also very much in line with the tenets of adult educational practice (Brookfield, 1995; Cranston, 2006; Knowles, Holton III, & Swanson, 2005) and therefore fitting for use with college-age students. In the case of this paper, we chose the Effective

Lifelong Learning Inventory (ELLI), a 72-item online inventory, as the tool to measure lifelong learning attributes and provide information to students about themselves as lifelong learners (Deakin-Crick et al., 2004).

Dimensions of lifelong learning. ELLI researchers have found that lifelong learning has seven different dimensions shown to “differentiat[e] . . . between efficacious, engaged, and energized learners and passive, dependent, and fragile learners” (Deakin Crick et al., 2004, p. 247). Deakin-Crick and Yu (2008) validated the instrument and refined the seven different dispositions towards lifelong learning measured in the current inventory. These are briefly summarized below from ELLI’s guidebook, *My Learning Power* (Vital Partnerships, 2011):

Creativity - To find new ways to approach ideas, typically using diagrams and visual representations of concepts; welcome the “inklings that bubble up into their minds” as inspiration for new ways of approaching what they need to learn

Resilience - To keep going when things get tough; steadiness of purpose; overcoming obstacles

Changing & Learning - Learners can take control of their learning and adapt to learning challenges; they accept that they can change as learners and are able to develop new strategies

Strategic Awareness - Making plans to accomplish goals, managing oneself and the processes involved in attaining goals, and taking responsibility for learning

Meaning Making - Ability to make connections and integrate ideas; recognize how learning relates to ideas that are already of interest

Critical Curiosity - The desire to delve into topics and get beneath the surface; willing to challenge and question

Learning Relationships - A balance between reaching out for help when it is needed, but also being confident in some aspects of private learning.

These seven dimensions became the basis for measurement and instruction for those participating in the various projects described herein. Further details about ELLI can be found in the methods section of this paper. With the benefits of lifelong learning established, what would the best approach be for helping students to develop in this way?

Transformative Learning

Mezirow (1978, 2009) describes transformative learning as a process by which growth can occur. The process begins as adults are faced with some sort of “disorienting dilemma” that acts as a catalyst for critical reflection about their beliefs, values, judgments and feelings, and the often unconscious assumptions that govern them (Mezirow, 1990, 1998). Brookfield (1995) also described the value of reflection upon “critical incidents” to improve understanding of experiences with the goal being personal growth and development. The role of the imagination and memory is important for both Mezirow and Brookfield as it makes possible the opportunity to imagine and construct new outcomes.

Mezirow and Marsick (1978) identified steps in the reflective process that lead to transformation. These include the disorienting dilemma, self-reflection, identifying underlying assumptions, developing an action plan for change, gaining the skills and knowledge necessary to implement change, practice of the new approach, and finally integration into new instances and experiences.

There is some criticism about whether Mezirow's theory of transformative learning is more metaphor than actual theory (Howie & Bagnall, 2013). However, Taylor (1997) completed an extensive literature review in an attempt to support Mezirow's work. In it, Taylor (1997) cited many studies that support Mezirow's research, but at the same time, he identified the need to further explore the importance of context, cultural diversity, and different ways of knowing and understanding beyond reflection such as intuition and empathy. Despite the challenges to Mezirow's approach, there is enough evidence to rely on the positive impact of transformational learning for personal growth and change (Christie et al., 2015; Deakin-Crick et al., 2004; Taylor, 1997).

Research Hypotheses

Applying the existing research on lifelong learning and critical self-reflection, we decided to explore several questions. First, and most importantly, we wanted to explore the connection between critical self-reflection and growth in lifelong learning attributes. We hypothesized that critical self-reflection would positively impact the development of lifelong learning attributes (H1). Second, the benchmark and cross-campus projects allowed us to make comparisons across groups. We hypothesized that groups from different campuses which had members from the same academic year would have similar ELLI profiles (H2), making it possible to design common interventions across campuses to encourage success, and finally, that seniors would have different ELLI profiles from their first-year counterparts (H3), indicating growth in certain areas as a general result of attending college.

In the next section of the paper, we describe the various projects completed and methods used to explore our research questions.

Methods

Institutional Review Board (IRB) proposals were submitted and approved for all projects in this study.

Measures

First, ELLI, a 72-item online self-report inventory measuring seven dimensions of lifelong learning was used. Students receive the outcomes of the inventory immediately upon completion of the survey in the form of a spider diagram (Figure 1). Scores for each dimension are plotted on a scale from 0-100. Students may take ELLI multiple times, and two scores can be compared on the spider diagram at a time to show change over time.

FIGURE 1.

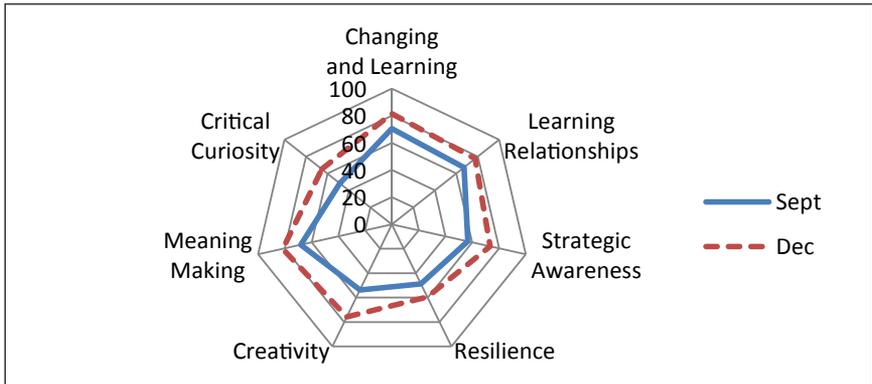


Figure 1. Sample spider diagram of student pre- and post-semester ELLI scores (Shaffer et al., 2015).

Second, for class-based integration projects, student responses to reflection assignments were used to obtain insights about student experiences.

Participants and Projects

First-year and upper-division students at three satellite campuses of a multi-campus four-year university system were recruited to participate. Students were consented and their data were used in the analyses according to the consent protocol. Participating campuses will be referred to as Campus 1, 2, and 3 respectively. There were two types of projects completed using ELLI: benchmarking and in-class integrations.

Procedures

Benchmarking projects. To get a baseline for comparison, several benchmarking projects were completed:

First-year benchmark (Campus 1): 175 first-year students (55% male and 45% female) took ELLI at the beginning of Fall 2015, recruited from the following courses: a first-year seminar summer program, English composition, and a college algebra course.

First-year benchmark (Campus 2): 45 first-year students (13% male and 87% female) were given ELLI at the beginning of Fall 2017 in a Human Development and Family Studies (HDFS) course.

Senior benchmark (Campus 1): 50 seniors (46% male and 54% female) were given ELLI towards the end of the semester in which they graduated, in Fall 2016 or Spring 2017, from multiple disciplines (business, information sciences and technology, HDFS, psychology, and biology).

Upper-division HDFS course on program planning and evaluation (Campus 3): 15 students (21% male and 79% female) took ELLI pre-semester. These scores were compared with upper division HDFS students across the three campuses.

Control group (Campus 1): 48 students (50% male and 50% female) took ELLI pre- and post-semester and received no instruction in lifelong learning. Students were enrolled in a first-year English composition course, a math course, and an environmental science general education course (Moore & Shaffer, 2017).

ELLI results were provided to these students immediately upon completion of the inventory through the ELLI website. Each student received an information packet, *My Learning Power* (Vital Partnerships, 2011), describing the ELLI dimensions, useful research, and strategies to improve in each area. No formal instruction about ELLI or lifelong learning was given before students took ELLI for the benchmark data collection.

In-class integration projects. In these projects, students took ELLI pre- and post-semester. Lifelong learning dimensions were integrated into instruction in varying degrees and changes noted across the groups. Reflection activities were assigned to help students process and apply lessons learned to their lives. Five separate data collections took place as follows:

College reading course (Campus 1): 90 students took a college reading course (2013 – 2017) which was supplemented with extensive direct ELLI instruction and critical self-reflection assignments.

Coping with stress and personal development course (Campus 1): 17 students took this course. No direct instruction of ELLI was given; however, critical self-reflection about personal development was central to the course.

Introductory HDFS course (Campus 2): 16 students took a general education course introducing them to the field of HDFS. Only minimal direct instruction of lifelong learning occurred.

Upper-division HDFS family interventions course (Campus 2): 27 students took the course. Extensive instruction of ELLI and personal reflection occurred in this course.

Data Analysis

Different statistical analyses were used to investigate the following hypotheses:

(H1): Critical self-reflection positively impacts the development of lifelong learning attributes

(H2): Cross-campus groups from the same academic year have similar ELLI profiles

(H3): Differences exist between first- and senior-year ELLI benchmark scores

Paired samples t-tests were used to compare pre- and post-semester ELLI scores for in-class integration projects (H1). Independent samples t-tests were used to compare ELLI outcomes between two groups (H2 and H3). Cohen's d was used to distinguish practical significance from statistical significance by calculating effect sizes as follows: small effect size at $d = 0.2$, medium at $d = 0.5$, and large at $d = 0.8$ (Cohen, 1992). One-way ANOVA was used to compare ELLI scores for upper-division students across Campuses 1, 2, and 3 (H2).

Student responses to self-reflection assignments from the in-class integration projects were also used to gain general insights into the observed ELLI changes.

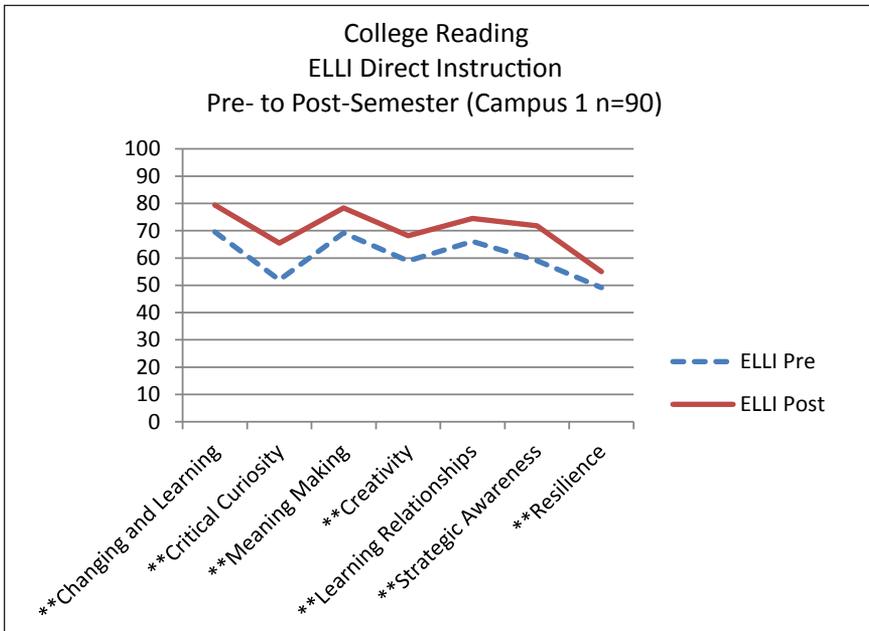
Results

Impact of Critical Self-Reflection (H1)

Does critical self-reflection positively impact the development of lifelong learning attributes? Data analyses revealed that direct instruction of lifelong learning with a critical self-reflection component does lead to gains in ELLI.

For the Campus 1 college reading course which included direct instruction and critical self-reflection (Figure 2), paired samples t-tests pre- to post-semester showed statistically significant gains in all dimensions of lifelong learning. Further, Cohen's d values suggest a moderate practical significance ($d > .5$) for all dimensions except Strategic Awareness which had a large effect size ($d = .81$) and Resilience which was midway between small and medium ($d = .36$).

FIGURE 2

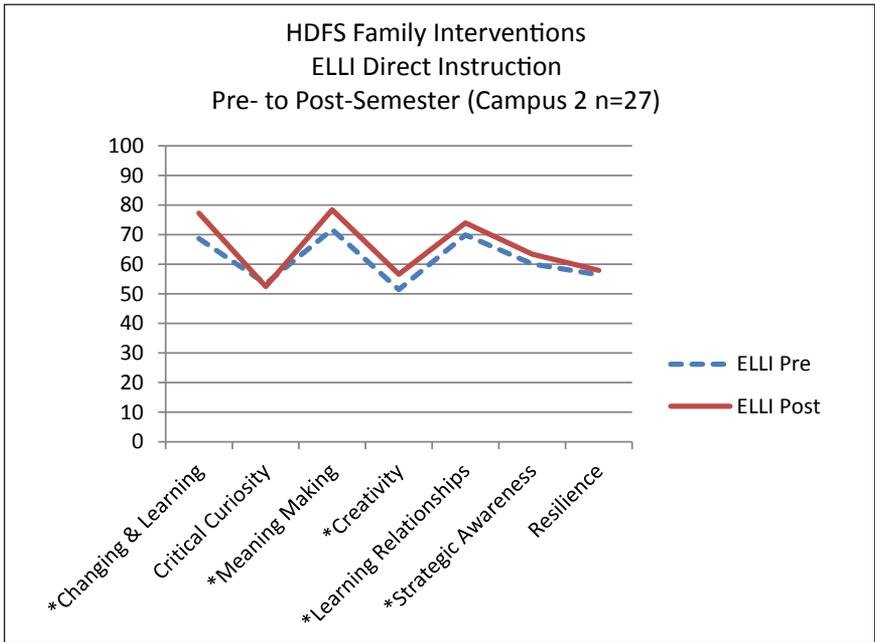


** $p < .001$

Figure 2. Pre- and post-semester ELLI scores in a college reading course.

The Campus 2 HDFS family interventions course (Figure 3) also had direct instruction of lifelong learning and critical self-reflection. Paired samples t-tests pre- to post-semester showed statistically significant gains in all dimensions of lifelong learning. However, Cohen's d values suggest a moderate practical significance ($d > .5$) for only two dimensions, Changing & Learning and Meaning Making, with the other areas showing a small effect size ($d < .2$).

FIGURE 3

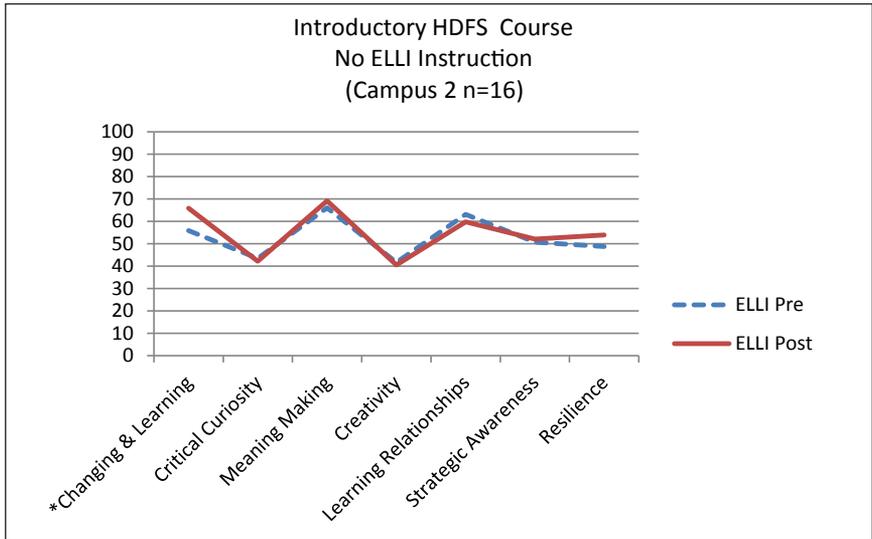


* $p < .05$

Figure 3. Pre- and post-semester ELLI scores in an HDFS family interventions course.

In courses where lifelong learning and critical self-reflection were not part of direct instruction, few or no statistically significant gains in ELLI were found pre- to post-semester. Examples include Campus 2 HDFS introductory course (Figure 4) and Campus 1 control group (Figure 5).

FIGURE 4



* $p < .05$

Figure 4. Pre- and post-semester ELLI scores in an HDFS introductory course.

FIGURE 5

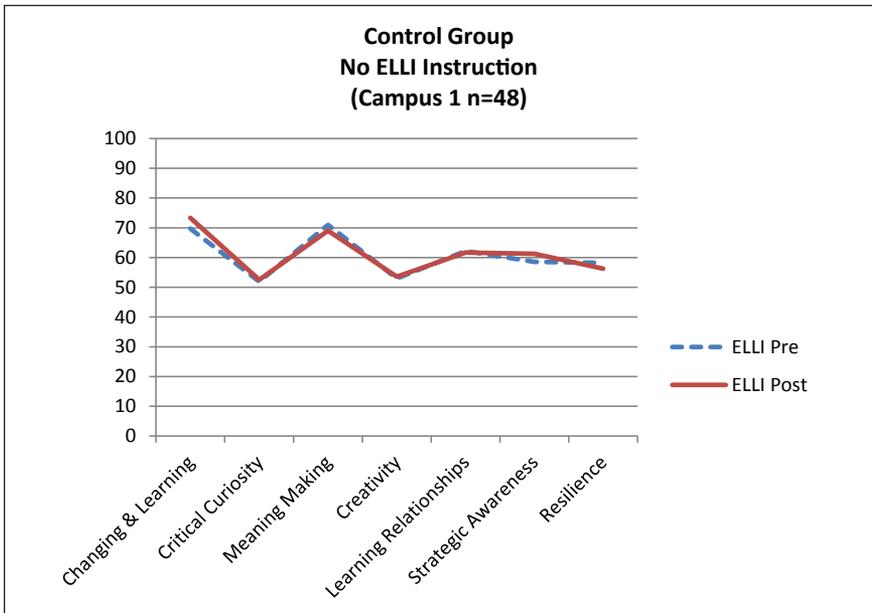
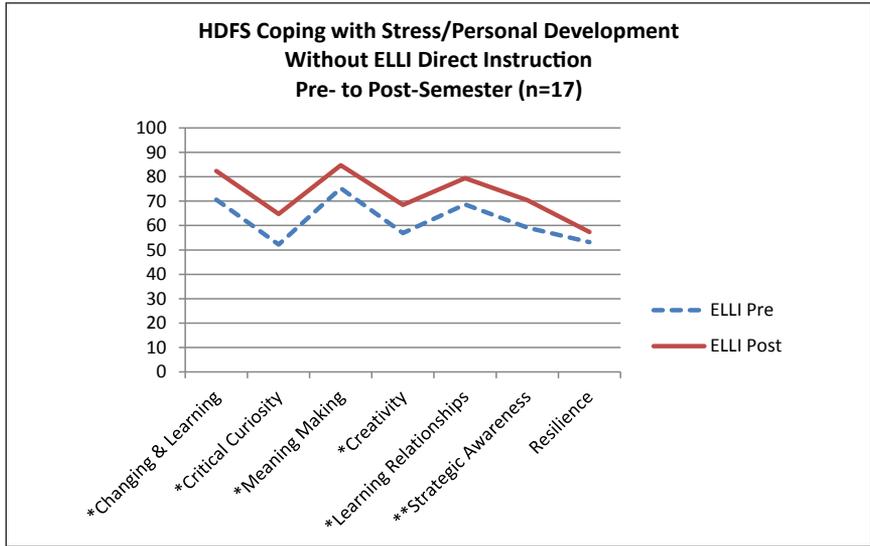


Figure 5. Pre- and post-semester ELLI scores in a control group (Moore & Shaffer, 2017).

Are there circumstances under which students grow as lifelong learners without direct instruction? In the course on personal development and coping with stress, where critical self-reflection was a key aspect of the course, results did show statistically significant gains in most ELLI dimensions without any direct instruction in lifelong learning (Figure 6). Further, Cohen’s d values suggest a moderate to high practical significance ($d > .5$) in all dimensions except Resilience. Results of a paired samples t-test are available in Table 1.

FIGURE 6



* $p < .05$ and ** $p < .001$

Figure 6. Pre- and post-semester ELLI scores in an HDFS coping with stress and personal development course.

Table 1

Results of Paired t-tests and Descriptive Statistics ELLI Dimensions Pre- and Post-semester in Personal Development and Coping with Stress Course

TABLE 1

Outcome	Pre-semester (n = 18)	Post (n = 18)	95% CI	t	d
	M (SD)	M (SD)			
Changing & Learning	70.59 (19.3)	82.35 (14.52)	-18.68,-4.85	-3.61*	-.69
Critical Curiosity	52.21 (19.83)	64.71 (17.31)	-19.57,-5.44	-3.75*	-.67
Meaning Making	75.29 (13.75)	84.71 (10.07)	-14.77,-4.05	-3.72*	-.78
Creativity	56.86 (18.42)	68.41 (18.1)	-19.22,-3.88	-3.19*	-.63
Learning Relationships	68.63 (20.28)	79.41 (16.38)	-16.52,-5.05	-3.99*	-.58
Strategic Awareness	59.15 (13.39)	70.42 (17.21)	-16.65,-5.9	-4.44**	-.73
Resilience	53.14 (13.23)	57.35 (12.88)	-10.66,-2.24	-1.39	-.32

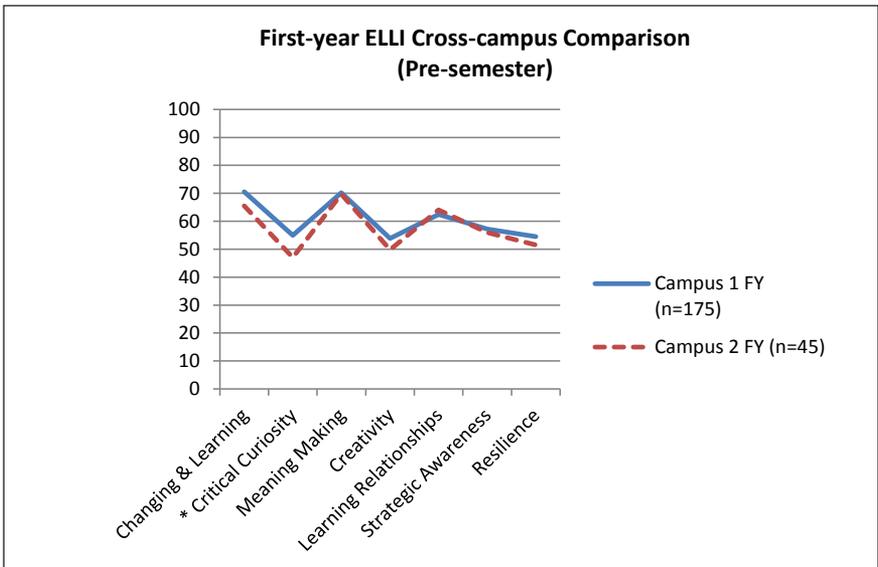
* $p < .05$ and ** $p < .001$

Cross-Campus Comparisons (H2)

What meaningful comparisons exist between campuses? There are similarities in ELLI profiles across campuses in two circumstances: 1) in the first-year student samples between Campus 1 (first-year benchmark) and Campus 2 (first-year students in introductory HDFS courses) and 2) between the upper division HDFS courses across all three campuses.

Using an independent samples t-test, we found no statistically significant differences in any of the ELLI dimensions except Critical Curiosity in the first-year comparisons between Campuses 1 and 2 (Figure 7).

FIGURE 7

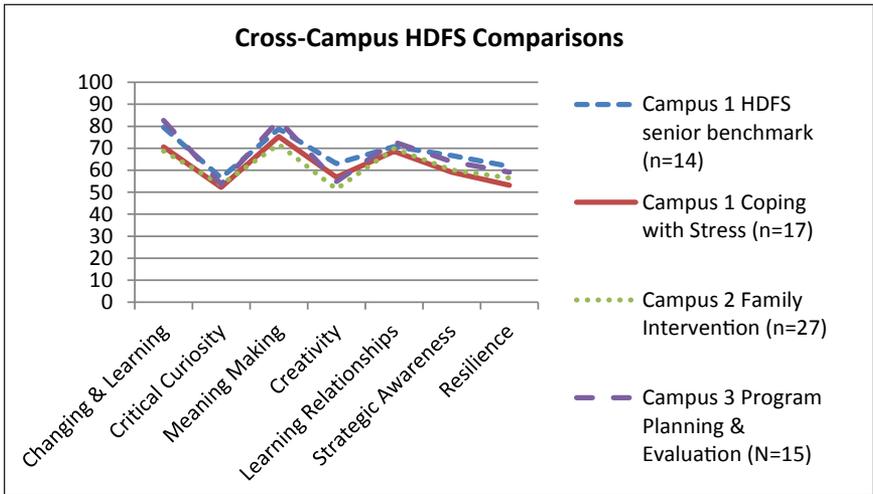


* $p < .05$ and ** $p < .001$

Figure 7. First-year ELLI comparisons cross-campus.

A one-way ANOVA showed no statistically significant differences on any ELLI dimension for upper-division HDFS students across all three campuses (Figure 8). These scores are from the senior benchmark data collection (no ELLI instruction) and from the upper-division class-based projects before instruction commenced.

FIGURE 8



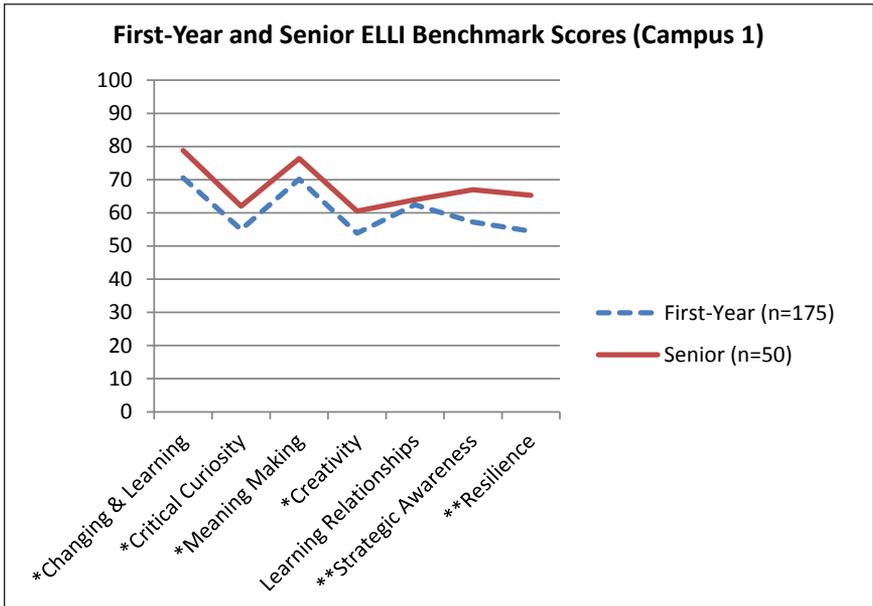
*p < .05 and **p < .001

Figure 8. Upper-division HDFS ELLI comparisons across campuses.

First-Year/Senior Comparisons (H3)

Do meaningful differences in ELLI scores exist between the first- and senior-year benchmarks? ELLI scores for seniors showed statistically significant gains over first-year student data in all dimensions of ELLI except Learning Relationships (Figure 9). Further, Cohen's d values suggest a moderate to high practical significance for both Resilience ($d = .70$) and Strategic Awareness ($d = .52$). Results of an independent samples t-test are available in Table 2. None of the students in the senior sample had taken a course in which ELLI had been integrated.

FIGURE 9



* p < .05 and **p < .001

Figure 9. First-year and senior ELLI benchmark scores.

Table 2

Results of t-tests and Descriptive Statistics ELLI Dimensions by Group

TABLE 2

Outcome	First Year (n = 175)	Senior (n = 50)	95% CI	t	d
	M (SD)	M (SD)			
Changing & Learning	70.55 (17.87)	78.8 (15.16)	-13.28, -3.21	-3.25*	-.43
Critical Curiosity	54.98 (19.79)	61.7 (15.05)	-12.18, -1.86	-2.70*	-.36
Meaning Making	70.19 (16.18)	76.33 (15.06)	-11.03, -1.26	-2.50*	-.33
Creativity	53.86 (19.08)	60.52 (16.86)	-12.19, -1.12	-2.39*	-.32
Learning Relationships	62.2 (18.3)	63.93 (16.42)	-7.15, 3.59	-0.66	-.08
Strategic Awareness	57.21 (16.69)	66.94 (15.36)	-14.73, -4.74	-3.88**	-.52
Resilience	54.50 (16.05)	65.30 (14.61)	-15.57, -6.04	-4.51**	-.70

*p < .05 and **p < .001

Student Reflections

Student comments were gleaned from various reflection instruments assigned in classes where ELLI was integrated. Representative comments are included from each course with more descriptive analysis in the discussion section. Questions are provided when context is needed.

Campus 2 upper-division family intervention course. Students reflected on the changes in ELLI pre- to post-semester and answered questions about growth from a survey.

Questions: How did your learning power strategies [ELLI] change from the first time to the second time you took the test? Are you surprised by the results? What do the results tell you about your understanding and efforts to enhance your learning skills?

Comment 1: "They actually changed dramatically and I'm very proud of myself. I was a little surprised at the results, but I know they are true because I worked hard this semester to make it work. I tried my best to work on changing my learning strategies for the better to make me a better student. The results explain that I was motivated to enhance my learning skills."

Comment 2: "I improved since the first time. I was surprised but I was under a lot of stress this semester so I had to make good choices and how to well manage my time and I learned a lot about myself that way."

Question: How do the 7 learning power strategies (ELLI) test results relate to how you are doing in your classes this semester?

Comment 1: "Learning to work with others and let others have a chance has really helped me to be successful. Also, realizing that it is okay to get help in some subjects has really helped me."

Comment 2: "I think the results of the first ELLI I took did show me correctly where I was at the beginning of the semester. Now taking it for the second time at the end of the semester, I think I definitely improved on a lot of my skills and took information from the results, and put them into action."

Campus 1 coping with stress & personal development course. In this course, students did not study lifelong learning directly. Student narratives from reflections were used to identify common areas of challenge and growth.

Comment 1: "Who am I? I have thought long and hard for the best answer to this question...I am not the same person I was before I began...I take the time to look at what happened from a different perspective...before jumping to any conclusion."

Comment 2: "You can do what you think is impossible."

Comments 3 & 4: "When I was a teenager, my father abused me physically, mentally, emotionally, and verbally. I felt as though it was my fault. I felt that I deserved the abuse." Later in the course, the same student wrote, "I am more

than willing to consider forgiveness...Forgiving someone does not mean that the abuse is okay it means you will no longer allow those to have power over how you feel.”

Campus 1 college reading course. In this course, students completed reflections based on the ELLI scores they wanted to improve.

Comment 1: “From using the experience of curiosity in my anthropology class, I learned that it really makes me pay attention a lot more. While I was asking questions to myself in class, I stayed on topic with the lecture and it also helped me avoid getting off track and zoning out. I feel that if I continue to be curious in the classroom and use critical curiosity strategies, my overall grades will increase.”

Comment 2: “The idea introduced in Rick Hansen’s “Taking in the Good” might [be] a good way to build my overall interior wellness. It is easier to [wreck] the fort from its inside, this quote also applies to human being.”

Discussion

This study points out that students can make statistically significant gains in lifelong learning dimensions under diverse settings. We learned the following about our three hypotheses: (H1): Critical self-reflection positively impacts the development of lifelong learning attributes under certain circumstances; (H2): Cross-campus groups from the same academic year have similar ELLI profiles; and (H3): Differences exist between first- and senior-year ELLI benchmark scores.

Significance, Limitations, and Possibilities for Future Research

H1. There was an important common thread among the in-class integration projects: in those classes where changes in ELLI scores were manifested, critical self-reflection activities were present. Even when students did not study lifelong learning directly, as in the coping with stress course, students entered a similar process of self-knowledge, critical reflection, action planning, and change management which seems to have also activated their growth as lifelong learners. The transformational process that Mezirow and Marsick (1978) described, when applied in these course-based projects, did indeed lead to transformation by most participating students, as measured by ELLI.

Student reflections clearly showed a growing awareness of their own ability to foster growth and change in their lives, and their improved ELLI scores illustrated these important changes. Students were often surprised and happy to discover that by using just one new strategy or approach, they could be more curious, resilient, or creative. One could see from the comments that students began to understand that lifelong learning (and other) qualities were not fixed, as if they were an unchanging aspect of personality, but could change with critical attention and implementation of effective strategies. The representative comments included in the results section illustrate this “awakening” to the possibility of change. Responses indicated that many students developed a greater

sense of self as well as a greater ability to look at things from a new perspective. Overall, many students expressed that the strategies learned in the courses were beneficial for their personal, academic, and future professional lives.

What happened then in the case of the Campus 2 HDFS family interventions course (Figure 3) which showed ELLI gains that were statistically but not practically significant? It seems important to compare the type and frequency of reflections asked of students. In this case, students were asked to reflect on their ELLI scores at the beginning and end of the semester as they related to their current experiences. This certainly led to a deeper understanding of the ELLI dimensions and began the process of building connections to students' own experience. However, it has become clear through these projects, that for actual transformation to occur, students need more frequent opportunities for self-reflection to take place along with prompts which help them work through all the stages that Mezirow and Marsick (1978) describe, including the integration of what they are learning into new instances and experiences. For example, students in the coping with stress course were explicitly asked to extrapolate their learning about a topic (forgiveness, e.g.) into an imagined or real new situation. Students in the college reading course were sent out to apply their learning into new situations and then complete a reflection. These differences, along with the increased frequency of reflective work, may have contributed to the stronger gains in ELLI in those two courses.

Other research supports this conclusion. Students need explicit preparation to become effective at the kind of critical self-reflection that can lead to change, including the construction of effective prompts for assignments which move students through all the stages of transformation, fostering critical thinking and helping them to identify underlying assumptions (Brookfield, 1995; Dymont & O'Connell, 2010; Dzubak, 2013; King & Kitchener, 1994; Mezirow & Marsick, 1978; Ullmann, Wild, & Scott, 2003).

In addition to the importance of fostering effective critical reflection, another influencer described by ELLI researchers is the development of a common language for change (Deakin-Crick et al., 2004). For example, if students are working on developing resilience, the language of self-efficacy can be modeled, and its use encouraged in writing, discussions, and feedback. As students develop the language associated with each ELLI dimension, they can, as Rossiter (as cited in Morley, 2005, p. 1424) suggested, begin to develop the "conceptual space" in which change can take place. Language facilitates this development, giving students the vocabulary needed to create new understandings and develop new perspectives about both the problem and alternative solutions (Morely, 2013). Through deconstruction of the current state and reconstruction with new understanding and strategic approaches, new realities come forth (Brookfield, 1995; Fook, 2010; Mezirow, 1998; Morley, 2013). It seems to follow that opportunities to learn from personal experiences can have multiple benefits, from developing a stronger sense of agency and self-efficacy to the lifelong

learning attributes that can support students through a lifetime of learning. Applying lessons learned to future scenarios helps solidify the learning.

H2. First-year and upper-division groups had similar ELLI scores respectively, making it tempting to assume a common student profile departmentally and institutionally across campuses. This could be highly beneficial in developing common programming for students across campuses and in preparing assessments for external evaluation such as institutional accreditation, but the dataset is still too small in many cases, is limited to one department, and has a gender representation too disparate from the population to make any generalizable claims in terms of a common campus profile at this time. Future studies are being planned, however, to build on the findings collected here, with the hope being to develop a more generalizable understanding of the traits and needs of college students.

H3. While ELLI is being used extensively in the U.K. and elsewhere globally, this project represents one of the first benchmarking efforts using ELLI in the United States at the college level (Z. Rozelaar, personal communication, April 17, 2018). This will make it possible to begin comparisons across institutions in future studies, especially using the first-year benchmark dataset which is the largest and most representative sample in the collection.

While the first-year benchmark sample was large and representative of the population in terms of gender, in contrast, the senior benchmarking sample was small, consisting of only about 50% of the total graduates; therefore, more data collection would be warranted to make sure the results are stable. With this caveat in mind, our study does indicate that students make lifelong learning gains from first to senior year, without having any direct instruction in lifelong learning. Effect sizes in the data indicate that the highest areas of practical significance occurred in Strategic Awareness and Resilience. This is unsurprising in that students must be able to set and meet goals to reach graduation. Similarly, research on resilience demonstrates that students can become more resilient by working through challenges, although a more detailed explanation of this research extends beyond the scope of this paper (National Scientific Council on the Developing Child, 2015; Reivich & Shatte, 2003). In both cases, the typical college experience would provide students with many opportunities to practice and expand their competency in both aforementioned areas.

A more important question remains regarding the lack of gains in the other areas measured by ELLI. Additional institutional benchmark studies would provide valuable information about whether this is a more global finding, or one specific to this institution. In either case, this benchmark provides actionable data that could be used institutionally for improvement in the other areas.

Ultimately, the fact that student samples show gains between first- and senior-year benchmarks is welcome news in a current political and social climate which has begun to question the value of a degree in higher education (Valletta, 2016). Yet, larger questions remain. Who was lost in that waiting game from first to

senior year? Who dropped through the cracks while others stayed on to develop those important qualities of Strategic Awareness and Resilience? The Pew Research report on lifelong learning (Horrigan, 2016) pointed out that socio-economic status can play a role in who takes advantage of lifelong learning opportunities. This brings us to an important question: Since we know the value of lifelong learning, should we make a more concerted effort early in the academic careers of at-risk students, to connect them to opportunities that involve critical self-reflection and lifelong learning development? This could involve both coursework as well as co-curricular activities. If all students acquire those habits of mind and heart earlier in their educations, will more students persist towards graduation and gain the skills necessary to adapt and thrive throughout life? These important questions create possibilities for future research.

Conclusion

From existing research, the evidence is clear that gaining lifelong learning attributes is valuable (Candy, 1991; Field, 2012; Horrigan, 2016; Houle, 1961; Knowles, 1975; Koch et al., 2018; Tough, 1976). This series of projects points out several ways that college students could acquire lifelong learning attributes: through direct instruction, critical self-reflection with effective prompts, and by completing a college education. Future research will examine these questions across a larger, more representative student population with a focus on more systematic critical reflection prompts for student writings.

References

- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37 (2), 122–147. doi:10.1037/0003-066X.37.2.122
- Brookfield, S. D. (1995). *Becoming a critically reflective teacher*. San Francisco: Jossey-Bass.
- Candy, P. C. (1991). *Self-direction for lifelong learning: A comprehensive guide to theory and practice*. San Francisco: Jossey-Bass.
- Christie, M., Carey, M., Robertson, A., & Grainger, P. (2015). Putting transformative learning theory into practice. *Australian Journal of Adult Learning*, 55(1), 10-30.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155-159. doi: 10.1037/0033-2909.112.1.155
- Deakin Crick, R. E. (2012). Deep Engagement as a complex system: Identity, learning power and authentic enquiry. In: C. S. Reschly, & C. A. Wylie (Eds.), *Handbook of research on student engagement* (675-694). Boston: Springer.
- Deakin Crick, R., Broadfoot, P., & Claxton, G. (2004). Developing an effective lifelong learning inventory: The ELLI project. *Assessment in Education*, 11(3), 247-272. doi:10.1080/0969594042000304582
- Deakin Crick, R., & Yu, G. (2008). Assessing learning dispositions: Is the Effective Lifelong Learning Inventory valid and reliable as a measurement tool? *Educational Research*, 50(4), 387-402. doi:10.1080/00131880802499886

- Dweck, C. S. (2008). *Mindset: The new psychology of success*. New York: Ballantine.
- Dyment, J. E. & O'Connell, T.S. (2010). The quality of reflection in student journals: A review of limiting and enabling factors. *Innovation in Higher Education* 35, 233-244. doi: 10.1007/s10755-010-9143-y
- Dzubak, C. M. (2013). A purposeful pause: The role of active reflection in learning. *Synergy: The Online Journal of the Association for the Tutoring Profession*, 6. Retrieved from <http://www.myatp.org/resources/journal/synergy-volume-6>.
- Field, J. (2012). Is lifelong learning making a difference? Research-based evidence on the impact of adult learning. In D. Aspin, J. Chapman, K. Evans, & R. Bagnall (Eds.), *Second international handbook of lifelong learning (887-897)*. Dordrecht: Springer. doi:10.1007/978-94-007-2360-3_54
- Fook, J. (2010). Beyond reflective practice: Reworking the “critical” in critical reflection. In H. Bradbury, N. Frost, S. Kilminster, & M. Zukas (Eds.), *Beyond reflective practice: New approaches to professional lifelong learning*. London: Routledge.
- Horrigan, J. B. (2016). Lifelong learning and technology. Retrieved from Pew Research Center: <http://www.pewinternet.org/2016/03/22/lifelong-learning-and-technology>
- Houle, C. O. (1961). *The inquiring mind: A study of the adult who continues to learn*. Madison: University of Wisconsin Press.
- Howie, P. & Bagnall, R. (2013). A beautiful metaphor: Transformative learning theory. *International Journal of Lifelong Education*, 32(6), 816-836.
- King, P. M. & Kitchener, K. S. (1994). *Developing Reflective Judgment*. San Francisco: Jossey-Bass.
- Koch, R., Kucsera, J., Angus, K. B., Norman, K., Bowers, E., Nair, P., Moon, H.S., Karimi, A., & Barua, S.(2018). Enhancing learning power through first-year experiences for students majoring in STEM disciplines. *Journal of STEM Education*, 19(1), 22-30.
- Knowles, M.S., Holton III, E. F., & Swanson, R.A. (2005). *The Adult Learner*, Florence, KY: Taylor & Francis Group.
- Mezirow, J. (1978). Perspective transformation. *Adult Education*, 28, 100–110.
- Mezirow, J. (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco: Jossey-Bass.
- Mezirow, J. (1998). On critical reflection. *Adult Education Quarterly*, 48(3), 185-198. doi:10.1177/074171369804800305
- Mezirow, J. (2009). Transformative learning theory. In J. Mezirow, and E. W. Taylor (Eds.), *Transformative learning in practise: Insights from community*.
- Mezirow, J., & Marsick, V. (1978). *Education for perspective transformation: Women's re-entry programs in community college*. New York: Teachers College, Columbia University.
- Morley, C. (2014). Using critical reflection to research possibilities for change. *British Journal of Social Work*. 44, 1419-1435. doi:10.1093/bjsw/bct004
- National Scientific Council on the Developing Child. (2015). Supportive relationships and active skill-building strengthen the foundations of resilience. Retrieved from

<https://developingchild.harvard.edu/wp-content/uploads/2015/05/The-Science-of-Resilience.pdf>

Reivich, K. & Shatte, A. (2003). *The Resilience Factor: 7 Keys to Finding Your Inner Strength and Overcoming Life's Hurdles*. New York: Random House.

Rotter, J. B. (1966). Generalized expectancies of internal versus external control of reinforcements. *Psychological Monographs*. 80 (1), 1-28. doi:10.1037/h0092976.

Rossiter, A. (2005). Discourse analysis in critical social work: From apology to question. *Critical Social Work*, 6(1), Retrieved from <http://www1.uwindsor.ca/criticalsocialwork/discourse-analysis-in-critical-social-work-from-apology-to-question>

Shaffer, S. C., Eshbach, B. E., & Santiago-Blay, J. A. (2015). A dual approach to fostering under-prepared student success: Focusing on doing and becoming. *Insight: A Journal of Scholarly Teaching*. 10, 79-91.

Smith, J. & Spurling, A. (1999). *Lifelong learning: Riding the tiger*. New York: Cassell.

Taylor, E. W. (1997). Building upon the theoretical debate: A critical review of the empirical studies of Mezirow's transformative learning theory. *Adult Education Quarterly*. 48(1), 34-59.

Terenzini, P. T., & Reason, R. D. (2005, November). Parsing the first year of college: A conceptual framework for studying college impacts. Paper presented at the meeting of the Association for the Study of Higher Education, Philadelphia, PA. Retrieved from <http://www.ed.psu.edu/educ/parsing-project/.pdf%20documents/ASHE05ptt.pdf>

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago.

Tough, A.M. (1976). Self-planned learning and major personal change. In R. M. Smith (Ed.), *Adult learning: Issues and innovations*. Information Series no. 8. Eric Clearinghouse in Career Education. DeKalb, Department of Secondary and Adult Education: Northern Illinois University.

Ullmann, T.D., Wild, F., & Scott, P. (2013). Reflection: Quantifying a rare good. In M. Kravcik, B. Krogstie, A. Moore, V. Pammer, L. Pannese, M. Prilla, W. Reinhardt, & T. D. Ullmann (Eds.), *Proceedings of the 3rd Workshop on Awareness and Reflection in Technology-Enhanced Learning in Conjunction with the 8th European Conference on Technology Enhanced Learning: Scaling Up Learning for Sustained Impact* (pp. 29-40). Retrieved from <http://ceur-ws.org/Vol-1103/>

Valletta, R.G. (2016). Recent flattening in the higher education wage premium: Polarization, skill downgrading, or both?(Report No. 22935). Cambridge, MA: The National Bureau of Economic Research. doi: 10.3386/w22935

ViTaL Partnerships Professional Services, Ltd. (2011) *My learning power: Using ELLI in higher education*.

Biographies

Suzanne Shaffer, M.Ed., M.S.Ed., has a master's degree in instructional systems and language education and works as an instructional designer and college reading instructor with a focus on supporting first-year students. Mindfulness, resilience, and lifelong learning are specific areas of interest and research.

Dr. Sukhdeep Gill is a Professor of Human Development and Family Studies. Her research interests include mindfulness-based practices and interventions, early development-in-context, interpersonal relations, social-emotional learning, program evaluation, and community-based action research to understand needs of families with young children from diverse backgrounds.

Robin Yaure is Professor of Teaching, Human Development and Family Studies at Penn State Mont Alto. Her research focuses on examining student preparation for exams and student attitudes regarding class and exam performance.

Jackie Schwab is an associate professor of Human Development & Family Studies at Penn State Mont Alto. She received her baccalaureate degree from San Diego State University and her Ph.D. from Penn State. She teaches lifespan, child and adolescent development, human services, drugs and behavior, and conflict resolution courses.

Lauren Jacobson earned a Ph.D. in Human Development and Family Studies in 1994 from Penn State. She is currently an Associate Professor of Teaching at Penn State Altoona, where she serves as the HDFS Program Coordinator and Academic Internship Supervisor. Her research interests focus on adolescents, athletics, and self-development.

Amber Seidel received a dual-Ph.D. in Human Development & Family Studies and Gerontology from Purdue University. She is currently an Assistant Professor in the Human Development & Family Studies at Penn State York. Her research interests include the bi-directional effects of relationship interactions on health management and well-being.

Creating Dynamic Practices: NJCU's Programs for Student Success

Jessica Accurso-Salguero, Ph.D., *New Jersey City University*

Guillermo de Veyga, Ph.D., *New Jersey City University*

Sarah Vandermark, Ph.D., *New Jersey City University*

Cinthia Diaz, M.A., *New Jersey City University*

ABSTRACT

This paper will provide an overview of New Jersey City University's (NJCU) retention initiative programs for low-income, first-year minority students. The programs provide students with advising, peer-mentoring, college transition workshops, outreach campaigns targeting at-risk student groups, and financial assistance. NJCU's intrusive advising, serves as a catalyst for connecting students to resources on campus. This paper provides information on the implementation of successful programs and newer programs of promise, such as the Orientation to College and Peer Advisor Liaisons programs. NJCU's ASCEND Summer Bridge Program, which was developed to assist students who were at a disadvantage academically in entering a four year college and provides academic preparation, holistic support, advisement, mentoring, orientation to college for first time, full-time freshmen support, and campus engagement. The work conducted at NJCU successfully provides for the needs of students now and in the future.

Introduction

Approximately one-third of all college students in the United States are low-income, first-year students (Morest, 2013). Studies show that low-income, first-year students frequently underperform in secondary school and consequently college (Tinto, 2015). A significant percentage of these college students are unprepared for college-level work in at least one of the following areas: reading, writing, or mathematics (Edgecombe, 2011). Research indicates that college bound students with weak academic skills are often required to complete at least two semesters of developmental coursework before enrolling full-time solely in college-level courses (Bailey, Jeong, & Cho, 2010; Crisp, Taggart, & Nora, 2015). Over the past five years, at NJCU, approximately 87% of students needed to enroll in at least one developmental English or Math course, and 69% of these students needed to enroll in two developmental courses in English and Mathematics. With this in mind, it is imperative to understand that student enrollment, retention, and graduation depend on access and the level of institutional support provided (Cerezo & McWhirter, 2012).

Low-income, first-year students who engage in heightened interactions with individuals on campus as well as have access to academic, cultural, social, and personal means to engage with teachers and peers increases their academic success and retention in college (Tinto, 2015). NJCU has begun (within the last 5 years) and contributes to its largely low-income, first-year students by providing

mentorship, college transition workshops, outreach campaigns targeting at-risk student groups, and emergency financial assistance. Through campus-wide data-driven processes, NJCU has made a commitment to student success as one of its highest institutional priorities as evidenced in the 2013-2018 Strategic Plan (New Jersey City University Strategic Plan 2013-2018, n.d.). NJCU's commitment is supported in the development of several programs, many that serve first-time, full-time freshmen who have been placed in at least one developmental course.

Additionally, NJCU's programs support the general student population who work part-time or full-time, live off-campus, and support families; a common characteristic of first-time, full-time students (Chen & DesJardins, 2010; Stewart, Lim, & Kim, 2015). The intention of NJCU is to support low-income, first-year students who experience limited opportunities for academic success. The following paper presents a brief history of NJCU, the types of programs that are available to NJCU students, specifically programs related to advisement and Summer Bridge, and future intentions to further the NJCU mission and create student success for all students.

New Jersey City University Background

The history of NJCU dates back to 1929 when it was first named New Jersey State Normal School at Jersey City. The school was later renamed the New Jersey State Teachers College at Jersey City in 1935 and Jersey City State College in 1958 before assuming its current role and name in 1998 when it was approved for university status. At that time, The College of Arts and Sciences, The College of Education, and The College of Professional Studies were established and in 2002, NJCU and Brookdale Community College located in Wall, NJ, initiated a "Communiversity" partnership which offered bachelor and master degree completion programs for residents in central and southern New Jersey. Later, in 2007, NJCU opened a facility for graduate business programs in Jersey City's waterfront financial district and in 2015, the NJCU School of Business opened.

Currently, NJCU enrolls 8,500 students, of which 6,600 are undergraduates. NJCU host 4 colleges, offers 43 undergraduate and 30 graduate degrees, and is both a Hispanic Serving Institution (HSI) and a Minority Serving Institution (MSI). The demographics of NJCU are made up of a student body that is 35% Hispanic, 21% African American, 23% White, and 8% Asian, and as many as 95% of students are commuters. The average household income is \$42,000, and Pell eligible students stand at 84% overall. To date, NJCU engages in significant institutional wide investments in student success, has invested \$1.5 million in institutional financial aid and scholarships, \$500k in student focused programming, \$400k in improved systems and technology, supported 10 new full-time administrative positions, and has staff that spends countless hours in meetings and serving on committees.

Programs Offered

An effective strategy in influencing undergraduate retention and academic achievement has been through increasing student interactions with faculty,

staff, advisors, peers, and administrators (Braxton et al., 2013). Additionally, recent retention research stresses cross-departmental institutional responsibility for retention through a wide-range of programs (Wilson, Fuller, & Mykhaylichenko, 2011). NJCU institutes numerous outreach programs and campaigns and takes a holistic approach to undergraduate retention, which includes all members of the campus. Furthermore, NJCU promotes retention and student success through offering financial literacy workshops, pairing students with one financial aid counselor, using peer to peer mentorship, increasing faculty participation, promoting academic advisor targeted outreach, creating socially engaging activities, bridging the curricular and extra-curricular, and offering supplemental instruction and tutoring. NJCU's focus on meeting students where they are has allowed for an inclusive campus climate bolstered by peer mentoring, an institution of student support through financial assistance and awareness, university advisement, and the Summer Bridge Program

Campus Climate

The lack of diversity in a student body, faculty, and institutional leadership negatively affects the undergraduate retention of minority students (Crisp et al., 2015). For underrepresented students, it is important to remove cultural barriers so that students can connect to the larger campus community (Tinto, 2017). Social support networks and student organizations play an important role in helping students feel they belong within an institution (Cerezo & McWhirter, 2012). Positive interactions between students and faculty were identified as a major reason contributing to the retention of students (Crisp et al., 2015). When Latino, Black, and other minority students perceive their campuses as being ethnically diverse they are much more likely to be retained. Conversely, minority students who reported more discrimination or acts of racial bigotry on campus had lower academic performance, are less satisfied with their academic and intellectual development, and have less commitment to the institution or their own academic achievement (Crisp et al., 2015), indirectly impacting the student's decision to persist. However, in a campus environment that actively encourages tolerance and acceptance and appropriately engages students in academic and social discourse, students develop a sense they belong and are accepted (Crisp et al., 2015).

Students who participate in community service activities, religious clubs, student government, sports teams, tutoring programs, and interact with peers and faculty outside of the classroom, were found to have higher sense of belonging (Tinto, 2017). Interactions students have with individuals on campus can influence a students' sense of connectedness to the institution, as well as their ability to navigate the campus culture, and succeed academically. Therefore, offering accessible academic, personal, and social support services on campus is a key approach to improving undergraduate retention. Programs and initiatives designed to support undergraduate retention address both formal and informal student experiences inside and outside of the classroom and at NJCU the focus on welcoming diversity and including all students regardless

of religion, skin color, ethnicity, sexual identity, or any other characteristic creates a climate of acceptance.

Peer Mentoring

Peer mentoring is one of the most effective methods to increase student retention, graduation rates, and cross-cultural understanding of undergraduate students (Budge, 2006). The goal of NJCU's peer mentoring efforts is to foster academic success and enhance the psychosocial functioning of new students as they transition from high school to a college environment. Peer mentoring was first offered in the fall of 2015 to all minority first-time freshmen during the first week of the academic year, and participation was voluntary.

The first cohort of peer mentors were selected from a pool of minority candidates who were in their sophomore year or beyond, had a cumulative grade point average of 3.0 or better, and who were involved in at least one student organization or club.

Today, and to successfully engage in peer mentoring, candidates are interviewed by a coordinator and selected based on their commitment to the institution and their knowledge of how to navigate the campus, both socially and administratively. Peer mentors are assigned a caseload of twenty mentees and are paid a stipend for the semester in which they mentor. Incoming students and families begin meeting mentors from November and beyond at which time NJCU's financial workshops begin. NJCU's Peer Mentoring Program requires students to meet with their mentees three to four times a semester and to check-in with their mentees through phone calls or email throughout the academic year. The list of topics that peer mentors use in meetings with a mentee include: reviewing academic support services that are available, introducing mentees to student activities and organizations, and ensuring mentees are not experiencing academic or social issues adjusting to college. Peer mentors also promote university resources, field questions, and support students transitioning to college. Incoming students are introduced to campus life, tutoring services, the health and wellness center, the counseling center, the student government and various clubs. Peer Mentors meet with their students individually and in groups during the summer as well as throughout the academic school year. Peer Mentorship, coupled with intentional family programs, and culturally relevant activities in and outside of the classroom are essential in creating a healthy campus climate for our students.

Financial Assistance and Awareness

It has been well established that working while attending college, paying for tuition through loans or grants, and having financial need are factors that affect undergraduate retention (Chen & Hossler, 2017). Typically, if there exists a gap in financial support, even after institutional and family contributions, students tend to register part-time, work longer hours, or live off-campus, all of which have a negative impact on retention (Tinto, 2017). Financial aid and support matters to all students, especially Latino, Black, and other minority students

as low-income minority students who receive financial aid are more likely to persist than their counterparts who did not receive financial aid (Stewart, Lim, & Kim, 2015). These findings were particularly revealing in studies involving first-year Latino and Black students. For this student population, the decision to attend or persist in college directly relates to several factors, among them understanding how to complete a FAFSA.

In the 2016-2017 school year, fall to spring first time, full-time retention was at 37% due to 90% of the students not completing their FAFSAs, the majority of these students being Latino and Black. To support students in need, NJCU instituted a program in which the College was able to offer financial aid, financial literacy, and academic skills workshops monthly during the academic year. Professional staff members from enrollment management and student affairs conducted the workshops, and attending the workshops was voluntary and made available to all first-time freshmen students. Evidence of these initiatives was apparent in that last year's cohort persisted by more than 87% and registered for the spring semester because their FAFSA's were complete.

Furthermore, in reviewing and reaching out to first-time freshmen who have an outstanding tuition balance, we found that many had unmet financial need, even after receiving federal and state aid and loans. For the students who were unable to cover the cost of tuition and books out of pocket, the University allocated individual emergency grants of up to \$2,000 to cover an outstanding tuition balance. A financial aid committee, based on a review of a student's financial aid profile and any proof of extenuating circumstances a student or their family could provide, and award these additional grants. In the first year of implementation, twenty-one grants were awarded, with the average award being approximately \$500. For first-time freshmen who had administrative holds on their records, ranging from immunizations, financial aid issues, and outstanding balances, financial literacy, and aid options were addressed student by student through the support of one-on-one sessions with assigned financial aid advisors. Financial support programs and initiatives only make up part of the work being conducted at NJCU to offer support to all students, and especially low-income, first-year students.

University Advisement

NJCU's Advisement Center serves as a catalyst for connecting students to resources on campus. An additional resource for incoming freshmen, NJCU implemented intrusive advising in the fall of 2016. The priorities of intrusive advising are a focus on retention and graduation, academic support, intensified academic advisement, accountability, supervision, and consistency. To date, we have connected more than 75% of our students to advising sessions, and 50% our tutorial services, as well as workshops hosted by our advisors. These interventions have increased retention by 65% in good standing for full-time freshmen. Staff members or peer mentors, depending on the issue, reach out through email, text, or by phone to connect with students to assist in resolving an issue or to provide any assistance needed. Furthermore, NJCU's advisors have now started teach-

ing Orientation to College (OTC) courses, tracking students by cohort, holding personalized advisement sessions, and creating relationships with students by “meeting them where they are”. By creating a dynamic intrusive advisement program at NJCU, an atmosphere geared toward student success is created. Along with the success of advisement at NJCU, the Summer Bridge Program has been instrumental in serving low-income, first-year students.

Summer Bridge Program

During the winter of 2014, the President of NJCU hosted a university wide retreat focused on student success. During this retreat, the University identified the need for cross-divisional efforts to improve student success and that the needs of minority students, especially Latinos, are uniquely different. In 2015, NJCU created Achieving Success by Cultivating Excellence and Nurturing Discovery (ASCEND). A significant percentage of college students are unprepared for college-level work in reading, writing, or mathematics and Summer Bridge programs help mitigate these occurrences (Crisp et al., 2015; Strayhorn, 2011).

The student demographics for NJCU’s ASCEND Program students are as follows: 100% of these students apply for federal aid, 100% are part of underrepresented minorities, 80% have some level of unmet need, 76% come from household incomes of less than \$60,000, and approximately 90% are PELL eligible and require developmental support. The ASCEND intensive seven-week academic preparation and college orientation program was designed to help students advance at least one level by taking developmental summer courses. Expediting the timeframe when students enroll in full semesters of college-level courses after high school increases the likelihood that students complete. Each summer, approximately 100 students participate in the ASCEND Summer Bridge Program at NJCU, and bridge the “summer learning gap” in an innovative way that helps students’ develop and integrate their academic, physical, social, and emotional well-being as well as environmental awareness and stewardship principles.

Although the ASCEND Summer Bridge Program started slowly and the first year’s 2015 retention rate from fall to fall was 15%, the success of the program grew and the second year had a success rate of 30%, followed by a third year (2017) success rate as of spring semester of 82%. Last summer, 104 students successfully completed the program, 43 students tested out of developmental math, and 10 students increased their scores by at least 10 points. At the conclusion of the program in 2017, more than half of the students tested out of developmental classes and the enrollment overview in Table 1 below supports these numbers.

TABLE 1: Summer Bridge Programs Enrollment Overview

Cohort	Student Headcount	Registered	Not Register	Difference	% Rate	Year Rate
Summer Bridge 2015	69	42	27	15	60.9%	1 YR
Summer Bridge 2016	77	57	20	37	74.0%	1 YR
Summer Bridge 2017	101	91	10	81	90.1%	1 YR

Summer Bridge Enrollment from 2015 through 2017

The ASCEND Summer Bridge Program's primary components are academic preparation, academic support, academic advising, peer mentoring, orientation to college for first time, full-time freshmen, and campus engagement activities. The Program promotes peer mentorship, daily workshops that promote self-efficacy, relationship with faculty, intramural sports, and individual and group guidance counseling. Peer mentors successfully facilitate tutoring, social engagement with clubs and organizations on campus, assist with financial aid, advisement, and registration.

Additional goals of the NJCU ASCEND Summer Bridge Program are to develop and strengthen students' connections with advisors, faculty, and staff to provide students with knowledge critical to success in college (e.g. study skills, time management, and campus life), and enhance students' sense of belonging. Additionally, advisors teach Orientation to College courses, track students by cohort, hold personalized advisement sessions, and create relationships with students by meeting them where they are. Advisors focus on giving students an opportunity to build relationships with students, facilitate workshops, engage in personalized one on ones, and track and assist students throughout the academic school year. Given the significant challenges inherent to any Summer Bridge Program, ASCEND has created a positive first-year experience for NJCU students.

Methodology and Results

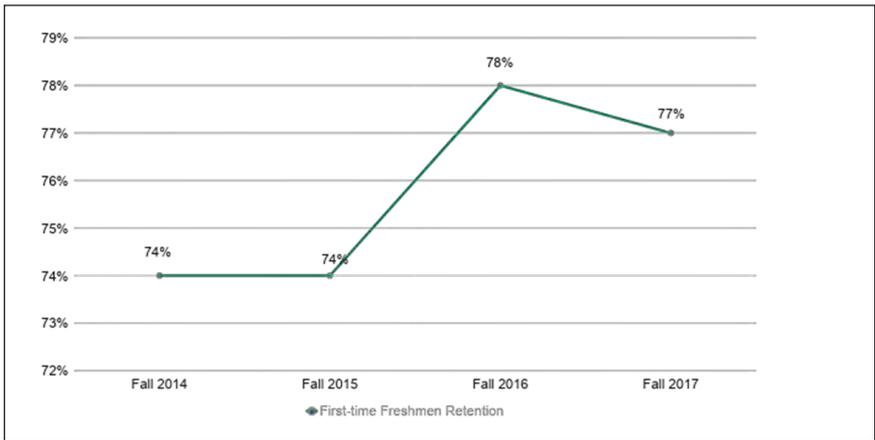
Using a mix of methods, such as regression analysis, cohort tracking, predictive analytics, focus groups, T-tests, and Chi-Square analysis, NJCU has been able to effectively track the success of its programs as outlined in Table 2 and Figure 1 below. Through the various initiatives outlined above, NJCU has been able to not only increase the first-year retention rate but has also helped at-risk, remedial, and special cohort students persist.

TABLE 2

Program/Initiative	Assessment Method	Impact
Increased institutional aid	Regression analysis	Improved retention for first-year freshmen
Summer Bridge	Cohort tracking	Improved progression for special admits
Student Retention Office	Predictive analytics & focus groups	Improved retention for first-year freshmen
Freshmen block scheduling	T-tests	Improved GPA for students in remedial courses
Advisement campaigns	Chi-Square	Improved progression for at-risk students

Methodology for Tracking Student Success and Corresponding Impact

FIGURE 1



Fall 2014 through Fall 2017 Demonstration of student success

Looking Toward the Future

As reiterated throughout this study, many low-income, first-year students at NJCU are not prepared for college-level work. First-year performance often determines whether students decide to continue, and poor academic self-efficacy and self-doubt lead to drop out. At NJCU, outcome metrics include enrollment trends, pre-test and post-test assessments, fall placement, student engagement, fall-to-fall retention rate, first term GPAs, first year cumulative GPAs, first year degree credit accumulation, and graduation rates. From these findings, NJCU continues to implement new programs, such as the Integration of Advisement, Block Scheduling, Orientation to College (OTC) and Peer Advisor Liaisons (PALs) programs, and is experiencing significant success. Each member of the NJCU community is personally dedicated to and accountable for ensuring all students receive a high-quality education and a first-rate experience that leads to timely graduation with minimal debt, an academically rich degree, and a meaningful future upon graduation. With the unique approach of including the family members of students through culturally relevant outreach, including office staff (in some cases) with at least five Spanish-speaking individuals, and the ability to share a common culture, NJCU is on the cutting edge of student retention and success in a culturally diverse area. NJCU's dedication to student success, a reflection of a 2013-2018 Strategic Plan (New Jersey City University Strategic Plan 2013-2018, n.d.) is a reality and a guidepost for other colleges and universities serving low-income, first-year students.

References

- Bailey, T., Jeong, D. W., & Cho, S. W. (2010). Referral, enrollment, and completion in developmental education sequences in community colleges. *Economics of Education Review*, 29(2), 255-270.
- Braxton, J. M., Doyle, W. R., Hartley III, H. V., Hirschy, A. S., Jones, W. A., & McLendon, M. K. (2013). *Rethinking college student retention*. John Wiley & Sons.
- Budge, S. (2006). Peer mentoring in postsecondary education: implications for research and practice. *Journal of College reading and learning*, 37(1), 71-85.
- Cerezo, A., & McWhirter, B. (2012). A brief intervention designed to improve social awareness and skills to improve Hispanic college student retention. *College Student Journal*, 46(4), 867-879.
- Chen, R., & DesJardins, S. L. (2010). Investigating the impact of financial aid on student dropout risks: Racial and ethnic differences. *The Journal of Higher Education*, 81(2), 179-208.
- Chen, J., & Hossler, D. (2017). The effects of financial aid on college success of two-year beginning nontraditional students. *Research in Higher Education*, 58(1), 40-76.
- Crisp, G., Taggart, A., & Nora, A. (2015). Undergraduate Latina/o students: A systematic review of research identifying factors contributing to academic success outcomes. *Review of Educational Research*, 85(2), 249-274.
- Edgecombe, N. D. (2011). Accelerating the academic achievement of students referred to developmental education.
- Morest, V. S. (2013). From access to opportunity: The evolving social roles of community colleges. *The American Sociologist*, 44(4), 319–328. doi:10.1007/s12108-013-9194-5
- New Jersey City University Strategic Plan 2013-2018 Working Document. Retrieved from <http://www.njcu.edu/uploadedFiles/strategicplan-2013-2018.pdf>.
- Strayhorn, T. L. (2011). Bridging the pipeline: Increasing underrepresented students' preparation for college through a summer bridge program. *American Behavioral Scientist*, 55(2), 142–159.
- Stewart, S., Lim, D. H., & Kim, J. (2015). Factors influencing college persistence for first-time students. *Journal of Developmental Education*, 38(3), 12-21.
- Tinto, V. (2015). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice*, 1521025115621917.
- Tinto, V. (2017). Reflections on student persistence. *Student Success*, 8(2), 1-9.
- Wilson, S., Fuller, R., & Mykhaylichenko, O. (2011). *Student Success in Higher Education Is Everybody's Business*. Report 11-08. California Postsecondary Education Commission.

Biographies

Dr. Jessica Accurso-Salguero is the Director for Student Success Initiatives, provides oversight to Welcome Days, the Testing Center, OTC, and Summer Bridge. An Interim Director of Academic Advisement, she is a liaison for cross-divisional collaborations. Dr. Accurso-Salguero holds a Master's Degree from NYU and a Ph.D. from Seton Hall University.

Dr. Guillermo de Veyga serves as the Chief of Staff to the President at New Jersey City University (NJCU), where he directs and oversees high level initiatives at the discretion of the President. Additionally, he serves as the University's Government Relations Officer and represents the President (both internally and externally) to ensure that issues relative to the University's interest are maintained. A large part of his portfolio requires research and policy review for projects and initiatives that he (or others in the executive team) spearhead. Previously, he served as Associate Vice President for Academic Affairs, where he oversaw Academic Operations and Planning, Grants and Sponsored Programs, Graduate Studies, Continuing Education, and other areas in the Academic Affairs realm. M.B.A. from NJCU and his Ph.D. from Seton Hall University.

Dr. Sarah Vandermark joined NJCU as the Assistant Provost for Student Success. She facilitates initiatives at the University Advisement Center and oversees the Opportunity Scholarship Program, Office of Specialized Services, and the Testing Center. Dr. Vandermark earned her Master's Degree from Northeastern University and her Ph.D. from Montclair State University.

Ms. Cinthia Diaz, has worked long-term at NJCU as an adjunct professor and in Student Affairs. She serves as Director of Enrollment Services and plays an important role in increasing first-year retention by creating the Rising Knight Peer Mentoring program. She also assisted with the development and implementation of SOAR.

Mentoring McNair Scholars: A Qualitative Study of Faculty Mentors' Perceptions

Tremayne O. Waller, *Cornell University*

Elena Guzman, *Cornell University*

Hill Wolfe, *Cornell University*

Sadé Ayorinde, *Cornell University*

Kristin Dade, *Cornell University*

Carlos M. Gonzalez, *Cornell University*

ABSTRACT

This article describes an effort to assess how faculty mentors of the Ronald E McNair Post Baccalaureate Achievement Program at Cornell University perceive academic, research, and social efficacy of their McNair mentor(s). The study is framed by the following overall questions: How do faculty's perception of their mentees self-efficacy affect their mentoring strategies? How are faculty and mentee's understandings of self-efficacy similar or different and how does this affect the strategies employed by faculty? Furthermore, what are the strategies McNair Program can employ to account for the similarities and differences between faculty and scholar understandings of self-efficacy and facilitate more effective mentoring relationships. The data is based upon McNair faculty mentors across the span of five years since McNair inception at the university. We used a Qualtrics research software to collect survey responses to closed and open-ended responses and to identify themes in relation to mentoring practices and beliefs more broadly. With our findings we attempted to illuminate the mentoring practices of faculty mentors while also recognizing the way McNair programs can better facilitate mentor relationships. The findings revealed that social self-efficacy need encouragement with academic engagements with McNair faculty mentors and scholars. The academic socializing and personal relationships are critical aspects to continue examine and build in the social self-efficacy domain.

Keywords: *mentoring, McNair, self-efficacy*

Mentoring McNair Scholars: A Qualitative Study of Faculty Mentors' Perceptions

Introduction

College educators, administrators, and policymakers continue to seek ways to increase the representation of students from historically marginalized groups in graduate programs in our nation's colleges and universities. First-generation college students, those who come from low-income families, or those who identify as part of an underrepresented group often have more difficulty exploring and pursuing an advanced degree (Carter, 2006). Moreover, recent reports from both US News and World Report (2015) and Newsweek (2010) indicate that these three groups experience greater challenges transitioning from undergraduate to graduate school in comparison to students who are not

from low-income households or another marginalized group¹. While financial concerns often hinder their access to graduate education, these students are also hampered by other issues, such as a lack of information, unrealistic expectations, and a reduced sense of self-efficacy (Kim & Sax, 2009). While some of these hurdles remain hard to overcome despite a variety of targeted interventions, a recent qualitative investigation features anecdotal evidence that one-on-one faculty mentoring represents a highly successful means of helping at-risk students overcome these barriers to graduate education (Waller and Wolfe, 2017). Indeed, this type of direct faculty guidance and encouragement plays a major role in an undergraduate student's desire to pursue an advanced degree – not to mention his or her aptitude and confidence throughout the process of earning a Master's or Ph.D. Accordingly, this paper will investigate how faculty mentors in the Ronald E. McNair Post-Baccalaureate Achievement Program (McNair Scholars Program or MSP) at Cornell University view the self-efficacy of their McNair mentees with respect to how this factor impacts their plans for attaining an advanced degree.

The McNair Scholars Program, which is a national initiative at a variety of colleges and universities, is designed to foster the academic interests and success of underrepresented and low-income students and promote advancement to graduate school. The ultimate goal of the McNair Scholars Program is to increase faculty diversity in higher education. Self-efficacy, defined as a person's belief in his or her ability to succeed in specific situations (Bandura, 1994), represents a critical component in student performance. Too often, first-generation college students, those from low-income families, or members of an underrepresented group member may already feel underqualified or challenged as an undergraduate, thus making the goal of achieving a graduate degree all the more elusive. And while a variety of strategies have been implemented to help these students advance academically (e.g., summer enrichment programs²), mentoring is widely embraced as a highly effective way to help students build knowledge and skills, as well as increase their self-confidence and socialization skills (Davis, 2009; Dixon-Reeves, 2001). Mentoring, therefore, represents a key component of engagement in the McNair Scholars Program and is believed to be deeply connected to undergraduate success while in the institution—but more importantly after graduation as students move on to research-based careers or graduate work.

¹ To read more on the challenges minority students face see <https://www.usnews.com/news/blogs/data-mine/2015/12/02/college-graduation-gaps-between-white-and-minority-students-persist> and <http://www.newsweek.com/why-minority-students-dont-graduate-college-75143>

² These summer enrichment programs include courses, workshops, and trainings, seminars, and research opportunities either with mentors or at summer research opportunities program (SROP) hosted by other universities.

Based on the critical importance of increasing the numbers of marginalized students in graduate education programs in this country, the purpose of this study is to understand how self-efficacy is connected to student success, and, in particular, how faculty mentors perceive and cultivate student academic, research, and social self-efficacy. The first section of this article defines mentorship, differentiates the three kinds of self-efficacy that contribute to student success, and explains the importance of faculty mentoring. The second section, the methods section, details the metrics used in the study. This study used survey responses from a total of 29 faculty mentors currently affiliated with the McNair Scholars program at Cornell University. We used coding to analyze the qualitative data in addition to a grounded theory approach in order to create sub-categories of analysis. We provide a qualitative protocol for this study. This investigation concludes with a discussion of results and conclusions drawn.

Literature Review

An Overview of Mentorship

A widely understood definition of mentoring is when a “senior person or mentor provides information, advice and emotional support to a junior person or student over a period of time” (Lev, Kolassa, & Bakken, 2010). Mentoring can be formal or informal; it can take many forms including giving advice, psychosocial support, role modeling, career advising or counseling, cultivating the intellect of the student. Importantly, successful mentoring takes into account the changing needs of the mentee, and thus will evolve over time to meet those needs. In an academic milieu, the mentor’s role is to challenge students with tasks that will build and refine important skills, engage them in critical discussions and set high standards in order to promote maturity and inquisitive behaviors (Davis, 2009). Effective mentors should also provide “vision” for their students – particularly in cases when the mentor embodies the notion that determination can lead to success, even in the face of adversity. At the same time, the mentor must also help their mentee to effectively interpret reality of what expectations are reasonable or unreasonable at various stages of academic growth (Daloz, 1999).

According to the American Psychological Association, engaging in a meaningful relationship with a trusted mentor can be a life-changing experience for an undergraduate student (Smith, 2014). Indeed, research shows that students who have a faculty mentor perform better – both in college as well as after they graduate and are working or pursuing a graduate degree. The potential importance of relationship is why faculty mentoring has become a cornerstone of the McNair Scholars Program. In fact, Cornell University’s McNair Scholars Program includes faculty mentor training to help insure that mentors can be effective at guiding the research experiences of the institutions underrepresented undergraduates. This training in particular, focuses on strategies to increase the self-efficacy of McNair mentees in three critical areas: research, academic, and social self-efficacy. In the STEM fields (science, technology, engineering

and math), McNair scholars are encouraged to choose one of Cornell University participating scientists as their faculty mentor; they then work intensively with that faculty member on a research project participating in all aspects of life in an academic laboratory including:

- learning the approaches and techniques of their field
- analyzing experimental results and develop new questions
- preparing the results for publications
- participating in seminars related to their laboratory research
- reading the scientific literature, attending scientific meetings and making oral and poster presentations

Cornell University faculty mentors are encouraged to get involved in every dimension of their mentee's academic career, including contributing to that individuals social and professional advancement. For instance, McNair scholars are encouraged to take part in lab meetings (e.g., with their mentor's graduate students), attend department seminars, and take part in a variety of social and scholarly gatherings where they can network with other role models. Our data suggests that such interactions will increase student self-efficacy when that undergraduate is able to self-identify as a fellow scientist and scholar and improve their professional skills. A study by Fuentes, Alvarado, Berdan, and DeAngelo (2014) suggests that faculty act as "socialization agents" in which they teach students how to successfully navigate the full and complex particulars of college and thereafter. This suggest that the more a student interacts with faculty in academia the more likely they are to be able to be successfully socialized and therefore see themselves as a fellow scholar. In fact, research suggests that as underrepresented minorities continue in academic careers, socialization within academic communities becomes essential to forging ties, promoting their research agenda, and helping them advance their careers (Zambrana et. al., 2015). Critically, a successful mentoring relationship will impart to the student a better understanding of the complex educational pathways that can lead to a graduate degree and/or a career in research.

It is not only the student who benefits from a hands-on mentoring relationship; indeed, professors who agree to foster an undergraduate may experience increased research productivity once their McNair mentees are trained and comfortable in the lab. Additionally, cultivating student talent and motivating them to publicly present their work brings the mentor visibility, as well as recognition to the institution. Finally, Koch and Johnson (2000) listed a number of intrinsic benefits of mentoring an undergraduate—mostly notably "a sense of generativity and creative synergy in working closely with talented students" (p. 173). This is reflected in many mentors comments on "giving back" and passing on knowledge and skills that they have benefitted from through mentorship.

Academic Self-Efficacy

Academic self-efficacy refers to an individual's belief or conviction that he or she can succeed at a given academic task at a high level (Schunk, 1991; Bong &

Skaalvik, 2003). A student's strong belief in his or her academic capabilities can have an indelible impact on academic motivation, how and how much that individual learns, and the level of achievement he or she is able to attain (Schunk, 1995). According to Schunk and Pajares (2002), students who "feel efficacious for learning or performing and academic task participate more readily, work harder, persist longer when they encounter difficulties and achieve at a higher level" (p. 2-3). Research has also shown that self-efficacy is linked to goal setting; specifically, students with higher self-efficacy are often more committed to academic goals—both personal and assigned—and they are more strategic in their approaches and respond better to feedback and criticism (Locke & Latham, 2002; Artino, 2012). The role of the professor or mentor in helping to build strong academic self-efficacy is to guide students to set goals that are challenging, but attainable, and to offer explicit feedback on progress (Artino, 2012). Students who receive clear, constructive, and timely feedback have more realistic ideas about their academic abilities and performance, leading to higher levels of self-efficacy. Thus, dedicated mentorship represents a critical factor in building academic self-efficacy in students—especially for students from an underrepresented group who are more likely to be unfamiliar with what it takes to succeed in an academic setting and pursue an advanced degree.

Research Self-Efficacy

Research self-efficacy is defined as one's belief in their ability to perform a specific research project or task successfully. Increasingly, today's college students are expected to participate in research activities that "make an original intellectual or creative contribution to the discipline (Webber, et al., 2013, p.227) A corollary finding is that individuals with higher self-efficacy are more likely to be successful researchers and able to meet the demands of the academy (Forester, Kahn, and Hesson-McInnis 2004; Kahn, 2001). It must be noted, however, that although the benefits of engaging in undergraduate research are compelling, the student must expend a considerable amount of time and energy in collaborating with the faculty member to design the study, conduct the research, analyze the data, write a report, and then present the data in a public forum (Waller and Wolfe, 2017). Despite the investment of time and effort, participating in undergraduate research and working closely with a faculty member strengthens a student's skill at developing questions and synthesizing information—a key element of what is known as "deep learning" (Webber, Nelson Laird, & Brcka-Lorenz, 2013), and ultimately research self-efficacy.

Social Self-Efficacy

Scholastic excellence and research proficiency remain the two most important elements for academic success and eventual matriculation. However, one should not minimize the importance of the variety of social interactions that take place on a college campus. Indeed, students who have a strong sense of their social abilities are considered to be the most well-rounded students, and thus better equipped to avoid the risks of isolation, depression, and loneliness that

can derail a successful college experience (Wei, Russell & Zakalik, 2005). In the context of this study, social self-efficacy can be thought of as an “individual’s confidence in her/his ability to engage in social interactional tasks necessary to initiate and maintain interpersonal relationships” (Smith & Betz, 2000, p. 286).

Research shows that social self-efficacy can enhance a student’s ability to build strong social and professional networks with mentors, classmates, and faculty members, which in turn increases student satisfaction and persistence (citation removed; Kuh et al., 2005). Indeed, social self-efficacy is strongly connected to student well-being and a sense of belonging—both within the institution and within the academic major of choice. Associating with others in their field (and in other disciplines) on campus, as well as in settings such as conferences, academic clubs, and in less formal settings can help build confidence and has been shown to produce positive outcomes in academic achievement (Hermann, 2005).

Methods

This study is an extension of a study that looked at self-efficacy among undergraduate scholars in the McNair Scholars Program. The authors wanted to understand self-efficacy among the faculty mentors that were molding these scholars. The overarching question that guided the design, data collection and analysis of this study is the following: How do the faculty mentors in the Ronald E. McNair Post-Baccalaureate Achievement Program (McNair Scholars Program) perceive and cultivate student academic, research, and social self-efficacy?

Data Collection

Student’s entering the McNair Scholars Program are required to locate and secure a faculty mentor that will aid in their progression throughout the program. Students self-select mentors and provide the program coordinators with their names at the time of application. The primary investigator created 26 open-ended questions in early summer 2017. We utilized the names given to us by McNair Scholars’ Program students to compile a list of 104 faculty mentors. This list comprised of five years’ worth of cohort participants. We emailed all of the faculty mentors three times requesting their responses to the survey. As an incentive for completing the survey, we offered each participant a chance to have their names entered into a drawing for a dinner for two at a local restaurant. We received three automatic replies stating that these individuals no longer worked for Cornell University. Ultimately, we received feedback from 29 faculty mentors, yielding a 28% response rate. Out of the 29 responses, 2 did not respond to any of the written questions. Therefore data for the analysis will primarily focus on the 27 respondents who did write in answers for the written questions.

Sample

Participants in this study are drawn from the faculty mentors of McNair scholars who were accepted into the McNair scholars Program at Cornell University.

TABLE 1.1 | Survey Respondents and Characteristics

Pseudonym1	Self-Identified Sex	Underrepresented Minority2	Eligible First Generation	Eligible Low Income	Teaching Expertise3
Subject 1	Female	“B”	Y	Y	STEM
Subject 2	Male	Majority	N	N	STEM
Subject 3	Female	Majority	N	N	STEM
Subject 4	Male	Majority	N	N	STEM
Subject 5	Female	Majority	N	Y	Non-STEM
Subject 6	Female	Majority	Y	Y	STEM
Subject 7	Male	Majority	N	N	STEM
Subject 8	Male	Minority	Y	Y	STEM
Subject 9	Male	Majority	N	N	STEM
Subject 10	Female	Minority	N	N	STEM
Subject 11	Female	Majority	N	Y	Non-STEM
Subject 12	Female	Minority	N	Y	Non-STEM
Subject 13	Female	Majority	N	Y	STEM
Subject 14	Male	Minority	Y	Y	STEM
Subject 15	Male	Majority	N	Y	STEM
Subject 16	Female	Minority	Y	Y	Non-STEM
Subject 17	Male	Majority	N	N	STEM
Subject 18	Male	Majority	Y	Y	STEM
Subject 19	Male	Majority	N	Y	STEM
Subject 20	Male	Majority	Y	Y	Non-STEM
Subject 21	Male	Majority	N	N	STEM
Subject 22	Gender	Majority	Y	Y	STEM
Subject 23	Male	Majority	N	N	STEM
Subject 24	Female	Minority	Y	Y	Non-STEM
Subject 25	Male	Majority	N	N	Non-STEM
Subject 26	Female	Majority	Y	Y	Non-STEM
Subject 27	Female	Majority	N	Y	STEM
Subject 28	Female	Majority	N	N	STEM
Subject 29	Female	Minority	N	Y	STEM

¹ Pseudonyms were created through a free online name generator

² **The Code of Federal Regulations** §647.7 defines underrepresented minority as Black, Hispanic, American Indian, Alaskan Native, Native Hawaiians, and Native American Pacific Islanders

³ Teaching Expertise is defined as any instruction in the science, technology, engineering, or math fields (STEM) OR instruction that occurs outside of these four fields of study (non-STEM).

identified as “B” (shorthand for Black), 3 of the individuals fall under the category of Asian. 10 of these individuals also identified as first generation while 19 were not first generation.

As shown in Table 1.1, a total of 29 McNair faculty mentors took part in this investigation. These faculty mentors represent mentors across cohorts from 2012-2017. This sample is not demographically representative of the McNair Scholars Program cohorts but does closely align with national demographics of faculty in higher education according to race, gender, and first-generation status⁴. Participants included an even number of self-identified “Male” and “Female” along with one person who indicated “gender” as a response. Of these 29 individuals the majority of them, 62% or 18 total identified as “White” or “Caucasian.” Of the total participants 27.5% or 8 total are considered to be underrepresented minorities. Only 34% or 10 of the 29 participants identified as first-generation⁵. Demographic information for these 29 individuals include their pseudonym, gender identification, underrepresented minority, first generation eligible, eligible low income, and teaching field as defined by STEM or non-STEM.

Table 1:1 will provide the demographics of our faculty mentor participants. We created pseudonyms for each participant to ensure confidentiality.

Data Analysis

Two researchers carried out the coding and analysis of qualitative data collected from 29 survey respondents by using Qualtrics research software.

This research is an extension of a previous study (Waller and Wolfe, 2017) that evaluates the connection between self-efficacy and the undergraduate experience. The researchers identified three categories (academic, research, and social) self-efficacy derived from Williams’ (2004) study of McNair Scholars. We found it both helpful and imperative to use the same definitions in all our research studies pertaining to self-efficacy in order to produce valid findings when drawing upon connections between multiple data sets. Consistency in definitions assures us in part that our associations bear validity. The same categories from this study are used within this current research in order to ascertain the connection between self-efficacy and faculty mentoring strategies. The decision to use coding measures was derived from the prior qualitative evaluations of the MSP which drew inspiration from Ford’s (2011) coded categories “by highlighting sections of interview data and writing a word that represented a particular category in the margins” (p. 90).

The decision to map the categories from the previous study occurred within three phases. During the first phase, we coded the qualitative data, identifying

⁴ Overall trends suggest that White men represent a majority of faculty in higher education constituting 43% of all full-time faculty with white women leading closely behind at 35% (NCES 2013).

⁵ In this survey, the demographics are as follows: 14 self-identified males, 14 self-identified females, 1 unidentified person who marked “gender”. 18 individuals identified as white/Caucasian, 8 individuals were identified within the category of underrepresented minority (Black, Hispanic, or Native American), including the individual who

major themes that emerged in the responses. Using a parallel coding approach, a second researcher coded the responses. After we coded individually with knowledge of the others coding categories we met to evaluate the initial round of coding, which resulted in several modifications to subsequent coding iterations.

During phase two, after seeing strikingly similar themes emerge we decided to place the themes within the three aforementioned categories of faculty self-perception: academic self-efficacy, research self-efficacy, and social self-efficacy. Mapping the themes of the current study within themes of the previous study allowed us to take a comparative approach to our data analysis while also noting the significant differences that occurred between McNair scholar and faculty understandings of self-efficacy.

The third phase required going back to the raw data obtained from McNair scholars from a previous survey done for the aforementioned study. This review of the data was used to note if the mentee and faculty responses did in fact correlate similarly in order to merit using the same categories and themes. Comparing these two data sets showed that many themes were in fact the same and that the differences that were present were a product of respondents' self-efficacy strategies and not a product of different questions.

Although the survey questions are based upon our review of the previous study (Waller and Wolfe, 2017), research and literature, including case studies and evaluations of programs pertaining to diversity and inclusion in higher education, we adopted a grounded-theory approach in our analysis of survey responses when we created sub-categories to capture supportive and important support (Glaser & Strauss, 1967). Grounded Theory is commonly defined as a "systematic qualitative research methodology in the social sciences emphasizing generation of theory from data" (Martin & Turner, 1986). Using grounded theory enabled us to achieve results deriving from the data themselves by identifying themes and drawing connections as they emerged. Although we were attempting to make connections of the data to set definitions pertaining to self-efficacy, we were unsure of the complex and multifaceted ways the perceptions of faculty mentors and students would relate to this topic. In essence, grounded theory helped us refine the interrelationships of our categories.

The review of participant responses involved several carefully designed steps. First, as recommended by the grounded theory approach, we both made individual notes for each survey response, which led to the development of emerging themes that corresponded to programmatic components supporting the success goals of the MSP. Second, we departed from the grounded-theory approach by first identifying theory-based themes pertaining to academic self-efficacy, research self-efficacy, and social self-efficacy. Finally, we returned to a grounded-theory approach by identifying sub categories from the dataset based on the types of support participants had received. Our sub-categories were completely derived from our unique data set. These niches but yet more associative categories built new constructs while simultaneously identifying

similarities and patterns within existing frameworks of academic, research, and social self-efficacy. These novel categories can be used to help theorize future research exploring self-efficacy, faculty mentoring, and beyond.

Although these theory-based and predetermined codes were used, the analytical subcategories were derived completely from data and not from predetermined hypotheses (Glaser & Strauss, 1967). The aim of this additional data categorization enabled us to use grounded-theory to (1) more narrowly identify success components of the program, (2) validate our interpretations of the data through clustering themes, and (3) expand our interpretations by providing additional categorical coding descriptions and investigating self-efficacy from varying perspectives. For example, when faculty participants discussed the social impact of the MSP, they often discussed socializing with their McNair mentees. We later nested this description of data under “Developing Interpersonal Relationships.” Stake (1995) indicated direct interpretation, establishing patterns, and developing naturalistic generalizations as perspectives on interpreting qualitative data. For increased accuracy, we identified categories using actual verbiage from participants. Initially, we identified over 53 sub-categories through the first round of coding. In order to bridge more connections among patterns identified through analysis, we organized the data into more inclusive brackets of 3 sub-categories under each definition of self-efficacy. In summary, the three areas of self-efficacy were linked to a number of recurring themes, as follows:

Academic self-efficacy:

1. Faculty advice for navigating ambiguities in academics
2. Opportunities for developing critical thinking and analysis skills

Research self-efficacy:

1. Research-orientated guidance from faculty mentors
2. Exposure to research opportunities
3. Opportunities to communicate research

Social self-efficacy:

1. Holistic care from faculty mentor
2. Developing Interpersonal Relationships

In addition, by using a thematic approach to our analysis of participant responses, we grouped categories based on causal relationships and overall connections. Boyatzis (1998) asserted that this type of thematic analysis is flexible and “may be a list of themes, a complex model with themes, indicators, and qualifications that are causally related; or something in between these two forms” (p. 4).

For example, with the question “How often and how did you intentionally focus on academic and/or social concerns with your McNair mentee?”, the notion

TABLE 1.2 | Themes and Definitions

Theme	Theme Defined
-------	---------------

Academic self-efficacy

Advice on navigating ambiguities in academics by a faculty mentor	This classification refers to advice faculty give their McNair mentees on navigating uncertain circumstances with academics. Learning the “tricks of the trade” are vital to enhancing the self-confidence of scholars and being successful in academic pursuits.
Opportunities for developing critical thinking and analysis skills	This classification refers to faculty presenting scholars with opportunities for critical thinking and analysis skill-building to assist in achieving at a more elevated level in an academic subject, which in turn develops academic attentiveness and focus. Becoming aware of skill-building leads to greater self-confidence (Posselt & Black, 2012).

Research self-efficacy

Research-orientated guidance by a faculty mentor	This classification refers to mentors assisting scholars in gaining confidence and skills in conducting and navigating research-related tasks from specific research advice.
Exposure to research opportunities	This classification refers to faculty’s role in helping students feel motivated to conduct research from opportunities where scholars are presented, encouraged and occasionally required to conduct research.
Opportunities to communicate research	This classification refers to faculty members assistance in skill-building for scholars through opportunities to communicate research. In this process, scholars “gain skills and experiences leading to new forms of external recognition, which, combined, lead to changes in how they see themselves” (Posselt & Black, 2012, p. 36).

Social self-efficacy

Holistic care by a faculty mentor	This classification refers to the consideration of needs that faculty members provide scholars beyond research, academic and professional endeavors. Taking social and mental needs into account develops competency in these areas, which enable scholars to be healthier and successful students.
Developing Interpersonal Relationships	This classification refers the personal relationships that faculty mentors built with their McNair mentee. Mentors emphasized the importance of a personal relationship with their mentees as a significant part of their mentorship strategies. These relationships occur mostly within the context of academic settings.

of building social skills in a structured way, was found repeated in questions specifically asking about social relationships thus the category of “Developing Interpersonal Relationships” was created. A more detailed account of the themes and accompanying definitions according to the three types of self-efficacies are listed in Table 1.2.

Based on survey respondents the self-efficacy categories and subcategories remain the same in all but one subcategory under social self-efficacy. In the previous study this category was named “support system within the program.” In it, McNair scholars emphasized the importance of the “cohort effect” (Posselt & Black, 2012) in which they emphasized the significance of collective interaction with scholars from similar backgrounds. Since faculty mentors are not required to attend all the events McNair scholars attend, an emphasis on collective interaction with others in the program is less significant in their responses. Instead, faculty mentors note the individual interaction and relationship they have with their McNair mentee(s). This category was changed to, “Developing Interpersonal Relationships” to reflect mentors use of personal relationships as a strategy of self-efficacy.

Academic self-efficacy:

Mentors provided significant support in affording opportunities for McNair scholars such as advice on navigating the academy, opportunities for critical thinking and analysis, and motivation to explore more courses. These findings correspond McNair scholars understanding of the role their mentors play in their academic careers (Waller and Wolfe, 2017). A faculty mentor from a majority and non-stem background, described the advice that they gave their mentee:

We talked about everything, from specific research questions to how to put together a personal statement to why I chose this career to what it’s like being a woman in academia

This faculty mentor’s advice was not only specific to academics only but also to navigating the ambiguities of academia in this particular case dealing with the ambiguities of being a woman in higher education.

Overall, mentor responses show an emphasis on assisting McNair mentees in their research. A faculty mentor from a majority ethnic background, had faculty mentors who were, “very influential, cultivating enthusiasm for research and setting standards of intellectual excellence.” This distinction is primarily due to many of mentors’ belief that the McNair mentees are academically well off on their own and only intervene when necessary such as overload of coursework and writing issues. This faculty mentor carried this experience of mentoring with his current mentee stating, “The student I worked with was so incredibly talented that I am not sure they needed any intentional development on my part.”

Mentors who did provide academic mentorship focused less on undergraduate education and more on tracking McNair mentees towards higher education. A female minority faculty mentor in the STEM fields, emphasized that her mentor her helped to “think, speak, and network in ways that are specific to STEM and academia.” This faculty mentoring style was defined by her desire to “pay it forward” and thus used similar tactics towards her mentee. While mentors rarely intervened in their mentees current academics they did provide significant support for their future academic endeavors: such as getting an advanced degree, reading, experimenting with different fields, choosing their career, and applying to grad school.

Research self-efficacy:

Many mentors identified that they provided substantial support in providing research opportunities such as conferences, or hands on research experience through their own research or other institutional research programs (REU, CURBS etc.) With this, one mentee was able to co-author a research paper while others were able to get hands on experience with working in lab setting, managing research in a team setting, and working with postdocs, graduate students, and faculty.

Faculty mentors focused mostly on developing critical thinking, management skills necessary to succeed in academia (emails, time, mental health), direct involvement in research, dealing with research failure, problem solving, developing research questions.

While faculty related their desire to “pay it forward” and helped students by providing research and academic guidance most also recognized the importance of independence and autonomy in this field. A faculty mentor, who was a first-generation student, states, “learning to troubleshoot and figure out stuff on my own, when my mentor was absent, was also critical to the development of my research potential.” Mentors lauded students who were “independent” “self-motivated” and “able to network” for research and conference opportunities. This faculty mentor intentionally developed their mentees “independence and self-reliance.” Arguing that “there’s a point at which a student learns to figure out things for themselves”

Social self-efficacy:

McNair mentees place a significant value on attaining different kinds of social relationships with their faculty mentors and note the importance of these relationships in their overall success (Waller and Wolfe, 2017). Faculty mentors also identify the importance of socializing with their mentees. Two themes emerge from the data: academic socializing and personal relationships.

According to many faculty, interpersonal relationships between their mentee(s), often occurred in structured academic settings such labs or scheduled meetings. While faculty showed a high degree of investment in their McNair mentees’ academic and research enhancement, social enhancement was less val-

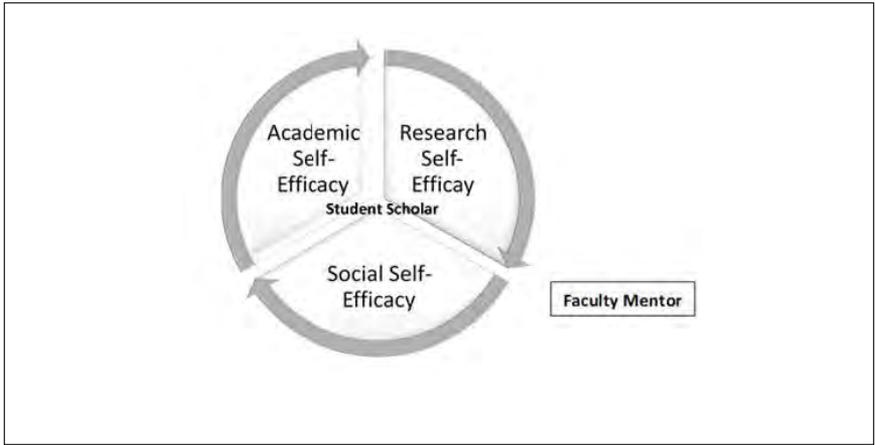
ued. When asked if they intentionally focused building academic and/or social skills a minority faculty mentor who was a first-generation student responded, “not often unless requested” and they discussed “social concerns only very rarely.” A faculty mentor from a majority background expressed, “I did not do this anymore than I typically do for students who participate in my lab...” while a faculty mentor who was a first-generation student stated, “I am careful to separate work and home, though, for my own sanity so kept this minimal.” Others identified social interaction but mostly on campus or in lab settings. With faculty juggling various positions and life realities, scholar’s social needs were less prioritized than other professional skills.

The faculty who did show an investment in their mentees personal life and building social relationships mentioned they did so only when necessary or when they had a closer social relationship. After building a relationship with his mentor, Merrick, a faculty mentor from a majority background in the STEM fields who was not a first-generation student stated, “only after we had worked together for some time did I ask about their experiences of being a first-generation student...”. This data diverges from McNair scholars’ perspectives in the sense that while they did not expect a social relationship with their faculty mentor, having a personal relationship enriched their experience particularly in regard to emotional support.

When asked about their relationship with their McNair faculty mentor, a first-generation woman of color McNair scholar, stated, “I am always uplifted by visiting with [my] professor, because it is so obvious to me that she cares not only about my academic/research progress, but about my mental, emotional, and physical well-being as well.”⁶ Both faculty mentor’s and mentee’s experience as first-generation college students allowed them to bond beyond their research and academic interest. This enriched the mentee’s experience with her faculty mentor. Another McNair scholar, explained how his faculty mentor went above and beyond the mentor position explaining, “My faculty mentor has supported me financially and emotionally. When I lost my cousin, my faculty mentor invited me over his house. He treats me fair as a student, but he also treats me as an individual that matters and have purpose.” The mentee points to his relationship with his faculty mentor within the light of both academics and personal life. While not all mentors are required or needed to fulfill such a role, both mentee’s emphasis on their faculty mentor going above and beyond academics shows how these relationships enrich the mentoring experience for faculty and students.

As shown in Figure 1, we consider the three important self-efficacy constructs for understanding the relationship between the student scholar and faculty mentor. It is vital to understand that there is a process to mentoring and it evolves during the relationship. This figure implies commitment from the mentor and commitment from the student scholar.

FIGURE 1



Conclusion:

In our study, we have examined how faculty view the self-efficacy of their McNair mentees. The McNair Scholars Program offers universities a faculty mentor model to prepare non-traditional students for graduate school. This study illuminated the value of McNair Faculty mentor’s belief about their mentee’s academic self-efficacy, research self-efficacy, and social self-efficacy.

The compelling and often touching quotes shared by faculty point to three tenets of faculty mentorship: academic, research, and social. These findings align with a previous study in which McNair scholars shared their viewpoints on self-efficacy. The data demonstrated some commonalities with faculty mentors and scholars based on being from non-traditional backgrounds (first-generation, low income, and underrepresented). These commonalities can be an intentional conversation with students to discuss personal and professional experiences, skills, and knowledge about preparing for graduate school. Taken as a whole, faculty experiences underscore how different forms of self-efficacy are perceived in the higher educational system in order to ensure success of scholar’s academic, research and social self-efficacy in the McNair Scholars Program (MSP). Below, we examine the findings of this study in relation to the self-efficacy framework.

The research demonstrated that scholars are exposed heavily to academic and research self-efficacy. While academic and social self-efficacy remain strong tenets of many mentor’s viewpoints, we believe that McNair faculty can best assist students by providing social self-efficacy strategies related to building relationships and social networks. Since, scholars are exposed to extensive amount of knowledge and research information from a variety of sources, it could be beneficial for the scholars to enhance their social networking skills. For example, MSP administrators can assist faculty mentors in identify grad-

uate McNair scholars to meet and strategize ways to socialize with current scholars.

In addition, we recommend that programs create more faculty centered events. While McNair scholars report a sense of belonging known as the “cohort effect” (Posselt & Black, 2012) faculty often are left out of this community. This need and desire for faculty centered events was demonstrated in this study’s participants in questions around social efficacy. Many McNair mentors lauded the efforts of the McNair faculty mentor training held at Cornell University in the Fall of 2016. Faculty found this event to be helpful in gaining “some needed perspective on student needs” and reported that the event created a sense of “camaraderie” and a sense of “sharing challenges.” We believe that more faculty centered events will allow faculty to feel a “Faculty cohort effect” which will facilitate their mentorship, feeling of belonging to a McNair family, and socialization with their mentees.

Faculty mentors should be encouraged to introduce their mentees to other professionals and others who can assist the students in reaching their graduate school goals. Posselt and Black (2012) indicated that relationships with faculty mentors are beneficial. Faculty mentors that invest in these relationships assist the scholars in gaining access to “resources such as expertise, contacts with academics in graduate programs, letters of recommendation, sponsorship, and role modelling.” Administrators of MSP can assist faculty mentors with identifying social self-efficacy resources and tools to connect and encourage better social connections with scholars.

Faculty mentors are great role models for scholars to learn about academic, research and social self-efficacy. Kaufman and Feldman (2004) write, “When one is surrounded by significant others who share one’s professional aspirations, it becomes much easier to hold firmly on to those aspirations to identify oneself accordingly” (p. 480). Because faculty mentors hold such a significant role, in addition to focusing on academic and self-efficacy we suggest mentors focus on these aspects of social efficacy in order to address structural barriers that may impede the progress of scholars based on their racial and gender identities.

Additional research is also needed to explore the levels of self-efficacy of all McNair faculty mentors mentoring scholars during the program. This type of research can help to determine if there is an effect on self-efficacy throughout the McNair program. Another suggestion for a future study would be to examine levels of self-efficacy between McNair program participant’s faculty mentors and non-program participant student’s faculty mentors. Such a study might more clearly delineate the faculty mentors perception of their mentees self-efficacy. The present study employed quantitative techniques. Other researchers may want to engage in qualitative methods to further explore how the McNair program enhances academic, research and social self-efficacy. Such data might provide richer information about which components of the program help to increase self-efficacy among participants.

References

- Artino Jr., Anthony R. (2012). "Academic Self-Efficacy: From Educational Theory to Instructional Practice." *Perspect Med Educ* 2012, 76-85
- Bandura, Albert. (1994) "Self-efficacy" In V.S. Ramachaudran (Ed.), *Encyclopedia of Human Behavior* (Vol. 4, pp. 71-81). New York: Academic Press.
- Bong, Mimi and Einar M. Skaalvik. (2003) "Academic Self-Concept and Self-Efficacy: How Different Are They Really?" *Educational Psychology Review* 15, 1-40.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage Publications.
- Camera, Lauren. "Despite Progress, Graduation Gaps Between Whites and Minorities Persist." *US News and World Report* December 2, 2015. Accessed July 20, 2017 <https://www.usnews.com/news/blogs/data-mine/2015/12/02/college-graduation-gaps-between-white-and-minority-students-persist>
- Carter, Deborah Faye. "Key Issues in the Persistence of Underrepresented Minority Students." *New Directions for Institutional Research* 130, 33-46.
- Chris Koch and W. Brad Johnson. "Documenting the Benefits of Undergraduate Mentoring." *Council on Undergraduate Research Quarterly* June 2000, 172-175.
- Daloz, Laurent A. (1999). *Mentor: Guiding the Journey of Adult Learners*. San Francisco: Jossey Bass.
- Davis, Dannielle Joy. (2009). "The Academic Influence of Mentoring Upon African American Undergraduate Aspirants to the Professoriate." *The Urban Review*, 42 (2), 143-158.
- Dixon-Reeves, R. A. (2001). *The survey of the characteristics and dimensions of mentoring: An investigation of the mentoring experiences of African American graduate students in departments of sociology*. Unpublished doctoral dissertation, University of Chicago.
- Forester, Michelle, Kahn, Jeffrey H., and Hesson-McInnis, Matthew S. (2004). "Factor Structures of Three Measures of Research Self-Efficacy." *Journal of Career Assessment*, 12(1), 3-16.
- Ford, L (2011). *A phenomenological study exploring the undergraduate McNair program experience of program alumni currently serving as college faculty* (Doctoral dissertation). Retrieved from http://ecommons.luc.edu/luc_diss_2yr/4/
- Fuentes Marcia V., Adriana Ruiz Alvarado, Jennifer Berdan, and Linda DeAngelo (2014). "Mentorship Matters: Does Early Faculty Contact Lead to Quality Faculty Interaction?" *Research in Higher Education* 55:3, 288-307
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Pub. Co.
- Hermann, Karen Stroiney. (2005). *The Influence of Social Self-Efficacy, Self-Esteem, and Personality Differences on Loneliness and Depression*. Dissertation Ohio State 2005
- Kahn, Jeffrey H. (2001). "Predicting the scholarly activity of counseling psychology students: A refinement and extension." *Journal of Counseling Psychology*, 48, 344-354.

- Kaufman, P. and Feldman, K.A. (2004), "Forming identities in college: a sociological approach", *Research in Higher Education*, Vol. 45 No. 5, pp. 463-96.
- Kim, Y.K., and Sax, L.J. (2009). "Student-faculty Interaction in Research Universities: Differences by Student Gender, Race, Social Class, and First-generation Status. *Research in Higher Education* 50(5), 437-459.
- Kuh, G.D., Kinzie, J., Schuh, J.H., and Whitt, E.J. (2005). *Student Success in College: Creating Conditions That Matter*. San Francisco: Jossey-Bass
- Lev, Elise L., John Kolassa, and Lori L. Bakken. "Faculty mentors' and students' perceptions of students' research self-efficacy." *Nurse Education Today* 30.2 (2010): 169-174.
- Locke EA, Latham GP. (2002). "Building a practically useful theory of goal setting and task motivation: a 35-year odyssey." *American Psychology* 57, 705-717.
- Martin, P. Y., & Turner, B. A. (1986). *Grounded Theory and Organizational Research*. *The Journal of Applied Behavioral Science*, 22(2), 141-157.
- Posselt, J. R. and Black, K. R. (2012), "Developing the research identities and aspirations of first-generation college students: Evidence from the McNair scholars program", *International Journal for Researcher Development*, Vol. 3 Iss: 1 pp. 26 – 48
- Schunk, D. H. (1991). "Self-efficacy and Academic Motivation." *Educ. Psychol.* 26, 207-231.
- Schunk, D. H. (1995). *Self-efficacy and Education and Instruction*. In J.E. Maddux (Ed.), *Self-efficacy, Adaptation, and Adjustment: Theory, Research, and Application*. New York: Plenum Press
- Schunk, D.H., and Frank Pajares (2002). "The Development of Academic Self-Efficacy." In . A Wigfield and J.S. Eccles (Ed.) *Development of Academic Motivation.*, San Diego Academic Press (PDF Version <https://www.uky.edu/~eushe2/Pajares/SchunkPajares2001.PDF>)
- Smith, Brendan L. (2014). "The Lifelong Benefits of Mentoring." *American Psychological Association gradPSYCH Magazine*, 32. <http://www.apa.org/gradpsych/2014/11/mentoring-benefits.aspx>
- Smith, Heather M. and Betz, Nancy E. (2000). "Development and validation of a scale of perceived social self-efficacy." *Journal of Career Assessment* 8(3), 283-301.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Thomas, Evan. "Why Minority Students Don't Graduate From College." *Newsweek* February 18, 2010. Accessed July, 20, 2017 <http://www.newsweek.com/why-minority-students-dont-graduate-college-75143>
- Waller, T. O. and Wolfe, H. (2017). *A Qualitative Approach to Researching Self-Efficacy Perception of McNair Scholars Opportunity Matters: Journal of Access and Opportunity in Education*, Volume 3 (1), 1-23.
- Webber, Karen L., Nelson Laird, Thomas F., and BrckaLorenz, Allison M. (2013). "Student and Faculty Member Engagement in Undergraduate Research." *Research in Higher Education* 54, 227-249.
- Wei, M., Russell, D. W., & Zakalik, R. A. (2005). *Adult Attachment, Social Self-Efficacy, Self-Disclosure, Loneliness, and Subsequent Depression for Freshman College Students: A Longitudinal Study*. *Journal of Counseling Psychology*, 52(4), 602-614.

Williams, E. G. (2004). Academic, Research, and Social Self-Efficacy among African American Pre-McNair Scholar Participants and African American Post-McNair Scholar Participants (Doctoral dissertation). Retrieved from <https://theses.lib.vt.edu/theses/available/etd-10152004-155400/>

Zambrana, Ruth Enid, Rashawn Ray, Michelle M. Espino, Corinne Castro, Beth Douthirt Cohen, Jennifer Eliason (2015). “Don’t Leave Us Behind”: The Importance of Mentoring for Underrepresented Minority Faculty.” *American Educational Research Journal* 52:1, 40-72.

Biographies

Tremayne O. Waller is the Interim Director for the Office of Academic Diversity Initiatives (OADI) and Director of the McNair Scholars Program at Cornell University. He has also worked as the Associate Director of Advising and Diversity in the College of Architecture, Art, and Planning and Diversity Programs in Engineering at Cornell University. He completed his Ph.D. in Curriculum and Instruction from Virginia Tech.

Elena Guzman is a Ph.D. candidate in the Department of Anthropology at Cornell University. She has served as a graduate assistant for the McNair Post-Baccalaureate Program and the Mellon Mays Undergraduate Fellowship. Her research interests include Caribbean dance and music, blackness in Latin America and the Caribbean, and ethnographic film.

Hill Wolfe holds a Master of Public Administration with a concentration in Social Policy from Cornell University, where he served as a Graduate Research Assistant for the Ronald E. McNair Post-Baccalaureate Achievement Program. Hill is currently pursuing a Ph.D. in Health Services Research at the Boston University School of Public Health.

Sadé Ayorinde holds a B.S. and B.A. in International Business and an M.A. in Art History from University of Nebraska-Lincoln. She is currently pursuing a Ph.D. in Art History and Visual Studies focusing on late nineteenth and twentieth century art at Cornell University.

Kristin Dade is the Program Manager for the Pre-Professional Programs and the Director of the Collegiate Science and Technology Entry Program (CSTEP) in the Office of Academic Diversity Initiatives at Cornell University. She completed her Ph.D. in Educational Administration from Southern Illinois University Carbondale.

Carlos M. Gonzalez is Executive Director for Administration within the Office of the Vice Provost for Undergraduate Education at Cornell University. He was also the Executive Director for the Office of Academic Diversity Initiatives at Cornell University. He completed his undergraduate degree in Applied Economics at Texas A&M University and completed his graduate studies in Business at New York University.

Appendix A

Faculty Mentor Survey

Were you a first-generation student?

Were you, or would you have been, considered to be eligible to receive Federal Pell Grant for college tuition assistance?

Are you in the STEM fields?

Gender

Ethnicity

Did you have a mentor for research during your undergraduate education?

Did your faculty mentor influence you to become a mentor? Professor? If so, how?

How did you benefit from having a mentor?

How did you benefit from not having a mentor?

How long have you been at Cornell University?

How long have you been mentoring students to take part in undergraduate research?

How effective do you feel as a McNair mentor?

Did you participate on the McNair Faculty Mentor Training? What did you gain or not gain from the session?

What type of advice did you give to your McNair mentee about their career aspirations? Please elaborate?

What aspects of your McNair mentees intellect (i.e. subject matter, problem solving, critical thinking, practical application, challenges, and support, etc.) did you intentionally focus on developing?

Did you meet with your McNair mentee on a regular basis? Do you believe it is helpful to meet with the student on a regular basis as opposed to irregularly or on-demand? Why or why not?

How often and how did you intentionally focus on academic skill building with your McNair mentee? (e.g. test taking strategies, time management, study/ learning skills, etc.)

How often and how did you intentionally focus on academic and/or social concerns with your McNair mentee?

Did you inform your McNair mentee about networking opportunities, research opportunities, and/or information regarding research symposiums and conferences they could participate in (either as an attendee, presenter, or publisher)? If so, did you prepare your McNair mentee with research-oriented and/or logistical guidance (funding, travel, etc.)? Please elaborate.

Did your McNair mentee work with you on a faculty-based research project? What was your level of involvement with the research project? What do you believe was the most important/significant aspect of the experience for your McNair mentee? Please elaborate.

How did you connect with your McNair mentee on a social level? Do you believe your McNair mentee valued the ability to socially connect with you? Please elaborate.

What are the benefits of having a faculty mentor for the McNair Scholars Program? Please elaborate.

Why does faculty mentorship matter for the McNair Scholars Program? Please elaborate.

Were there any problems or challenges during the McNair Scholars Program (e.g. management, guidelines and expectations)? Please elaborate.

How have you been supportive as a faculty mentor during the McNair Scholars Program? Please elaborate.

Is there anything else I should be asking you as a faculty mentor for the McNair Scholars Program? Please elaborate.