# An Exploratory Study of Instructional Strategies, Academic Integration, and Subsequent Institutional Commitment

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*Abstract*

*As student persistence efforts remain stagnant and the level of accountability grows for higher education, the classroom environment could offer some assistance toward improving academic integration and subsequent institutional commitment. The process of student persistence at four-year commuter colleges and universities differs from the process at large scale residential universities, and the nature of this institutional experience impacts student persistence. At commuter institutions, the classroom serves as a gateway for student integration into the academic and social communities within a college or university, which encourages subsequent institutional commitment and increases the likelihood of student persistence. A possible key for unlocking the gate is the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987). This exploratory mixed methods study examined the relationship between the Seven Principles, academic integration, and subsequent institutional commitment with first-time freshman students enrolled at a commuter institution. The quantitative data analysis revealed the strongest relationship existed between Academic Integration and Subsequent Institutional Commitment; however, there was a moderate relationship between Academic Integration and Diverse Talents and Ways of Learning. The qualitative data analysis revealed academic and social integration were connected with the participants' perception of the institution. One possible implication includes more faculty training at the college-level regarding the use of effective instructional methods, which are component of the Seven Principles.*

Despite decades of educational research in student persistence, the current rate of student persistence for freshman college students is 73.3% for four-year public institutions. Only 29% of undergraduate students graduate within 4 years, and 43% will graduate within 6 years. Unfortunately, these rates have remained relatively unchanged since 1983 (ACT, 2011). Higher education has seen a heightened awareness for increasing persistence, progression, and graduation rates, but higher education has not seen a substantial change in student persistence rates because the knowledge and theory gained from the decades of research has not translated into effective practice in higher education. A large body of empirical work outlines the student characteristics that will explain why students depart from a given institution, but the empirical work does not examine how implementing institutional practices will help students persist and succeed (Tinto, 2006).

The catalyst and source for understanding this departure puzzle has been Tinto's Interactionalist Theory of College Student Departure. College student persistence depends on the student's pre-college characteristics, which affects the initial level of commitment for the selected institution (Tinto, 1975, 1993). Once enrolled, this initial commitment affects the students' perception of their academic and social integration into the communities and subcultures of the post-secondary institution. Academic integration is the degree to which the student affiliates with the academic norms within those communities, and social integration is the degree of fit between the student and the social systems within those communities (Braxton, Bray, & Berger, 2000). These levels of academic and social integration influence the subsequent institutional commitment perceived by the student, which impacts the intention to leave and actual student's persistence at the given institution (Braxton, Hirschy, & McClendon, 2004).

Braxton and his colleagues (2004) offered a new theory for the persistence of students at commuter colleges and universities, which is based on the Tinto Theory (1975, 1993). Commuter institutions tend to differ substantially from residential institutions in the educational, cultural, and social experiences that are provided to the students (Pascarella, Duby, & Iverson, 1983). Commuter institutions tend to have lower than expected levels of student persistence compared to residential institutions (Astin, 1997). According to this new theory revision for commuter institutions (Braxton et al., 2004), student entry characteristics (e.g., high school grade point averages (GPAs), standardized admission test scores, and family background) affect the initial institutional commitment and persistence, which parallels Tinto's model; however, with commuter institutions, external environments (e.g., finances, work, and family) and internal campus environments (e.g., academic communities within the institution) mediate the initial and subsequent institutional commitment levels. Therefore, both external and internal campus environmental factors indirectly affect student persistence at the commuter institutions (Braxton et al., 2004).

The difference between residential and commuter institutions lies within the organizational structure, which affects subsequent institutional commitment and student persistence. Two characteristics of this organizational structure are the commitment of

the institution to the welfare of the students and the integrity of the institution, which Braxton et al. (2004) refers to as internal campus environments. Each of these characteristics is perceived by the students based on their interactions with the faculty, staff, and fellow students. Chickering and Kuper (1971) concluded that commuter students go to class then go home. Often, the college educational experience tends to be viewed as a job. Therefore, these students tend to enroll in a college near their homes whether or not they have commitment to the institution. As a consequence, these students at commuter institutions lack a sense of belonging to the given institution, and social integration has minimal impact on their subsequent institutional commitment. Thus, student performance and persistence become affected (Jacoby & Garland, 2004; Newbold, Mehta, & Forbus, 2011).

*A Possible Solution*

The classroom serves as a gateway for student integration into the academic and social communities within a college or university, which encourages subsequent institutional commitment and increases the likelihood of student persistence (Braxton, Bray et al., 2000; Braxton et al., 2004; Braxton, Milem, & Sullivan, 2000; Tinto, 1997, 2006). Researchers have not ignored the classroom as a setting for empirical work, but they have not connected the college classroom experience to student persistence. Even though more scholars recognize the significant role that the classroom plays in student persistence, more empirical work is needed to transform the theory of student persistence into practice, which could likely increase the rate of student persistence (Braxton, 2008).

A possible key for unlocking the gate is the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987). The Seven Principles are: (1) Encourages contact between students and faculty; (2) Develops reciprocity and cooperation among students; (3) Encourages active learning; (4) Gives prompt feedback; (5) Emphasizes time on task; (6) Communicates high expectations; and (7) Respects diverse talents and ways of learning. These good practices are universal for all types of institutions who serve undergraduates and for all types of undergraduate students who attend those institutions. The implementation of these Seven Principles affects classroom pedagogy, or how the content is taught, and effective implementation depends on the students and their circumstances at a given institution (Chickering & Gamson, 1987).

*Student-Faculty Contact.* Students with instructors who encourage in-class and out-of-class contact tend to have increased student motivation and institutional commitment. Frequent student-faculty contact in the classroom tends to increase involvement outside of the classroom. This student-faculty contact can improve educational outcomes, such as student satisfaction, intellectual development, and academic achievement (Sorcinelli, 1991).

*Cooperation among Students.* Effective learning is a collaborative and social event. Cooperative learning, which has been implemented and researched extensively in the K-

12 setting, changes the faculty and student roles within the classroom. The instructor becomes a facilitator that guides the learning process, and students become the teachers that lead the learning process (Sorcinelli, 1991).

*Active Learning.* The previously discussed principle, cooperation among students, and this principle, active learning, have substantial overlap. Some scholars place cooperation among students as a subset of active learning (Sorcinelli, 1991). Sorcinelli (1991) explained the primary difference between the two principles is active learning can be experienced by a single student (e.g., independent studies and internships) where cooperative learning requires a grouping of more than one student. With active learning, the students can move beyond rote memorization of general knowledge and passive listening during class. Instead, the students talk about the content, write about it, relate it to prior knowledge, and apply it to their daily lives (Chickering & Gamson, 1987).

*Prompt Feedback to Students.* When given appropriate feedback in a timely manner, students can benefit from feedback and gain knowledge of the course content. Immediate, corrective, and supportive feedback is central to the learning process (Sorcinelli, 1991). This feedback provides formative assessments of student performance and offers suggestions for improvement (Chickering & Gamson, 1987).

*Time on Task.* Time allocation, management of the allocated time, and engaged time (i.e., amount of time spent on interacting and material or activities) affect student learning. When students are engaged, they tend to learn more of the course content (Sorcinelli, 1991). Time management includes realistic instructional time during class and appropriate amounts of time allocated for class preparation outside of the classroom (Chickering & Gamson, 1987).

*High Expectations.* High expectations and the subsequent effort can influence the poorly prepared students, the motivated students, the junior faculty members, and the overall institution. When the instructor sets high, yet achievable, performance goals, the academic achievement among the students tends to increase (Sorcinelli, 1991).

*Diverse Learning.* Sorcinelli (1991) explains this seventh and final principle serves as the clip that binds all Seven Principles together. For each student sitting in the classroom, there are equal numbers of diverse talents and learning styles. Some students excel with hands-on activities while other students prefer a history lecture. Faculty who recognize these diverse talents tend to facilitate student growth and development inside the classroom and outside of the classroom (Chickering & Gamson, 1987).

*Conclusion*

Multifaceted and complex problems, such as student persistence at commuter institutions, require more than one single solution. More attention should be focused on the events that occur inside the classroom, and the relationship between in-class and out-of-class

experiences as they relate to academic integration and student persistence (Braxton, Bray et al., 2000). The Seven Principles for Good Practice in Undergraduate Education is broad enough to be applicable across disciplines, teaching methods, learning styles, and institutional context yet they are grounded in research and practice (Sorcinelli, 1991). The purpose of this study was to examine the relationship between the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987), academic integration, and subsequent institutional commitment.

## *Methods*

### *Participants*

The sample consisted of first-time freshman students who enrolled in the commuter institution during the fall of 2012, declared major within the College, and participated in one of the Summer 2012 Freshman Orientation Sessions. The College is part of a four-year institution in the southeastern United States that is considered a master's level school. Enrollment at the state university was more than 8,200 undergraduate and graduate students. Within the College, there are three departments which serve undergraduate students: School of Nursing, Teacher Education, and Health, Physical Education, and Exercise Science. Thirty-seven respondents completed the web-based survey. Of the 37 respondents, 32 (94.1%) were females, and 2 (5.9%) were males. Regarding racial classification, 16 (47.1%) were Whites, 15 (44.1%) were Blacks, and 3 (8.7%) classified themselves as belonging to Other. The majors included pre-nursing (47.1%), early childhood education (26.5%), exercise science (14.7%), health science (5.9%), health and physical education (2.9%), and secondary education: mathematics (2.9%).

### *Measures*

A self-reported survey, which combined established scales from two sources, was constructed for this research project. A web-based combined version of the Student Inventory (Chickering et al., 1990) and College Persistence Questionnaire (Davidson, Beck, & Milligan, 2009) were constructed using Qualtrics, a web-based survey software application available through institution's technology department. The order of the items was randomized to prevent bias in the responses (Braxton, Olsen, & Simmons, 1998).

*Student Inventory.* The Student Inventory (Chickering et al., 1990) is a 49-item measure designed to assess the student's participation in the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987). The 49 items were broken into seven scales. For each item, the response scale progressed from a rating of 1, which represents *Never*, to a rating of 5, which represents *Very Often*. The seven scales are (1) Student-Faculty Contact, (2) Cooperation Among Students, (3) Active Learning, (4) Prompt Feedback, (5) Time on Task, (6) High Expectations, and (7) Diverse Talents and Ways of Learning. Oberst (1995) conducted a validation study with 537 undergraduate students from a public college using this measure. He found that the measure had

construct validity and a predictive validity for level of achievement. The Time on Task Scale had the greatest contribution to the prediction model. Reliability analyses were conducted to test that the scales provided internally consistent measurements. A Cronbach's alpha of .60 or greater was established as the criterion for reliability (Hair, Black, Babin, Anderson, & Tatham, 2006). The alpha coefficients ranged from .556 to .817. Table 1 displays the alpha coefficients for each scale. The results suggest that this measure within the survey is an internally consistent measure with the exception of Cooperation among Students Scale.

Table 1.

*Reliability Analysis for Survey Inventory*

| Scale | Alpha Coefficient |
|---|---|
| Student-Faculty Contact | .781 |
| Cooperation Among Students | .556 |
| Active Learning | .817 |
| Prompt Feedback | .705 |
| Time on Task | .728 |
| High Expectations | .700 |
| Diverse Talents and Ways of Learning | .742 |

*College Persistence Questionnaire.* The College Persistence Questionnaire (Davidson et al., 2009) was developed using a list of variables found in the empirical literature. The Questionnaire had six scales: Academic Integration, Social Integration, Supportive Services Satisfactions, Degree Commitment, Institutional Commitment, and Academic Conscientiousness. For the purposes of this study, only the Academic Integration and Institutional Commitment Scales were utilized. The 12 items among the two scales had 5-point Likert type response scale. This measure was validated using 2,022 undergraduate students from three 4-year institutions and one community college using a principal components analysis. The results indicated the scales contained homogenous items. Furthermore, the scales were internally consistent and were distinctly different constructs. In addition to the convergent and discriminant validity, the measure was found to have predictive validity for freshman year persistence above and beyond pre-college academic characteristics (Davidson et al., 2009). Reliability analyses were conducted to test that the scales provided internally consistent measurements. The alpha coefficient for academic integration was .747, and the alpha coefficient for subsequent

institutional commitment was .889. The results suggest that this measure within the survey is an internally consistent measure.

*Data Collection*

Using an exploratory mixed-methods approach, the researchers conducted phase one with a quantitative web-based survey. For phase two, after data analysis was completed, the researchers conducted three interview sessions as a follow-up. The researchers sent an invitation to participate in the web-based survey to all first-time freshman students who participated in the Summer Freshman Orientation Sessions during the spring via institutional email. A second email was be sent one week after the initial email as a reminder. A third and final email was sent one week after the second email. As an incentive to participate, student respondents were given the option to enter their name in a random drawing for a $100 cash prize upon survey completion.

At the end of the web-based survey, there was a question that asked the students would be interested in participating in an interview to gather additional information about the experiences of first-year students. If the respondent indicated *Yes*, then the researchers contacted the participants via email to schedule the interviews. The interview sessions were conducted in a meeting room within the College and lasted approximately 45 minutes. Handwritten notes were taken by both researchers during the interviews and were reviewed after interview sessions.

## *Results*

*Phase One: Web-based Survey*

A series of descriptive and correlational analyses were conducted. The means for the seven scales from the Student Inventory ranged from 3.01 (Student-Faculty Contact) to 3.96 (Time on Task). Based on the measure's scaling, higher numbers indicated more frequency. The correlation coefficients ranged from .30 to .76 for the Student Inventory scales, which means the scales had a moderate to strong relationship with each other. The strongest relationship was between Academic Integration and Subsequent Institutional Commitment ($r$ = .51); however, there was a moderate relationship between Academic Integration and Diverse Talents and Ways of Learning ($r$ = .38). These findings suggest an indirect relationship between at least one of the Seven Principles and Subsequent Institutional Commitment through Academic Integrations. Table 2 presents the means and standard deviations for each scale within the survey, and Table 3 displays the correlation coefficients among the scales within the survey.

Table 2.
*Means and Standard Deviations for the Scales within the Web-based Survey*

| Scale | *M* | *SD* |
|---|---|---|
| 1. Student-Faculty Contact | 3.01 | 0.77 |
| 2. Cooperation among Students | 3.23 | 0.62 |
| 3. Active Learning | 3.42 | 0.66 |
| 4. Prompt Feedback | 3.22 | 0.66 |
| 5. Time on Task | 3.96 | 0.61 |
| 6. High Expectations | 3.85 | 0.57 |
| 7. Diverse Talents and Ways of Learning | 3.68 | 0.70 |
| 8. Academic Integration | 3.53 | 0.64 |
| 9. Subsequent Institutional Commitment | 3.96 | 0.92 |

Table 3.
*Correlations for the Web-based Survey*

| Scale | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2 | .50** | -- | -- | -- | -- | -- | -- | -- | -- |
| 3 | .76** | .44** | -- | -- | -- | -- | -- | -- | -- |
| 4 | .75** | .66** | .65** | -- | -- | -- | -- | -- | -- |
| 5 | .56** | .43** | .65** | .57** | -- | -- | -- | -- | -- |
| 6 | .62** | .44** | .72** | .59** | .72** | -- | -- | -- | -- |
| 7 | .48** | .54** | .57** | .61** | .30 | .54** | -- | -- | -- |
| 8 | .27 | .26 | .28 | .31 | .26 | .26 | .38* | -- | -- |
| 9 | .18 | .04 | .12 | .10 | .10 | .17 | .12 | .51** | -- |

*Note*: * indicates $p < .05$; ** $p < .001$.

*Phase Two: Interviews*

The research team analyzed the data that were collected and built a consensus on emerging primary themes and subthemes. Grounded theory (Glaser & Strauss, 1967) was

utilized to guide the methodology. Pseudonyms were assigned to participants to enhance anonymity. Participants included one traditional-aged White female (Michelle), one traditional-aged African American female (Vanessa), and one non-traditional aged White female (Sarah), who was married with three children. One participant, Michelle, lived on campus and the other two participants lived at home in surrounding areas.

*Academic integration.* Academic integration consisted of the how students perceived the academic programs at the institution as well as their experiences with specific instructional methods that either enhanced or were deterrents to learning. As participants were asked to describe the culture or climate of the University, what they liked most and least about the University, and about the courses that they were enrolled in during the Fall and Spring semesters, they shared their perception of the academic programs at the University and their level of satisfaction with instructional methods. Academic integration appeared to be linked to the primary themes of student perceptions of academic programs and student satisfaction was connected to instructional methods.

*Student perceptions of academic programs.* There was evidence to suggest that students' perceptions of the academic programs were linked to 1) class size; 2) campus resources as support; 3) academic factors related to the specific college environment; and 4) satisfaction that was connected to instructional methods.

Students' perceptions of the academic programs were linked to class size. Vanessa reported that what she liked most about the University was that the classes were small. She described this as, "the best part of the University." She reported that she enjoyed classes that ideally included 30 students.

Campus resources also emerged as a subject of students' perceptions of the academic programs. The campus resources appeared to be linked to services provided to assist students who need additional academic support. Sarah reported that the campus writing center provided her with academic support. Michelle identified math tutoring as a campus resource that she found helpful.

Another subject that emerged from students' perceptions of the academic programs was academic factors related to the specific college environment. These factors included the program of study and support provided through the Freshman Learning Communities (FLCs). Vanessa reported that she became aware of the teaching program at the institution from her eighth grade teacher. One of the reasons that Vanessa plans to continue at the University and within the College was based on the program's reputation. Sarah suggested that the FLCs assisted students in learning study strategies to be academically successful. In addition, Sarah felt the FLCs provided consistency for the students.

Participants described their satisfaction with the academic programs as being connected to instructional methods. Participants described satisfaction in courses in which

instructors were "energized and animated," encouraged interaction, utilized active group discussions versus lectures, stopped to make sure that everyone understood the information before continuing, provided feedback, set clear expectations, were available for questions, asked open-ended questions, and explained concepts in different ways. Participants tended to be less satisfied with courses in which instructors were not focused on the topic of the course, there was limited interaction, instructors did not explain concepts, and lecture material was not included on the tests.

*Student-Faculty Contact.* Student interactions with faculty and staff was one Principle that emerged from the interview data. Participants described support from faculty and staff and willingness to seek support as factors that contributed to their interaction with faculty and staff. All three participants reported that overall they felt as if they received support from faculty and staff at the University. Comments made by participants suggested that perceived support may have been associated with faculty and staff making efforts to reach out to students, showing genuine concern for students, and being able to assist students when needed. One participant, Sarah, stated, "People are always thinking about you even though you have no idea they are there sometimes…I feel like I am being looked after and I feel like they are doing that. I have enjoyed the learning I am getting." Another participant, Vanessa stated, "I feel like my professors really reached out…my professors have been a big support for me." Sarah and Vanessa suggested that willingness to seek support is tied to academic success. Sarah stated that it is important that students are not afraid to ask for help. Vanessa stated, "They [instructors] are good at engaging and encourage us to ask questions, but if you are scared it can be a barrier...So many people don't want to ask questions…" Participants also suggested that it is important that students get to know the professors.

*Collaboration among Students.* Collaboration among Students was another Principle that emerged from the interview data. Participants suggested that the FLCs provided an opportunity for students to interact. Sarah reported that, as a non-traditional student, she believed that the FLCs were helpful for her, as well as for students who were just coming from high school. She stated that the FLCs helped to create an environment in which, "you don't feel like you're on your own….FLCs help with social interactions without even working at it…you don't realize they will be your support… it helps." Vanessa reported that she was able to meet two new friends as a result of the FLCs.

## *Discussion*

Although there have been numerous studies which provide significant information on persistence of undergraduate students, this study provided information specific to students enrolled in a commuter university and identified some possible factors that may be attributed to student persistence. Both quantitative and qualitative data collected in this study support previous research on undergraduate persistence in particular, the previous research findings on commuter institutions. Qualitative data provided further insight into the quantitative research findings in this study.

The findings of this study support the past research findings of Braxton et al. (2004) and Tinto (1975, 1993). Although qualitative data in this study was not generalizable because of the small sample size, quantitative and qualitative data suggested that there was a strong correlation between academic integration and subsequent institutional commitment. Qualitative data suggested that academic integration included factors such as students' perceptions of academic programs, class size, campus resources, academic factors related to the specific college environment, along with instructional methods. Additionally, there was a moderate relationship between academic integration, and diverse talents and ways of learning. These findings support the claim of Sorcinelli (1991) that diverse talents and ways of learning is the binding principle for the Seven Principles.

This study provides implications to educators and commuter institutions. The study suggests that factors that are connected to academic integration can possibly serve as a buffer to students who are enrolled in commuter institutions and thus impact student persistence. It also suggested that FLCs can serve as a source of academic and social support for students. Students described experiences in which they learned specific strategies and were able to be connected with their peers as a result of being enrolled in FLCs. There was also evidence to suggest that the Seven Principles of Good Practice in Undergraduate Education was connected with students' perceptions of their programs. Institutions could provide professional development to faculty regarding the implementation of the Seven Principles within the classroom. Their use requires little or no expenditure of money by an institution, and the faculty can learn and incorporate the Seven Principles into the classroom easily, especially if they participate in faculty development programs.

Although this study can provide educators and commuter institutions with useful information, it is important to address limitations to the study. One limitation of the study is that there were a limited number of participants who were interviewed about their experiences when qualitative data were collected. Another limitation was the lack of male participants within the sample; however, for the targeted population with this College, the percentage of male was approximately 20%. Additionally, students who were interviewed were experiencing academic success and had not considered leaving the institution. As such, the findings of this study are not generalizable. Additional participants are needed to validate the preliminary quantitative and qualitative findings. Future studies could continue to explore the Seven Principles and determine specific characteristics that are most strongly associated with student persistence by conducting qualitative interviews of students who plan to continue to attend a particular institution, as well as by interviewing students who plan to leave.

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