# UNDERSTANDING THE IMPACT OF TOURISM & HOSPITALITY STUDENTS' ACADEMIC ENGAGEMENT ON THEIR ACADEMIC OUTCOMES

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## INTRODUCTION

Over thirty years of research in higher education shows that the time and energy students devote to educationally purposeful activities (e.g., engagement in active and collaborative learning) is the single best predictor of their learning and personal development (Astin, 1993; Pascarella & Terenzini, 2005, Carini, Kuh, & Klein, 2006). For instance, Ebert-May, Brewer, & Allred (1997) reported that undergraduate college students in active learning science classrooms reported significantly higher levels of science efficacy and understanding of scientific process skills compared to students who did not experience the active learning classrooms. Pascarella and Terenzini (2005) also found that students' own effort and involvement in academic, interpersonal and extracurricular activities offered by colleges greatly contribute to their academic success. Findings from these studies suggest that faculty, departments, and programs can all play an integral role in facilitating student academic engagement (Kuh, Kinzie, Schuh, & Whitt 2005; McKeachie, 2002). What colleges and programs offer influences how students would engage themselves, which directly contributes to students' learning outcomes at the college, or a program. Therefore, characteristics of high quality educational programs are programs where students are actively engaged in their learning, highly satisfied, and perceive high levels of learning and other gains. The implication for academic programs is clear:

programs should fully engage their students in a variety of activities that contribute to valued outcomes (Kuh, Kinzie, Schuh, & Whitt, 2005; McKeachie, 2002). Although the education literature is replete with studies examining the relationships between student engagement and their learning outcomes, there is no study in the tourism or hospitality literature that examines tourism and hospitality students' engagement and how it relates to their learning outcomes.

To better understand how tourism & hospitality programs can influence students' learning outcomes, this study attempts to answer the following research questions: 1) How do tourism and hospitality students with different levels of engagement differ in demographic characteristics? 2) To what extent does tourism and hospitality students' academic engagement predict their academic gains, satisfaction, and grades?

## METHOD

Data for this study comes from higher education institutions in the United States and Canada that participated in the *National Survey of Student Engagement* (NSSE) in 2007 and 2008. NSSE is administered annually by the Center for Postsecondary Research at Indiana University. Data collected by NSSE is widely recognized by many institutions and the US Department of Education as "a proxy for the value and quality of their [student's] undergraduate experience" (US Dept of Education, 2006, p. 23). NSSE is comprised of 85 items regarding the extent to which students are engaged in educationally relevant activities, as well as measures of self-reported educational gains and outcomes. A total of 14 additional items collect student background characteristics. NSSE data are used to calculate various academic engagement and academic outcomes scales.

For this study, seven scales were created using the NSSE data. These included three of the student engagement scales: Level of Academic Challenge, Active and Collaborative

Learning, and Student-Faculty Interaction; and four self-reported outcome variables: Gains in General Education, Gains in Practical Competence, Gains in Personal Social Development, and Overall Satisfaction. Psychometric properties of these scales are reported in detail by Kuh, Hayek, Carini, Ouimet, Gonyea, & Kennedy (2001).

*Student Academic Engagement:* 1) Level of Academic Challenge: challenging intellectual and creative work such as reading, writing, and higher order mental activities – 11 items; 2) Active and Collaborative Learning: how students take initiative for their own learning, and also working with others in solving problems – 7 items; 3) Student-Faculty Interaction: interacting in meaningful ways with faculty members inside and outside the classroom – 5 items.

*Student Self-Reported Gains:* 1) Gains in General Education: students self-report how much progress they had made gaining knowledge and skills in the areas of writing, speaking, thinking critically, and in general education – 4 items; 2) Gains in Practical Competence: students self-report how much progress they had made gaining practical and career related knowledge and skills – 5 items; 3) Gains in Personal and Social Development: students self-report how much they have gained or progress in learning effectively on their own, understanding people of different backgrounds, and other areas of personal and social development – 7 items; 4) Satisfaction: how satisfied they are with their educational experience – 2 items.

For the purposes of this study, only data from full-time seniors who self-identified their major with the descriptors tourism, resort, hospitality, and/or hotel were included. The two most recent years of data were combined in order to obtain a sufficient sample size. Using these criteria, 1,413 tourism and hospitality seniors were identified in the data file. These students were enrolled at 182 institutions across the United States and Canada. To assure the

appropriateness of combining two years of data, MANOVA was run comparing mean score differences by year on all variables included in the study. No significant differences were found. Thus, it was concluded that it is appropriate to combine these data.

## RESULTS

To answer the first research question, scores for the three engagement scales were recoded into bottom 1/3, middle 1/3, and upper 1/3. Therefore each respondent is coded as scoring either as low, medium or high for each engagement scale. Overall, few differences were found between less engaged and high engaged students (Table 1). Two differences were found and worth noting, however. Females were significantly more likely to be engaged in academically challenging activities compared to males. Non-transfer students report being significantly more engaged with faculty compared to transfer students.

Table 1: Demographic Characteristics of Low-High Levels of Engaged Tourism/Hospitality Students

| | | Academic Challenge | | | Active & Collaborative Learning | | | Student-Faculty Interaction | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Low | Medium | High | Low | Medium | High | Low | Medium | High |
| **Gender** | M | 39.3% | 33.6% | 27.1% | 41.7% | 17.8% | 40.5% | 36.9% | 24.9% | 38.1% |
| | F | 30.3% | 32.4% | 37.3% | 36.3% | 21.1% | 42.5% | 32.8% | 23.3% | 43.9% |
| **Race** | Asian | 32.4% | 24.3% | 43.2% | 35.1% | 5.4% | 59.5% | 43.2% | 27.0% | 29.7% |
| | Black | 28.4% | 33.9% | 37.6% | 28.7% | 18.5% | 52.8% | 29.4% | 24.8% | 45.9% |
| | Hisp. | 29.4% | 29.4% | 41.2% | 36.8% | 17.6% | 45.6% | 35.3% | 17.6% | 47.1% |
| | White | 34.0% | 32.7% | 33.3% | 37.8% | 20.7% | 41.5% | 31.4% | 24.1% | 44.5% |
| | Other | 22.4% | 34.7% | 42.9% | 42.9% | 16.3% | 40.8% | 38.8% | 25.5% | 35.7% |
| **1st-generation collg grad** | No | 30.7% | 35.0% | 34.4% | 36.5% | 22.4% | 41.1% | 35.2% | 24.4% | 40.4% |
| | Yes | 31.1% | 30.2% | 38.7% | 33.9% | 19.3% | 46.8% | 36.1% | 21.4% | 42.5% |
| **Transfer** | No | 32.3% | 32.7% | 35.1% | 37.0% | 20.7% | 42.3% | 29.6% | 23.8% | 46.6% |
| | Yes | 33.9% | 32.9% | 33.1% | 39.2% | 19.3% | 41.5% | 39.7% | 23.9% | 36.4% |

Hierarchical regression was used to investigate Research Question 2 (Table 2). To examine the impact of engagement variables on learning outcomes, variables including gender, institutions' admissions selectivity, enrollment size, and public/private were controlled during the analysis. All three academic engagement scales significantly predicted gains in general education, practical competence, and personal/social development. In addition, student-faculty interaction significantly predicted students' overall satisfaction with their educational experience and their GPA. Total explanation ($R^2_{adj}$) for gains in practical competence, general education,

personal/social development, as well as satisfaction and grades were .263, .242, .236, .091, and .039, respectively.

Table 2: Analysis of Impact of Student Engagement on Academic Outcomes

| | | Gains in . . . | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Practical Competence | sig | General Education | sig | Prsnal & Social Dev | sig | Overall Satisfaction | sig | Grades | sig |
| **Ctrls** | Gender | -.006 | | .046 | | .070 | * | .014 | | .070 | * |
| | Private/ Public | -.036 | | .017 | | .021 | | .000 | | .054 | |
| | Size of Enrolmt. | .016 | | -.018 | ** | -.049 | | .018 | | -.012 | |
| | Institution selectivity (Barrons) | .014 | | .027 | ** | .040 | | .062 | * | -.041 | |
| **Eng** | Academic challenge in classrm. | .307 | *** | .358 | *** | .195 | *** | .131 | *** | .006 | |
| | Active and Collab. Learning | .209 | *** | .120 | *** | .112 | *** | .047 | | .047 | |
| | Student-Faculty Interact. | .121 | *** | .096 | *** | .250 | *** | .158 | *** | .082 | * |
| | ***TOTAL $R^2_{adj}$*** | ***.263*** | | ***.242*** | | ***.236*** | | ***.091*** | | ***.039*** | |

## DISCUSSION

This study confirmed that tourism and hospitality students' engagement in academically challenging activities, collaborative learning, and interaction with faculty were important predictors of their academic gains. To ensure high program quality and students' success, tourism and hospitality programs should facilitate student-faculty interaction, collaborative learning among students, and academically challenging courses. Departments should emphasize the role of these activities to their faculty so individual instructors can design their teaching to encourage student engagement. Although the study suggested tourism and hospitality students

who were less engaged were similar to their peers who were more academically engaged, it also found that female students were more engaged in academically challenging activities than male students. The sample consisted of 73% female and 27% male. This may roughly reflect the gender ratio in tourism and hospitality programs. If majority of the tourism and hospitality programs are females, academic activities designed by instructors/faculty may have been more geared towards female students. To improve program quality, tourism and hospitality faculty and programs need to focus on ways that engage male students in tourism and hospitality.

The study also found that transfer students to tourism and hospitality programs were less likely to interact with faculty. Given the large number of transfer students present on most campus, especially in many tourism and hospitality programs, faculty should initiate efforts of interacting with transfer students. Departments can also develop and promote orientation programs that are designed especially to introduce transfer students to faculty.

REFERENCES

Astin, A. W. (1993). What matters in college. *Liberal Education*, 79(4), 4-15.

Carini, D. M., Kuh, G. D., & Klein, S. P. (2006). Student engagement and student learning: Testing the linkages. *Research in Higher Education*, 47, 1-32.

Ebert-May, D., Brewer, C., & Allred, S. (1997). Innovation in large lectures-teaching for active learning. *Bioscience*, 47, 601-7.

Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.

McKeachie, W. J. (2002). McKeachie's teaching tips: Strategies, research, and theory for college and university teachers. Boston: Houghton-Mifflin.

Pascarella, E. T. & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco: Jossey-Bass.

US Dept of Education (2006). A test of leadership: Charting the future of U.S. higher education. Washington, D.C.