Award Title

Implementation Fidelity and Outcomes Assessment for Transfer Orientation: Making Empirically-Based Decisions about Program Effectiveness

Awards Categories

Enrollment Management, Financial Aid, Orientation, Parents, First-Year, Other-Year and related

Executive Summary

Transfer students are increasing on college campuses throughout the country and have specific needs that differ from the traditional freshman population. Transfer Summer Springboard (TSS) is an Orientation program developed to intentionally meet the emerging needs of transfer students. In this program, we communicate to transfer students that they are valued members of JMU and understand their need for a specialized program to ease their transition. More specifically, we intentionally created programming to support students in meeting three objectives: (1) increase transfer students' academic requirements knowledge, (2) increase transfer students' resource knowledge, and (3) increase transfer students' social acclimation and community building.

In order to assess if these program objectives are being met, data are collected on outcome measures before and after TSS. However, due to involvement of many campus partners in the implementation of TSS, it cannot be assumed that the planned TSS program is actually the TSS program implemented. This assumption of high implementation fidelity (i.e., strong alignment between the planned and implemented program) is common in student affairs assessment and may lead to inappropriate interpretations of results. Implementation fidelity assessment highlights where the implemented program deviates from the planned program, which is critical when interpreting outcomes assessment results. That is, because outcome measures assess the *actual* program that was implemented, inferences from these data regarding *planned* program deficiencies are not always appropriate. For example, if students fail to meet a program objective it may not mean the planned program is ineffective. Perhaps the planned program would have "worked" if it was implemented correctly. Thus, the assessment cycle for TSS includes *both* outcomes assessment and implementation fidelity assessment to ensure valid inferences about program effectiveness.

At JMU, both academic and student affairs departments have shown great enthusiasm for our TSS program and its positive impact on transfer students. Moreover, relationships created from this innovative assessment process transcend divisional lines to increase investment between the assessment results and campus administration. We believe this model of administrative investment could transform higher education assessment if replicated across institutions. Importantly, our team presented TSS assessment results and the model of administrative investment to Deans, Associate Vice Presidents of Students Affairs, Directors of Students Affairs on our campus, and our Academic Council (including the provost). We have also presented this work at national conferences with a focus on sharing our practices with others to help strengthen assessment of learning and development in orientation programming.

In this award nomination, we demonstrate that TSS is a theoretically-sound and intentional program that uses innovative assessment practices to close the assessment loop. Using data from the past two years, we detail empirically-based improvements to TSS, which have resulted in gains in student learning. The success of the Orientation Office's assessment plan can only be accomplished through the strong partnerships across campus and a commitment within the office to include staff in the entire assessment cycle. The extensive human and financial resources dedicated to the assessment of TSS illustrate the commitment JMU has to the transfer student experience.

Award Description

Institutional Mission

James Madison University's (JMU) mission states, "We are a community committed to preparing students to be educated and enlightened citizens who lead productive and meaningful lives." The Orientation Office fulfills the JMU mission by "preparing students to be active and authentic participants in the JMU learning experience." In particular, the transfer student population requires assistance during the transition between institutions of higher education. Thus, Orientation intentionally designed a program (with clear objectives) to support and assist transfer students during this transition. Importantly, Orientation partners with *many* academic affairs and student affairs offices to help prepare transfer students for the academic rigor and social expectations of membership into the JMU community. More specifically, the success of our transfer program is a reflection of our strong relationships with the Center for Assessment and Research Studies (CARS), the Office of the Registrar, and Academic Affairs units. This collaborative relationship results in an orientation program that reflects and supports the overall university mission.

Transfer Student Needs: Addressing a Critical Campus Issue

Higher education research, enrollment data, and trends indicate that the transfer student population receives less attention and resources than the native freshman population. However, in the past 10 years, emphasis has been placed on assisting transfer students during their transition to their new academic and social environment. This paradigm shift involves creating a purposeful transfer experience which, in turn, aids in successful matriculation and graduation completion at the new institution (Mitchell, 2006).

In Virginia, universities have experienced an approximately 10% increase in enrollment during the past 10 years (State Council for Higher Education of Virginia, 2001). In response to this trend, articulation agreements were strengthened between community colleges and four-year institutions to increase affordability, access, and a smoother transition between community colleges and senior institutions. JMU's transfer enrollment is approximately 15-20% of the incoming class. Transfer students appear more academically focused and offer a rich, diverse perspective to the traditional campus feel at JMU (Mouton, 2005). Moreover, transfer student needs are very different than a freshman leaving home for the first time. In a study emphasizing the importance of examining the transfer student experience, Mitchell (2006) outlined and

recommended specific obstacles JMU should overcome to meet academic, social, and psychological needs among the transfer student population.

At any higher education institution, it is imperative that students learn, retain, and recall critical university policy information whether the student be a native student or a transfer student. More specifically, academic, graduation, and degree requirements are paramount for transfer students to understand in order to graduate in a timely manner (especially given their shortened time on campus). In addition, transfer students arrive with prior experience of campus resources and policies (from their initial institution). Thus, Orientation must re-train students to understand JMU resources and policies (e.g., paying bills, purchasing meal plans, and appealing transfer credits). Finally, we believe it is equally important to build community and foster a sense of connectedness to JMU for transfer students.

The issues outlined above are addressed in our Transfer Summer Springboard (TSS) program. Importantly, the student learning objectives were developed to reflect these issues and then programming was linked to these objectives. Ultimately, by meeting these objectives, we prepare students to be more successful during their time at JMU.

TSS Program Objectives/Outcomes

Orientation creates intentionally designed programs by encouraging staff investment in the assessment process. Together, the Orientation staff established goals for TSS and assigned a staff member to lead the efforts to hone the objectives. This collaborative process generates a more sustainable assessment process, develops staff members' skills in program assessment, and fosters excitement for assessment. The Orientation Office intentionally developed the following student learning and development objectives for TSS:

- Objective 1: *Increase Academic Requirements Knowledge.* Upon completion of TSS, students will be able to correctly identify the academic requirements for major, degree, and graduation completion at JMU.
- Objective 2: *Increase Resource Knowledge.* As a result of attending TSS, students will demonstrate an increase in knowledge of JMU resources by correctly matching resources and how they address student needs.
- Objective 3: *Increase Social Acclimation and Community Building.* As a result of attending TSS, students will indicate a significant increase in their cohesion to the JMU community.

Collaboration with Academic Affairs and Other Departments

Once the objectives were crafted, programming was created to facilitate student learning in order to meet these objectives. Orientation partnered with many stakeholders from across campus to plan and implement TSS. Given the importance of understanding the academic and degree requirements, Orientation worked very closely with Academic Affairs, the Office of the Registrar, and other key constituents to teach these academic expectations.

Our strong partnerships resulted in stakeholders who assisted in the refinement of objectives, the creation of programming, and the interpretation of assessment results. Most importantly, when inferences from the assessment data suggested changes to the program, stakeholders processed the results together and made decisions collaboratively. In other words, Orientation has support and buy-in from our most valued partners—the people implementing the program.

TSS Experience

The TSS experience consists of three phases, The *One Book*, TSS, and 1787 August Orientation Welcome Week. The *One Book*, a publication with a companion website, is the first phase in the orientation process. It offers a step-by-step guide with 14 steps outlining all the necessary information and tasks students need to complete prior to TSS.

The second phase, TSS (the focus of this nomination), is a one-day program occurring in the beginning of June for approximately 650-700 newly admitted fall transfer students. TSS facilitators explain academic and social expectations, identify and explain resources needed prior to returning to campus in August, and facilitate community-building with peers.

To affirm and validate the transfer students' decision to attend JMU, we want them to know that they are valued on campus. Thus, to begin TSS, the JMU president and a faculty member offers a welcome, the fight song is taught, and we share JMU fun facts.

The hallmark of TSS lies in the student staff we hire, which includes Assisting New Transfer Students (ANTs) who are peers who recently transferred to JMU. ANTs are able to empathize with the new transfers and make personal connections. The ANTs lead small group discussion about the academic and social experience and serve as a support not only throughout TSS, but also after orientation programming. We believe this programming helps foster a sense of cohesion to JMU.

While on campus, transfer students also learn about academic requirements and resources most pertinent prior to the academic year. A staff member from the Office of the Registrar and an Associate Dean of University Studies both present information on general education and degree requirements. As mentioned previously, these presentations are vital for a transfer student's success. Each piece of the program is intentionally designed to align with the student learning objectives established by the Orientation Office.

By intentionally designing the TSS program, we are able to complete each stage of the assessment cycle: (1) establish objectives, (2) map objectives to programming, (3) select or design instruments, (4) evaluate implementation fidelity, (5) collect data, (6) analyze data, and (7) use the results to make changes. As explained below, Orientation adapted the typical assessment cycle to include implementation fidelity which helps us better understand "how well a program is being implemented in comparison with the original program design" (O'Donnell, 2008). This integration of implementation fidelity and outcomes assessment allows us to "close the assessment loop": make informed program changes which are subsequently implemented and re-assessed.

Assessment Data

Assessment Plan and History

Assessment efforts for TSS have been in place for two years. Orientation Office staff established three objectives aligned with issues pertinent for the transfer student population: academic requirements knowledge, resource knowledge, and social acclimation and community building. With objectives in place, programming was created and mapped to each objective. For instance, in order for students to fulfill the academic requirements knowledge objective, the Associate Dean of University Studies delivers a presentation that informs students of JMU academic policies regarding credit hours, GPA requirements, and required tests. Table 1 provides just one example of the programming components developed to facilitate students meeting each objective.

To assess these objectives, measures were developed or selected from the literature. Academic requirements and resource knowledge are specific to JMU, thus measures to assess these objectives were created by university staff. For example, an Academic Requirements Knowledge item asks students to indicate the minimum number of credit hours required for graduation.

Table 1. *Linking of Learning and Development Outcomes to Programming and Measures*

Objectives	One Example of Programming	Outcome Measure
Academic Requirements Knowledge	General Education presentations	Academic Requirements Knowledge Scale
Resource Knowledge	Student Services Video	Resource Knowledge Matrix
Social Acclimation and Community Building	Peer Discussion	Perceive Cohesion Scale (PCS)

Note. All programming aspects are not listed in interest of space.

TSS is a program required of all transfer students, thus when designing the assessment plan, a control group that does not receive the "treatment" is not possible. Instead, our data collection plan consisted of a repeated-measures design with students completing the same measures before and after TSS. Gains on these measures would indicate increased student knowledge and positive changes in attitudes.

Data collection for the pre-test is an integrated part of The *One Book*. The pre-test is completed before arriving for TSS and contains all three measures in Table 1. At the end of TSS, students receive their student ID *after* completing our post-test, which includes all three measures in Table 1. Due to this design, all students completed the post-test, which was collected on iPads that served as dedicated kiosks.

Analyses were then conducted on data. A lack of increase in scores associated with the three objectives could be interpreted as lack of program effectiveness (i.e., the program in place is not effecting students as planned). However, we must recognize that outcome measures only assess the program that was actually implemented and not necessarily the program that was planned. Moreover, TSS is implemented and facilitated by *many* campus stakeholders; therefore, it is unknown if the planned program is actually the implemented program. Because of this potential discrepancy between the planned program and actual program, implementation fidelity assessment data were gathered in addition to outcomes data. It is the combination of fidelity and outcomes assessment data that allows one to make valid inferences about program effectiveness and in turn make informed decisions about program changes.

Implementation Fidelity Assessment

In order to assess implementation fidelity, we reviewed this literature. Our research indicated that there are five components of fidelity. First, we must delineate the components of the program designed to facilitate student learning. This stage, called *program differentiation*, details the specific features in each program component. For example, within the general education presentation program component, one specific feature is programming that explains GPA requirements necessary to graduate. This requirement is then assessed on the Academic Requirements Knowledge Scale. Program differentiation was completed for each objective and all programming aspects, resulting in a large table that mapped each specific program feature to student learning and development.

With specific program features mapped to objectives, we were able to audit TSS to assess the remaining components of fidelity. That is, several assessment partners posed as transfer students in order to experience the program as a student and collect data on the following aspects of fidelity.

The second fidelity component is *exposure*. Assessing exposure requires a comparison of the time allotted to the time actually spent on each program component (i.e., the planned program component should take 50 minutes, however, the implementer only spent 20 minutes).

The third fidelity component is *adherence*, which is a check of whether or not a specific feature of the program was presented. If planned information was presented, we then assessed the *quality* of the presentation (the fourth fidelity component) using a 3-point scale (1 indicating confusing coverage, 2 indicating adequate coverage, and 3 indicating clear coverage). In addition to the aforementioned fidelity measures, the literature advocated a fifth fidelity component providing measures of student *engagement* during the program. To assess engagement, three items were included on the post-test measures asking students to rate their level of attentiveness, engagement, and effectiveness of the presenters during TSS.

Innovative Integration of Fidelity and Outcomes Assessment for Program Improvement

As previously mentioned, assessment data was collected for 2010 and 2011. Because we were creating instrumentation in 2010, we were only able to collect post-test data for academic and resource knowledge. Data for the social acclimation objective was collected at both pre-test and post-test in both 2010 and 2011.

In the interest of space, objective-level data is presented in Table 2. When examining post-test scores across 2010 and 2011, we observed a better understanding of academic requirements and student resources, in addition to higher levels of perceived cohesion. The effect size in PCS scores was $d=.31$ for 2010 and $d=.34$ for 2011, a magnitude indicative of a small to moderate effect (Cohen, 1998). Importantly, the TSS program was changed from 2010 to 2011 using assessment data from 2010 with the expectation that we would see gains. That is, we *purposefully* compared these two years of data in order to evaluate if our assessment-based changes to the program from 2010 to 2011 were effective.

Table 2. *Objective-level Scores for 2010 and 2011*

	2010			2011		
	Pre	Post	Fidelity Score [a]	Pre	Post	Fidelity Score [a]
Academic Requirements Knowledge Scale	-	76.4%	2.2	65.8%	85.6%	2.42
Resource Knowledge Matrix	-	40.5%	1.75	42%	49.8%	2.43
Perceived Cohesion Scale[b]	6.72	7.27	3	7.15	7.57	3

Note: [a] Mean quality scores. [b] Mean scores range from 1 to 9.

In brief, as seen in Table 2, students answered 76.4% of the academic requirements knowledge items correctly at post-test in 2010. Orientation stakeholders were not pleased with this level of competence (the established cut-off was 90%). We questioned "why" students were performing poorly. When assessing the fidelity results, it became apparent that certain aspects of the program were not implemented or were implemented with low quality. Thus, programmatic changes were put in place to strengthen these areas of the program. In turn, in 2011 students correctly answered 85.6% of the items correctly. A similar process was conducted for resource knowledge. One can see that students still lack the level of resource knowledge that would satisfy our objective. The 2011 fidelity data indicated the program was still not implemented fully, which explained the low scores. Students' cohesion scores increased from pre-test to post-test in 2010 and 2011 and we observed very high fidelity both years.

In sum, the fidelity and outcomes assessment results engaged stakeholders in making empirically-based decisions about the TSS program. These informed decisions resulted in a stronger program and demonstrated the power of "closing the assessment loop". Moreover, the participation of stakeholders during the fidelity and outcomes assessment process provides a new energy and excitement about the program which will facilitate its sustainability. Bottom line: We are thrilled with the program's positive impact on student learning and development.