MOTIVATING AND SUPPORTING FACULTY IN NEW TECHNOLOGY-BASED STUDENT SUCCESS INITIATIVES: AN EXPLORATION OF CASE STUDIES ON TECHNOLOGY ACCEPTANCE

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Abstract

Higher education institutions are increasingly implementing technology tools as a key component of student success initiatives. Because faculty are an essential part of any student success programming, it is important they are able to effectively engage with these student success technology resources. By examining two instances of technology implementation, the authors identify potential strategies and common roadblocks during program implementation. This article reviews theories on faculty motivation, as well as technology adoption cycles, to make recommendations to assist institutions and administrators in identifying strategies that can result in increased buy-in and engagement with technology resources.

Keywords: faculty motivation**,** technology acceptance**,** innovation adoption**,** program, implementation**,** change management

In an "Inside Higher Education" opinion essay (October 7, 2014), Philip Altbach and Martin Finkelstein's opening sentence encapsulates the opinions of many about the

pressure and expectations placed on faculty in higher education today: "The academic profession is squeezed from all sides." This increasing pressure is generated from external opinions about the efficacy of faculty members, higher education reform originating at the state and federal levels, and declining resources in higher education (Altbach & Finkelstein, 2014; Blackburn & Lawrence, 1995). Faculty members have always struggled to reconcile their multiple competing roles and responsibilities (Baldwin & Blackburn, 1981); however, the wheels of change, particularly over the last five to ten years, continue to grind steadily forward and regularly introducing new tasks. Despite these challenges, institutions expect faculty at all levels to engage consistently in various ways, but many are reluctant (or feel unable) to do so effectively.

One of the increasingly demanding areas of faculty involvement is student success. Institutions are investing in technology resources, such as learning management systems (LMS) and predictive modeling, to better identify, track, and engage with students to improve success (Buchanan, Sainter, & Saunders, 2013). This requires those involved with student success to learn to trust and use these tools effectively. This article explores effective strategies administrators can use to encourage faculty engagement with student success technology tools through the lens of two case studies on the implementation process. By reflecting on a successful implementation, as well as a separate initiative that struggled to garner buy-in, this article will highlight potential obstacles and utilize research on faculty motivation and innovation adoption cycles to discern some methods that can result in more faculty buy-in and interest in engagement opportunities.

Case Study #1: Flight Path Attendance Initiative

Program Overview

In 2013, the Office of Enrollment Management and Student Success at Tennessee Technological University began efforts to implement the Flight Path Attendance Initiative. This initiative was designed to be a central programmatic element for "Improving the Undergraduate Student Experience," one of the university's four focus areas within the institutional strategic plan. The primary focus of Flight Path is to encourage consistent class attendance by freshmen. Regular class attendance is considered a major factor in determining the academic success of freshmen. This initiative represents a collaborative effort among multiple offices within both Academic Affairs and Student Services, including departmental faculty, Residential Life, Retention Services, and academic support staff. It is designed to identify and support first-year students with documented course absences by utilizing early intervention contacts from trained members of the Residential Life staff, as well as Retention Services, to ensure students are connected with faculty, staff and services specifically allocated to facilitate their success.

Flight Path is not a mandatory attendance policy: it does not require faculty to keep regular attendance records or to incorporate attendance into the course requirements. Instead this program should be characterized as a type of formative assessment, much like midterm grades, to share information with other student services professionals early in the student's classroom experience to determine if students are progressing well or are in need of an intervention. Tennessee Tech University does not require faculty to take attendance

but encourages and motivates faculty to consistently volunteer attendance information about their students through the program's design and administration.

Retention Services receives all attendance data and compiles it into an Excel spreadsheet for distribution to Residential Life staff to initiate Flight Path contacts. Again, for the purposes of the Flight Path initiative, it is not necessary to have daily attendance reports from faculty each time a course meets. Any information that is shared daily, weekly or intermittently is incorporated into the program and used to determine which students require interventions. Once a student has two documented absences in the same course, the Office of Retention Services will request one of two different Flight Path contact methods: 1) a brief visit from a Resident Advisor for on-campus students; or 2) a brief phone call from Retention Services for commuting students.

Implementation of Flight Path

In order to focus on first-year students, the recruitment efforts for faculty participation focused on full-time and adjunct faculty who teach 1000-level courses as well as General Education courses. The Office of the Provost and the Office of Enrollment Management and Student Success (EMSS) were the primary points of contact throughout the initial communication stage before the pilot version of the program launched in the fall of 2013. Communication about this initiative's pilot semester started with the academic deans and other faculty members in key leadership positions, such as Faculty Senate; they were provided information about Flight Path's role in the university's strategic plan and details about the program design. The university also collaborated with an outside vendor to add attendance capabilities to the institution's mobile technology and to design an

accompanying web-based platform to log attendance reports. Additionally, EMSS hired a faculty consultant with experience implementing attendance programs to assist in implementation of this program, particularly with training efforts for Residential Life.

During the inaugural semester, EMSS contacted participating faculty (n = 293) via email during the first week of the semester as a reminder for participating in the program. While there was some limited participation by faculty in the early weeks, involvement dropped sharply as the program's weakness were uncovered. The primary challenge was the attendance technology: the attendance web module and supporting mobile application were unreliable and not as simple to use as originally conceived. In addition, the position of Director of Retention Services had not yet been hired, so it was difficult to coordinate and communicate consistently with faculty throughout the semester. Once the Director was hired, efforts were made to follow up with faculty who had attempted to participate in Flight Path (17% of the participating faculty) to collect feedback prior to the spring semester.

A 10-question survey was sent to 52 faculty members. 18 participants (34%) submitted the following responses:

- 77.7% took attendance at every class meeting.
- 94.4% consistently took attendance throughout the semester.
- 27.7% indicated "limited time" was the largest obstacle of recording attendance, followed by "concerns about student deception" (22%).
- 72.2% had attempted to use the Attendance Webpage to log attendance and over half (55.6%) used it the majority of the time.
- 50% found the Web Attendance site "Very or Somewhat Easy" to use.

- Very few of the professors used mobile technology to record attendance: 50% used a desktop or laptop, followed by 39% who used a pen & paper.
- 50% remain open to the idea of attendance but felt the program's implementation had been difficult and/or adjustments should be made to improvement effectiveness.
- The most common responses about how Flight Path could be improved were:
    - 33.3% wanted improved accuracy & efficiency of the data;
    - 27.8% wanted more information about the purpose and expected outcomes of Flight Path; and
    - 27.8% wanted additional training on using technology to record attendance.

Moving into the spring semester, the Director of Retention Services scaled back the program to only include a fraction of the professors (n=63) from the fall pilot group to address many of the comments from the feedback survey. The use of the mobile app's attendance feature was suspended and more focus was placed on improving the reliability and ease of use of the web platform. The Director made brief presentations at several January faculty meetings, as well as at the new faculty orientation, to improve the level of understanding about the purpose and design of the Flight Path. A new communication plan was developed to include an introductory email and four follow-up reminders aligned with key dates on the academic calendar (e.g., last day to add a class) to encourage participation. Finally, the Flight Path and Attendance websites were redesigned both to become more explanatory (e.g., attendance research) and to provide resource repositories (e.g., FAQs and directions with screenshots) for faculty to reference when logging attendance information. Unfortunately, there were continuing technical problems with the attendance web portal that prevented consistent reporting; however, anecdotally faculty seemed more comfortable with the program and its goals based on the feedback via emails and phone calls.

It became apparent that technology issues presented a major roadblock to the successful implementation of Flight Path. Over the next few months, upgrades were made and more extensive testing was conducted to better ensure the web platform's reliability. When Flight Path launched again in the fall of 2014, it was with the original, larger number of faculty members (n = 277) using the expanded communications plan from the spring and better technology support. Faculty participation increased from 52 participants in fall 2013 to 118 participants in fall 2014: this number constituted 42.6% of the faculty members who were contacted to participate in this initiative. Equally as important, almost one third of the participants submitted an attendance report at least three times during the semester. This increase in faculty involvement contributed to improvements in the program's ability to contact more students throughout the semester: the Office of Retention Services contacted 462 students in the fall of 2014, compared to contacting fewer than 100 during the fall of 2013. Anecdotal reports from faculty also indicated higher incidents of students reengaging with class after absences.

Case Study #2: Student Success Collaborative

Program Overview

In the spring of 2014, Tennessee Technological University also began the process of implementing Education Advisory Board's (EAB) Student Success Collaborative. EAB provides a combination of predictive analytics software, research and consulting to support success initiatives at two-year and four-year universities. The decision to utilize the Student Success Collaborative ("Collaborative") also supports the university's strategic plan to improve undergraduate student success by providing quality and consistent

academic advising. The Collaborative is a dynamic technology tool that utilizes predictive analytics to assess a student's aptitude in a particular major and their likelihood to persist to graduation in that major. The Collaborative allows advisors to proactively assess student's fit in a major, identify at-risk students in a timelier manner, and offer appropriate interventions to assist students with making progress toward graduation.

The Collaborative uses nine years of Tennessee Tech University's historical student data to form the basis of its predictive analytics. The model uses pre-enrollment data (such as high school GPA, test scores, home zip code, gender, transfer institution and credit, etc.) as well as current student course information (such as course grades and credit accumulation). The platform offers advisors the opportunity to see how currently enrolled students compare to past students who successfully graduated from the same major. The Collaborative assigns each student a risk level (low, moderate, or high) based on the previously mentioned factors and assesses whether students are at risk for being unable to successfully complete their chosen major. The platform assigns risk levels to other Tennessee Tech majors in case a student needs to request a change of major. The Collaborative also offers institutional reports examining student success data, such as first-term GPA, which can assist academic administrators with making curricular changes that could benefit and enhance progress towards graduation.

Implementation of the Collaborative

The Student Success Collaborative was started as a pilot project in summer 2014 with four academic programs from four colleges using professional advisors and a small number of faculty advisors. The EAB consultant came to campus and conducted training

with the advisors, held open forum sessions for faculty and administrative staff who were not in the pilot group, and held in-depth sessions with deans, assistant deans, and key faculty and administrative staff within the pilot colleges. These in-depth sessions were used to create customized curricular milestones courses (i.e., success markers) and to explain the information that can be gleaned from this tool. They were also used to generate interest among the deans for accessing key student- and program-level data that were not easily accessible elsewhere.

In fall 2014, the directors of Retention Services and Advisement Services were charged with expanding the use of the Collaborative across campus. To complete the expansion, over 100 majors and concentrations needed success markers, professional advising staff and faculty advisors required training, and the project's leads still needed increased engagement from deans and department chairs. The first challenge was to garner buy-in from the deans, department chairs, and faculty advisors. This started by attending a Deans' Council meeting to discuss the project and explain what was needed from their units. The directors of Retention Services and Advisement Services sent follow-up emails and scheduled individual meetings with each academic unit. Meetings with all seven academic deans were conducted, and afterward emails were distributed that explicitly stated what was required to move forward with the Collaborative. Additional meetings with some department chairs were also scheduled with corresponding emails sent after their conclusion. Two months later, the EAB consultant returned to campus to conduct training for academic administrators and faculty. Unfortunately, since the individual department meetings in the fall, very few of the departments had shown any

interest in actively utilizing the Collaborative. Despite the fact the data workshop was scheduled in response to these administrators' requests for additional information, only one Dean from the seven academic units attended; this was a frustrating development and a clear indication of the lack of progress.

Due to the lack of feedback, it was also exceedingly difficult to ascertain how and where to proceed. For example, immediately after the workshop, a department chair communicated that he was unsure what his responsibilities were regarding implementing the Collaborative, despite staff efforts to communicate earlier in the term. Although initial outreach explained what the goals of this initiative were, directors allowed each department to determine the best way and timing to proceed; this was an attempt to reassure each department that they still had input and control during this process. Unbeknownst to the project leads, the lack of details was perceived as ambiguity, which translated into uncertainty about what needed to be done. This interaction revealed that while faculty members want autonomy, there is also a need and a desire for structure when it comes to administrative tasks. As a result of these challenges, the majority of academic departments and faculty advisors have yet to view the Collaborative as an important student success resource. This technology will continue to be an ongoing project across campus; early successes in utilization by the professional advisors in the academic Student Success Centers are encouraging. In 2014, Collaborative users logged approximately 3,000 logins and over 9,500 student status updates. (Student status updates allow advisors and administrators to track modes of student contact including one-on-one appointments, group advising, emails and phone calls.) The following year, utilization increased to 7,800

logins and 12,000 status updates. The directors, as well as others within Enrollment Management, believe continued use of the Collaborative will create more coordinated student support efforts across campus offices. These revelations have spurred the consideration and design of a new, more focused directive campaign within academic areas with specified deliverables and deadlines for completion.

What Makes It Work: Motivation & Buy-In

Research on Faculty Motivation: Expectancy Theory

After considering the different levels of success in facilitating faculty engagement within these two initiatives, it is clear that it is essential to better understand the conditions and factors that influence faculty engagement—especially faculty motivation:

> A richer understanding of faculty perspectives is essential to systemic change because such change must ultimately be enacted at the personal level as individual faculty enter classrooms, interact with students, and make choices about what to study and how to design research programs. (Matusovich, Paretti, McNair, & Hixson, 2014, p.304)

Studies on faculty motivation in higher education have examined a variety of issues, including interest in teaching, commitment to research, and role theories (Matusovich et al., 2014; Chen et al., 2006; Mowday & Nam, 1997; Blackburn & Lawrence, 1995). While individual faculty members have the ability and authority to determine their own behavior, the social norms within the academic profession and the institution's campus culture also influence what behaviors are considered worthwhile and which are undesirable (Blackburn & Lawrence, 1995; Faia, 1980).

A particularly compelling area of research is *expectancy theory*, which posits that an individual decides how to behave based upon a behavior's most likely outcome and the value of that expected outcome (Chen et al., 2006; Blackburn & Lawrence, 1995). Expectancy theory suggests that individuals are only motivated to act if they perceive their actions will lead to a desirable and beneficial outcome. This theory is salient in this context because it recognizes both the individual's autonomy and the impact of the social environment, in this case higher education and faculty roles within higher education (Matusovich et al., 2014; Mowday & Nam, 1997; Blackburn & Lawrence, 1995). Applying expectancy theory to faculty motivation involves the consideration of three key components; Hancock (1996) defines these as expectancy, instrumentality, and valence. *Expectancy* is defined as the faculty member's belief in their ability to effectively perform the given task, *instrumentality* is the assumption that the task will result in certain outcomes, and *valence* is the perception that the expected outcome is both desirable and valued (Hancock, 1996).

These three factors are important in understanding and developing faculty engagement in new initiatives on campus. First, if the initial factor influencing motivation is the expectation of success, faculty members are more likely to engage in activities that they feel competent to complete successfully (Matusovich et al., 2014; Mowday & Nam, 1997; Hancock, 1996; Blackburn & Lawrence, 1995). It is not unexpected, then, that faculty would be reluctant to use technology or strategies requiring new or unfamiliar skills. Next, the goals of the initiatives and the expected outcomes must be clearly communicated, so that faculty members are not forced to make assumptions about what the institution's expected

outcomes are in any given context (Matusovich et al., 2014; Hancock, 1996). Finally, it is imperative the outcomes the faculty expect to receive from their involvement are positive and personally beneficial, as well as directly related to their perceived role as a faculty member (Matusovich et al., 2014; Mowday & Nam, 1997; Hancock, 1996). This final factor is especially important to consider because faculty deem opportunities for professional growth and advancement as some of the most pivotal moments during their career (Baldwin & Blackburn, 1981).

In addition, the valence of outcomes associated with professional activities is complex to understand because it is a reflection of both the individual's values and environment (Mowday & Nam, 1997; Blackburn & Lawrence, 1995). Blackburn and Lawrence (1995) noted that it was the interrelated nature of the intrinsic factor of self-knowledge, such as perceived level of competence, and the extrinsic factor of social knowledge, such as the perception of environmental expectations, that can best determine faculty behavior. While faculty highly value their autonomy (Matusovich et al., 2014; Blackburn & Lawrence, 1995), the norms and behaviors appreciated and valued by the campus culture can influence how faculty members determine the likelihood of receiving desired rewards from different types of work or engagement (Mowday & Nam, 1997). For example, even if an English professor considers teaching as her primary role at her institution, if the administration expands and promotes recognition and rewards related to research activities, the professor may adapt her work priorities to include increased research activities more likely to garner professional advancement.

Lastly, faculty experience increased *role strain* (pressure caused by the demands to perform multiple roles or to complete competing tasks within a single role) when they are presented with new responsibilities. This can negatively affect their feelings of efficacy and performance (Faia, 1980). This means that faculty must consider not only the positive benefits they could earn by increasing engagement with a new activity or skill, but also the potentially negative impact of spending less time on other pursuits that have provided valued outcomes in the past, such as teaching, research, or grant-writing (Matusovich et al., 2014; Hancock, 1996). Blackburn & Lawrence (1995) summarize this challenge best: "What bothers them [faculty] most is that they do not have enough time to accomplish all that is on their agenda" (p. 295). This involved and nuanced cost/benefit evaluation may explain why faculty cite the pressure from their workload as the greatest source of stress within their workplace (Baldwin & Blackburn, 1981).

Research on Technology Adoption

With the ever-increasing number of responsibilities in higher education comes the growing use of technology; computers, software programs and other applications are often viewed as a panacea to help alleviate the pressures of an individual's workload. However, research shows that technology is not always welcomed or appreciated by everyone expected to make use of it (Buchanan et al., 2013). It is essential to understand whether that reluctance is based on internal factors that are difficult to influence, such as attitude, or external factors that an institution can more readily change, such as available resources. Specifically, Buchanan, Sainter & Saunders (2013) found that feelings of self-efficacy – especially related to technology, the perceived usefulness of the technology, and reliability

of the institution's technology infrastructure – could all impact faculty use of technology resources. These factors illuminate central contextual variables that must be considered when introducing new technology at an institution.

In *Crossing the Chasm*, Moore (2002) proposed a Revised Technology Adoption Life Cycle model that explains how and when various populations utilize new technology. The model has five phases of adopters and has two small breaks in uptake of new technology, as well as one large break or chasm. The model seeks to explain how each segment of the population utilizes new technology and how to capture each segment's interest in order to market new tools to them. Moore asserted in the first iterations of the model that the phases flowed continuously between each of the stages; however, practical application of the theory demonstrated it was not a continuous flow from each phase to the next. Instead small breaks existed between each phase, including one transition with a large chasm to overcome. The various phases and their characteristics will be explained, as well as where to expect gaps in uptake.

The first phase is the Innovators, or the Techies. Techies love learning about and using new products just for the sake of new technology. They are the ones who are the first to recognize the potential of the product, as well as appreciate the design of it and its competitive edge over other products (Moore, 2002). The Innovators will spend many hours investigating and using the product and will be more willing than others to forgive the product's shortcomings. They will give their honest and candid feedback on the technology because they genuinely care if the product is successful. Unfortunately, this segment of the population is very small and is not able to greatly affect the market.

The second phase is the Early Adopters, or the Visionaries. The early adopters tend to be very vocal about the product because they see the benefits to their organization of adopting the new product. The visionaries do not value the technology itself, but they do value the strategic advantage their organization can gain from using the technology. This population loves to be involved in the pilot phase. They can be easy to sell to, but hard to please (Moore, 2002). Visionaries communicate horizontally within their organizations and work to promote the product within the organization.

The third phase is the Early Majority, or the Pragmatists. The early majority makes up one third of the population, but they are difficult to characterize because they tend not to draw attention to themselves (Moore, 2002). In order to successfully market to this population, it is important to understand their values and use that knowledge to the best advantage. The pragmatists are hard to win over, but once committed are loyal. They want strong references from others who have utilized the product. When they invest in a new technology, they want to know about the company, its quality, its infrastructure, and available support because they are investing for the long haul. They want an established product that is ready and easy to use.

The fourth phase is the Late Majority, or the Conservatives. This population is also one third of the total population. However, they are against discontinuous innovation, meaning this subpopulation is resistant to products that cause them to change their actions (Moore, 2002). This group is a very hard group to win over because of their low comfort level with technology, stubborn resistance to change, and slow embrace of new technology.

They want pre-assembled packages with everything bundled together, as well as a strong support system.

The fifth phase of the model is the Laggards, or the Skeptics. This population totals about one sixth of the total population. Unfortunately, this segment of the market works to block the emergence of technology in the market or workplace. Marketing professionals typically ignore this subset of the population; however, Moore (2002) suggests taking the opportunity to hear their concerns and complaints about the technology as they can give insights into the negatives of the product.

Moore (2002) found that technology adoption is not one continuous movement through each of the above-mentioned phases, but a disrupted and cracked continuum; and therefore the model was adapted to show these chasms. When transitioning from one group of adopters to the next, there is a dissociation between the two groups noted as "the difficulty any group will have in accepting a new product if it is presented in the same way it was to the group to its immediate left" (Moore, 2002, p. 16). The dissonance between groups causes a slight or more moderate shift in momentum in the adoption of the technology and, if not handled appropriately, can cause a failed transition between groups.

The first crack in adoption of any new technology happens between the innovators and the early adopters. Innovators are so tech savvy and appreciating of new technology that it is sometimes difficult for the early adopters to see the true value of the product as it relates to their day-to-day practice. The early adopters need assistance in understanding the technology's use as it relates to their business. Because the early adopters are

visionaries within their organizations, this is not typically hard to achieve, and thus only presents a minor crack in the technology's adoption cycle.

As the technology adoption cycle moves from early adopters to early majority, the model introduces the large chasm in the cycle and the greatest opportunity to disrupt the adoption cycle. Moore (2002) asserts that is the "most formidable and unforgiving chasm," and yet it often goes unrecognized (p.19). To overcome this chasm, the technology as well as the promoters of the technology must prove that what was promised by the visionaries and the technology promoters has been delivered. In this stage of adoption, the promoters transition from working with visionaries to pragmatists, and the pragmatists want to be sold on the vision. The pragmatists are reference-oriented and also want to be supported during their use of the technology. The chasm widens if the promoters are unwilling or unable to show the pragmatists, or the early majority, the purported value and immediate uses of the technology. The second, and final, crack occurs between the early majority and late majority. At this point in the technology's adoption it is mainstream; however, the late majority need a product that has been made easier to use. If this adaptation and ease of use is not heavily promoted and explained, the technology's adoption may be stalled.

Moore (2002) cautioned that in order for the technology adoption cycle to function optimally, the markets, or groups of adopters, must be willing and able to reference each other. In applying this to the higher education setting, faculty members must be willing and able to refer to the knowledge and expertise of professional administrators who may be the visionaries, early adopters, or promoters of the technology, and vice versa. If the group members are unwilling to value the other groups' opinions, the technology adoption

cycle can be, and often times will be, disrupted. If this self-referencing does occur within the organization and between the markets, word of the technology spreads and assists the promoters in selling it to the other groups. Moore emphasized that "the more self-referencing the market and the more tightly bounded to its communication channels, the greater opportunity for such effects" (p.30). Understanding the power of self-referencing is vital to how the promoting administrators can leverage faculty members' interest in the new technology and utilize it to spread the word to their colleagues. Understanding campus culture and how the faculty and administrators interact is essential when identifying specific markets, or technology adoption groups, in order to have well defined audiences and audience-specific strategies during the implementation process.

Lessons Learned: Strategies for Engaging Faculty with Student Success Technologies

How can this research on motivation and technology adoption help uncover effective strategies for increasing faculty engagement in student success? Matusovich et al. (2014) noted "research focusing on faculty beliefs and motivation can complement existing research on diffusion of innovations by offering a framework structured on why individuals make the adoption or non-adoption choices that they do" (p.308). So what are the central questions to highlight aspects from both case studies to reveal why faculty were willing (or reluctant) to engage with either initiative?

1. Are there clear factors faculty used to decide what their level of involvement would be?
2. Did faculty competencies and skills impact the desire to be involved? Why or why not?
3. How well were the expected outcomes defined and communicated to faculty?

4. Is it clear how valued these initiatives were by faculty, as well as the campus as a whole?

The steady improvement in faculty involvement in the Flight Path initiative constitutes a "success-in-progress" when evaluating faculty engagement, which doubled in one year's time. Over this program's inaugural year, three key action areas were pivotal in helping to promote Flight Path's continued improvement: the transparency of the initiative's intent, communicating the value of the initiative within the context of the faculty's role, and the creation of a closed feedback loop for faculty input. Taking attendance was initially met with concern that the program would infringe on the academic domain and the faculty's autonomy within academic areas. In addition, the administration prefers not to enact any mandatory policy, like requiring attendance reporting, because of a campus culture that often perceives top-down change management as heavy-handed and out of touch with faculty roles and responsibilities. However, being transparent about the initiative's priorities and responding to faculty concerns quickly reduced much of the initial uneasiness. It was also essential to ensure that the communicated goals were not just from the perspective of the administration, but that there had been consideration about how the program could positively affect the faculty's work experience. It was equally important to continue to communicate with faculty so they were aware that their efforts were appreciated and the work contributed was being used. Closing the feedback loop demonstrates that the faculty's involvement is valued and appreciated by the institution.

After reflecting on the Collaborative case study, it is apparent Enrollment Management must better identify markets, or groups of users, for this technology across

campus. Sometimes, as evidenced in the cracks of the technology adoption life cycle, two markets have trouble communicating and valuing each other, which causes a lag in uptake. While it is important that the deans are aware of what is happening, they are not the sole catalysts needed to implement a new initiative at the departmental level. Instead this initiative needed (and still needs) key faculty members and department chairs willing to be early adopters of the program and to see the value in the platform. The professional advisors were the pilot leads on this technology implementation project. Difficulties getting faculty advisors involved have continued because faculty were not involved in the pilot stage. Once faculty advisors have been trained and brought online with the technology, those early adopters can be utilized to promote the tool amongst their peers to encourage others to utilize the technology. Then the process can harness the power of self-referencing, mentioned by Moore (2002), by early adopters talking with their peers about the benefits of the new technology. This communication strategy will be helpful when expanding to additional faculty members because they will be able to share their experiences to better contextualize the tool's value. Engaging and encouraging faculty is challenging; however, the buy-in from faculty is absolutely crucial to student success initiatives on campus.

In conclusion, the practical lessons learned in each of these cases, combined with research on motivation and innovation adoption, reveals strategies institutions can utilize to get faculty to engage in new roles and responsibilities. Administrators should: 1) find ways to assess and supplement faculty members' perception of their competency level in the anticipated activity; and 2) clearly communicate the value of the initiative in a context

that is relevant to faculty goals. Helping faculty develop feelings of competency can be accomplished by providing early opportunities for training and continuing development as well as creating intentional interactions to boost faculty self-efficacy, so faculty will feel they are skilled enough to be successful at this new task. Additionally, there must be investments made to ensure the technological infrastructure is ready to support these innovations. Lacking such investment, efforts to engage faculty will be overly difficult (much like the initial roll-out of the Flight Path Attendance program) and unsustainable (Buchanan et al., 2013).

As an administrator, there are a variety of ways to create intentional interactions to improve the communication about a program's implementation:

- Do not be afraid to respond to critics: use the negative feedback as ways to encourage interest and interaction during the initiative.
- Communicate early wins: allow early adopters to share their experiences and what they were able to achieve as a result.
- Create development opportunities that allow interaction with early adopters who can espouse the benefits of the program to the people who are slow to engage.
- When promoting new technology, ensure the tool can be previewed, and be sure to demonstrate and emphasize its ease of use.
- Work carefully with the early adopters to create usage guides/FAQs that will make adoption of the technology or involvement in the new initiative easier for the late majority.

These strategies for making the most of the communication and contact between key stakeholders are also an important element in highlighting value. Research on expectancy theory indicates the importance of acknowledging a task's outcomes and the perceived value of those outcomes. By providing early adopters with a public forum to share personal success stories, it becomes much easier for other faculty members to also classify the activity as worthwhile. As noted in the research on technology adoption, there can be some difficulty when groups in different stages try to relate their experiences to one another. As a result, communications should remain fluid and adaptable as the groups of key stakeholders change. Additionally, providing those forums for critics can give administrators insight into the faculty's priorities, so the conversation about new programs can remain relevant and timely. Although these strategies may appear basic, all require vigilance and commitment by those selected to lead any faculty-based programming.

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