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ePortfolios and Faculty Engagement: Measuring Change Through Structured Experiences

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In this paper we examine a faculty development structure that supports general education, specifically ePortfolio, assessment focusing on identifying the characteristics of engaged faculty. It is through this inquiry that we have developed an action plan that includes a system of best practices that can lead to increased faculty engagement. Participants in our study were members of a series of General Education and ePortfolio Summer Assessment Institutes (2013, 2014, 2015). Most of the participants were either tenured faculty or lecturers. The resulting framework proposed here is a more inclusive systems-approach to faculty development throughout the university. As a result of our research, we have come to recognize that if we are to transform teaching and learning, a faculty development system must be in place that provides faculty a purposeful, integrated collection of engagement activities rather than a menu of options from which to choose. Doing so fosters a culture of continuous learning on the part of faculty that encourages innovation and creativity in the classroom.

In addition to increased obligations related to teaching, research, and service, higher education faculty are often expected to participate in programmatic assessment of student learning. Unfortunately, much of what has been done in the name of programmatic assessment has failed to engage large numbers of faculty in significant ways (Hutchings, 2010). Supporting our strategic plan to enhance student quality and performance while addressing the changing nature of accreditation, Clemson University implemented an ePortfolio requirement designed to provide assessment data for its general education competencies. In our original plan, students collected assignments from their general education courses, linking them to the appropriate competencies. Central to the success of this program were the support and engagement of our faculty, particularly those teaching general education courses. In an earlier article published in this journal, Ring and Ramirez (2012) pointed out that to be successful the program needed to address challenges related to faculty buy-in, clarity of purpose, motivation, and use of technology. In this paper, we examine a faculty development structure that supports general education assessment, specifically focusing on identifying the characteristics of engaged faculty and the activities that contribute to increasing this engagement in general and with ePortfolio assessment in particular. It is through this inquiry that we have developed an action plan that includes a system of best practices that can potentially lead to increased faculty engagement. The resulting framework proposed here is a more inclusive systems approach to faculty development throughout the University.

Literature Review

In her 2010 report, Hutchings suggested that the real promise of assessment depends on faculty involvement, providing reasons why faculty are not, by and large, involved in university assessment. First, for many faculty the language of assessment has been less than welcoming. Second, faculty are not trained in assessment nor has assessment had a central place in professional development experiences for faculty. Third, the work of assessment is not part of the institutional reward system. According to Hutchings (2010), at many institutions, assessment—like teaching more generally—has often been undervalued or invisible in promotion and tenure deliberations, contributing to this lack of engagement. Moreover, she argued that faculty have not seen evidence that it makes a difference (Hutchings, 2010). According to Hacker and Dreifus (2011, as cited in Kirschner, 2012), at most institutions, faculty are rewarded as individual performers of their research and their contribution to their field, but have no incentives for institutional loyalty or accountability for student success, with several scholars suggesting that higher education has an obligation to create a faculty reward system that takes into consideration the multiple ways faculty contribute to their students, discipline, and society (Boyer, 1990; O'Meara, 2006).

Giving credence to the Scholarship of Teaching and Learning, Boyer (1990) urged the academy to expand the idea of scholarship to include teaching, integration, application, discovery, and in 1996, engagement. This expansion of scholarship, as defined by Boyer (1990), elevated teaching to a field of study, thus laying the foundation for the research of Barr and Tagg (1995), who suggested a shift from a teaching to a learning paradigm in undergraduate education. In this new paradigm, colleges recognize and support their mission to produce learning results rather than instruction, and as members of a learning institution, educators design the learning process. In this paradigm,

educators and students form communities designed to create holistic, connected environments of learning. Our research is focused on the strategies that encourage faculty engagement in this learning process: developing learning outcomes, developing activities that support these outcomes and finally, developing assessments of these activities.

A change of this magnitude requires a shift in culture and an acknowledgment that change is a process that must be both deliberate and purposeful. There is a preponderance of research related to the adoption and the spread of an innovation throughout systems. Rogers (1995), thought by many to be the Father of Innovation Diffusion Theory and certainly the most cited researcher on this topic, provided a comprehensive analysis of the adoption and diffusion process in his book, *Diffusion of Innovations*. He explored the rate at which innovations were adopted by systems, as well as how and why, describing how groups of people vary along the change continuum and classifying them into five adopter groups:

- innovators, representing 2.5% of the population;
- early adopters, the opinion leaders representing 13.5%;
- early majority, the 34% who observe and model the opinion leaders;
- late majority, also 34%, who take more time to study the innovation to look for benefits associated with the change; and
- laggards, the 16% of the population who are resistant to change and may even try to subvert the innovation.

The multi-dimensional nature of Rogers's (1995) model is relevant to this study because it helps us understand how ideas are spread throughout a system. Using his model, we were able to identify early adopter participants who could help us shift our culture from a focus on teaching to a focus on learning.

Similar to Rogers's research, Hagner (2001) identified categories related to engaged faculty: entrepreneurs or *first wave adopters* who, like Rogers' (1995) innovator group, seek out the resources to implement new technologies on their own. The next group, *second wave faculty*, share the first wave group's commitment to learning but are more risk averse and cautious, waiting for the institution to provide an environment that is low risk. Hagner (2001) identified two additional groups: *careerists*, who will engage or adopt new technologies when it will help them advance their professional careers, and the *reluctants*, who believe that traditional models of teaching and learning are superior. The characteristics of this environment include, according to Hagner (2001), universal student access (to technology), reliable networks, multiple opportunities for training and consulting, a faculty ethos that values experimentation, and a tolerance for problems. The research of both Rogers (1995) and Hagner (2001) reminds us of the importance of the environment and the extent to which it "enables" institutional change.

It is vital, then, to design faculty development opportunities with university culture and the degree to which it encourages faculty to become aware of their teaching beliefs in mind. To implement a faculty development initiative with the potential for that kind of success, we looked to the research of Hall (1979) and his Concerns Based Adoption Model. As Rogers (1995) and Hagner (2001) helped us see how groups approach change, Hall (1979) provided a way to understand the concerns of individuals related to change, separating them into the seven categories identified below:

0. Awareness: Limited knowledge of the initiative
1. Informational: Desire to learn more
2. Persona: Concerned about how it will affect me
3. Management: Concerned about the time involved
4. Consequence: Impact of the innovation on the learners
5. Collaboration: Learning from and working with colleagues
6. Refocusing: Extending the initiative to implement new approaches

This model (and other developmental models of its type) suggests that people considering and experiencing change evolve in the concerns they have and the kinds of questions they ask related to their use or integration of the innovation. According to Hord, Rutherford, Huling-Austin, and Hall (1987), early questions are more self-oriented: "What is it?" and "How will it affect me?", while questions that occur after involvement with the innovation are more impact driven: "How will this impact students?" These researchers suggested that as individuals adopt an innovation they go through these seven stages which can be combined into the broader categories of self (levels 0-2), task (level 3) and impact (levels 4-6). Their model provides a roadmap for professional development, reminding us that to understand and address the highly complex process of adopting an innovation (i.e., ePortfolios, evidence-based programmatic assessment), we must not lose sight of user concerns.

According to Lewin (1947), the framework for implementing organizational change involves three stages: unfreezing, moving, and refreezing. As early as 1961, and more recently in 2010, Schein elaborated on this model. He described the goal of leadership in Stage 1, unfreezing, as disconfirming current beliefs,

creating survival anxiety or guilt, and creating psychological safety to allow members to overcome any learning anxiety (fears of loss of power, identity, competence, and punishment) that they may feel as they adopt new concepts. The relationship between survival and learning anxiety is important for Schein (2010), as it is for Hall (1979). At different stages in the innovation process, these concerns shift; however, both of their models remind us that progress is best achieved by lowering learning anxiety as opposed to raising survival anxiety.

Methods

To explore this issue of faculty engagement, our team of researchers collected multiple forms of data to answer the research questions below as part of the Inter/National Coalition for Electronic Portfolio Research (INCEPR) Cohort 7:

1. What factors in the environment lead to increased faculty engagement, specifically related to programmatic assessment such as ePortfolios?
2. What are the characteristics of engaged faculty?
3. What activities contribute to increased faculty engagement? (Ring, Brackett, Ramirez, & Fishman, 2015)

Participants in our study are faculty at Clemson University, a large Research I University located in the southeastern United States with approximately 1,100 faculty and a population of approximately 18,000 undergraduate students. Participants were selected because they attended a series of General Education and ePortfolio Summer Assessment Institutes (2013, 2014, 2015) and in this capacity were compensated for their time. Faculty were personally invited to participate with the Director of the Institute, highlighting the value that they could bring to it as well as the value that they would receive as a result of their participation. Most of the participants were either tenured faculty or lecturers, with 12 of the 24 participants teaching general education courses. While at our university lecturers teach most of these courses, the tenured/tenure-track faculty participants, by and large, engage in leadership activities such as serving on the University or College curriculum or assessment committees. These campus leaders are essential for both the dissemination of information and the adoption of new and the modification of existing initiatives. The data collection methods used in this study included faculty interviews, exploratory and feedback surveys, observations of participant interaction during the Institutes, and researcher notes. All participants were interviewed by the Director of the ePortfolio Program and completed anonymous surveys prior to and during the Institutes. Using multiple forms of data, as Creswell and Plano-Clark (2011) suggest, strengthen the results obtained from a study.

Results and Discussion

As we conducted the Summer Assessment Institutes, we observed that the participants seemed to reflect Hall (1979) and his colleagues' concerns. Because our potential participants were at Stage 0, we found that e-mailing faculty inviting them to disconnected professional development sessions was insufficient to help them shift their concerns from self to task and, ultimately, to impact. Had we not visited their offices and personally invited them to participate, articulating both the contributions they could make to the Institutes (and the ePortfolio Program) as well as how participation could be beneficial to them, we would not have been successful in our recruitment efforts. We found that faculty needed both a reason and an invitation to participate. Because we identified potential participants based on their connections to general education, membership on the University Curriculum Committee, or College Assessment Committees, we could make a strong case for participation. Most of those invited accepted our invitations because they wanted to learn more about ePortfolio, general education, and/or general education assessment.

Once they agreed to participate, we met with each for an individual consultation to give him/her an opportunity to share both his/her concerns and goals for the Institute. At this point, most participants were at the informational/personal stage, and their concerns were focused on self, wondering how the experience would affect them. Conversations often included the words burden, time, and energy. Moreover, we found that in the Assessment Institute participants with self-level concerns (usually first-year participants) did not contribute to the conversations as actively as second-year participants, whose concerns were focused more at the management or task-level. An example was a participant who in her second-year exit interview admitted to feeling out of her depth and somewhat hesitant to contribute to the discussion in her first year of participation. Interestingly, she did not actually become aware of these feelings until her second year, when she felt that the year of practice and reflection provided her with deeper understanding and empowered her to contribute. It is for this reason that we strongly encourage participants to participate for two to three consecutive years and that we partner these experienced assessors with novice ones.

Realizing that most participants were at Stage 0 or Stage 1, on the first day of the Institute they were asked, as they introduced themselves, to explain why

they were participating and to tell the group one thing they "knew" about the ePortfolio Program. This activity gave participants an opportunity to get to know one another and to reiterate their goals (and concerns), and gave the Institute's facilitator the opportunity to dispel misconceptions commonly found at the early stages of adoption. Most of what was mentioned by first-time participants was typically very basic knowledge or misconceptions that we addressed in the subsequent presentation, designed to clarify and extend their knowledge. This activity defines our session as a safe place to share and clarify misconceptions. Once we establish that we are all learners, the learning can begin in earnest.

Throughout the week-long Institutes, participants worked in both small and large groups, and the relaxed nature of the event, as well as the snack table, contributed to rich discussions and relationships that in some cases extended beyond the Institutes. Through extensive scaffolding, at the end participants had additional information related to the program, as well as increased confidence enabling them to share this knowledge with colleagues. Borrowing from the literature on action research, we encouraged them to develop an action plan and work towards enacting this plan in the upcoming academic year, reflecting on the results and revising their goals when necessary.

The academic year between the Assessment Institutes is critical, providing participants time to reflect on both what they had learned and how to shift their practice to apply this knowledge. It is this in-between time when assignments and/or curricula are modified and tested. However, in the first year we observed few changes, which is why we urge faculty to attend back-to-back Summer Institutes. After the second, concerns start to shift to Stage 3, the management level, with concerns related to the task at hand as mentioned in the following comment: "The biggest challenge, I assume, will be to keep the extra work load to something manageable." Participants at this stage also mentioned tweaking or adding components to assignments to fit the competency better or eliminating some assignments altogether. This is the point, the consequence level, Stage 4, where we encourage the more experienced participants to share with newcomers their experiences related to tweaking assignments and revising student learning outcomes and rubrics. Finally, faculty begin to take ownership of the program and to act as ePortfolio or assessment ambassadors, which exemplifies Stage 5, the collaboration level. Once hesitant to speak up, members of this group, as long as they felt empowered by their departments, began to discuss the results of the Assessment Institutes and volunteer to collaborate with colleagues to rethink and refine the assignments in their courses. A very important consideration related to faculty concerns is the extent to which the administration supported and was explicit in their support of the initiative. This administrative support, we found, was critical as non-tenured faculty and lecturers, those who most frequently taught general education courses, were sometimes hesitant to speak up for something that was not overtly supported. As noted by one participant,

> If this were accepted higher up, then I would be happy to show other faculty what I do in my class for assessment and help them. However, without that support I do not want to stand up at a faculty meeting or some other venue and defend the process.

In our many discussions with faculty participants, one of the most commonly articulated benefits about participating in the Assessment Institutes was the opportunity to engage in conversations about the purpose of the ePortfolio Program. It was through these discussions that faculty began to recognize the need to be clear about general education goals and outcomes in their classes. These comments and conversations are important and were the basis for this research and the design of our faculty development system.

One of the most important contributions of this project is the reconceptualization of faculty development that we propose here, based on Hall's (1979) Stages of Concern, which we extended by developing goals and strategies to address the concerns of faculty (Figure 1). In this figure, the two columns on the left delineate the stages of concern conceptualized by Hall (1979), while the two columns on the right extend his research to include goals and strategies we implemented with our faculty to achieve these goals. As an overlay, this table integrates the self, task, and impact categorization of Hord, Rutherford, Huling-Austin and Hall (1987) with Hall's (1979) stages and our strategies. The result is a best systems approach that contributes to a deeper understanding of faculty concerns related to programmatic assessment and the ePortfolio Program, the innovation studied in this research. As seen in Figure 2, the resulting faculty engagement system is based on a double helix to represent the multiple opportunities for engagement that the application of these strategies and goals suggests.

One of the challenges related to shifting faculty concerns is providing focused and sustained support throughout the change process. This support should take into account faculty concerns, providing multiple opportunities for them to face and work through these issues. In this model, faculty progress through a purposefully planned system of professional development (PD) experiences, with space in between to apply, critically reflect on the experience and the

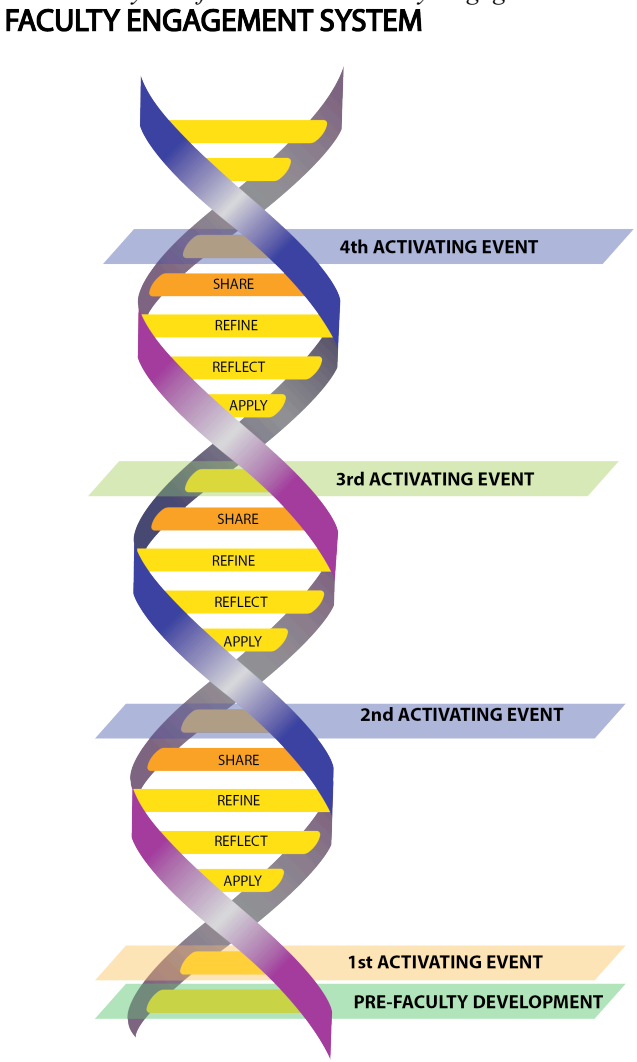
Figure 1
Stages of Concern and Strategies

	Stage of Concern	Description of Concern	Goal	Strategies
Self	0 (Un)awareness	"I have limited knowledge about the initiative/innovation."	Raise awareness	Personally invite stakeholders to engage in the implementation process, articulating the value of participation.
Self	1 Informational	"I would like to learn more."	Increase knowledge and dispel misconceptions	Schedule individual consultations with participants to discuss their concerns about the innovation.
Self	2 Personal	"How will it affect me?"	Provide support	Develop relationships with key people who provide scaffolding at various stages of the implementation process.
Task	3 Management	"I am spending a lot of time getting materials ready."	Demonstrate procedures for integrating the pedagogy with the technology to make the task manageable	Guide faculty in developing course materials appropriate for the innovation through mentoring and tutorials.
Impact	4 Consequence	"How can the initiative/innovation affect my learners?"	Evaluate effective teaching techniques	Provide a safe place to experiment with new teaching techniques and spotlight innovative practices.
Impact	5 Collaboration	"How can I learn from and work with others to make a greater impact on my students?"	Collaborate and disseminate ideas	Share and connect with colleagues to increase knowledge and involvement in the initiative.
Impact	6 Refocusing	"I would like to extend what I know to implement new approaches."	Continue advancing innovation	Help faculty extend their practice and engage in next direction research.

application of new ideas, and further refine their work prior to the next planned PD experience, as reflected in the 3D double helix model (Ring et al., 2015). The idea of activating and deactivating proteins changing a molecule is an apt metaphor as we began to view each of the faculty development experiences as one of these proteins, or in our case, an activating event. Faculty participate in these events, and if the content resonates with them, it can "activate" a change in mindset and practice. Different experiences will stick with different members of any faculty.

As we applied the strategies developed to support faculty, we found that, in addition to shifting their focus from concerns about the initiative, they began to take ownership of it and helped inform and educate their colleagues. We observed that this progression appears to be more of a pathway to professional growth (Figure 3) than simply Hall's (1979) categories (Ring et al., 2015).

Figure 2
Best System for Increased Faculty Engagement



As a result of this continuous and systematic approach to faculty development, taking into account participant concerns, we have noticed a shift from self: "I didn't know much about ePortfolio or programmatic assessment prior to the Institutes" to "I get the importance of ePortfolio as an assessment tool, but I worry that it will take too much time away from teaching" (Task concerns) to "I realize the effect that this innovation [ePortfolio] can have on student learning" (Impact).

Best Practices

Throughout this paper we have provided strategies for encouraging and sustaining faculty engagement with programmatic assessment and ePortfolios. We believe that these strategies can be adapted to other innovations/initiatives on College and University campuses. As a result of our ongoing interactions with faculty, we have identified the following best practices that can facilitate a more proactive, iterative, and faculty-centric approach to their professional development:

- Best Practice 1: Make it personal. Reaching out to faculty on an individual level to highlight the value and the benefit of their participation.
- Best Practice 2: Meet them where they are. Visiting with faculty in their offices or classrooms to listen more than talk to better understand their perspectives, goals, and potential concerns related to participation.
- Best Practice 3: Provide scaffolding designed to help faculty achieve their goals. Develop

Figure 3
Pathway to Professional Growth

multiple opportunities for professional development with time to apply, reflect, and refine between these activating events.

- Best Practice 4: Encourage collaboration among faculty both within and outside of their disciplines. These opportunities will help them develop new goals for learning, as well as provide multiple opportunities to share their experiences, expanding faculty awareness to other initiatives occurring on campus.

Employing the strategies presented in this paper, however, requires university-wide support. In fact, we argue that both the reward system and the institutional culture need actively to encourage changes of this magnitude. As we have stated earlier, the extent to which the administration explicitly supports the initiative is essential to the success of this faculty engagement model.

Conclusion

While we believe that our model of faculty engagement is a powerful one, it is too early in the process to be certain about its sustainability and the continued engagement of our faculty. As a result, we are implementing processes that we hope will help. For example, in our current model faculty participants shift to a mentoring role after their first year of participation in the program, and we hope that with proper support, some of these one-on-one mentor-mentee relationships will evolve into communities of practice, and as such, extend our model beyond ePortfolios and assessment. These learning communities will be led by faculty scholars who wish to continue in the mentoring role, as well as engage in the scholarship of teaching and learning.

As a first step to strengthen faculty voice, we gave them ownership of the data collected in the assessment institute by changing the report writing from an external person (the workshop facilitator) to the faculty assessors themselves. This is beneficial on multiple levels: faculty now take ownership of the report and can discuss the findings with their colleagues; second, it provides an opportunity to reflect on the work done throughout the week, as summarized by a member of one of the assessor groups:

> This way we have a record of our recommendations and it will be simpler to bring them to our departments . . . . Reflection is an important step in the assessment process. We recommend that assessors continue to write these reports at the end of each session. Then the combined report needs to be disseminated widely to all departments.

To further support contingent faculty who are the primary educators of the general education classes, we conceived of a group between Hagner's (2001) entrepreneurs and the risk-averse groups, one which we have labeled the connector group. This group is important because it bridges the gap between the entrepreneurs and those who are risk averse, often connecting or acting on the activities of the entrepreneurs, to make the them more manageable to the population at large. In other words, this group serves as a bridge to connect those on the periphery to mainstream faculty.

Most important, as a result of our research, we have come to recognize that if we are to transform teaching and learning, a faculty development system must be in place that provides faculty with a purposeful, integrated collection of engagement activities rather than a menu of options from which to choose. The best practices identified through our research serve to empower faculty by giving them a voice, opportunities to share, and the scaffolding necessary to help them achieve their learning and teaching goals. Doing so fosters a culture of continuous learning on the part of faculty that encourages innovation and creativity in the classroom.

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