Faculty's Self-Determined Engagement as the Key to Advancing a Culture of Assessment

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Abstract – Faculty are under immense pressure today, asked to handle increasing enrollments, shrinking budgets, increased demands for research, and rising expectations of quality teaching, and balancing all this with their personal lives. Within the rising expectations of quality teaching lies assessment, which is gaining momentum in higher education objectives. The goal of integrating assessment into the educational culture is explored in this paper by delving into the background of and progress toward cultures of assessment, the role of self-determination theory in autonomous growth of culture, and the notion of self-determined engagement. The claim is that self-determined engagement in assessment tasks is the essential and overarching requirement to integrate assessment into the culture of teaching and learning, thereby forming the desired culture of assessment within it.

Keywords: Assessment, motivation, faculty, engineering, teaching, culture.

INTRODUCTION

This is a challenging time for faculty, as various issues collide at the junction where teaching resides. First, enrollments are rising nationwide [1], increasing the workload for professors and making it harder to give the time that teaching duties and students deserve. Second, budgets are tight yet government grants plentiful, reducing the chance that help can be hired and putting additional pressure on faculty to attain funding through research grants [2]. Third, government agencies and the public continue to raise the bar on the quality of education expected, backed by research studies like Seymour and Hewitt [3] showing that teaching quality is the biggest factor of retention. Fourth, a new generation of students, dubbed *Millennials* (see [4]), is challenging faculty both technologically and psychologically, making classroom management increasingly difficult. Fifth, and finally, economic hardships, as we are experiencing now, tend to put additional stress on individuals, further challenging the work-life balance that is already difficult to maintain as an academic.

In efforts to advance the quality of higher education, various initiatives have been undertaken. Among these initiatives is the drive to incorporate assessment practices into regular teaching duties, a change that has been recognized by many experts as crucial to improving education (e.g. [5]). In engineering, for example, the accreditation agency ABET redefined their requirements in efforts to increase assessment usage and ensure accountability in engineering programs, further aiming to create a culture of assessment [6]. The efforts, however, have not yet given assessment the desired boost; such changes by ABET have had minimal impact on adoption of assessment practices by engineering faculty and departments to date [7, 8].

The argument is made that forcing assessment into the duties of teaching is an unnatural approach and is likely the reason for slow uptake; this and future works are intended to explore this assertion. Consider the contrary – autonomous, self-determined engagement in assessment – which is intrinsic and serves to induce natural motivations. This, in turn, aids in creation and persistence of a culture of assessment by supporting growth of assessment norms, practices, and values naturally rather than artificially. Therefore, this work argues that measuring and promoting faculty's characteristic needs for intrinsic motivation – autonomy, competence, and relatedness, according to self-determination theory [9] – in relation to assessment is the key to creating and maintaining a culture of assessment, in efforts to increase teaching and learning effectiveness.

The purpose of this paper is to argue that if we want to create a sustainable culture of assessment, we must recognize that it is embedded in the intrinsic motivation to teach and promote learning, thus making self-determined engagement paramount to attaining a culture that will stand the test of time. On the contrary, if faculty engage in it

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extrinsically, the culture will never be truly formed nor will it be sustainable. To ground this argument, the paper summarizes a literature review of the role of faculty's self-determined engagement in creating a culture of assessment. It includes a background on the idea of a culture of assessment, on self-determination theory, and on self-determined teaching, as well as consideration of accreditation's role in creating such a culture. Following this, conclusions are drawn from the literature review, and future work announced.

BACKGROUND

A Culture of Assessment

The term *assessment* has various uses in education including learning, accreditation, accountability, grading, and research. This work focuses on assessment of student learning that occurs in the educational setting, and can be characterize by taking from Angelo [10] to form the following working definition:

> Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches expectations and standards; and using the resulting information to explain, improve, and document learning.

In the classroom, evidence gathered from assessment is used as feedback to inform and improve the effectiveness of teaching and learning and for measuring student progress towards key learning objectives (i.e., outcome-based assessment); these uses are examples of formative and summative assessment, respectively. Formative assessment is measuring student learning in the midst of a course or program with the intention of making improvements while in progress [11]. Summative assessment is, by contrast, evaluative evidence sought at the end of a course or program to examine whether or not educational objectives were achieved, and therefore does not have opportunity to improve teaching and learning while in progress [12]. Typically, formative assessment has more direct and immediate impact on teaching and learning as the feedback is employed in the near-term, and is the focus of this study. However, summative assessment also has impact on improving teaching and learning and can encourage the use of formative assessment; this will be discussed further in the section on accreditation.

When defining the idea of a culture of assessment, a synthesis of a number of works [13-18] led to the following:

> A culture of assessment is the collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that endorse and promote scholarly assessment and/or the scholarship of assessment and provide a frame of reference within which interpretation of the meaning of assessment data can occur in the academic setting.

Therefore, a culture of assessment comprises an entire set of norms, practices, and assumptions based on the principles of scholarly assessment and the scholarship of assessment. Banta [19] defines the difference between scholarly assessment and the scholarship of assessment in a manner similar to that of teaching: scholarly assessment is using or creating assessment methods and improving them via feedback, whereas the scholarship of assessment is systematic inquiry using theory and research methods with the intent of contributing to the body of knowledge of assessment through publication. Thus, a culture of assessment includes faculty engaging in both forms in an environment where assessment is valued and supported by the institution, administration, colleagues, and students.

Cultures of assessment, as defined above, have been successfully established at various higher education institutions. For example, Eastern Michigan University has found great success, having actively created a culture of assessment with over ten years of efforts toward the objective. They first established a philosophy of natural growth and engagement, guided by several assumptions based in this philosophy, and have held to this throughout. This growth was then put into motion by a requirement for all majors to participate in assessment, but while giving full control to implement it as they saw fit [13]. Even more impressively, Alverno College in Wisconsin established their culture of assessment back in the 1970's without any persuasion, as the existing culture of teaching and learning included a general feeling of accountability for student learning. Faculty began seeking ways to measure and report this learning, and from this assessment motives grew naturally and fit well within the existing culture [14]. These examples can serve as both evidence of a culture of assessment being attainable and as case studies informing efforts to create them.

It is also important to present a question that arose from the background research above: Is it appropriate to establish a culture of assessment per se, or should assessment instead be established simply as the feedback mechanism in a culture of teaching and learning? For example, Wong, Campos, and Buxton [20] say they have had continual

difficulties creating a culture of assessment; perhaps this is a sign that it is unnatural to do so devoid an established culture of teaching and learning. Bond [21] argues that "attention to data and evidence is essential to any informed attempt to improve teaching and learning" (p. 2), saying that teaching and learning must have assessment as feedback mechanism to make improvements, implying it is an embedded aspect of teaching and learning. Lee et al. [15] summarize the creation of the report *Student Learning: A Central Focus for Institutions of Higher Education*, in which they assert that for assessment to flourish, a strong culture of teaching and learning must exist. Therefore, this work argues that the establishment of a culture of assessment is bound by the overlying culture of teaching and learning, and thus assessment should instead be integrated into the culture of teaching and learning. Whether or not the reader agrees with this or rather believes a culture of assessment could exist independently, the discussion herein changes only minimally as the two are likely to be very closely tied.

As a final discussion of establishing and maintaining a culture of assessment, it is worth exploring some of the central characteristics of it. Bennion and Harris [13] report seven key assumptions underlying their efforts to create a culture of assessment, which they argue are central to maintaining it, as well: "(1) a wide range of assessment methods are acceptable; (2) the ownership of assessment is at the department level; (3) the administration serves as a champion of assessment; (4) assessment is viewed as a continuous improvement process; (5) continual encouragement is required; (6) experimentation is encouraged in an open and safe environment; and (7) faculty will be recognized for their assessment efforts" (p. 9). Mentkowski [16] reports strikingly similar principles guiding assessment at Alverno College. What seems to underlie all of these is one basic concept: in all efforts, ensure faculty autonomy, competence, and relatedness are maximized. These three concepts, according to self-determination theory, are the innate needs of all humans to experience intrinsic motivation when engaging in an activity [9]. This further supports the central argument of this work that self-determined engagement is the key to establishing and maintaining a culture of teaching and learning that values assessment.

Self-Determined Engagement

Since a culture cannot be created without buy-in from the individual members of it, and cannot be maintained without their continual engagement, it is important to look at the motivational characteristics and experiences of individual members of the culture. Self-determination theory provides a very useful framework for exploring the creation and maintenance of a culture of assessment, as it describes the decisions of these individuals to engage intrinsically or extrinsically – or not engage at all – in particular assessment tasks and behaviors [9].

The theory states that learning and growth are innate motivations of human beings, engaged intrinsically[3] when the universal needs of autonomy, competence, and relatedness are experienced in the behavior. Autonomy is freedom to make choices and take actions that align with one's identity or sense of self; this stands in opposition to a person perceiving that an action is undertaken for some external entity, such as a boss's orders or to attain a reward. Competence is closely tied to self-efficacy, feeling a sense of accomplishment and enjoying challenges to improve one's abilities. Relatedness is about connecting with others, sharing a mutual relationship with them or feeling as though they belong to a group or culture. When these needs are in some way thwarted in relation to a behavior, engagement in it (if any) is extrinsic, meaning that the reasons for participating are viewed as external and separate from the self. That is, if a person engages in a behavior for some form of reward, be it from others or even praise from the self, then it is no longer self-determined. Consider an example of the theory's application to teaching and learning: having positive impact on the future of students should be naturally motivating, yet educators still get disinterested and bored sometimes, or end up complaining about students and the educational system; the three needs of self-determination theory can be used to evaluate the motivating opportunities and obstacles of teaching that contribute to those problems and inform ways to address them [22].

The benefits of intrinsic engagement are many and profoundly significant, and a mass of research has gone into testing them empirically. To list a few, it has been found that self-determined individuals perform better on complex tasks, process information more flexibly, are more satisfied at work, learn better, are more creative, persist more, and achieve better, and exhibit better adjustment and psychological health. It also has been shown that these benefits are consistent across various personality types, individual differences, environmental influences, and across culture, gender, and race [9, 22, 23].

[3] It is worth noting that in self-determination theory, the terms autonomous, intrinsic, natural, and self-determined are synonymous when referring to motivation and engagement.

Thus, if establishing a culture of assessment is the goal, then fostering self-determined engagement in assessment is central to the realization of this goal. First, as discussed in the section above, the successful programs have established assumptions, values, and norms in their culture of assessment that are centered around the three needs of self-determination. Second, if a culture of assessment is to be respected and to persist, it is imperative that members of the culture attain the benefits discussed in the paragraph above. Third, and conclusively, the members of a culture should be participating in it willingly, have confidence in themselves and their contribution, and experience a healthy connection to the other members; i.e., they should experience self-determined engagement in assessment with feelings of autonomy, competence, and relatedness, respectively.

To foster self-determined engagement in assessment and teaching, a few things must be considered. College teaching has many opportunities to be intrinsically rewarding, from watching students grow and learn, to the freedom afforded them in teaching, to making connections with both colleagues and students alike; research has also supported the idea that faculty generally consider teaching to be intrinsically interesting [22]. However, when we consider assessment instead of teaching, it is less clear how professors feel about their autonomy, competence, and relatedness in related tasks. If they do not find assessment interesting or do not feel their assessment skills are sufficient they may engage in it extrinsically, losing the benefits of self-determined and intrinsic engagement, and instead put more of their energy into other tasks. Extrinsic behaviors, however, may become introjected or integrated regulation – more intrinsic forms of extrinsic motivation – through the processes of internalization and integration. As the person begins to value the activity and becomes more autonomous in their engagement, the external rewards or prompts become less salient. To explore how this could occur in academia pertaining to assessment activities, consideration must be given to how the interpersonal context and job design afford opportunities to experience autonomy, competence, and relatedness [22]. Therefore, if self-determined engagement is to be sought as a means to support creation of a culture of assessment, scholarly inquiry must be conducted to investigate the factors of assessment that affect faculty's autonomy, competence, and relatedness[4].

The Role of Accreditation

Accreditation has become prevalent in higher education as a means to establish accountability and ensure quality in educational programs. Recent changes in accreditation requirements, like that of engineering, have been aimed at establishing and promoting use of summative assessment for evaluation of programs' effectiveness in attaining educational objectives. As well, engineering's accreditation agency, ABET, reformed their requirements toward the goal of fostering cultures of assessment in the programs they serve [6-8].

However, per the discussion above, it seems unlikely that an external agency could induce intrinsic engagement in assessment, given that some will view accreditation tasks as metaphorical "carrot on a stick" requirements. This has been reflected in studies that looked at the impact of the new ABET requirements on assessment use by faculty. In, Volkwein, et al. [8], faculty reported that they thought about assessment more a few years after the requirements were introduced, but department heads reported that they were not seeing improvements in usage of or impact from assessment. Rogers [24] stated that in many cases, institutions would conduct a great deal of assessment as accreditation reports came due, but immediately fell back to minimal use once accreditation review was over. These are symptomatic of failure to create a culture of assessment, whereby the faculty were engaging in the assessment tasks extrinsically and never internalized the behaviors. Prados, Peterson, and Lattuca [7] note the relaxation of accreditation standards when ABET revised them in 2000; this was likely done to increase autonomy in accreditation, as programs were given the ability to define their assessment goals and actions in accordance with their own institutional and departmental cultures. Woolston [25], however, has reservations about accreditation ever becoming a promoter of intrinsic engagement in assessment, despite such efforts, as he argues that key assumptions underlying the new standards endorse a philosophy that will always impair autonomy.

As such, it is questionable whether accreditation requirements could foster intrinsic motivation to conduct assessment and thereby contribute to the founding of such a culture. Nonetheless, it may be that, over time, accreditation will build momentum for assessment usage to the point where the requirement is no longer necessary. Then, the requirements could be removed or relaxed and the assessment would continue intrinsically; research supports the notion that this can and does occur in human nature, through the processes of integration and internalization in individuals [22].

[4] This is the focus of the first author's dissertation.

CONCLUSIONS AND FUTURE WORK

Educators need to begin efforts toward creation of a culture of assessment to improve teaching and student learning; synthesizing the literature, as above, one finds that self-determined engagement of assessment is at the center of these efforts. Thus, to begin fostering a culture of assessment, it seems logical that certain steps would follow. First, minimize or remove any strict requirements on how assessment is to be conducted and any language that emphasizes performing assessment for the sake of accreditation. This is intended to maximize the opportunity to make assessment autonomous as later steps build up to it. Second, engage faculty in regular, critical discussions of assessment and its potential effect on teaching and learning. The goal is to build a basic understanding of the pros, cons, and uses of assessment, and pragmatically determine whether assessment is effective in the eyes of the faculty; this is aimed at addressing competence as well as building on relatedness. Third, when buy-in and interest start to increase, work with available experts to conduct assessment-focused workshops to increase feelings of competence. Finally, include assessment in tenure and promotion decisions, faculty meetings, and publications to build the supportive aspect of the culture. By this approach, department faculty and administration will have worked together to create an approach to improving teaching and learning in their program through assessment, for which they are now well-trained. Collectively, these efforts should satisfy needs for autonomy, competence, and relatedness and achieve some requirements of accreditation agencies, simultaneously.

Interestingly, the approach suggested here bears strong resemblance to pedagogies based on the constructivist epistemology (see [26]). In constructivist approaches to teaching and learning, students are essentially self-determined to learn material, as they are given tasks and challenges that lead them to development of requisite skills and knowledge, while faculty act as facilitators rather than lecturers. These parallels seem logical, as Bransford et al. [27] note in How People Learn that as members of the human race, faculty and students learn in similar ways and therefore both enjoy autonomy in their studies.

The limitation of this work is that background research was primarily focused on affirming the claim being made; rebuttals and counter-arguments have not been given great consideration. The authors believe that the main counter-argument is that institutions and programs may require perpetual oversight of assessment measures as other tasks – such as research and grant funding – are still priority over teaching and assessment.

Future work on this topic includes a descriptive study of faculty engagement in assessment through the perspective of self-determination theory. Presuming interesting results, studies following would look at ways to promote self-determined engagement in assessment such that they directly foster either a culture of assessment or the inclusion of assessment in a culture of teaching and learning. Overall, the goal is to create a natural and self-sustaining culture in academia where teaching and learning are valued intrinsically and improvements to them are made through the systematic approach provided by assessment methodologies.

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