BROADER THINKING IN EDUCATIONAL LEADERSHIP DECISIONS

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Abstract

Universities and colleges are facing a variety of threats that impede traditional decision-making. Technology selection can have a great impact on the institution. *Institutional silos* sometimes make collaboration and cohesion very difficult (Hanover Research, 2014, p. 20; Kelderman, 2016; Lederman, 2013). As institutions lose funding and political capital while struggling to collaborate, new policies and ways of thinking must be explored and implemented (Lederman, 2013). The goal of this article is to demonstrate that using broader thinking is one method that can aid higher education leaders in finding solutions. Broader thinking becomes practice when decision makers find ways to create flexible technological ecosystems and use common language (Venkatraman, 2007; Merrill, 2012). These practices decrease wasteful spending, avoid common pitfalls, use principles to increase collaboration, and avoid barriers to communication. Studying these successful examples can illustrate to leaders the usefulness and effectiveness of broader thinking policies.

INTRODUCTION

There are many challenges facing modern institutions. While there are countless examples, a few have become common complexities for leaders. Institutions of higher education frequently have trouble allocating the time and resources that are necessary in meeting technological demands, they experience difficulties in properly collaborating with particular departments within their institution, and they struggle to meet the many demands placed on their departments, which includes the area of instructional design. At first glance, these problems seem unrelated, but through the application of broader thinking, similarities become apparent.

BACKGROUND

The introduction of the internet and online learning to educational institutions has instigated the growth and dependence of its leaders on electronic and technical learning tools. Traditional teaching techniques such as using chalkboards, bubble sheets, and raising hands have become increasingly replaced by online Learning Management Systems (LMS), smartphone applications, social media, and email. Education is becoming dependent on technology for curriculum design, course delivery and management, as well as student support (Winston, 2013). This infusion of technology into higher education is often viewed as a method to: 1) increase enrollment, 2) grow access to the institution, and 3) decrease administrative workload (Hanover Research, 2014, p. 20).

Higher education currently confronts the reality of increased scrutiny in the areas of politics, accreditation, and funds (Kelderman, 2016; Lederman, 2013). As state funding is cut and demands on educators surge, improved methods of technology decision-making need to be formed. Many online and electronic technologies are accompanied with a price tag of cost, time, and labor (Weidemann, 2015).

In addition to technological needs and issues, decision-makers have other complexities that must be addressed. For example, higher education is a collection of disciplines and departments that are deep and complex. One example that illustrates this complexity is the field of psychology. Psychology has transformed from the broad study of the mind and its influence on behavior to entire fields that specialize in specific areas: cognition, education, organizational dynamics, and engineering, to name a few (APA, 2016). Each of these specialized branches of psychology contain particular careers, theories, movements, and arguments that advance scientific understandings (APA, 2016). This deepening of complex fields leads to scientific research, but unfortunately, it also leads to separation of the different departments within the university (U.S. Department of Education, 2013). This separation holds the potential to break down community within the institution.

While problems exist that may seem different on the outside, practicing broader thinking can help administrators make decisions that meet needs across various domains. Individual situations involve a number of needs that can be reflected upon through broad thinking. Such reflection allows decision-makers to activate particular concepts, tools, and decisions that funnel needs into manageable parts.

A MODEL OF BROADER THINKING

Broader thinking, as defined here, has a few specific criteria. Broader thinking does not mean diluting discussion or failing to engage in critical thinking; but rather, it is concerned with making broad decisions based on the needs across the institution. The complexity establishes a base from which overarching strategic and precise solutions are discovered. Broader thinking allows leaders to make the complex problems manageable by focusing on the most important and salient aspects of the problem, which enables leadership to make the decisions that will lead their institutions through effective decision-making practice(s).

Traditional thinking employed by many decision-makers is focused on finding individual solutions to each need or set of needs that faces the organization. For example, department leaders may make to-do lists of items that must be addressed and they go about their day by completing each item, until all the tasks are completed. This may appear to be a manageable method of meeting the needs of the department; however, new needs, emergencies, employee issues, institutional initiatives, and a variety of demands will supplant the to-do list as being important. This can lead to leaders feeling overwhelmed, making poor decisions, or missing important deadlines. The department has to find a solution to this problem, such as hiring additional management, purchasing technological solutions, and/or other costly measures.

Contrast this with a department leader who practices broader thinking. This leader creates consistent concepts from which needs are evaluated and prioritized. This leader selects technology that is capable of addressing problems and meeting needs. For example, instead of to-do lists, a departmental leader may create evaluation criteria that pre-organizes problems that allows him or her to efficiently and effectively make decisions that reflect the priorities of the department. Additionally, if the leader selects a technological solution, he or she will select a product that can grow with demands and offer a broad range of potential answers. In a recent (2016) article addressing these complications, Selingo succinctly stated:

> **Administrators lack a big-picture view.** The diversity and complexity of challenges facing higher education today require leaders to look outside of their institutions for new solutions and innovations, yet most are "heads down" inside their institutions, keeping up with daily demands. Even when they look up and grasp a bigger picture, a glimpse at the context can be more daunting than clarifying.

Figure 1 contrasts broader thinking in educational decision-making practice with traditional decision-making practice. Broader Thinking provides a framework from which needs can be addressed and funnels the decision-making process by making the required decisions fewer and more manageable. The broader framework allows for needs to be addressed through strategic decisions that are flexible.

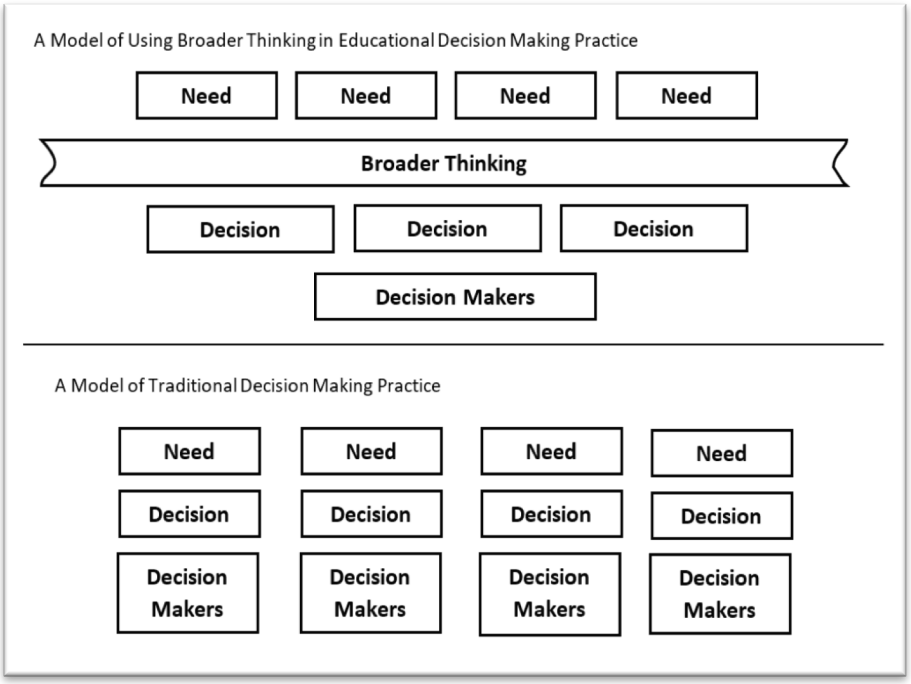

Figure 1. A model of broader thinking in decision-making practice and traditional decision-making practice.

APPLYING BROADER THINKING TO TECHNOLOGY ISSUES

The principles of broader thinking can be applied to many areas, but they work especially well when making technology decisions for an institution. Technology selection is a changing and evolving process for decision-makers and the decisions made have drastic ramifications to the institution. Broader thinking allows for leaders to select tools that meet current needs, allow for flexibility, and adapt to changes. Decisions are reduced and made easier as the focus is narrowed.

Venkatraman (2007) provided advice on applying broader thinking principles to technology. The researcher highlighted broader thinking in his article *Tech Management for Nontech Managers*. Venkatraman aimed his work on technology decision-makers inside and outside of education who do not have an in-depth understanding of technology. He compared technology to an ecosystem where different competing products work together to produce a benefit for the organization. Technology companies have recognized that, alone, they cannot realistically address every need of an organization, so they form alliances. These alliances strengthen the ability for the ecosystem of the company to meet the needs and demands of organizations. Venkatraman succinctly surmised this thought by stating that "competition has morphed into collaboration" (p. 21).

These technological ecosystems are so common that they may be considered ubiquitous in modern daily life. A smartphone, a work computer, transportation, and work management systems are all working models of these ecosystems. Without these ecosystems, however, devastating

problems can disrupt an institution. Catastrophic consequences might occur when a software company that was providing a required tool, such as a discussion board, becomes bankrupt or unable to continue providing support. Without warning, leaders, instructors, and staff could be forced to scramble and find emergency support solutions.

Without an ecosystem, the amount of unrelated technology can also become burdensome to the institution and the students it serves. The complexity in which these technology tools work together can create a negative user experience. As technology and competition rapidly change and improve, programs will need to mask their complexity and be user-friendly (Cole, 2015). Initial inclusion of broader thinking by leadership in educational technology decisions might help avoid these types of unexpected complications (NAESP, 2011).

A specific example of how broader thinking principles apply to technology selection is demonstrated in the following. Online education institutions use Learning Management Systems (LMS) to deliver courses and content to students. The competition for this space is fierce and changing. There are many LMS companies from large proprietary companies such as Blackboard, Desire2Learn (to open-source), and free products, such as Moodle and Sakai (Culatta, 2011).

An LMS becomes "the most valued software" at the institution where it affects the students, faculty, and staff for better or worse (Wright, 2014). Financial constraints might limit those educational institutions that are unable to afford more effective and costly Learning Management Systems. Prevention of the costly mistake of choosing ineffective educational technology rests upon the Chief Technology Officer and higher education administration. Leaders and decision-makers should decide carefully using a bottom-up process that involves users / faculty to prevent purchasing mistakes, which could affect the entire institution (Leisyte, 2016). Higher education leadership has the responsibility to recognize LMS issues and purchasing errors early and correct them quickly to prevent escalated damage and failure (AASCU, 2010). In 2011, a new competitor in the LMS market, this being Canvas, was launched. The small platform quickly rose in popularity and is now used in more than 2,000 institutions (Instructure, 2016). Canvas opened up aspects of their platform to other universities and companies to make the platform more flexible and customizable (Instructure, 2016). Allowing the platform to be open and flexible will enable organizations to customize the product to fit their individual needs (Instructure, 2016). This external material is incorporated into their LMS (Instructure, 2016).

Using the concept of broader thinking allows the LMS to become more robust and meet the needs of clients, even if they change. Canvas has created an ecosystem that is partnering with other companies to deliver the most robust product and will likely be able to meet any unforeseen needs. This flexible and healthy ecosystem will be more likely to protect the university from any catastrophic technical problems. Instead of focusing on finding the needs of individual clients, they have created a product that allows institutions using the product and educational technology companies to have the flexibility of incorporating their own solutions and technology into the LMS. By providing the ability of outside organizations to incorporate technology solutions into their product, Canvas is able to continually expand their ability to meet the varied demands of their clients. These needs can range from the integration of a preferred tool, such as the partnered video library, to a custom plagiarism checker. This flexibility focuses the institutional decision-making onto meeting the most salient needs of the organization, instead of becoming overwhelmed by the limitations of the program and the need to find other vendors to compensate for the limitation(s) of the LMS.

EDUCATIONAL SILOS

Broader thinking can also help break communication barriers and increase collaboration. Leaders in academia and research are frequently forced into specialized silos of learning, which inhibit interdisciplinary cooperation and effective decision-making. This fact is commonly lamented in the field by many academians, including former President Woodrow Wilson, U.S. Secretary of Education Arne Duncan, and The Chronicle of Higher Education reporter Steve Kolowich, to name a few (U.S. Department of Education, 2013; Kolowich, 2010). While the silos have long been recognized and increased collaboration across the institution is a constant goal, many leaders in academia still struggle to find solutions.

Academia is not the only space that faces leadership issues. The lack of effective leadership decision-making is known in the business world as well. Deloitte's *Global Human Capital Trends 2015* reports that 86% of the human resource and business leaders that were surveyed stated that leadership shortfalls are a primary organizational issue, with 51% believing that it is an "urgent" issue (Prager, 2016, p. 32). The acknowledgment of both the educational and business sectors of the failure of leadership practice and decision-making offers a first step to recovery.

A specific example of using broader thinking to remove institutional silos and increase collaboration is demonstrated in instructional designers' and educational leaders' adoption of a common vocabulary framework that is based on *The First Principles of Instruction*. M. David Merrill's (2009) work in the area of first principles of instruction is gaining traction among academians and researchers.

Merrill (2009) created a system that has helped educators and educational researchers think about education through a common vocabulary. In his career as an educational researcher, Merrill has reviewed many instructional models. According to Merrill, each design was specific and highlighted different aspects of the body of scientific learning research (Merrill, 2009). In response to the many conflicting models, he decided to review these various theories and designs to find commonalities among them. The goal was to find methods that created more effective, efficient, and engaging instruction. The result of this review was his learning design model (Figure 2) called "First Principles of Instruction" (Merrill, 2009; Merrill, 2012).

Merrill's research revealed that all the reviewed theories included five commonalities: 1) learning is promoted when learners acquire skill in the context of real-world problems (**Problem-Centered Principle**); 2) learning is promoted when learners recall existing knowledge and expertise as a foundation for new skills (**Activation**); 3) learning is promoted when learners are shown the skill to be learned (**Demonstration)**; 4) learning is promoted when learners use their newly acquired skill to solve problems (**Application**); 5) learning is promoted when learners reflect on, discuss, and defend their newly acquired skill (**Integration**) (Merrill, 2012, p. 21).

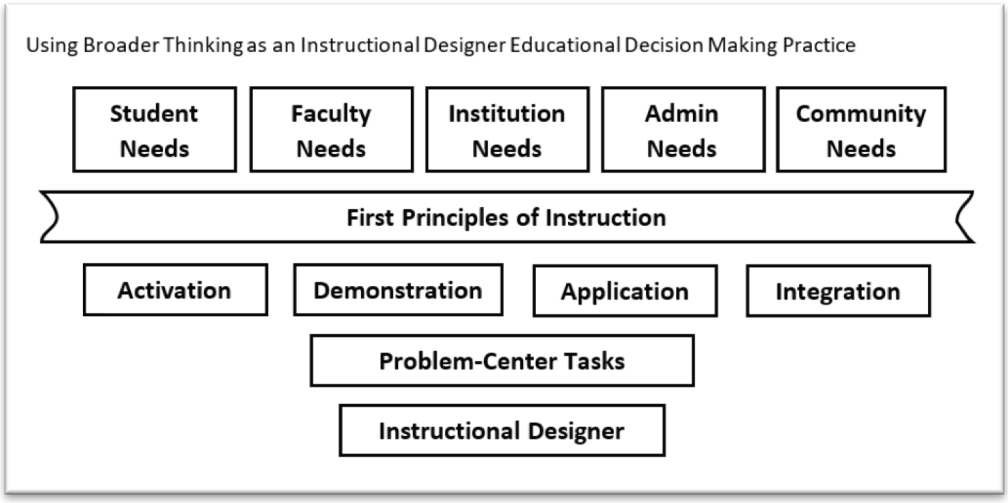

Figure 2. Using the First Principles of Instruction as a broader thinking practice.

The First Principles of Instruction illustrate the usefulness of broader thinking in leadership. When assessing curriculum through the lens of an instructional designer, the designer can funnel the many needs of the curriculum through the First Principles of Instruction. Determining whether the curriculum activates prior knowledge helps meet the needs of the students and faculty. Analyzing how well the information is demonstrated to the students by the faculty also meets these needs. Application and integration assessments continue to meet student and faculty needs, but also includes an evaluation of whether or not the institutional, administration, and community needs are being met. Ensuring that the curriculum meets the rigorous demands of The First Principles of Instruction focuses the assessment, yet, still produces assessments that address the needs of all stakeholders and clients. "First Principles" is a robust tool that is effective, yet broad enough to focus the thinking and decision-making of instructional designers.

Instead of an overwhelming amount of potential needs and problem areas, instructional designers can focus on five concepts. This increased focus still produces high-quality curricula but can reduce the strain on instructional designers. Additionally, it can guide the selection of tools, such as the LMS, that will be able to meet the shifting and changing needs of the institution. Instead of replicating unnecessary research on each need, repeatedly making the same decisions for multiple needs, and other time-consuming behaviors forcing leaders in their silos, leaders can be nimble in making decisions for each need. The First Principles of Instruction show the potential of friendly terminology and concepts to increase interdisciplinary collaboration and the breakdown of institutional barriers.

Foundational leaders in educational research have incorporated this concept into their research. John M. Keller, the creator of the ARCS model of motivation, adopted the concept of First Principles by adopting the first principles to motivation and incorporating his own research (Keller, 2008). Synthesizing information into broad categories can reduce the amount of information needed by leaders to make their decisions while steering them clear of pitfalls that

lead to the formation of silos. Keller synthesizes his research on motivation and the first principles of instruction to create the new principles of motivation (Keller, 2008). These new first principles of motivation form a usable framework for practitioners.

The example of Merrill's First Principles of Instruction demonstrates that it is possible to create a broader framework for discussion and decision-making in an institution. This increased collaboration has the potential to eliminate the silos that are commonly inhibiting collaboration. This is one of many examples in which broader thinking can help an institution.

Finding the intersection of a robust technical ecosystem and an effective educational platform is the type of broader thinking in educational decision-making that is needed in modern academia. Forming an effective and lasting broad decision-making can lead to beneficial decisions for an institution by breaking down silos and building a common foundation for all parties involved and sidestepping potential barriers and pitfalls. While educational technology was explored in this paper, modern institutions and colleges have an incredible number of departments, offices, and areas to consider in using broader thinking.

CONCLUSIONS

Broader thinking does not mean that limitations, problems, or obstacles disappear; rather, it provides a framework that focuses these problems and frees up the time and energy of decision-makers in finding the best possible solutions. Broader thinking in leadership can help decision-makers make better, more well-informed decisions that will be supported and hold the capacity to meet the needs of the organization. The roots of broader thinking in leadership are empirically-based conceptual models that assist in meeting organizational needs and help leaders avoid operating in silos and coming across potential pitfalls.

RECOMMENDATIONS FOR PRACTICE

Further research is needed to reveal how all leadership and management areas can be streamlined into the decision-making process. Broadening current thinking through research will allow the educational technology decision-making processes to cover other areas of the higher education institution, which will lead to more effective and efficient leadership decisions. Additionally, it will take time for other disciplines to develop a common vocabulary that works for their particular area(s) of study. This will require the collaboration of many practitioners and researchers across disparate disciplines.

REFERENCES

AASCU. (2010). *Public college and university procurement.* Retrieved from AASCU website:http://www.aascu.org/uploadedFiles/AASCU/Content/Root/PolicyAndAdvocacy/PolicyPublications/aascunaepfinal(1).pdf.

APA. (2016). Careers in psychology. Retrieved from http://www.apa.org/careers/resources/guides/careers.aspx.

Instructure. (2016). About us. Retrieved from https://www.canvaslms.com/about-us.

Instructure. (2016). What are LTI Tools (External Apps)? Retrieved from https://guides.instructure.com/m/4214/l/74563-what-are-lti-tools-external-apps.

Cole, S. (2015, March 10). 5 big ways education will change by 2020. Retrieved from https://www.fastcompany.com/3043387/sector-forecasting/5-big-ways-education-will-change-by-2020.

Culatta, R. (2011). Types of Learning Management Systems. *Innovative Learning.* Retrieved from http://innovativelearning.com/learning_management/lms.html.

Kelderman, E. (2016, April 22). Education dept. warns of more scrutiny for accreditors. *Chronicle of Higher Education.* Retrieved from http://www.chronicle.com/blogs/ticker/education-dept-warns-of-more-scrutiny-for-accreditors/110644.

Keller, J. M. (2008). First Principles of motivation to learn and e3-learning. *Distance Education, 29(2),* 175-185. doi:10.1080/01587910802154970.

Kolowich, S. (2010) Blasting Academic Silos. Retrieved from https://www.insidehighered.com/news/2010/01/18/silos.

Lederman, D. (2013, March 27). State budgeters' view of higher ed. *Inside Higher Ed.* Retrieved from https://www.insidehighered.com/news/2013/03/27/state-state-funding-higher-education.

Leisyte, L. (2016, May 9). Top down or bottom up? *Inside Higher Ed.* Retrieved from https://www.insidehighered.com/blogs/world-view/top-down-or-bottom.

Mendenhall, A. M. (2012). *Examining the use of first principles of instruction by instructional designers in a short-term, high volume, rapid production of online K–12 teacher professional development modules* (Order No. 3551163). Available from ProQuest Dissertations & Theses Global. (1287204560). Retrieved from http://search.proquest.com.libproxy.nau.edu/docview/1287204560?accountid=12706.

Merrill, M.D. (2009). First Principles of Instruction. In C. M. Reigeluth & A. Carr (Eds.), *Instructional Design Theories and Models: Building a Common Knowledge Base (Vol. III).* New York: Routledge Publishers.

Merrill, M.D. (2012). *First Principles of Instruction: Assessing and Designing Effective, Efficient, and Engaging Instruction*. San Francisco, CA: Pfeiffer.

NAESP. (2011). Using Student Achievement Data to Support Instructional Decision Making [White paper]. Retrieved September 17, 2016, from NAESP: http://www.naesp.org/sites/default/files/Student%20Achievement_blue.pdf.

Prager, H. (2016). How do we fix our leadership crisis? (Cover story). *TD Magazine*, *70*(3), 30-34.

Selingo, J. J. (2016, August 9). How colleges prepare (or don't prepare) their leaders is holding back innovation. *Chronicle of Higher Education.* Retrieved from http://www.chronicle.com/article/How-Colleges-Prepare-or/237368.

Tanner, R. S. (2015). *Application of first principles of instruction: A correlational study of design expertise and implied course quality* (Order No. 3702770). Available from ProQuest Dissertations & Theses Global. (1686128324). Retrieved from http://search.proquest.com.libproxy.nau.edu/docview/1686128324?accountid=12706.

U.S. Department of Education. (2013) A world without silos. Retrieved from www.ed.gov/news/speeches/world-without-silos.

Venkatraman, N. (2007, September). Tech management for nontech managers. *University Business*. pp. 21-22.

Weidemann, C. (2015, July 24). Development costly but delivery variable: costing and pricing online offerings. Retrieved from http://evolllution.com/revenue-streams/distance_online_learning/development-costly-delivery-variable-costing-pricing-online-offerings/.

Winston, W. (2013, October 17). Helping professors use technology is top concern in computering survey. *Chronicle of Higher Education.* Retrieved from http://www.chronicle.com/article/Helping-Faculty-Members-Use/142377.

Wright, C. R., Lopes, V., Montgomerie, T. C., Reju, S. A., and Schmoller, S. (2014, April 21). Selecting a learning management system: advice from an academic perspective. *Educause Review.* Retrieved from http://er.educause.edu/articles/2014/4/selecting-a-learning-management-system-advice-from-an-academic-perspective.

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