Virtual University Think Tank: A Mixed-methods, Inductive, Exploratory Analysis

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ABSTRACT

This paper builds on the knowledge base from, among other things, a presentation made at UNMMI in 2014 and on findings presented at UNMMI in 2015. The study relies on research gleaned from a virtual collegial think tank developed as a means of establishing and sustaining community and developmental networks among faculty at a large online university. The research examined demonstrates the effectiveness of an existing mentoring program. Social based knowledge management, inclusive of mentoring, is examined in the context of a virtual faculty community. Bandura's (1977) theory of social learning, Kolb's (1984) experiential learning theory, and Bonwell and Eison's (1991) active learning are considered as theoretical foundation on which mentoring and relationships are examined. Best practices for mentoring and relationship building are considered with emphasis on their impacts on creativity and innovation in high tech organizations. Findings of a recent study are considered. The paper concludes with a brief analysis of methodological limitations and discussion of directions for future research.

INTRODUCTION

This study builds on a previous presentation at the University of New Mexico Mentoring Institute (Reed, et al, 2014). Specifically, the study demonstrates the effectiveness of an existing mentoring program in the form of an online business school faculty think tank. First, a brief background of the think tank mentoring program is provided. Emphasis is placed on social based knowledge management and learning in a virtual faculty community. Research questions from the study are briefly considered. The methodology for the study is introduced and findings are discussed. Finally, methodological limitations and future directions for research are explored.

BACKGROUND OF STUDY

At the beginning of 2013, two business school colleagues took on the task of co-facilitating a think tank for a large online university. The colleagues, both of whom were remote fulltime faculty, realized the think tank would largely consist of business school faculty in a virtual organization. They realized that "colleagues often seek"…"ongoing professional development and personal enrichment"…"amidst refreshing personal networks" (Reed, et al, 2014). They aspired to make the bi-weekly virtual think tanks these types of experiences for the faculty community.

The think tanks typically consisted of invited presentations of completed or ongoing research that colleagues shared for purposes or peer review and/or knowledge sharing in a community of peers. Participation on all levels of the think tank (e.g., facilitation, presentation, peer review, etc.) has been strictly voluntary. The venue was casual, informal, conversational, and egalitarian. Meetings were intended to foster collegiality and informal networking, as well as multi-directional mentoring relationships as individual faculty members thought appropriate. Participants regularly received an email invitation which enabled them to opt in through telephone and/or computer screen-sharing connectivity. Presentations lasted between 20-30 minutes and then the 'virtual floor' was opened up for questions and answers from peers; sessions generally lasted approximately one hour in their entirety.

The think tank has served as a developmental network affording "time for suggested project refinement, potential future collaborations, ongoing coaching, and multi-directional learning characterized by informal collegiality" (Reed, et al, 2014). Its ground rules were intended to foster informal dialogue through suspension of judgment, a focus on learning and knowledge sharing, mutual respect, and an egalitarian environment. Consistent with Palmer's ([1974] 2007) *Meeting for Learning*, the nature of the meetings were genuine encounters wherein "learning happens between persons and not simply within [one] learner." Reciprocity and reflection were both necessary and honored components of these idea exchanges.

THEORETICAL FRAMEWORK

In the original paper that introduced the think tank sessions as multi-directional mentoring experiences Bandura's social learning theory, Kolb's experiential learning model, and Hartmann's active learning model were explored (Reed, et al., 2014). Very generally stated, these three learning theories all share the common perspective that learning is achieved by observing others' modeling behaviors and then practicing those behaviors and reflecting on their outcomes. Wise (2012) stated, "Social based knowledge management, which includes mentor programs, works best when people feel connected." One of the primary objectives of the think tanks has been to assist remote full and part time faculty, as well as interested others, to feel connected in a virtual learning community. Higgins and Kram (2001) proposed a typology of mentoring networks that considers multi-directional relationships, rather than more traditional one-directional mentoring models wherein one party is the expert. In a virtual learning community comprised of higher education professionals, primarily faculty, it is fitting for mentoring to be examined as a reciprocal and multi-directional process among peers. Further, Senge (2007) asserts that in cases of problem solving, individuals are extrinsically motivated to change, but when the desired change is creativity or innovation, "the motivation is intrinsic. This distinction mirrors the distinction between adaptive and generative learning". Although think tank participants often discussed topics such as teaching techniques, primarily they explored professional productivity and professional development opportunities in which peers were engaged as part of their faculty roles. The researchers recognized all of these theoretical perspectives were essential considerations when attempting to understand the think tank phenomena in the context of a virtual faculty learning community. For additional information and a more comprehensive literature review, please refer to the original University of New Mexico Mentoring Institute presentation (Reed, et al., 2014).

PURPOSE OF THE STUDY

The purpose of this research was to examine outcomes from the business school think tanks that have regularly occurred since the winter of 2013. The research team hoped to learn if and how the community of faculty has been impacted by their participation in the think tank. To that end, the following research questions were formulated.

RESEARCH QUESTIONS

1. What, if any, impact has participation in the think tank had on faculty teaching?
2. What, if any, impact has participation in the think tank had on faculty professional development?
3. What, if any, impact has participation in the think tank had on faculty professional productivity?
4. What, if any, impact has participation in the think tank had on faculty sense of community or organizational culture?

METHODOLOGY

What methods? This research was a census employing mixed-methods, inductive, exploratory analysis (Johnson & Gray, 2010), utilizing a survey to gather both quantitative and qualitative responses. A survey comprised of closed- and open-ended questions was used to gather information about *the topic*. The questionnaire was posted online and the 102 possible think tank participants each received an electronic link to the site.

Why these methods? The use of mixed methods research allowed the researchers to use multiple research philosophies: post-positivism, post-modernism (Creswell, 2009; Teddlie & Tashakkori, 2011), and social constructivism (Johnson & Gray, 2010) to develop a broader picture of the gathered information.

Quantitative survey question results allowed the researchers to use quantitative methods to make generalizations about the participant population. While the basic premise of quantitative design was for experimentation seeking the impact of a specific treatment (Creswell, 2009). However, the very nature of inductive, exploratory analysis allowed the researchers to explore areas of interest based upon a research question rather than a hypothesis (LeCompte & Schensul, 1999). The mixing of quantitative and qualitative data with equal weighting of importance is perfectly acceptable for mixed method research designs (Creswell, 2009; Johnson, Onwuegbuzie, Tucker, & Icenogle, 2014).

The qualitative analytical processes followed naturalistic (Lincoln & Guba, 1985) and feminist research methodologies (Josselson & Lieblich, 1995). Post-modernistic research philosophy has a foundation in feminist research (McHugh, 2014). The open–ended qualitative questions served two purposes: 1) narrative gathering and; 2) relationship information. The open-ended qualitative survey questions were intended to persuade participants to provide an unstructured narrative describing their experiences, perspectives (Ritchie & Spencer, 2002), and develop context (Gillham, 2005). The desired outcome of open-ended questions was the participant's written narrative (Chase, 2005). Narrative also helped the researchers develop deeper meanings based on participant's life story (Josselson & Lieblich, 1995). Open-ended questions were also used to gather relationship data. Data of this sort can be used to help develop relationship matrices using content analysis software (Silver & Lewins, 2014).

TABLE 1

How often do you attend think tank?	Frequency	% Responses
Never miss a meeting	7	22.58%
Once a month	9	29.03%
Once a Quarter	4	12.9%
Twice a Year	3	9.68%
Other	8	25.81
Totals	31	100.00%

Target Population The target population consisted of 102 business school faculty and other regular think tank participants from a large online university. The study is a single stage census. The researchers had a list of the target population names based on organizational membership and participation (Creswell, 2009). An invitation to participate was sent to the entire population with (3) weekly follow-up emails reminding them to participate if they had not already done so.

Prior to accessing the questionnaire, participants were assured of confidentiality and anonymity at the individual level. The questionnaire remained active for 30 days. Prospective participants could only access the questionnaire in its entirety one time. At the end of the 30 days, 32 responses (31.37%) had been received. As the data were cleaned to ensure usability, one case was deleted due to insufficient numbers of responses to the questions leaving a total of 31 (30.39%) cases.

Sampling Design and why Selected? The study used mixed methods, nonprobability, purposive sampling technique (Babbie, 2010). The population was chosen based on their ability to contribute knowledge to the study (Creswell, 2009; Lincoln & Guba, 1985).

Data Collection Data collection was conducted by surveying the population of think tank members. A link to the survey was sent via email and using a web-based survey service. Internet surveys are an accepted form of information gathering for both quantitative and qualitative (Creswell, 2009; Hewson, 2014; Silver & Lewins, 2014) information.

Data Analysis Procedures Mixed methods research followed multiple philosophical lines of thought: social constructivism (Creswell, 2009), post-positivism, and post-modernism just to name a few (Johnson et al., 2014). All data were treated as a single population, regardless of the number of participants. The final outcomes are treated as a whole population. No inferences are made. The analysis of qualitative data was conducted using multiple computer software programs including, but not limited to, Microsoft Excel, Microsoft Word, and Atlas Ti. Quantitative data was processed using Microsoft Excel. The qualitative data was analyzed using content analysis software (Bazeley, 2010).

Confidentiality Confidentiality and anonymity have been maintained through the use of an Internet based survey system. The service has kept participant response identity confidential. Potential risk to participants was minimal.

DATA ANALYSIS AND FINDINGS

Of the 31 responses (30.39% of population), a total of 5 (16.13% of respondents) were from colleges other than the business school and 1 (3.2%) was from an administrative arm of the university. A total of 25 respondents (80.65%) were faculty from the business school. The following table depicts the frequency with which respondents said they participated in the think tanks.

Some of the respondents' comments included, "...depends on schedule and topic"; "I attend as often as possible"; [and] "They are organized and open and the tone and facilitation is on target. A good welcoming tone is presented."
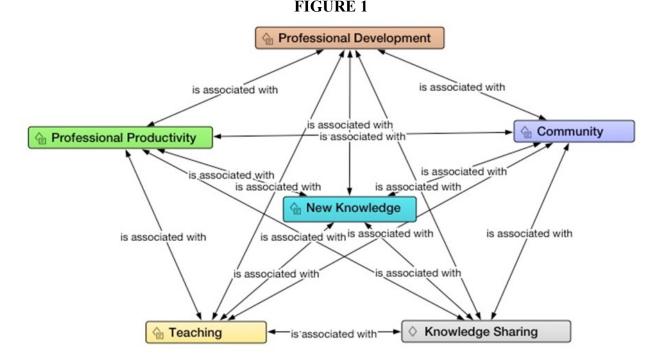
When asked if they would recommend the think tank to others (Likert scale of 0-10 with 10 being highly recommend and 0 being not at all, respondents were all at 5 (2 or 6.45%) and above with 27 respondents (87.1%) between 8-10.

Item #7 on the questionnaire asked respondents to consider what knowledge they gained or discovered from think tank participation, if any. Their responses demonstrated fascinating relationships between the research questions. These are depicted in Figure 1.

The results of item 7 were analyzed as qualitative statements using Atlas Ti©. The 37 statements that were received are depicted in Table 2.

DISCUSSION

Although this study is limited based on a small sample size (31 respondents), it does show that there is value in the think tank venue of this large online university business school. First, it is important to note that over one third (31.37%) of the population responded in this study. Of those respondents (31 cases after data cleaning), over half (16 or 51.61%) said they attend at least one think tank per month as it is meaningful to them in

FIGURE 1

some way. When it comes to the research questions that were posited, the data speak loudly.

Research Question 1: What, if any, impact has participation in the think tank had on faculty teaching?

Of the 37 (100%) total comments in item 7, 12 (32.43%) stated that the think tank had added value to their roles as faculty in a teaching university. Comments included statements such as, "I have learned about recommended conferences I was not previously aware of, recommended readings, how colleagues handle challenges in the online classroom, new research, and more". Some faculty specifically mentioned presentations on topics such as grading, teaching techniques, and academic integrity that specifically stood out in their minds as memorable and worthwhile experiences.

Research Question 2: What, if any, impact has participation in the think tank had on faculty professional development?

Of the 37 total comments in item 7, 15 comments pertained to professional development. These included, "I have learned new ideas from my colleagues and have gotten to know a few of them better" and "How to publish!" Consistently, many faculty named other faculty with whom they had developed mentoring relationships that had resulted in their professional development and, in some cases, artifacts pertaining to professional productivity.

Research Question 3: What, if any, impact has participation in the think tank had on faculty professional productivity?

Notably, 19 (51.35% of responses) comments in item 7 pertained to how faculty perceived themselves as having gained and/or discovered new knowledge that contributed to their professional productivity, representing the greatest percentage of responses. Comments included statements such as, "Awareness of the ongoing research or presentations done by colleagues"; "new research opportunities"; "learned great things on the topics I haven't researched before" and "…new research ideas." In several cases, respondents named research collaborators on conference presentations, publications, and/or other examples of professional productivity thereby demonstrating the power of knowledge sharing, social networks, and multi-directional mentoring opportunities in a virtual faculty community.

Research Question 4: What, if any, impact has participation in the think tank had on faculty sense of community or organizational culture?

Of the 37 (100%) total comments in item 7, 13 (35.14%) pertained to the sense of community that faculty felt in the think tank venue. Comments included statements such as, "I appreciate the opportunity to connect with colleagues beyond my college and I am interested in the topics", "I have learned new ideas from my colleagues and have gotten to know a few of them better" and "…Created enduring friendships", to name a few comments.

Finally, although one of the original research questions did not address knowledge sharing specifically, over one third of responses (13 of 37 or 35.14%) pertained to knowledge sharing as well as knowledge creation and/or discovery. Comments included statements such as, "There are various topics that range from one end of the spectrum to another, but I appreciate the collegiality shared among us" and "I have learned new ideas from my colleagues and have gotten to know a few of them better".

DIRECTIONS FOR FUTURE RESEARCH

Although this research on the school of business think tank is exploratory, thus far it does show that the initiative – which costs nothing but faculty time away from other duties – has been an effective means of positively impacting faculty teaching, professional productivity, professional development, sense of community, and knowledge sharing. The data collected from this initial study are still being mined and will be examined more deeply in a publication in the near future. Future directions for research might include longitudinal studies on each of these topics. In addition, relationships between such virtual faculty learning communities and professional development and/or professional productivity might be explored. This is consistent with the work of Senge (1990; 2007), Palmer (1974), Gibson (2011) and others who have posited the value of community and trust in social networks and other developmental relationships. Relationships between knowledge management, knowledge sharing and collaboration in virtual learning communities such as the think tank might also be explored with their value to faculty in higher education institutions that are increasingly offering online learning opportunities.

TABLE 2

Category	Frequency
New Knowledge	37
Professional Productivity	19
Professional Development	15
Community	13
Knowledge Sharing	13
Teaching	12

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