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The Journey into *Ba*: A Phenomenology of Computer-Mediated Communications

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Abstract: This study describes the phenomenon of *ba* within a computer-mediated communications environment, a lived experience shared by the participants through the join.me application. Data were gathered from online meetings with study participants while they were engaged in the process of developing professional development courses specific to their various areas of expertise. Study results indicated that the essence of experience could be reduced to four themes: equalized power structures, affirmed mutual expertise, learner guided mediation, and negotiated concerns.

Introduction

In today's information age, knowledge is ubiquitous, highly valued, and in high demand. Numerous professional development programs allow individuals to act as knowledge brokers to package their expertise. These programs often use advanced information management and information technology tools to create massive online brokerages of information that can be accessed quickly, cheaply, and globally. The challenge for the adult learner is how to effectively separate information from knowledge.

Information is simply one component of knowledge. What is often neglected about online information brokering is the context in which knowledge exists. Within an online information brokerage, context is often construed as the environment in which the information is stored, such as wikis, learning management systems, or social media. While each form of information technology offers benefits that support various pedagogical methods, technology itself does not, and cannot, address the entirety of context in which learning takes place.

This paper will describe the results of a study on how computer-mediated communication can support a more robust framework of context. The study relied on a nuanced view of context referred to as *ba* (Nonaka, 2001) that created social proximity virtually. The results of this study represent a portion of a larger framework of online continuing education being validated, called the Negotiated Just-In-Time Framework (De Leon & Feenan, 2015).

The Literature and Conceptual Framework

What follows is a brief overview of three learning theories that consider context indispensable to learning. Each theory establishes a component of the Negotiated Just-In-Time framework that supports a relationship between the adult learner and the context in which learning occurs. The most significant framework is based on a theory of knowledge-creation (Nonaka & Toyama, 2005). Vygotsky's (1978) sociocultural learning theory establishes additional expectation around social process and context. Finally, Lave's (1988) legitimate peripheral participation construct establishes expectation around community and the genuineness of the learner experience.

Nonaka's Concept of *Ba* and Knowledge Emergence

According to Nonaka & Toyama (2005), knowledge is *emergent*, based on the relationship between values and context. What is considered true and capable of being learned is a synthesis of subjectivity of information and objective validation of information. *Ba* is an existential convergence of practices, dialogues, information sources,

objective, and the environment in which the it occurs. Knowledge itself is a process, not a thing, and as such is constantly being transformed as the conditions surrounding it change over time. Learning, while an attribute of internalizing ideas, values, and contexts, is highly influenced by social and cultural situations (Nonaka, 2001).

The largest limitation to the use of *ba* as a supporting pedagogical framework is that it has thus far been almost exclusively applied to business, with very little empirical data applied to scholarship other than business case studies. In a meta-analysis of 20 studies that examined SECI, a valuable conclusion was that the model has potential transferability outside of business, provided that the learning process is externalized more deliberately in professional training (Tammets, 2012).

Vygotsky's Concept of Mediated Learning

Vygotsky's sociocultural learning theory is a pedagogy framework for teaching school age children (1978), which describes learning as a social process. Learning occurs in interactions with others. The communication process as a vital mediator of the thinking process, where language is an integral part of a culture, and which brings about its own context for learning. Therefore, he determined that the cultural context of learning was a means of creating optimum learning situations where thinking was mediated through language exchanges. This mediation, however, occurs if there is a "more knowledgeable other" guiding the interchange. Teachers know this mediation process more commonly as "scaffolding", although the concept of it has evolved tremendously over time, and it has been cited as a significant influence to models for lesson planning, guiding discussions, and learning language.

Although Vygotsky's theory was originally intended to provide a pedagogy for classroom instruction, his theory has been applied to adults, although in a more limited capacity, with some implications for how language context plays a role. Watanabe (2008) found that adult ESL learners utilizing peer-peer collaborative language interactions valued a sense of agency and trust between those who were mediating learning far more than the interactions themselves. A social relationship needed to be established. Taylor, King, Pinsent-Johnson, & Lothian (2003) found that if adult peers in a formal classroom environment are enabled or empowered by the teacher to create their own collaborative structures, learning increases. This study also appears to establish a relationship between the autonomy learners have within their socially constructed context, and the learning that takes place.

Lave's Concept of Situated Learning

In 1988, Lave proposed Situated Learning Theory, which described learning as occurring within a social context that considered the culture as a part of creating a community of practice. Indeed, the learning experience is described almost as an apprenticeship, where an expert guides the novice. Although this sounds very similar to what Vygotsky discusses in his sociocultural theory and his zone of proximal development, Lave & Wenger (1991) call it, "legitimate peripheral participation", where the novice is involved in smaller, less specialized tasks and gradually moves toward mastery of the more complex. The key element of this situated learning is that all learning occurs in genuine environments, or within a particular context that cannot be separated from the learning experience.

Catalano (2015) examined the efficacy of situated learning in a distance learning library science university program and found that situated learning demonstrated an increase in knowledge transfer to a real life profession. Bell, Maeng, & Binns (2013) framed technology integration in a teacher preparation program within the context of situated learning theory and found that teacher candidates showed a significant transfer of technology knowledge into their teaching due to the fact that the context was genuine, where application was directly in the real life context, which is similar to an apprenticeship.

Transcending the Conceptual Frameworks to Create Just-in-Time

These three theoretical lenses are what nuance *ba* as a context phenomenon within this study. First, Nonaka's conceptual framework of knowledge as *emergent* presents an opportunity to rationalize business, information management, and educational theory in a way that has never been envisioned. Second, Vygotsky's socially mediated components validate the notion that learners are better able to have knowledge emerge when it is socially constructed and culturally respectful. Third, Lave's communities of practice reinforce the need for relevance and relatedness. All of them place context as the single most important element in learning.

Because Rockcliffe University Consortium is currently piloting and validating a more comprehensive pedagogical methodology called the *Negotiated Just-In-Time Framework* (De Leon & Feenan, 2015), where context

is critically and deliberately constructed, it is important to start from these empirically tested frameworks. The Just-In-Time framework transcends them in a key way: it is a method for designing learning experiences that can continually adjusted in order to meet highly value, high demand, and educational needs. It cannot accomplish this, however, without a strong affirmation for *ba* into a virtually situated, learning model that is socioculturally driven across multiple constructs. Just-In-Time focuses on the immediacy of learning to real world context, within real world cultures, and within real world demands.

The Study

Purpose

The purpose of this study was to discover how computer-mediated communication helped create a context akin to the Japanese concept of *ba*, or a place created through the interplay of space, time, and the individual. The study's setting was an online professional development course created and launched in the Moodle Learning Management System. Although the course was largely asynchronous, where participants followed their own pace to complete tasks, it is the synchronous aspects that are examined in this study because this is where the intersection of space, time, and the individual occur at the same time to create context.

Methods

This qualitative study utilized the phenomenology method of analysis because it was well suited for describing the essence of a lived experience within a phenomenon. In this study, the phenomenon examined was context or *ba* as it was created using computer-mediated communication. Eleven subject matter experts participated in the study by enrolling in an online professional development course titled, "Instructional Design for Subject Matter Experts".

Data collection

Data collection occurred using join.me as the computer-mediated communication application. Join.me is an online video conferencing tool with text chat and video and audio communication. This tool was selected because it was the least intrusive upon the participants: no account setup or application download were needed, so that entering an online meeting room just required a link to open on a web browser. The features from join.me that were utilized during the meetings with participants were screen sharing, audio, text chat, and the set calendar appointment feature. The data collected from these meetings were observational notes written immediately after each event on the types of interactions that occurred, the reactions of the participants to the environment, and the types of discussions that occurred at each session. Support data for these observations were downloaded from join.me, which catalogue the time spent in session, as well as the features used. Table 1 indicates the breakdown of meetings and length. Please note that two times are highlighted as incorrect from the report, likely recorded in that manner because the join.me window was left open even after the meeting was over.

Participant	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Meeting 6	Meeting 7
Abigail	00:48:25	00:30:49	00:43:16	00:59:05			
David/Emily	00:48:21	00:58:11	00:46:20				
Frances	00:55:52	00:55:32					
Harper	01:43:50	01:25:17	01:02:32				
Hayden	*09:32:48*	00:54:46	*03:24:41*	01:20:17	00:16:25		
Margaret	01:16:19	00:17:29	00:16:41	00:47:44			
Mia	01:32:18	00:22:36					
Olivia	01:16:35	01:14:08	00:36:59	02:03:53	00:32:11	01:13:15	00:53:15

Sophia	00:56:38	00:36:29					

Table 1: Report of Join.me Meeting Durations

These meetings followed the same pattern. They were non-didactic, learner-centered, one-to-one with each participant, with one exception, and utilized semi-structured questioning methods. All meetings were scheduled by the participants at benchmark points in the Moodle course, using a Scheduler plugin within the LMS.

Data Analysis

The process of data analysis for this phenomenology followed Moustakas' steps (1994), which outlines a data reduction process that includes the following: 1) bracketing, 2) horizonalization, and 3) clustering.

Bracketing is an internal process for the researcher to admit known biases brought on by prior experiences, in order to strip down data through the lens of the participants. This was accomplished by reviewing observational notes and removing terminology or descriptive words that may be potentially loaded or allude to one philosophy or other. Where word for word participant information was not possible to record, description was stripped of qualifiers, like "showed enthusiasm" to "voice grew higher pitched, laced with laughter, and used words like "'this is interesting'".

Horizonalization is the process of taking all statements in qualitative data—like observation notes or interviews—and establishing an invariant horizon of non-repeated meaning units, so that data are reduced to the essential ideas. During this process, the invariant horizon was reduced to eleven meaning units. The next step in the process is to further reduce the data into clusters of meaning, through the synthesis process of clustering. I utilized the concept mapping application Inspiration® to help me visually identify the patterns of ideas that were first reduced as the invariant horizon, and then further reduce them into themes through clustering. Figure 1 shows the completed concept map for these data analysis processes.

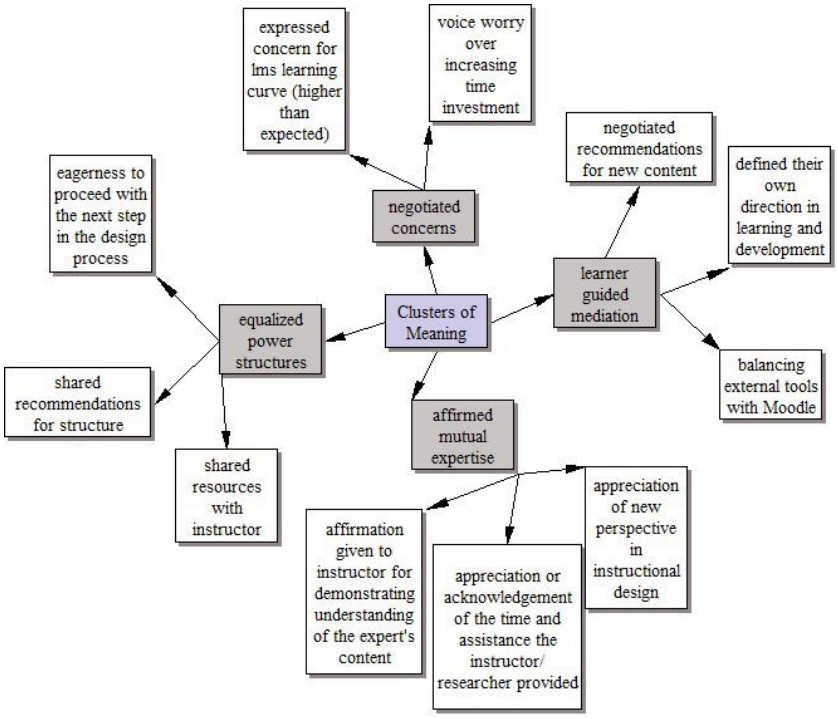

Figure 1: Clusters of Meaning for Data Reduction

Findings

As indicated by the data analysis, this study produced four themes which describe the essence of the lived experience within the phenomenon of *ba*. The first, noted here as equalized power structures, was important for the participants to feel like they brought their own power of expertise into the conversations, so that the instructor was not the only empowered individual within this context. They described part of the essence of the lived experience as one that gave them agency, much like what Tayler et. al. (2003) found.

The second theme is noted here as affirmed mutual expertise. Within teacher-student relationships, the understood expert in the class is always the teacher. Within this context, expertise—while different between the teacher and the student—was equally acknowledged as important to the learning process. Participants were often pleasantly surprised when the instructor made an effort to understand their area of expertise. This is also similar to the knowledge creating process where information transcends the individual (Nonaka & Toyama, 2005).

The third is learner guided, where the learner had a great deal of leeway to justify changes in direction, as they worked, and where the instructor used questioning methods to allow the learner to reach their own conclusions about how the decisions they were making still fit within the learning outcomes of the course. In this way, the conversations were a type of negotiation, rather than simply checking if something was "right" or "wrong". This is akin to Vygotsky's (1978) language mediated constructs.

The fourth is negotiated concerns. While this is very similar to the above three, the distinction here is in the elements that participants felt were a potential barrier to their learning. Within this context, there was a type of safety and mutual respect established that freed participants to voice concerns, without any looming fear. In essence, this is like a mutually supportive community of practice that Lave (1988) describes.

Conclusions and Future Steps

Learning occurs when people connect with each other for a common purpose. It is also ultimately about communication that shares the moment—supports, encourages, guides. The four themes would seem to indicate that the phenomenon of *ba* did present itself in the type of context that was created for several reasons. First, the lack of physical space was never mentioned or implied as being a barrier to learning. Location transcended physical place. Second, because of the constant negotiation and strongly learner centered constructs of the meetings, knowledge could be argued to have emerged from those interactions. The learners were constantly being valued as the experts, so that their learning could not have been acquired by traditionally described standards.

Nonaka makes a more profound point toward shared spaces that have their own mixture of magic, a type of cultural brew that two or more individuals create through a shared respect and value added. Certainly, context is present. Certainly, a socially constructed negotiation of knowledge is created with the dialogue between people. Both of these are physical constructs, traditionally. You can't make a brew if you don't put all the ingredients into the same pot. *Ba* transcends the pot. It makes the pot irrelevant. Once people are connected by ideas, they brew their own concoction outside of physical space. This is what is most appropriate in this small study.

Limitations of this study include the fact that context was established only one-to-one and not within peer groups. The peer component is decidedly missing, and would likely change the dynamics of just-in-time, especially since the backgrounds and disciplines of those who potentially engage in this type of professional development may be significantly more varied. Another limitation is that *ba* is taken completely out of Nonaka's SECI model, so that the meetings never deliberately underwent a planned process of socialization, externalization, combination, and internalization (Nonaka & Nishiguchi, 2001). Likewise, knowledge was never defined in the dual way that Nonaka does: as explicit or tacit. Knowledge was brokered as having several dimensions that are better described as declarative, procedural, and metacognitive, with heavy emphasis on the metacognitive aspects.

Implications despite the limitations, include the notion that it is possible to create a context that nurtures just-in-time and that defies physical space in the knowledge creation process. It would also indicate that a just-in-time framework that honors *ba* would need to include a context that is negotiated by the learners, rather than enacted upon them. This presents some potential future steps in the continued validation process of an online continuing education program. Advancement in information management and information technology has opened up new avenues to explore the ways in which massive online brokerages of information can be used to enable learning at higher rates of understanding and with higher levels of quality. Positioning *ba* as the leveraging agent to one such program can only strengthen its value.

In conclusion, I would like to offer one final addendum to this journey into *ba*. The term actually comes from Japanese philosopher Nishida Kitaro, who used the word *basho*, from which *ba* originates. Literally, *basho*

means place, but Nishida used it to describe something that is better translated as a *locus* (Mayuko, 2009). As such, context is a place that *cannot exist* unless there is a convergence of points.

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