9-2-2017

The Chameleon Characteristics: A Phenomenological Study of Instructional Designer, Faculty, and Administrator Perceptions of Collaborative Instructional Design Environments

Papia Bawa
Purdue University, pawa@purdue.edu

Sunnie Watson
Purdue University

Follow this and additional works at: https://nsuworks.nova.edu/tqr

Part of the Curriculum and Instruction Commons, Educational Administration and Supervision Commons, Educational Methods Commons, Scholarship of Teaching and Learning Commons, and the Teacher Education and Professional Development Commons

Recommended APA Citation

This Article is brought to you for free and open access by the The Qualitative Report at NSUWorks. It has been accepted for inclusion in The Qualitative Report by an authorized administrator of NSUWorks. For more information, please contact nsuworks@nova.edu.
The Chameleon Characteristics: A Phenomenological Study of Instructional Designer, Faculty, and Administrator Perceptions of Collaborative Instructional Design Environments

Abstract
While several professionals, organizations and departments may be a part of the instructional designing process usually faculty, instructional designers, and administrators are key stakeholders and collaborators. Although there are some studies related to the process of instructional designing, there is little by way of research that has investigated the stakeholders’ perceptions of the key characteristics of effective collaboration within instructional designing projects. Thus, there is a gap in our understanding of the phenomenon of instructional designing project collaboration. This hermeneutic phenomenological study seeks to add to the literature by sharing the perceptions of seven stakeholders in different roles, who have collaborative instructional designing experiences within Midwestern higher education institutions. Practitioner and research implications are also discussed. The data revealed nine core characteristics perceived as crucial to effective collaboration within instructional design projects. These characteristics are discussed using the metaphor and associated acronym of CHAMELEON (Communication, Humility, Adaptability, Mentorship, Empathy, Looping, Engagement, Oscillation, Networking).

Keywords
Phenomenology, Hermeneutic, Collaboration, Instructional Design, Stakeholders

Creative Commons License
This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 4.0 License.
The Chameleon Characteristics: A Phenomenological Study of Instructional Designer, Faculty, and Administrator Perceptions of Collaborative Instructional Design Environments

Papia Bawa and Sunnie Watson
Purdue University, West Lafayette, Indiana, USA

While several professionals, organizations and departments may be a part of the instructional designing process usually faculty, instructional designers, and administrators are key stakeholders and collaborators. Although there are some studies related to the process of instructional designing, there is little by way of research that has investigated the stakeholders’ perceptions of the key characteristics of effective collaboration within instructional designing projects. Thus, there is a gap in our understanding of the phenomenon of instructional designing project collaboration. This hermeneutic phenomenological study seeks to add to the literature by sharing the perceptions of seven stakeholders in different roles, who have collaborative instructional designing experiences within Midwestern higher education institutions. Practitioner and research implications are also discussed. The data revealed nine core characteristics perceived as crucial to effective collaboration within instructional design projects. These characteristics are discussed using the metaphor and associated acronym of CHAMELEON (Communication, Humility, Adaptability, Mentorship, Empathy, Looping, Engagement, Oscillation, Networking). Keywords: Phenomenology, Hermeneutic, Collaboration, Instructional Design, Stakeholders

Introduction

E-learning is rapidly gaining popularity, as more consumers are looking to it as a convenient and useful teaching and learning option. For instance, the 2015 Babson Report indicates, “there were in excess of 2.8 million students taking all of their higher education instruction at a distance in fall of 2014. This represents one-in-seven (14%) of all higher education students” (Allen, Seaman, Poulin, & Straut, 2016, p. 10). Given the magnitude of E-learning expansion, it is important to investigate concepts, elements and entities associated with this trend. One such element is instructional designing (ID), or the systematic process of adopting principles of learning and instruction to plan and/or design/develop instructional materials and activities (Reigeluth, 1983, 1996; Reiser, 2001; Seels & Richey, 1994; Smith & Ragan, 1993). Key stakeholders of the instructional designing process may include those who design courses for their own classes and are the experts in subject matters, such as faculty and SME or subject matter experts who have in-depth knowledge of the subject, professional instructional designers (IDers) who work as course developers or consultants for institutions, as well as administrators/managers who supervise and manage the projects, including allocation of resources. Today more projects include IDers who deal with the design and development of courses, while faculty provide the subject matter expertise (Chao, Saj, & Hamilton, 2010; Tantivivat & Allen, 2005). Thus, collaboration is fast becoming a hallmark of the ID field (Moskal, 2012). As with all collaborative environments, effective collaboration between stakeholders can lead to superior knowledge construction, outcomes and products which is why it is valuable to examine characteristics that facilitate collaboration between stakeholders (Roschelle, 1992; Roschelle & Teasley, 1995). We need to examine stakeholders’
perceptions of such characteristics to facilitate a deeper understanding of their mindsets, aptitudes and attitudes, which could be crucial to fostering effective collaboration. This is valuable, both in the context of understanding collaborative efforts in general, as well as in the specific context of ID collaborative projects. This is for three reasons.

First, the trend to have collaborative projects in ID is rapidly rising. Examining job descriptions of approximately 150 instructional designer jobs revealed that working in a team and collaborating with stakeholders like faculty, SMEs and management was a given. Each of these jobs involved some form of collaboration and having strong team work skills was a preferred qualification (Higher Ed., 2017; Indeed, 2017; Instructional Designer.org, 2017; Monster, 2017). Thus, knowledge on how such stakeholders can collaborate successfully and knowing how to recognize and deal with the impediments to such collaboration will be valuable.

Second, smooth and successful collaboration between the three stakeholder groups can improve the functioning skills of each. For instance, working with an IDer can increase faculty technology skills and knowledge of new teaching methodologies (Wagner & Hulen, 2015). By providing a flexible and interactive model of support to faculty, IDers can shorten the gaps faculty may have in ID theoretical knowledge and practical skills (Scoppio & Luyt, 2015). Interacting with faculty can strengthen the subject matter expertise and pedagogical knowledge of IDers. As designers may have a tendency to ignore the general picture and get caught up in the specifics of a design, project management can help them stay focused on details, “yet remain cognizant of the entire project. Thus a systematic approach is easier to use and easier for others outside of instructional design, such as managers, to understand and implement” (Layng, 1997, p. 19). Thus, collaborative instructional design can be seen as practice that creates “a social world of access, equity, inclusion, personal agency and critical action” (Campbell, Schwier, & Kenny, 2007, p. 661). By examining characteristics relevant to instructional design project collaboration, we can strategize how to affect the quality of content in positive ways (Castro-Figueroa, 2009).

Third, even though there is an increase in ID projects and collaborative efforts, there are sparse to no studies in the literature on this subject. Although there are some studies related to the process of instructional design project collaboration, there is little by way of research that has investigated stakeholders’ perceptions in this context. This creates a gap in our knowledge and understanding of the phenomenon of instructional design project collaboration, which this study seeks to fill. Due to the existence of diverse and scarce views on the subject, the current study sought to get a deeper understanding of how stakeholders view the collaborative ID process. The findings of this study provided some insights into instructional design project collaboration skills in the form of the Chameleon metaphor, as stakeholders may need to employ a variety of, and sometimes dichotomous, ID skills and attitudes for effective designing and collaboration.

**Background**

**Collaboration Framework**

The paper draws from the collaboration framework discussed by Wood and Gray (1991), who synthesized information from nine articles that pointed to four overarching elements, which they posited, underpins most collaboration situations. The first element is that the term collaboration is not well defined, and requires a fresh look. Wood and Gray (1991) came up with this definition: “Collaboration occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms and structures, to act or decide on issues related to that domain” (p. 146). The second element pertains to
defining the role and scope of conveners and their interventions in the collaboration process. Wood and Gray (1991) suggested that for a collaboration to take place, conveners need not involve all stakeholders all the time. However, the presence or absence of some stakeholders can have a definite impact on the process. The third element pertains to environmental complexity and control, and hints that even though organizations use collaboration to reduce complexity and turbulence, under certain situations, it could have the opposite effect. Thus, it is important to examine the differences between the desired and acquired extent to which stakeholders seek to control the environment during collaboration. An important characteristic to consider in this respect is the control organizations may have on resources, and how such control and access can determine some of the dynamics of collaboration. Finally, Wood and Gray (1991) discussed the importance of identifying the stakeholders’ self-interest versus the collective interests of the group and contend that “if collaboration is to occur, involved stakeholders must perceive that this will serve their own interests” (p. 160).

This study examined if the four dynamic elements of the collaboration framework exist within an instructional design project collaboration paradigm, and if so, how they influence the collaboration process. The research question (RQ) matches the framework’s intent:

What are the perceptions of instructional designers, faculty and administrators regarding the characteristics of collaboration with one another within instructional design project environments?

The scope of the question includes examining characteristics such as how stakeholders define/perceive the ID process, what role they play, how complex and controlled is the collaboration and how much are stakeholders invested in the process. These are valid aspects of instructional design project collaboration (Spector, 2017).

As a professional Instructional Designer and professor, the first author has significant experience in ID collaborative situations, both in academic and corporate settings. Thus, it was a natural inclination for the first author to gravitate toward this topic, based on challenges faced and achievements garnered within ID collaborative situations. The second author is an Assistant Professor in a Learning Design and Technology Program, with strong background in conceptual and theoretical aspects of the ID process. In the context of this study, one of the goals was to build on Wood and Gray’s (1991) first element, the concept of collaboration, and expand it to include specifically, what effective collaboration could look like in an ID situation. With respect to the second element, the study also aimed to provide a deeper insight into the role of conveners and stakeholders, including the effects of their absence and presence. For instance, the first author has experienced firsthand, how administrators can make or break a project, even though they may not be directly present within the collaborative team. Wood and Gray’s (1991) third element pertaining to environmental control in collaboration was also factored in the data gathering process in the interview questions pertaining to control and allocation of resources and such. Finally, the study focused on the fourth element by questioning the participants about the division and allocation of tasks and their perceptions of their relationship to the tasks, as well as other stakeholders in the team. For instance, one of the questions asked: How would you describe your working relationships with the faculty? In other words, can you give us a few examples of projects that went well and projects that could have gone better?

Instructional Designer Roles, Challenges and the Theory of Mind

A meaningful study of the instructional design project collaboration process must include discussion of literature pertaining to the unique challenges that IDers face when
engaged in ID activities, as it guides the researchers’ focus to areas that might need deeper investigation. Based on a study of eleven IDers, Liu, Gibby, and Quiros (2002) revealed that IDers faced daily challenges “in producing educational products, using new technological tools, and the need to stay on top of the field” (p. 208), as well as “performing multiple roles depending on a project’s needs” (p. 208). Other challenges include being routinely confronted with the next task or design problem in a project, without having adequate training to tap into their creativity, as well as developing and sustaining major competencies related to subject matter, pedagogy, curriculum, and technology. These are imperative to effective design of instruction (Arafah, 2015; Clinton, & Hokanson, 2011). The recent focus on interdisciplinary ID requires IDers to be able to interact with disciplines that are new to them, and develop materials to explain the subject matter clearly. This creates challenges when interacting with SMEs, who are many times the faculty (Castro-Figueroa, 2009; Creamer & Lattuca, 2005). In addition, the training IDers receive may leave them ill prepared to fulfill certain job demands, like project management skills, as well as, initiating short-term trusting relationships with faculty and SMEs (Schweir & Wilson, 2010). This may result in low performance levels, particularly of entry level IDers, when examined through the lens of employer and client expectations (Villachica, Marker, & Taylor, 2010).

Since the process of ID involves extensive use of technology, it is expected that IDers will have both technological skills and a deep interest in technology. However, expert IDers will temper their interest in technology with recognition of “the invisible qualities of a design that really matters” (Gibbons, 2013, p. 34). Closely related to technological expertise, is the expectation that IDers will have knowledge of and practice using ID models. However, Kenny, Zhang, Schwier, and Campbell (2005) conducted a literature review and discovered that while instructional designers apparently do make use of process-based ID models, they do not spend the majority of their time working with them, nor do they follow them in a rigid fashion. They also engage in a wide variety of other tasks that are not reflected in ID models. Cox and Osguthorpe (2003) studied aspects of the ID activities and concluded that IDers spend more time in organizational tasks (project management, meetings, academic research and professional development) than they did on ID tasks (analysis, design, development, and evaluation).

Thus, when engaged in the designing process, IDers deal with different levels of activities including problem interpretation, analysis, representation, solution, use of internal and external resources, and finally decision-making (Rowland, 2008). Additionally, ID situations involve “a complex three-way interaction among the designer, the instructor or subject-matter expert, and the learner” (Dicks & Ives, 2008, p. 12). It has been the first author’s repeated experience that effective interaction amongst stakeholders collaborating within an ID team requires being intuitive and sensitive to one another.

When looking at all such challenges, it comes to mind that job of an IDer is complex, involving symbiosis with not only other human beings, but also with technology and content. Thus, in order to fully understand how IDers may function effectively, perhaps the concepts propounded by the Theory of Mind (ToM) might shed some light. Drawing from the work of Barrett, Dunbar, and Lycett (2002), Dicks and Ives (2008) describe Theory of Mind as “the ability to imagine what is in the minds of others and use that information in assessing both how they might behave and how they [might] be persuaded to behave” (p. 12). This might involve something akin to mind-reading or mentalizing, which is “The ability to acquire knowledge about other peoples’ beliefs and desires” (Frith & Frith, 2005, p. R645). A branch of ToM is the Simulation Theory that explains how “attributors use their own mind to mimic or ‘model’ the target’s mind and thereby determine what has or will transpire in the target” (Goldman, 2012, p. 10). In this way, people can understand and evaluate the actions of others, even when they may not share the same beliefs, desires, or experiences (Saxe, 2013). In the context of the
study, the participants alluded to this characteristic as being crucial to their successful collaboration, as evident from the simulation of being a Chameleon.

**Faculty and Administrators within Instructional Design Situations**

Since this study focuses on faculty as a stakeholder group, it is important to identify what available literature suggests in terms of faculty related issues as well. A synthesis of the literature reveals some key areas that faculty struggle with during ID activities. These include a lack of technology skills required, adapting pedagogy for the online environment, being more learner-centered, adapting to a shift in tradition from having autonomy over course development to sharing this autonomy, finding more time to develop their online courses, and the extent of increased workload pertaining to course revisions. Despite the rapid growth of distance learning programs, faculty are often resistant to moving their courses into a distance learning format (Brown, Eaton, Jacobsen, Roy, & Freisen, 2013; Chao et al., 2010; Georgina & Olson, 2008; Hixon, 2008; Wilson, 2003; McLean, 2005; Woods, Baker, & Hopper, 2004; Xu & Morris, 2007). Dealing with these challenges strategically and effectively can foster meaningful collaboration, which is greatly valuable to any ID situation.

As Wood and Gray’s (1991) theoretical frame suggests, non-present stakeholders may play a prominent role in the collaboration process. Administrators have distinctive roles in the course design and teaching process and their responsibilities may include course evaluations, quality control, recruitment and professional development of faculty and IDers (Yang, 2010). All these have a bearing on the quality of collaboration. Administrators are sometimes major decision makers in the instructional design process. Despite the importance of administrators in ID collaboration, there is very little in literature that discusses their roles and importance in the context of ID projects within academia. Williams van Rooij (2010) studied the “extent to which an organization’s project management implementation maturity affects roles and responsibilities in educational/training product development projects, particularly as regards the instructional design and the project management roles” (p. 249, Abstract). Although this study focused on corporate ID projects, it did establish that even though a large part of trained IDers come from higher education backgrounds, most of them lack formal project management training. In comparison, there may be ID project administrators who do not possess any formal ID training, which in turn can create issues with the collaborative environment. “Instructional design programs, are usually offered by colleges of Education whose long-standing mission has been the education of teachers, the development of education leaders, and the advancement of teaching excellence” (p. 256).

In a subsequent study Williams van Rooij (2011) reiterated the earlier findings and also established that in majority of cases, the management aspects of an ID project were handled by someone other than an instructional designer. Additionally, there is a new trend of using organization-specific management best practices that prevents usage of any industry-wide standardized procedures. Consequently, the quality of a project’s management may depend on technical as well as personal characteristics, which adds a greater depth to collaborative challenges due to the inclusion of subjectivity in the management process. Layng (1997) drew a comparative analysis of project managers’ and instructional designers’ roles in the context of managing projects collaboratively to identify areas of concern. One such concern is that “Managers work with projects, but do not readily embrace the instructional design process. They have a tendency to identify instructional design as projects, which can hinder the design process” (p. 19). However, Layng (1997) also affirmed that “instructional design is as much a part of project management as project management is a part of instructional design” (p. 19), which is why an effective and smooth collaboration between these stakeholders is imperative for a project’s success.
Methodology and Methods

For this study, we used phenomenology as the methodology. Welman and Kruger (2002) believe that the process of phenomenology relates to gaining an understanding of social and psychological phenomena from the perspectives of people involved. This methodology involves carefully and thoroughly gathering data on how people perceive something, describe it, feel about it, judge it, remember it, and have conversations about it with others (Creswell, 2014; Patton, 2015; Percy, Kostere, & Kostere, 2015). For these reasons, phenomenology was most suitable for this study, as it examined the perceptions of stakeholders’ to the phenomenon of collaboration. This ties in closely with Wood and Gray’s (1991) Collaborative Theory and associated research question. Wood and Gray (1991) believe that the presence or absence of stakeholders, as well as their complexity and control over the collaboration environment can have a definite impact on the process of collaboration. Based on this frame, the study focused on finding out characteristics that control the sustainability of instructional design project collaboration. This matches the central foci of phenomenology pertaining to how stakeholders perceive a phenomenon.

As a method, phenomenology has several forms, one of which is the Hermeneutic form. We analyze and present the data using an approach based on the Hermeneutic Circle principle that when texts and language are examined through the lens of researchers’ and participants’ worldviews, they can be key to revealing hidden contexts of a phenomenon, as true understanding comes only through interpretations and descriptions generated by language (Botts, 2016; Gadamer, 2004; Kafle, 2013; Langdridge, 2007; Mantzavinos, 2016; Sloan & Bowe, 2014). For our data, the first author started with a few questions as part of a semi-structured interview protocol. These questions focused on the experiences of the researched. While conducting the interviews, the first author evolved the initial questions, as she drew from her own experiences to indulge in conversations with the researched. The formal interview process gravitated, by intent, towards an informal perspective exchange. Thus, the transcripts became “texts” taken from the pages of life of the researcher and the researched. The first author displays this analysis using three levels of circles as shown in Figure 1.

![Hermeneutic Circle Approach](image_url)

**Figure 1.** Hermeneutic Circle Approach
This analysis process is inspired from the Hermeneutic Circle principle that “Within this circle, understanding moves beyond the usual stance of subjective or objective interpretations; instead, what is offered is the interplay of movement between tradition and interpretation” (McManus Holroyd, 2007, p. 4).

Upon receiving IRB approval from the institution’s Human Research Division, seven participants were selected. The participants were two faculty members, three instructional designers and two administrators from large Midwestern Educational Institutions. All participants had/have long term experience with the ID process and working on collaborative projects, as their selection was done using purposeful sampling, and stakeholders known to have worked within ID projects were targeted. This technique was useful as researchers had limited resources, and were looking to identify and select cases most rich in information. Thus, selection was made from populations that had special knowledge, experience and interest in the phenomenon being studied (Creswell & Plano Clark, 2011; Patton, 2015). The participants selected for this study are all established and experienced in their respective roles. The faculty members have considerable experience working to design several courses as part of an ID team, where they performed the role of SMEs. The instructional signers have experience working on solo and collaborative projects, and are currently employed by the institution in which the data was gathered. The administrators hold high level positions. One is the Director of the Instructional Design Department and the other is the Lead Instructional Designer who acts as the team leader. Participants were informed of the confidential and voluntary nature of the participation.

We used face to face, approximately one hour duration, semi-structured interviews, with questions designed to provide insights into the core research question, as well as to elicit maximum information from the participants by having appropriate prompt questions in place (Jacob & Furgerson, 2012). Wood and Gray (1991) discuss three broad items that need to be analyzed to understand collaborative processes “the preconditions that make a collaboration possible and that motivates stakeholders to participate, the process through which collaboration occurs, and the outcomes of the collaboration” (p. 13). Thus, the design of the questions pertained to several categories dealing with participant background, the collaborative process, perceptions, feelings and knowledge, keeping with the context of the frame of Wood and Gray’s (1991) Collaborative Theory. Some sample questions are given below for reference:

1. On what type of projects do you usually work with faculty? For example, are they entire courses, individual learning activities?
2. Based on your experiences with faculty how do you think they view the job of an instructional designer? In your opinion, what influences such perceptions?
3. Are there any department encouragement or requirements for either IDers & Faculty to work jointly on projects? Please Explain.
4. Talk to us a little bit about how you communicated. Did you do more of email, face to face meetings, combination and how often?

The raw interview tapes were transcribed by the first author, and then reviewed by the second author. Raw transcripts (without any themes or interpretations) were send to the participants for verification. Once they all verified the contents, transcripts were analyzed using Saldaña’s (2009) recommendations for coding. “A code represents and captures a datum’s primary content and essence” (Saldaña, 2009, p. 3). Based on Saldaña’s (2009) suggestion that we should look at “what strikes you” (p. 18), the transcripts were examined with an eye on critical elements relatable to the research questions or RQs. Thereafter, the transcripts were coded for patterns and then codified by dividing the codes into primary, and sub categories. “To codify is to arrange things in a systematic order, to make something part of a system or
classification, to categorize” (Saldaña, 2009, p. 8). The coding process was done as the data was gathered, and analyzed upon completion of data gathering. As part of the first cycle of coding, the lead researcher and first author, examined transcripts, line by line, and highlighted tentative patterns with comments. Once all transcription was completed, received compiled, a tracked changes feature in MS Word was used to develop the “first cycle, descriptive coding,” using single words and phrases (Saldaña, 2009, p. 3). Subsequently, the second cycle of coding was done to identify word and idea frequencies. A table of response data was developed to quickly access all the ideas and words. The third cycle of coding aimed to look for patterns by gathering ideas and words most used, and then combining them to form identifiable patterns. For example, based on words/phrases, the Chameleon metaphor jumped out as two IDers out of the three used it. This helped with an emerging pattern. The fourth, and final cycle of coding determined the codifying that led to the categories discussed in the findings. Once the lead researcher coded the data for categories, the second author examined/coded the same data separately to verify the themes and patterns. Thereafter, the transcripts’ thematic interpretations without the codes, were send to the participants for verification. Two participants made minor changes, which were incorporated into the final analysis. Pseudonyms were used to protect the participants’ confidentiality and as per the IRB protocols.

Trustworthiness and validation is critical and challenging for any qualitative procedure, including Phenomenology, and validity and dependability is established by processes that determine if the findings are accurate from the standpoint of the researcher and the participants (Creswell, 2014; Creswell & Miller, 2000; Lincoln & Guba, 1985). Trustworthiness includes credibility, dependability, transferability, and confirmability (Lincoln & Guba 1985; Graneheim & Lundman, 2004). These procedures are important because at the end of the day, “A study is trustworthy if and only if the reader of the research report judges it to be so” (Rolfe, 2006, p. 306). Several techniques were used to establish trustworthiness and validity for this study. To reduce researcher bias, bracketing techniques suggested by Denzin (1989) were used in essence, as the researchers made conscious efforts to first segregate their personal views on the subject, and then compare/contrast those with the researched. To do so, the participants were provided with the raw transcripts, and then a second iteration that had the transcript divided by thematic interpretations. Upon receiving feedback from the participants, changes were made based on the participants’ interpretation of the transcript with respect to the themes. Finally, the data was reconstructed, based on the revisions suggested by participants, which were then triangulated with the researchers’ own understanding of the phenomenon, based on prior experiences as well as information available from the literature. We believe that this process was representative of Symbolic Interactionism, wherein we made meaning through interacting with our participants’ worldviews, our own assumptions about the broader social contexts in which we worked professionally, and the belief that we respond to situations based on such meaning making (Denzin, 1989). For example, the metaphor of the Chameleon was an apt representation of the underlying social aspects of the collaborative process as examined through the vantage points of three stakeholders and researchers.

Role of the Researchers and Positionality

Having personally experienced the three roles being examined, the researchers were professionally involved with the subject of research. As a faculty, they have encountered several hurdles in smooth instructional design project collaboration. Also, as an IDer, providing consultancy service to faculty as part of the university’s program, the first researcher has conflicting experiences of being at the receiving end of faulty distrust and resistance to collaboration when working with some faculty, as well as being respected and supported when working with others. This deep and personal interest proved to be a great asset, as it allowed a
more intuitive viewing of the data and broadened the researchers’ worldview of the phenomenon.

Results

Phenomenological writings should be made rigorous and trustworthy by using creative ways to share with readers, examples and quotations from the data. This may create greater rapport with the readers, who may find venues of identification, empathy and recognition within such sharing (Laverty, 2003; Lincoln & Guba, 1985; Slone, 2009; van Manen, 2007). In addition, it is also recommended that we organize data by themes and support it by verbatim quotes within discussions and findings (Burnard, 2004; Burnard, Gill, Stewart, Treasure, & Chadwick, 2008; Wills, 2004). In the context of this study, several creative approaches were taken to discuss the findings and provide a rich, thick description, including the use of the metaphor “Chameleon” and the acronym devised to complement the metaphor. The acronym (CHAMELEON) conceptualizes each alphabet in the metaphor to elucidate the characteristics crucial to instructional design project collaboration as perceived by the participants. The inspiration came from the use of this exact metaphor by two participants, and supporting ideas from all other participants. Regarding the philosophical, pragmatic and literary implications of the metaphor, the literature supports the use of metaphors to write qualitative research findings, including Phenomenological research. Some examples are Janesick’s (1998) dance metaphor for qualitative inquiry, Xiong’s (2015) learning metaphors for Chinese students, and Pitcher’s (2013) five categories of metaphors to conceptualize how students visualize their research. Jensen (2006) suggests that the language of participants is a means of shared expressions, which is why the data analysis and reporting should be reflective and symbiotic.

Two participants, Dave and Rachel, used the Chameleon metaphor explicitly, while the other participants (Lydia, Evan, Jim, Doug, Stephen) supported it implicitly. In popular usage, as well as in very limited literature, the Chameleon metaphor has been used to identify personality and behavioral traits (O’Dell, 2010; Soto, 2000), but not in the context of instructional design project collaboration. The characteristics of the Chameleon, in particular its ability to merge with its surroundings, makes it a great metaphor for human nature and behavior. In the context of this study, the Chameleon metaphor and associated acronym is representative, not only of the participant perceptions of their roles, but also of the heuristic methods necessary to solve the issues of collaboration as mentioned in Wood and Gray’s (1991) framework, since there cannot really be a perfect solution to them. Thus, involved stakeholders need to employ whatever means necessary to make it work; in essence, they need to be Chameleons.

Research Question Findings: Collaboration Characteristics as Identified by Participants

The pinnacle of the participants’ shared insights is reflected in the metaphor of the Chameleon, as the sum of all that it takes to ensure collaboration. The chance use of this metaphor by two of the participants, Dave and Rachel, drew attention to the term. After careful deliberation, close examination of data, and deep reflection, it was discovered that the metaphor extends beyond a one-dimensional entity to a multi-dimensional acronym form, highlighting some crucial characteristics of successful collaboration within instructional design projects. Each of the items below reflect one or more of the dynamic elements of Wood and Gray’s (1991) Collaboration Theory, which framed the study’s protocols, including the research question and associated data gathering instruments:
Communication. The ability to communicate skillfully was a major part of the conversation in all groups, as participants agreed that having more face time with team members, in addition to online communication, is essential and helpful. For example, Lydia (faculty) mentioned, “For the meetings, the person to person meetings were really helpful.” It was important for the collaborative parties to be good listeners as well as questioners. Rachel (IDer) discussed how important it was to listen to the clients to be able to figure out their personalities, and then assess how they would react. Her view was more of a customer service angle.

Just being able to listen to them and then try to give them what they want and be really careful about not taking offense if you don’t give them what they want, you know, recognizing that they’re the customer in some way.

Lydia was pleased with her IDer because, “one of the important skills that I found really useful is he listens, listening is really helpful.” Dave (IDer) specified the same when he stated, “Communication skills, listen, that's the number one. If you’re not a good active listener it's going to be hard to do the job.” Similarly, Stephen (Senior IDer and Administrator) emphasized the need for rigorous, back and forth communications between all stakeholders to assist in the smooth collaboration process.

In addition, it is important for IDers to be skillful in asking questions. This can be an important characteristic to help gauge the client and design needs, as well as be used as a gentle persuasion technique that may steer the client in the right direction. Lydia expressed how happy she was, because the IDer she worked with used to ask her very specific questions about how she wanted to create students’ learning experience. She felt, “That was incredibly helpful.” Rachel provided an interesting insight in this context as she explained it through the view of IDers content knowledge that can prove to be an asset or a drawback, based on the IDers question asking skills. She believed that even though having content knowledge was helpful when engaging with faculty, it could also be a deterrent to asking questions, because the IDer is confident that he or she “gets it.” However, this may prove problematic since there may be other critical aspects about which conversations should have taken place, but did not. As Rachel explained, “It’s two-edge sword, having the content knowledge can be very helpful…but I also think it has a detrimental side, if I’m too familiar with the content, it makes me not ask questions that maybe I should have.”

Humility. Participants suggested that the art of humility is also critical to the collaborative process. This involves not being pushy, being open-minded, being approachable, leaving aside preconceptions and being considerate of the role and sentiments of others. As Dave pointed out, for IDers it is critical not to be a pushover and thrust ideas at clients as that may backfire, and be, “damaging, especially early on.” In a similar vein, but in a much more emphatic way, Rachel provided this advice for IDers, “be respectful of the position of the faculty person. Don’t come in and act like you know everything and you can teach them everything, and you know what you’re doing and they don’t.” As a faculty, Lydia also had similar advice for other faculty when she said, “I would say, to listen as well, to what options that are out there. My advice would be to get rid of the pre-perceptions about what is possible.” Evan (faculty) was more openly vocal about faculty lack of consideration when he stated, “the trick there is some people are gonna be very demanding. Faculty can be very difficult because my stuff is always the most important stuff going,” Evan also hinted at faculty mindset relating to technology, which could add to this rigid attitude, as he pointed out, “Some of my colleagues
are--some of them are pretty difficult. They just don't believe in the technology of it all.” In this context, Dave made an interesting revelation that, “There are Instructional Designers and I have colleagues that love to work with people that are so rigid because they just see it as a challenge to better their craft or whatever.” This hinted at the level of rigidity some clients may display, which could be an issue with successful collaboration.

All participants agreed that being open-minded was important. In fact, Lydia saw this as a dual asset, and explained how the IDer she worked with was not only open-minded himself, but also prompted her to think outside the instructional design box. Dave identified some of the critical collaborative characteristics as “a trusting a relationship, having an open mind, I guess would be another characteristic that's beneficial. Open to change.” In a similar vein, Rachel referred to this when she stated that both the IDer and faculty should be flexible. She explained that,

if you get too rigid in what you think has to happen, then it does nothing but put up barriers, so I think it’s that faculty’s willingness to say “I need help” and instructional designer’s ability to say “how can I help you that’s ‘helpful’.”

Finally, from an administrator’s perspective Doug (Director of Online Learning and Technologies, administrator) shared how important it was for upper level management to be accessible and approachable to employees to foster a positive collaborative environment. He compared the management approachability of two institutions, where in one institution the President socialized with employees during lunch times in the cafeteria. Doug believed that this created an excellent work environment.

Adaptability. The different stakeholder groups discussed adaptability characteristics in different ways. Lydia talked about the virtues of patience, both with respect to her own design issues and her perception of the IDer’s personality. “The course materials perhaps use new technologies. And this is where the instructional designer can come in. But it might take a while. So I think they should be patient and encouraging.” She attributed her positive collaboration with the IDer to the fact that “he was very patient.” Dave talked about the importance of “being able to adapt,” and Evan (faculty) confirmed that it was important that the IDers were” wonderful, really accommodating to me.” In addition, it was critical for stakeholders to adapt to changing schedules, even if these happened due to issues with the opposing group. For example, Dave specified how, “There’s times where you miss a deadline and you have to reevaluate the schedule and then they realize oh I’ve got to get this done.”

Adaptability was also crucial to the optimum utilization of creativity to enhance the course designs. In situations where the stakeholders, particularly IDers and faculty do not see eye to eye, the quality of the materials may be compromised. Jim (IDer) talked in depth about such experiences and shared how lack of adaptability may lead to gaps in the expected standards. This also leads to other concerns pertaining to an IDer’s work satisfaction and pride. In the interview Jim stated

I think that’s the difficult part of this job though, is we have certain standards and we have these outcomes of the course that if our name is going to be tied to the creation of this course, it’s like I want it to be good…Yet you’re limited to what the faculty member is willing to do.

Administrators also value adaptability as an essential commodity of good designing. Stephen discussed situations where faculty did not consider the IDer’s suggestions and ended up creating courses with high cognitive loads for the students, which highlighted the courses’ final evaluation.
**Mentorship.** This is a key aspect of the instructional design project collaboration. Mentorship relates to the mentor’s confidence of his/her ability to teach. Devoting a considerable amount of time to this activity is part of this process (Hughes, 2004; Neary, 2000). “A “good” mentor utilized every opening to create and maximize learning opportunities” (Neary, 2000, p. 468). Faculty view themselves as course owners and guides, and are primarily concerned about their responsibilities towards their students. Besides being an indicator of mentorship, this is quintessential teacher mentality, in which they feel that it is their prerogative to decide what the course goals are and what the students should know at the end of the semester (Šteh, Kalin, & Mažgon, 2014). For example, Lydia stated, “That’s really what I think about first when I first developed a course. What are the goals, what I want the students to leave the class knowing?” Similarly, Evan mentioned the importance of “what do I want the students to know at the end of the course. What’s the material that I need to cover to attain what I want the students to know?” In the process of being the sole guides to the students learning, sometimes faculty may be too caught up in wanting to teach everything. Thus, they face challenges of narrowing the focus and scope of the course, which can become a challenge for the IDers as well. For example, Lydia confessed, “My biggest challenge is, narrowing a material down. Figuring How I am going to focus it. You know because I want to include everything.” Dave provided the other side view,

I've been in scenarios where the faculty do not know what they want. They're all over the place, they have no direction and they want to just plug in everything. It sometimes can become difficult to manage when you get projects like that.

IDers are also cognizant of mentorship and may treat the collaboration effort as a teaching opportunity for them to train faculty, since faculty may lack in both pedagogical and technological knowledge. However, faculty may not always appreciate or remember the help IDers provided, which can be challenging for IDers. As Rachel specified, “so I think they look at it like ‘I know how to teach my material, I know what I want my students to learn, why do I need your help?’” In a similar vein, Dave specified,

They see it as that, like, “Oh, we met with an Instructional Designer.” It may just be for one time but we checked that box. They don't see the value of what we do because they don't know what, probably.

This type of faculty attitude also leads to situations where the IDer recommendations are ignored or rejected by faculty.

Additionally, as suggested by Stephen and Doug who work as administrators, mentorship is a key part of a manager’s responsibility. Many times, this is accomplished by providing feedback at regular intervals to both faculty and IDers. As Doug pointed out, it is his job to make sure faculty and IDers are “doing right and guide them in the right direction and make sure that the quality is there that we want.” Other times, administrators use periodical evaluations and error ratings reports to provide mentorship.

**Engagement.** Participants explained how engagement was essential to instructional design project collaboration. Faculty and IDers are apt to be less engaged if they do not feel appreciated or appropriately compensated. In addition, it is helpful if IDers can focus on students as clients when developing courses. While most faculty share this perspective, it is likely for IDers to lose focus on it and think of the faculty alone as their clients. Engagement for IDers should also involve being cognizant of student needs. As Dave pointed out, “I'm here to help design the best learning opportunity that the students can have.” This means, IDers must
make some efforts to gain content knowledge. Rachel confirmed this and said, “It’s a definite advantage to know the content.” Doing so can be rewarding in the long term, as the IDers’ skills and knowledge base keeps evolving and growing. This can be useful when collaborating with faculty, as they are more comfortable working with people who have some content knowledge. Dave described his experience and growth in this context. “Since I've been here 3-1/2 years I've probably designed over 75 or so different courses and just the different content you get exposed to is just fascinating.” Similarly, faculty should be engaged and more immersed in learning about technological tools as it will help them be better prepared for the next design project. Stephen reiterated this from an administrator’s perspective by stating, “We've been experimenting with ways of getting curriculum committees more involved because the level of involvement kind of varies but the idea is that they're very involved. We want them to be very involved.”

**Looping.** Designing is iterative. It is a looping cycle, which involves repeating procedures and processes, with some evolvement. Participants discussed how they followed specific procedures for contacting clients, meeting and reporting protocols, and communication processes. Dave mentioned, “Then that process just loops back. Whenever they've taught first time a lot of them will come back and say, "This didn't work," and then we go back to say okay let’s see what we did.” Similarly, Lydia explained how the visions she has when she designs a course may change when she is actually teaching that course, for reasons such as, “Students may not respond to prompts in the way that I had anticipated, so I have to develop new activities, or assignments, or lectures that hit on those points.”

**Empathy.** Several times during the conversation, participants pointed to the role empathy can play in developing rapport leading to smooth collaboration. The value of empathy to build rapport is supported in literature as well. Norfolk, Birdi, and Walsh (2007) highlight the role of empathy and communication skills in establishing rapport, and explain how this can be possible by accessing specific intuitive skills stakeholders possess. Drolet and Morris (2000) discuss the value of rapport in conflict resolutions and how it can be achieved through different contact methods and empathy. Gremler and Gwinner (2008) explained how establishing connections or empathy was a critical rapport building behavior that facilitated stakeholder satisfaction in commercial settings. Chartrand and Bargh (1999) experimented on the process of behavioral coordination, and through the results of the study, indicated that the Chameleon effect could cause interpersonal rapport and empathy.

For this study, participants indicated that having empathy was a key characteristic affecting a collaborative environment. Empathy included building rapport and trusting relationships, understanding the other group members’ needs, and being transparent about the process, role distribution and associated responsibilities and boundaries. As Dave pointed out, “You have to have the skill to develop rapport and a relationship between you and a faculty member.” Transparency and building trust is also essential so that stakeholders know exactly what to expect and where they stand in relation to the project role and responsibilities. This is particularly true in the context of relationships between administrators and others. Stephen mentioned how the ID project collaborative environment “has to be a trusting environment,” and how synergy is developed when “everybody is ready to go from day one, we’re all on the same page, we trust each other.”

As Dave explained, “Identifying hey, there'll be opportunities but there'll be challenges that we'll face but we'll get through this, assuring them that I've been through this before helps build that trust.” Developing relationships can take many strategies, including socializing and meeting outside the purview of the work. Evan mentioned that he went to dinner with Dave and his family, as they were on the same team. “It developed in to a social relationship because we hit it off.” Jim’s perspective mirrored those of other participants when he stated “I think
probably the most important part of this job is being able to build a trustworthy relationship with another human being."

**Oscillation.** Designing is an oscillating process that works via trial and error, involving continual evaluation and evolvement, as faculty and designers go back and forth, modifying content, based on what is working and what is not. Student feedback is important to this. Lydia described how most of the time the process oscillates as she takes student feedback into consideration. Dave described how it is typical to have more than one iteration and make revisions on the go or reuse prior content that seemed to work better. Stephen reiterated as he explained, “there's a lot of back and forth between the instructional designer and the developer in those initial stages.”

**Networking.** Many ID collaborative projects involve extended networking where parties who are not directly involved with the project may have some influence on the collaborative environment. This means that involved stakeholders need to be cognizant of such parties and authorities, who may not be direct team members in an ID project, but may wield influence and play a significant role in the success or otherwise of collaborative efforts. This is one of the crucial items reflected in Wood and Gray’s (1991) Collaboration Theory, which stipulates that although not all stakeholders may be collaborating all the time, the presence or absence of stakeholders can have a definite impact on the process. The control organizations may have on resources, can determine some of the dynamics of collaboration. All participants referred to such networking parties and authorities. Dave talked about IDers from other departments and his team management. Even though he enjoyed working with IDers from other departments, he did express that he was annoyed with the excessive amount of meetings his own department’s managers thrust on his team. “It does get annoying sometimes, the constant meetings. We have different channels set up so some of them are just random stuff that I read. Then there's stuff that's pertinent for projects or whatever.” Evan referred to this structure with respect to his IDers. “They have bosses and I know that they are accountable to their boss for getting some of the stuff done.”

Many times administrators have to deal with challenges from such networking that might affect the collaborative process and resource allocation. Stephen discussed the impact of outside parties in the context of textbook sections and dealing with representatives of the publishing companies. This can become challenging if such salespersons do not have clear knowledge of the client’s needs and lack in technological knowhow. “Sometimes, that’s a salesperson that has very little technological capabilities and that can be really difficult…we wish they were a little bit more proactive with some of the problems that we run into.”

In response to the question of what other supports should be in place to insure effective collaboration between the faculties and IDs, Evan mentioned the role of administrators in encouraging faculty and IDers to participate in collaborative projects. He pointed out that administrators need to make sure that the incentives in place are working and that, “Resources be allocated more strategically.” Lydia shared similar sentiments in response to that question, “I would say the encouragement from the department. Be awarded in terms of your time.” Rachel’s experience with extended networking was indicative of other issues, as she faced uncooperative Department Heads and tenured faculty and mentioned,

> When the department head isn’t willing to, tenured faculty sometimes, you can’t force them to do anything. They think that their way is the best, so those are difficult to deal with. So, I mean those are the struggles for me.

**Contrasting perceptions: The other side.** Even though the essence of the conversations suggested that there could be nine characteristics that underlie effective collaboration among the three stakeholders in ID collaborative projects, data also revealed some elements that were
outside the purview of the CHAMELEON. However, these other aspects could also impact collaboration within an instructional design project environment. To begin with, there was a stark contrast between the perceptions of IDer and faculty regarding technology. IDers were comfortable with technology and eager to have faculty members try them out. However, faculty lack confidence in technological aspects of designing, although they are interested in using technology. For example, Dave explained,

I’ve seen a lot of novice Instructional Designers like to come in and they'll have some idea, prescribed idea of oh, we need to do this in this course and they'll try to start prescribing things. That can really be damaging, especially early on. Vice versa, you have faculty that are really anxious and they write about a technology and they just want to prescribe, I need to use this technology, and it's like no, that technology is not what you want to do. Just stuff that doesn't make sense.

In contrast, faculty indicated that they believe it is the IDers’ role to help with technology. For example, Lydia stated, “The course materials perhaps use new technologies. And this is where the instructional designer can come in.” Evan related the incident with the Hot Seat technology where his instructional designer helped set it up because for Evan “My weakness is I've never used it.” In addition, faculty may not be very confident about instructional design (ID) methods or processes, at least not in an ID way, as is evident when Lydia states, “I had not thought about course development and design in that kind of methodological way.”

Regarding faculty perceptions of division of responsibilities, there was indication that they prefer an informal, mutually agreed process. As Evan confirmed, “The instructional designers took on the technology roles.” Lydia stated, “We did not do it formally.” In addition, they prefer to receive some incentive for participating in a collaborative ID effort, since they do not see it as part of their teaching responsibilities, but they perceive it to be an IDer’s job. As Lydia, because she received a grant, it made her “more dedicated to the process. Because I was being compensated for my time as well.”

There was indication of differences in the basic understanding of the ID process between IDers and faculty. While Dave and Rachel (IDers) were aware that there may be many different kinds of projects based on LMS, departments, levels (graduate, undergraduate) and contexts (consulting versus designing), this distinction was not that obvious to faculty Lydia and Evan who basically used two categories of face to face and online when referring to projects. Dave also pointed out that sometimes faculty want to use technology, just because it is available, and not because they have an understanding of why or how it should be used in the curriculum. “You have faculty that are really anxious and they write about a technology and they just want to prescribe, I need to use this technology.” In addition, IDers must be prepared for the unexpected and deal with faculty fickle-mindedness and issues with giving up control. Dave described how faculty can vacillate and change their ideas and contents, and how, “We're working through this. Then the next meeting they come back to whatever that is and so it can get frustrating because you're just going in circles.” Rachel mentioned, “I think a little bit of instructional design, for some faculty, is about giving up control. I think that sometimes the struggle is convincing them how helpful we can be as designers.”

Faculty are comfortable using feedback from other faculty colleagues. This might be challenging for IDers as they may not be aware of what feedback the colleague provided to the client. It might also create favors with IDers with faculty background, to the detriment of those who do not possess such backgrounds. Stephen discussed how as an administrator, he was privy to the challenges IDers face when they do not have content knowledge and the faculty
are uncomfortable with ID knowledge. In such cases faculty may not give credence to what the IDer says, but will be more willing to listen to their faculty peers. Dave shared similar experiences, “Having been a faculty member and having done what I'm teaching other people to do is just, that gets buy-in really quickly, like almost too much to be honest with you.” Similarly, Lydia commented, “I learned a lot from other faculty have already done.”

Typically, faculty provide the learning materials, and IDers provide the technological and implementation know how. Stephen and Dave described in details how IDers provided repeated support through feedback and technology troubleshooting. Lydia was happy that the IDer was “introducing me to use new technology that he would show me how this types of new technology works and how it could fit the specific goals that I had in that class.”

Traditional faculty find it difficult to transition to online formats, so being in the role of course owners may backfire due to the disconnection between existing mindset and rigors of the role responsibility. For instance, Dave explained how, “Transitioning from face-to-face to online is a very difficult process to conceptualize for faculty.”

**Discussion**

The data provided insights into how IDers, faculty members and administrators view the ID collaboration process. Administrators appeared to be geared more towards facilitating the collaboration by resource allocation, periodic evaluation and feedback mechanisms. Although their scope of influence appeared to be limited in the context of the actual designing process, they were important to the overall success of the project. A key determinant of an administrators’ ability to manage was their unique perspectives on management, as opposed to following standardized management protocols, which reflects literature (Williams van Rooij, 2010, 2011; Layng, 1997). Additionally, although several ideas found within the literature reviews, such as faculty issues with technology, IDer issues with content, interpersonal relationships and project related issues, were substantiated by the findings of this study, one element that was missing was evidence of the stakeholders’ self-interest versus the collective interests of the group as suggested by Wood and Gray’s (1991) Collaboration framework. In fact, there was more evidence of the opposite, in that stakeholders sought to cater more to the collective, thus confirming a Chameleon mindset. Finally, there was ample indication that even though several times IDers feel under-appreciated, faculty and administrator participants asserted that they do appreciate the IDers’ help. This indicates a communication disconnection and misunderstanding that could potentially lead to issues with IDer morale and engaged collaboration. Another way of looking at this could be the lack of awareness amongst stakeholders that such communications are needed, as the stakeholders operate within professional contexts, and only for short periods. Thus, it could be that they do not see the perceived value of such interchanges. Based on the data, we strongly suggest that institutions consider adding some form of training programs, to help the three stakeholders gain collaborative skills in an ID context.

**Limitations, Implications, Conclusions**

The study used details from interviews of instructional designers, faculty, and administrators who are key stakeholders in the instructional design project collaboration phenomenon, which was the subject of investigation. This was essential to get a more comprehensive understanding of this phenomenon, as these stakeholders have a significant bearing on the collaboration process, as suggested by participants repeatedly. A limitation of the study’s scope was that it did not focus on corporate instructional design projects, but only on academic ones. This was due to the limitation of time and resources. However, the findings
The findings helped design a new concept of the CHAMELEON characteristics that highlight and underpin the instructional design project collaborative process and adds to literature. It may be fruitful to conduct future research as to how or if these characteristics apply to corporate settings and what differences, if any, may there be in the instructional design collaborative process between academic and corporate environments. Furthermore, the dichotomy between stakeholders’ misunderstandings regarding perceived worth of support could also be researched. The study produced practitioner implications, as the CHAMELEON concept may be useful as a guiding tool for future instructional design collaboration projects. Finally, the study also revealed some nuggets of recommendations regarding collaboration between faculty and instructional designers. Following these may help foster more effective and productive collaboration.

1. For both groups, it may be beneficial to view each collaborative opportunity as a resource for long-term and ongoing professional development, and not simply a job.

2. Even if we have content knowledge and are confident about our ID skills, when communicating with one another, it may be wise to ask questions about the content to avoid missing anything important.

3. Despite having online communication options, it may be useful to try and consciously include more face time with one another, as that may exponentially help in gaining trust and rapport.

4. When engaged in the collaborative process and after it ends, it would behoove faculty to make efforts to provide some positive feedback and reassurance to the instructional designers, who many times feel that their efforts are appreciated or remembered.

5. The instructional designer management teams and the faculty administrative heads should recognize the challenges these stakeholders face, and take steps to ensure that their respective teams are well treated and the employee needs are taken care of. Micromanaging or apathetic managing may backfire in the form of annoyed, frustrated, disgruntled and demotivated employees.

In conclusion, this study was a step towards understanding the phenomenon of stakeholder collaboration within instructional designing projects. Given the changing face of the instructional design process and the resultant increase in collaborative efforts, the study’s intent saw fruition as we made several meaningful discoveries that can benefit the greater instructional design community and the education world. As E-learning continues its rapid growth, and more ID collaborative projects are introduced, studies like this one may provide a beacon to fostering meaningful collaboration, leading to more successful teaching and learning options for all.

References


**Author Note**

Papia Bawa is an English Professor at Ivy Tech Community College for more than fifteen years, and previously taught at Purdue’s College of Liberal Arts. Her research focuses on learner-centered learning environments, cultural inclusivity issues in online and offline courses, and technology centered curriculum, including game based learning. Correspondence regarding this article can be addressed directly to: pbawa@purdue.edu.

Sunnie Lee Watson is Assistant Professor of Learning Design and Technology at Purdue University. Her research focuses on attitudinal change, technology integration, including MOOCs and PIES, and critical systemic change in relation to information-age, learner-centered learning environments.

Copyright 2017: Papia Bawa, Sunnie Lee Watson, and Nova Southeastern University.

**Article Citation**