Simplistic Bridges in the Third Space: Increasing Affordances for Student Teachers using a Hyperdocument Workspace

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Abstract: "Affordances in the third space" is a concept that can improve teacher education and inspires supervisory innovations that can be empirically studied. An intentionally designed hyperdocument workspace fostered collaboration among the university supervisor and classroom mentor teacher and shifted the clinical environment in favor of increased teacher candidate growth.

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Introduction

This article documents research and teaching innovations of two university-based supervisors of secondary student teachers across content areas (social studies and mathematics) who independently expressed shared desires to 1) deepen collaborations with mentor teachers and 2) increase opportunities for growth by teacher candidates during student teaching. The researchers realized the relevance of two theoretical frameworks, the Third Space (Zeichner, 2010) and one newer on the scene in applications to teacher education, "Affordance Theory" from enactivism and ecological psychology, to provide a twin theoretical approach, "Affordances in the Third Space," as a vehicle for teacher education innovations specific to teacher supervision. In what follows, the researchers first detail how the two theories merge to address ongoing challenges in teacher education and next provide an example pilot project utilizing an affordances in the third space approach. The researchers, as university supervisors, designed simple interventions (a hyperdocument workspace) that bridged and sustained connection among the university supervisor, classroom mentor teacher, and teacher candidate triad *as well as* shifted the environment of the classroom in which mentor and teacher candidate co-taught during the student teaching experience. To the latter, the environmental shift specifically intended to provide an increased opportunity for the teacher candidate to grow rather than without it. To do so this approach made sure to integrate the classroom teacher mentor's input rather than be a unidirectional set of expectations indicated only by the university supervisor. In a sense, the nature of the twin theory is a dialectic, the Third Space and Affordance Theory each inform and correct the other as the teaching innovations in supervision were designed and enacted.

As a pilot project presented here, this research article prioritizes the twin theoretical framework of the Third Space and Affordances as an approach for university-school partnership teacher development and as an example approach by two teacher educators who applied the twin-theories. Rather than provide a replicable teaching innovation for other teacher educators via robust study of large data sets, the example project (use of hyperdocument workspace) and the data collected are intended to spark innovation by teacher educators who may want to approach their teaching contexts with an affordance in the Third Space mindset with different innovations appropriate to their setting. The organization of the article begins with further exposition of the two relevant theories and moves to the example project. Throughout, readers are encouraged to engage the theories with their own reflections on teacher education practice and consider the questions "What teacher education teaching innovations can simultaneously bridge the Third Space and increase opportunities for teacher candidates?" as the researchers answered by the example pilot project.

Definition and Context of Terms

To clarify intended meaning among the variety of terms in teacher education utilized by practitioners and within policy documents, the following definitions indicate intended meaning for phrases used within this article.

Teacher candidate: Undergraduate student teachers placed in a clinical fieldwork setting for 16 weeks.

Mentor: The classroom teacher in the clinical fieldwork setting who serves as the

teacher of record for the classroom(s) of students in the PK-12 setting, as well as the mentor for the teacher candidate. In other literature on teacher education, sometimes referred to as cooperating teacher.

Co-teaching: For this project, the student teaching placement with teacher candidate and mentor encouraged a co-teaching scenario for the pair, candidate and mentor, to work together in educating the classroom(s) of PK-12 students.

University supervisor: An instructor of record working within an institution of higher education to document evidence and provide feedback on the teacher candidate's effectiveness in the classroom.

Hyperdocument workspace: As the primary intervention in this study, a document shared in a cloud drive between the university supervisor, the mentor, and the teacher candidate intended to bridge a Third Space for sustained conversation on candidate opportunity and growth

Seminar: The weekly meeting by university supervisor and student teachers taking place on campus; in this meeting teacher candidates routinely journaled on their progress and specifically referenced growth as documented on the hyperdocument workspace

Navigating Two Theories: Affordances in the Third Space

This section develops a dialectic the researchers suggest can exist between two theories: Third Spaces and Affordance Theory. In a way the two seem disconnected or even opposing, in tension; taken together they ultimately reveal a possibility of opportunity for teacher candidate growth. On the one hand, teacher education research points to the independent work of university teacher preparation and school-based teacher preparation, "never the twain shall meet," with a responsive urgency for the "third space" to exist between the two. On the other hand, Affordance Theory indicates that what is most important for teacher candidate growth is the environment in which it takes place.

If we hold true that the greatest growth for teacher learning will occur in the school setting, this environment is vital to teacher candidate growth and, absent of strong Professional Development School contexts, the vast majority of control of the environment is given to the school partners. With this tension comes a perceived hierarchy between supervisors and mentors. For example, a supervisor could mandate a list of expected outcomes because "they know better" and "are informed by the research," discounting the mentor's experiential and practical knowledge of classroom practice. University supervisors are required to have experiential and practical knowledge to be employed as the supervisor for teacher candidates' student teaching placements, however the perception of them "knowing less" exists because of the disconnection from practice perceived by mentors, as indicated by Zeichner (2002, 2010). In recognizing the need to shift both these problematic hierarchies and the environment for greater opportunity for growth, any supervising teaching intervention must satisfy both goals simultaneously.

More recently, Soslau et al. (2019) introduce a quest to reduce hierarchies between university supervisor and classroom mentor given their context of a co-teaching scenario for the student teaching experience. More broadly, Zeichner (2010) refers to the necessity of "third spaces," those expressly designed areas that "involve a rejection of binaries

such as practitioner and academic knowledge and theory and practice." He calls teacher educators to create more "hybrid spaces in preservice teacher education programs that bring together school and university-based teacher educators and practitioner and academic knowledge in new ways to enhance the learning of prospective teachers" (p. 92). Zeichner (2010) provides a variety of practices as Third Spaces, most of which place practitioner knowledge into university-initiated structures that make much more visible these practitioner knowledges to teacher candidates. As such, the spirit of the Third Space prioritizes university faculty as setting the stage for the spaces in which practitioners enact their knowledge base. As examples, Zeichner (2010) shares several "boundary crossings" such as incorporating "writing and research of P-12 teachers into campus-based curriculum" and holding pedagogy courses in clinical settings with live demonstrations of practices utilized by classroom practitioners (p. 93-94). Again, Zeichner (2010) suggests that creative Third Spaces are realized by academic researchers and teachers in teacher education who recognize the need for boundary crossing and thereby provide spaces for making visible the pedagogies of practitioners.

Complementing this theory of Third Space, this research project sought theoretical underpinnings to inform teacher candidate growth and development, integrating the broad field of ecological psychology and its specific concept of Affordance Theory to help craft interventions in the third space. Typically, we view teacher candidate growth within situated learning, or more accurately legitimate peripheral participation (Lave & Wenger, 1991) which "concerns the process by which newcomers become part of a community of practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice. This social process includes ... the learning of knowledgeable skills" (p. 29). Under this theory of learning, clinical teaching experiences enculturate teacher candidates into a fully participating teacher whether that be in a co-teaching scenario for student teaching or other models, like the gradual release of responsibilities from the classroom mentor to the student teacher.

Moving beyond situated learning, ecological psychology considers everything in the environment as a source for learning, not just the interpersonal interactions between mentors and teacher candidates. Learning occurs because an individual interacts with other people (as in situated learning) as well as the physical environment (whether natural or person-altered), nonhuman animals, other living things, and aspects like air quality and wind, precipitation, etc. The full environment, such as an environment realized via Third Space interactions between supervisors and mentors, is suggested for greater learning and advancement of the teacher candidate.

More specifically, shifts in the environment that lead to greater learning are called "affordances." Gibson's earliest works in perception (e.g. 1966, 1979, 1986) and Greeno's rearticulations (e.g. 1994) led to the development of this concept. Gibson writes:

> The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. The verb to afford is found in the dictionary, but the noun affordance is not. I have made it up. I mean by it something that refers to both

> the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment. (1979, p. 56)

Examples of Affordances demonstrate the capacity of one's environment to cause learning. We learn to sit in a chair because chairs are in the room; if a particular social group of people do not use or have chairs then the people in the group learn other ways of sitting, resting, etc. At more basic levels, we learn through our environment and sense perceptions, we learn that fire is hot and dangerous, that clean water is satisfying to drink. At the most complex, we learn through the social environment: "The other animal and the other person provide mutual and reciprocal affordances at extremely high levels of behavioral complexity" (Gibson, 1979, p. 59). It is these aspects of the environment, the social and relational element, that teacher educators can modify to increase affordances for development as teachers.

To further illuminate the concept of affordances, a related conception from Ecological Psychology and Gibson's concept of affordances share perspective with another branch of Cognitive Psychology: Enactivism. The embodied cognition described by Varela et al. (1993) denotes the interplay between cognition and the environment as *Enaction*. The cognitive process and learning thus merges the physical, biological, cultural, and psychology. Although Ecological Psychology and Enactivism have disputed over particular areas of theory, their similarities outweigh the differences as suggested by McKinney (2020): "Despite their differences, both approaches use dynamic systems theory to explain the interactions between embodied agents and the environment or contextual milieu in which they are embedded" (p. 1). Given these similarities, Enactivism and Ecological Psychology are beginning to be applied to education and teacher educational research as efforts that focus on the changes in environment leading to differential, more desired learning outcomes.

Enactivism and Affordances have been used in teacher education studies like Li's (2012) work with teacher candidate's design of digital games for use in the classroom. Implications from Li's work include how teachers enacted Affordances in the classroom for learning under an Enactivist framing as well as the ways that the task at hand caused teacher candidates to approach their classroom practices via modifications to the environment. In this example, using Enactivism in teacher education means that teacher educators are tasking teacher candidates with designing classroom environments that allow for greater learning. To the latter, for example, Li's (2012) work with teacher candidates presented opportunities for developing their creativity:

> The game design and building experiences afforded opportunities for teachers, sometimes even forced them, to exercise creative thinking and innovative design. Their creativity was reflected in the ways they could creatively integrate content knowledge into the game, and how they creatively designed games to motivate and engage learners. (p. 799)

Just as Li (2012) set up rich tasks for teacher candidates to develop creativity and other professional practices, the pilot study altered the student teaching environment with tasks that spark affordances for professional and research-based teacher practices.

Other examples of Enactivism as applied to teacher education include Brown et al. (2019) with their consideration of the utility of the post-lesson observation between supervisor and student teacher during student teaching. These efforts are highly relevant to this project as they engage in the capstone experience of teacher education programs, namely student teaching, with an Enactivist framing. Specific to applications of the theory, they see the benefits of the lesson observation discussion as a space for unique environmental shifts supporting student teacher development. In working with prospective teachers and their school-based mentors, we seek to make de-brief conversations into spaces in which to support and guide a process of 'deliberate analysis,' the latter a concept developed by Brown & Coles (2012).

For the researcher-supervisors here, what appears as an area for growth in these examples are their lack of attention to integrating the Third Space notion. It appears that hierarchies between supervisors and mentors could continue when supervisors set goals or environmental shifts that are mandates to be followed by the mentors. In connecting Affordance Theory with the Third Space, what are the ways that the environment can be shifted as a joint and collaborative project between classroom mentors and supervisors? This specific question resulted in what follows, a pilot research design and data collection with implications for next steps.

Methodology

The efforts to develop a Third Space for greater student teacher development during student teaching resulted in creating a hyperdocument workspace that proved realistic in implementation and with the goal of significant shift to the environment *co-constructed by the mentor and supervisor*. The use of the hyperdocument workspace was chosen because of the simplicity to access/use and would increase affordances for student teachers to act in the co-teaching scenario to develop their teaching practice as much as possible. As Zeichner (2010) intends, the third space must indicate interactions among the triad of teacher candidate, mentor, and university supervisor. While ideally these would occur in live discussion, the researchers felt that the nature of student teaching placements required something like the hyperdocument workspace to sustain conversations had when the three were meeting in person.

The researchers (as university student teaching supervisors) provided a hyperdocument workspace that would be shared between the university-supervisor, classroom mentor, and student teacher. The document was shared by the university supervisors first with an introductory streaming video clarifying intention and purpose as to the nature of a "living document" that would sustain opportunities and areas for growth throughout the placement by the teacher candidate. At the opening meeting in the placement, the triad discussed the document, clarified purpose and intentions that all three would be active contributors, first that the mentor would be editing the document to suggest particular teaching actions by teacher candidate that might fit their classroom context better than the university supervisor might know as well as illuminating feedback on candidate teacher actions in the classroom.

The university supervisor would also document evidence of actions seen through the supervising activities and making suggestions/posing questions as to where growth might occur; the teacher candidate's primary contribution to the document would be documenting new efforts and reflection on their actions and

the feedback they received by both mentor and university supervisor. As set up, the document was able to be edited by the supervisor, classroom mentor, and student teacher, and was placed in a shared folder where they could also include a variety of digital links and other resources.

The shared document provided teacher candidate action prompts for planning, delivery, and assessment in the classroom; it articulated a democratic approach to teacher education (Payne, 2018), as initial action prompts suggested by the university supervisors were to be realized by the triangle of actors throughout the experience. The enactment of prompts did not standardize an outcome yet steered the context towards significant teacher preparation benchmarks aligned with Danielson (2013).

The design responds directly to further advances in Gibson's Affordance Theory as elaborated in Gaver (1991). Here an affordance to acquire new behavior is prompted only when the actor (learner) perceives a benefit in the stimulus. "I learn to drink because I'm thirsty" or "I learn to climb the stairs because I want to see what's on the second floor." Without intended perceptions of benefit, the actor might not take the opportunity to learn. This is how the researchers perceived a document like, for example, the Danielson (2013) rubric itself. The intended benefits, and moreover the particular actions to take, are not laid bare in the rubric; the benefit is simply "this is how you will be evaluated." In the hyperdocument workspace, actors are prompted by particular actions to take in the classroom with implied benefit for the PK-12 classroom of students, and thereby for the growth of the teacher candidate's effectiveness. The hyperdocument workspace was designed so that perception of benefit to act was made clearer than, the Danielson (2013) rubric itself.

Figure 1 indicates a visual description as to how the hyperdocument workspace manifests an "affordance in the third space" in line with Gaver's (1991) actor-perception. The hyperdocument workspace shifts the student teaching environment with an additional element that is under constant collaboration and renegotiation between the mentor and university supervisor, symbolized by the double arrow. The teacher candidate perceives and acts with this environmental element on a continual and cyclical basis, symbolized by the circular arrows.

Figure 1
Hyperdocument affordances

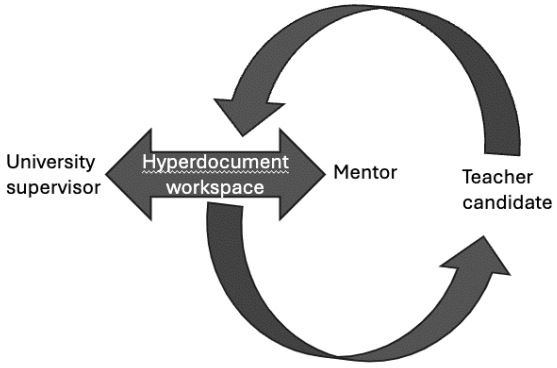

Table 1 below provides examples of the intentional design of the hyperdocument workspace. Drawing from affordance theory, specifically scripted action prompts were written because the supervisors previously noticed that typical classroom environments did not afford opportunities to learn in these particular areas.

Table 1
Examples of the Intentional Design of the Hyperdocument Workspace

Excerpt from hyperdocument workspace	Intentional design that shifts environment and enacts Third Space triad
Hyperdocument workspace: "2d Student behavior: Share a moment when you successfully responded to off task student behavior."	In this shared document, the student teacher, mentor, and supervisor all see that the student teacher will be required to share out on this prompt both in written reflection and during seminar. Providing an intentional goal in this manner shifts the environment at the start by causing the triad to focus on student teacher's ability to respond to off task behavior. Prior to using the hyperdocument workspace researchers noticed that student teachers varied in terms of their attention to this critical practice in the classroom. Some relied too heavily on the mentor for responding to students' off task behavior. At the same time, the flexibility for mentor teacher input is present in this prompt because no specific method for responding to off task behavior is required.
Hyperdocument workspace: "3b Question and discussion: Share a method you have used to increase participation in question prompts (such as a think-pair-share)."	In previous semesters, the researchers noticed that student teaching environments did not consistently prompt teacher candidates on questioning strategies to increase participation. By suggesting but not mandating a think-pair-share, the prompt provides flexibility in satisfying its goal with opportunity for the mentor and supervisor both to share particular strategies that might be effective for the goal.

Participant recruitment

Participants in the pilot study were self-selected from the group of all mathematics and social studies student teachers in the year the intervention took place. As a group, the participants included 10 mathematics and 8 social studies teacher candidates and their consent to participate began prior to the student teaching semester, continued through the clinical placement, and extended into their first year of in-service classroom teaching. As undergraduates in secondary education programs, the participants ranged in age from 21 to 36 and included participants across gender identities including male, female, and nonbinary. The racial and ethnic demographics reflected the Predominantly White Institution (PWI) in which the study was located, with 89% of participants self-identifying as white and 11% as Black, Latinx, or Multiracial. It is also important context to note that the clinical experience partnerships institution partners with racially, ethnically, and linguistically diverse public schools for student teaching placements. All student teaching placements for the participants in the study occurred in school districts with at least 30% students of color and many in schools with majority students of color. While classroom mentors had been specifically recruited to serve in that role, there was no prior agreement related to enactment of specific practices related to the hyperdocument workspace. While formal agreements existed with all partnership schools, the clinical placements existed in the absence of robust Professional Development School (PDS) models.

Data collection

Data collected for the study included the student teacher journals completed at seminar in which they documented their responses to action prompts located on the hyperdocument and follow-up participant interviews a year after their student-teaching placement. Primarily this data provided opportunities to investigate how the hyperdocument workspace increased affordances in student teaching. The researchers used provisional coding (Saldana, 2013) to capture moments in the data when student teachers were afforded opportunities to act in the classroom environment and specifically in ways that the researchers had not seen in prior supervision of student teachers. Provisional codes, informed by affordance theory, were planning affordance, classroom environment affordance, instructional delivery affordance, professionalism affordance, and general affordance. Coding began by ascribing these to data points that were only included because they appeared as new and/or surprising actions student teachers were taking in the placement, and especially highlighting the time when they occurred during the 16 weeks. Thus the qualitative data provided the means to explore the types of affordances occurring in the scenario.

Findings and discussion

Coding the student teacher seminar journals revealed an abundance of affordances in the classroom environment that are suggested to be otherwise absent without the use of the hyperdocument workspace. The following table indicates the affordances noted in the student teacher seminar journals. This is followed by a second table that provides excerpts from the data on each type of affordance.

Table 2

Affordances Coded in Seminar Journals, Mathematics Student Teachers

Affordance type	Mathematics student teachers	Social studies student teachers
Planning affordance	21	29
Environmental affordance	25	32
Delivery affordance	14	20
Professionalism affordance	8	11

Table 3

Affordance Examples, Seminar Journals

Type	Data point	Notes
Planning affordance	"Working tirelessly over the past couple of days, I have been using seating charts with pictures as well as personal interactions to memorize students' names. Today Geometry students realized that I knew their names, so they tested me. I am proficient in almost all names ... and am now working on fluency."	Math student teacher, 1st week
Planning affordance	"Throughout two PowerPoint presentations students were given guided notes to follow. On these guided notes I had students participate in a bunch of different interactive activities. Students were required to role play, pair/share, or brainstorm throughout these lessons. I've started requiring more participation from students. I realized students were more inclined to participate in role play activities because they enjoyed it. I also like role play activities because it has students visualizing themselves in a certain time or place."	Social Studies student teacher, 3rd week
Environment-al affordance	"A class routine that I have implemented in my classroom is doing a circle every Friday. I take the last 5 minutes of block 1 on Fridays to have them form a circle and ask them 1 or 2 questions... I try to ask one serious question and one fun one. I like being able to learn about my students and circles make it easier to do that."	Math student teacher, 3rd week
Environment-al affordance	"I've organized the room for certain activities like a crime scene investigation and gallery walk, but I would like to move towards a "circle" setting for some class discussion."	Social studies student teacher, 3rd week
Delivery affordance	"One way to increase participation that I did was a quick write and discuss. Before I taught students about midsegments, I had the students discover midsegments. Students were asked to look at two triangles that I had on the front board and write down what they noticed. After students had time to write down what they noticed, they were asked to discuss what they noticed with the students around them. After students had time to discuss with the people around them, I asked each group to share one thing they noticed. Many groups shared more than one thing and many students who do not volunteer their answer usually were sharing what their group discussed.	Math student teacher, 3rd week
Delivery affordance	"There was already a daily PDN activity that was in place - it was a routine in which class would always begin with some sort of question that had students either brainstorming or reflecting. Something I altered a bit for the PDN was using a picture for students to evaluate. I would show the students a picture that would either have them think back on a previous lesson, or would help set the stage for a new lesson. This allowed for students to get visual representation of what I wanted them to be thinking about. This was also very helpful when it came to teaching about current events. I would show students a picture or article and have them evaluate what it means and how it is relevant in today's world."	Social studies student teacher, 3rd week
Professional-ism affordance	"I utilized provided class lists to draft personalized letters of introduction that I will send home with students this week. In the letter I briefly give biographical info and express gratitude for the opportunity to work with their children."	Math student teacher, 1st week
Professional-ism affordance	"I handed out introduction letter with a hard copy, as well as sent it home via email to families. I also attended the student of the month breakfast with one of my mentor teachers in her role as union representative. I was able to speak more personally with families."	Social studies student teacher, 2nd week

Several patterns in the qualitative data are present starting with the clear count of many affordances; these span the range of teaching standards including planning and preparation, classroom environment, instructional delivery and professionalism. The data reveal how the hyperdocument workspace prompted clear professional expectations, like knowing student names early in the process and shifting protocols and environments for greater secondary student success. Referring again to the examples included in Table 1 earlier, the hyperdocument workspace formalized these types of professional expectations and they became a required element of the explicit curriculum leveraged in structuring weekly seminar meetings. The frequency and intensity with which student teachers enacted such practices varied, though a clear benchmark was set for students to practice these moves at least once. Many of their actions included in the table above occurred early in the 16-week clinical placement, such as how the hyperdocument workspace prompted student teachers to enact new protocols in the classroom or develop new collaborative seating charts conducive to greater time on task in the classroom. Student teachers engaged in the research-based pedagogies of the respective disciplines, mathematics and social studies, at much earlier rates in their student teaching placements. Professionalism also was stronger compared to the researchers' prior experiences in supervision. For example, many times student teachers before the intervention found it challenging to connect with students' families. However, the hyperdocument workspace prompted student teachers to talk about this early with their classroom mentors and take actions throughout the placement, such as when one teacher candidate sent an introductory letter to families. The triad of university-supervisor, classroom mentor, and student teacher thus realized a sustained conversation on this critical aspect to teaching early in the placement whereas, without the hyperdocument workspace and prompting, this aspect was typically left out of the conversation.

Additionally, transcriptions of follow-up interviews with participants presented further evidence. The researchers set out to conduct four such interviews with a subset of the full participants. These took place one year after the student teaching experience. Four agreeable participants who had received full time teaching positions and taught their first academic year (nine months) since graduation were interviewed. Initial prompts for the semi-structured interviews asked participants to recall their student teaching experience and collaborative work with their classroom mentors, to review their student teaching materials including the seminar journal, and to relate their student teaching experience to their feelings of being prepared for the work they had to do this year. After the interviews were transcribed, the data was coded to demonstrate any shifts in the environment. In total there existed 21 coded data points expressing a general or specific affordance directly related to the use of the hyperdocument workspace. The following are samples of these.

One participant reflected that the seminar journal caused her to act in the classroom differently in the student teaching semester and for the long term as a teacher. She described how these prompts "made me think about what I was doing, and not only reflect but really understand and process and be like oh why did I do this, I did it because of this. Why didn't I do this? I need to implement that. And it really got me thinking as to why my co teacher also was doing stuff even if I didn't agree...um I think that reflecting on those different domains in the seminar [journal] sharing

was very important." The effects of this dedication were long lasting, as this participant also noted how this has carried out throughout her first year of classroom teaching.

> I think I'm thinking like, just, you know, thinking about the domain, I think, you know, we obviously thought about all the time at [institution name]. But I think I subconsciously just think about those different aspects of the domains while I'm, like, you know, going about my life teaching. Like I reflect after every lesson after every class, I make sure that I think about the things on those domains. Even if I'm not doing or not having formative observation ... So just really keeping in mind those different aspects that are important and that get observed, but not only thinking about them when you're getting observed and thinking about them daily that I think that was probably my biggest takeaway.

The participant expresses that the action prompts for the seminar journal focused her attention on the practices of teaching during the student teaching experience and this caused her to develop a habit of mind attentive to the aspects to teaching throughout their first year. She describes that this caused her to move beyond the theoretical study of these that took place in her coursework prior to student teaching.

Another participant shared in their follow-up interview that during the experience their classroom mentor provided fewer allowances for the student teacher's choices in the classroom. The mentor enacted an apprenticeship approach of "do as I do" which can teach the student teacher several things but possibly limit the development of their own approach. In the interview, the student teacher described how the hyperdocument workspace provided a means for them to take deliberate actions in the classroom.

> There were definitely some things that I would go to her and be like 'So I'm kind of expected to do this' and she'd be like 'Well ok I guess we'll do that then.' This sort of gave me the ability to do some things that she was like 'eh!' about but were still things I wanted to do and that kind of applied to the journal.

As an example, the participant shared a moment when the mentor acquiesced to allowing them to design and enact student-centered, activity-based lesson plans when the mentor was typically using a direct instruction, teacher-centered approach.

A similar sentiment was expressed by another interviewee. Although her mentor allowed for a good amount of freedom, this participant recognized that the seminar journal was a tool that guided every student teacher, regardless of their mentor, towards effective teaching practices:

> I think that the seminar journal was great. It helps me to have a little bit more structure to remind me 'These are the things I should be doing.' It helped me. ... If you did not give me anything and said 'Do whatever you want' then it would less equal for each college student's experience. Like my experience from somebody else in the classroom could be completely different because their teacher might be a little more forthcoming with responsibilities in the classroom whereas mine might not have been.

These and the other statements in the follow-up interviews suggest that the hyperdocument workspace altered the environment for greater development of the student teacher. More specifically, these enhancements were framed positively by

participants to suggest that the workspace, and especially the seminar journal, can be viewed as affordances in the co-teaching environment that will increase potential for student teacher action and ability to learn. The sample quotations above reveal that these affordances offset differences in classroom mentors, allowed student teachers to act more readily, and caused long term understanding about the standards of the teaching practice via Danielson (2013) standards.

Conclusion

At present, the primary contribution of the pilot study is its example of using the dialectical "Affordances in the Third Space" construct the researchers have presented. How can teacher educators articular similar and different approaches in their teaching innovations that simultaneously shift the environment for greater teacher candidate learning and do so in an egalitarian way reflective of shared collaboration between schools and partners?

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