

Positioning Content, Person and Context for Expansive Framing:  
A Characterization of Transfer in an Online Teacher Professional Development Course

by

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## ABSTRACT

Expansive framing is a promising approach to understanding transfer but little is known about how it might work in teacher professional development, an area that research suggests would be improved by the use of situative strategies. The Content, Person, Context framework (CPC) that has been developed in online learning contexts draws on the concept of expansive framing and further develops it through a focus on positioning content, person and context for value creation. However, little is known about how it promotes transfer. I studied how these two situative approaches, individually and together, illuminated near-transfer in the context of an online teacher professional development (PD) course. In this mixed methods study I adapted and created rubrics to analyze educators' stories about how they intended to implement what they had learned in the course. I concluded that CPC and expansive framing support different understandings of authorship, with the former prioritizing immediate action planned for specific contexts and the latter emphasizing learner creation and ownership over time. These different views have consequences for how transfer is understood but can be used to create a model of how transfer can be fostered that is more robust than either framework taken on its own. Because this study is part of an evaluation phase of an ongoing design-based research project, I make recommendations for how expansive framing and CPC can be further used as tools for designing the next iteration of the PD module.

## DEDICATION

For Faith Jongewaard: The importance of models in our lives cannot be overstated. The example you set when you started a new career 35 years ago (!) gave me the courage to go down my own new career path.

## ACKNOWLEDGMENTS

I cannot remember a worse fifteen months than these Covid times have been. In some ways, though, these have also been among the most fruitful and fortunate, and that is because of the mentoring and kindness of my advisor, Steven Zuiker, and my committee members, Sasha Barab and Michelle Jordan. And of course, none of this would have been possible without the support of my family, especially Isaac, Grace, and Ian Nyberg.

I would like to thank Ashlie Bryant and 3Strands Global Foundation for making this study possible through their partnership with ThriveCast. I am honored to have been trusted to observe and impact the processes by which your organization is steadily working to empower students, heal victims, and abolish human trafficking.

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## CHAPTER 1

Research shows that learners are more likely to successfully integrate new knowledge into their real-life contexts when they actively participate in its construction, see its relevance to their lives, and imagine ways in which they might incorporate it into their specific context (Merrill, 2007; National Academies of Sciences, Engineering, and Medicine, 2018). Designing learning experiences that result in learners taking up and adapting what they have learned for use in a variety of contexts beyond the original learning setting (i.e. transfer) is a persistent challenge in education, including when the learners are teachers taking professional development courses (Bransford et al., 1999). While positioning learners as accountable authors of knowledge and agentic enactors of change within their communities has been shown to be an effective strategy for supporting transfer (Engle et al., 2012), the design and implementation of professional development (PD) courses that promote use such strategies is not the norm (Darling-Hammond et al., 2017).

Instead, teachers are often positioned as passive recipients of information who must implement prepackaged interventions regardless of whether they see them as useful to, or viable within, their classroom practices (Darling-Hammond, 1999; Priestley et al., 2015b). Further, professional development programs that do engage teachers as agentic co-producers of relevant and usable knowledge are often thwarted by logistical constraints put on the programs due to lack of time

and other support resources (Darling-Hammond et al., 2017). Many professional development opportunities are still what Darling-Hammond et al. (2017) refer to as “the traditional, one day ‘drive-by’ workshop model” (p. 4) where support or accountability for further study is lacking and no time is devoted to teachers planning how they will adapt their new knowledge within their particular practices. These models of PD lack qualities that make PD effective (Darling-Hammond, 2017) which suggests that, although lip-service is paid to the transfer of PD concepts, the expectation that learning that translates to use in real-life contexts will occur under traditional PD conditions is unfounded.

This present study seeks to address these problems in a teacher PD course that has traditional logistical constraints by evaluating the design of the course platform through the analytic lenses of two situative approaches to learning: the Content, Person, Context framework (Barab et al., 2010, 2019) and expansive framing (Engle et al., 2012). This study is part of an ongoing design-based research project. Design-based research (DBR) in education is an approach that grew out of a dissatisfaction with the lack of meaningful impact of controlled laboratory studies, in which learning was decontextualized from the “blooming buzzing confusion” of real learning environments (Brown, 1992, p. 141). In contrast, through iterative work within real-life learning environments, design-based researchers aim to simultaneously design interventions (e.g. products, processes, practices) that are used to improve particular real-life contexts and to develop generalizable theories through the implementation of those interventions (Bakker, 2018). The goal of this study is to develop a better understanding of the

mechanisms that support near-transfer in educator narratives completed during the PD course. This understanding can then be used to design future course iterations that support agentic transfer in the course as well as to develop theories about the uses of the CPC framework and expansive framing as design tools. In order to pursue these goals, I pose the following question:

**Research Question:** How do the two situative approaches of the Content, Person, Context framework and expansive framing illuminate the ways in which a Connect-Grow-Apply-Inspire sequence on a connected growth platform supports near-transfer in teacher narratives written during an online PD session?

### **Study Overview**

This work starts with an online professional development course for K-12 educators on identifying and preventing human trafficking that has documented success at increasing educators' understanding of facts related to the prevalence of human trafficking and its red flags. However, the leaders of the curriculum and design team, of which I am a member, report that the program's success at getting educators to learn about human trafficking has not yet translated into markedly increased actions against human trafficking. In other words, educators have shown that they acquired information from the course, but there is not evidence that this information has been put to work in their practices in a way that furthers the goals of identifying trafficking and building protective factors against it.

In the remainder of this paper, I will describe the situative perspective and discuss two situative frameworks that are thought to support transfer, explaining

ways in which they support learner authority, accountability and agency. Next, I will look at how these frameworks have been used in online contexts with adult learners, and in teacher preservice development the challenges faced by the particular professional development course under study. I will then discuss where this study falls in the context of a larger, ongoing design-based research project, and the methods I used to analyze near transfer. After a discussion of the results, I will describe plans for future design cycles in this PD course and elaborate on the implications of this project for further research into teacher professional development.

## **CHAPTER 2**

### **THEORETICAL GROUNDING AND REVIEW OF RELEVANT SCHOLARSHIP**

This chapter will first explain the situative perspective, the theoretical perspective I rely on in this study. To provide the historical grounding for this study, I will discuss two situative frameworks and the studies related to how they promote transfer. I will then examine how these frameworks are complementary and how they relate to what is known about effective teacher PD (i.e., PD that is implemented meaningfully in teachers' practices). Finally, I will explain the goals of the platform in relation to the two frameworks and the human trafficking PD studied in this project.

#### **Theoretical Grounding**

In this study, I will enlist the situative perspective, which posits that learning does not take place in a vacuum of cold cognition but rather in complex, multi-layered social systems of activity made up of educators and learners, the tools they employ and the interactions of all of those components with the evolving affordances and constraints of their particular settings (Greeno, 2005). Furthermore, these actors, who co-create knowledge and learning contexts, bring with them their own cultures, relationships to power, and personal histories that affect their roles in the learning communities (Lave & Wenger, 1991). In a very real way, from a situative perspective, what is learned can be viewed as the

intersection of person, content, and context as opposed to treating learning as a simply act of consuming content (Barab et al., 2012).

Two implications of the situative perspective for researchers are that it is important to 1) understand how and with what results learners are positioned within their environments and in relation to each other, the tools they use and the concepts they are studying (Greeno, 2005) and 2) focus on the ways in which learning can be adapted generatively in real-world contexts beyond formal learning environments (Engle, 2006).

In regards to teacher PD, an implication of the situative perspective is that it is important to position teacher in their role as learners with authority, accountability and agency (Greeno, 2005), concepts that will be further discussed in the next section. Another implication is that it is not enough to deliver facts to teachers; it is also necessary to find ways to support them in integrating professional development content into their practices, in all the complexity and uncertainty that necessarily accompanies interactions in settings such as schools or particular classrooms (Fishman & Davis, 2006; Penuel et al., 2007).

### **Review of Relevant Scholarship**

Because the goal of this study is to know more about how the design of an online PD course fosters teachers' agentic transfer of professional development, this section will examine two situative frameworks that account for transfer, that is, the generative application of what one is learning into settings outside the original context of learning. These two complementary frameworks were influential in the platform design and how the learning course was built. However,

their applications in analyzing transfer and designing for transfer have not been studied: expansive framing (Engle, 2006, Engle et al., 2012), and the Content, Person, Context framework (Barab et al. 2010, 2019). It will be helpful to understand how each framework has developed and how they complement each other, as well as what their implications are for teacher PD in general. I will also connect the scholarship to the design goals of the PD platform and to the particular PD being studied in this paper.

### ***Content, Person, Context***

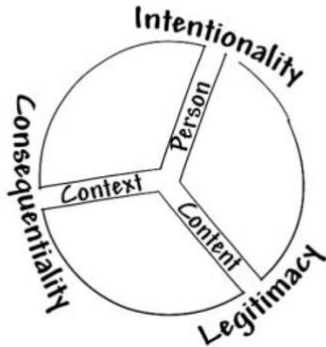
The Content, Person, Context framework grew from the axiom that in order for learning to be meaningful, it must support and leverage the unity of three interdependent elements: 1) relevant content to be learned, 2) an intentional learner, and 3) a local context that the learner can impact (See Figure 1). The framework was formulated by Barab et al. (2010) in discussing how conceptual game play that engages all three dimensions can lead to meaningful engagement and transformative learning.

That study was of the efficacy of the educational project Quest Atlantis, a program used by thousands of students worldwide. Students who learned concepts through Quest Atlantis games experienced greater gains in content knowledge and showed longer retention of that knowledge relative to control groups (Barab et al., 2010). However, the outcomes that are more relevant to this study of teacher PD involve greater voluntary engagement, increased accountability to content, and the participants' sense of the consequential impact their choices made on the contexts of use.



**Figure 1**

*Content, Person, Context Model*



*Note:* From Transformational Play: Using Games to Position Person, Context, and Content, by S. Barab et al., 2010, Educational Researcher, 39, p. 526, Copyright 2010, AERA

Barab et al. (2010) attributed these gains, at least in part, to the designed learning environment's support of the transformative integration of content, person, and context. Within the gaming context, learners had an authentic, albeit fictional, goal to learn about water quality in order to analyze a fictional game world and implement a solution that would fix a virtual park in which fish were dying. This was in sharp contrast to those students in the traditional classroom condition who were primarily learning to get a grade on a test. That is to say, students who learned using the Quest Atlantis games had better outcomes than their peers who did not in areas that are conjectured to support transfer.

In the professional development course on human trafficking prevention being studied here, the desired outcome is not that teachers will be able to meet academic testing standards for content acquisition, but rather that they will be personally invested in utilizing course concepts to impact their context in order to

build an environment that protects against human trafficking. Given this goal, it makes sense to adopt the CPC framework as a tool for designing and analyzing the course.

The claim that engagement of CPC is important in fostering transfer was further developed in the creation of ThriveCast, the connected learning platform used in this study. The ThriveCast designers (Barab et al., 2019) argue for creating settings that allow learners to agentially integrate content, person, and context for the sake of their own growth. In their ecological view of learning, acquiring knowledge is not the end goal; the content is only as important as what an inspired learner chooses to do with it. As a result, for example, in the ThriveCast platform, learning starts with a goal from which participants then connect with examples of other teachers sharing how they achieved the goal, and then participants learn the ideas in support of reaching their goal. With this outlook on learning, an educational opportunity can be considered successful for a learner when they choose to “use content to accomplish new possibilities in and for particular situations” in their lives (Barab et al., 2019, p. 142). Evidence of envisioning and committing to this use is what I analyzed in the participant narratives in this study.

### ***Expansive Framing***

This goal of learners adapting content intentionally in real-life situations they care about is also the goal of expansive framing. The next section will examine the literature on expansive framing and lay the groundwork for how the Content, Person, Context framework and the concept of expansive framing work

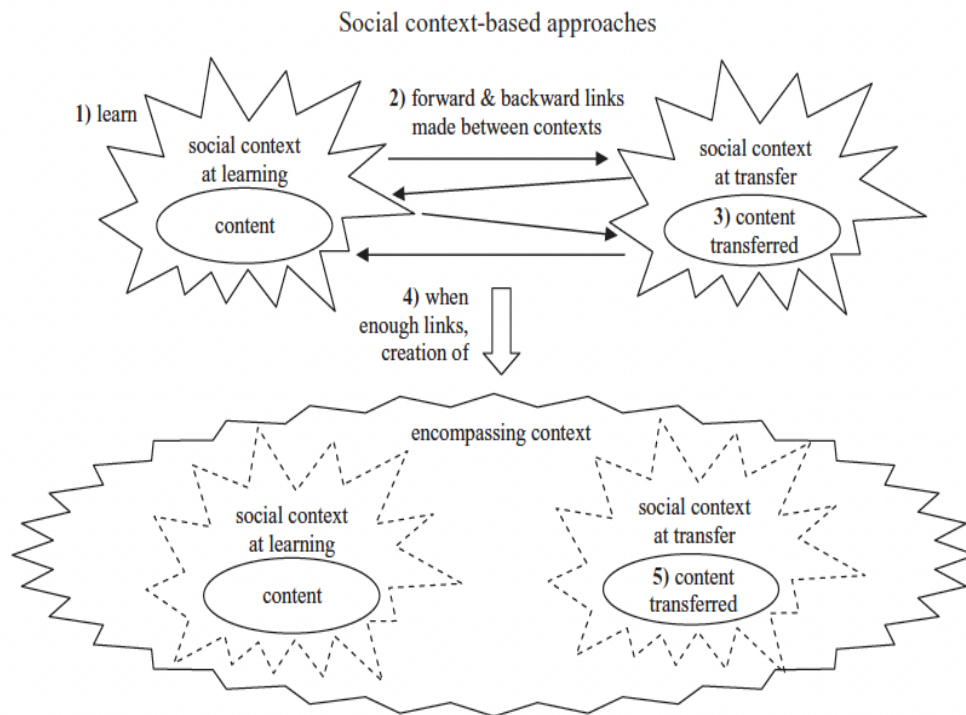
together in this study. Because the ThriveCast developers understand “content, person, and context as inseparable and minimally necessary for framing learning” (Jongewaard et al., 2021, p. 5), it is important to see how these attributes are related to expansive framing, a framework utilized in the ThriveCast platform design. First, I will explain expansive framing as it has been laid out by Engle (2006) and Engle et al. (2012), then I will show its complementarity with the ThriveCast designers’ use of the CPC framework.

Engle et al. (2012) observe that content to be learned is often framed as bounded. Bounded framing occurs when a learning experience is presented as a “one time event of learning something that students are unlikely to ever use again” (Engle et al., 2012, p. 217). The opposite of bounded framing is expansive framing, a concept developed by Engle (2006) that utilizes tenets of the situative perspective. Engle et al. (2012) explained that expansive framing introduces and portrays experiences and subject matter as relating to learners, not just in the original context of learning (e.g. a Biology classroom or a teacher PD course), but in the contexts of their lives. Positioned as agentic authors in relation to the content, tools, and other people and places affected by what is learned, learners make “forward and backward links” between the context of learning and other contexts. These links create “intercontextualities” (Engle, 2006). This model of how generative learning occurs is not so much about *bridging* the individual contexts of structured learning environment and “real life” as it is about creating such a magnitude of intercontextualities that what are often considered distinct

contexts expand to become “part of the same, ongoing context” (Engle, 2006, p. 457), called the “encompassing context” (See Figure 2, Engle et al., 2012).

**Figure 2**

*Model for Social Context-Based Approaches to Transfer*



*Note:* Excerpted from “How Does Expansive Framing Promote Transfer? Several Proposed Explanations and a Research Agenda for Investigating Them” by R.A. Engle et al., 2012, *Educational Psychologist*, 47, p. 217 Copyright 2012 by American Psychological Association

On the one hand, one can argue that teacher professional development courses are always framed expansively in that there is an inherent expectation that teachers will apply what they are learning to their professional practices; applying new knowledge to practice is the ostensible minimum expectation for professional development. On the other hand, as was noted in the introduction, traditional models of PD often do not provide the methods or supports for successful

application in practice (Darling-Hammond et al., 2017). Lack of time to plan for implementation stymies the ability to create envisioned links with future contexts (Penuel et al., 2007), lack of coherence with teachers' goals for their practices makes PD courses seem disconnected from real practice (Penuel et al., 2007), and lack of attention to teachers' prior knowledge and voice positions teachers as passive recipient rather than agentic authors (Priestley, Biesta and Robinson, 2015). These are all characteristics of bounded framing and bounded framing does not foster transfer (Engle et al., 2011). The next section will address how, in contrast, expansive framing is thought to foster transfer.

In analyses of their research in middle school and high school science classes, Engle (2006) and Engle et al. (2012) describe intercontextuality as being achieved by expansively framing aspects of two categories: learning settings and roles. Within learning settings, categories such as time, location, topics, participants, and purposes can be expansively framed. Expansive framing of time includes making clear to students that they will be using what they're learning in relevant ways in the future and that what they're learning is connected to their prior knowledge or experience. Expansive framing of location includes promoting the idea that students' new knowledge will be used in locations other than the learning context, and even that there are multiple, varied locations in which the knowledge will be used. Expansive framing of topics links the current topics of study with related topics or more general topics that the current topic is a subgroup of. Expansive framing of participants portrays the concepts to be learned as being useful in students' interactions with people who are not

participants in the original learning setting. Expansive framing of purpose encourages students to see that what they are learning can be used to achieve a variety of goals. All of these subcategories are part of the larger category of learning settings.

Student roles are expansively framed when students are positioned as authors whose ideas and creations are valuable and useful. As authors they are accountable, not only to the concepts they are learning, but to a “broader and extendable community” they can impact (Engle, 2006, p. 457), the members of which will come to see them as credible authorities on the learned material and agentic authors who formulate and contribute to community goals. Expansive framing not only positions students with authority and accountability, it also fosters their agency as they envision where, when, how and for what purposes they will adopt and meaningfully adapt what they have learned.

Expansive framing introduces and portrays experiences and subject matter as relating to learners, not only in the original context of learning (e.g. a teacher professional development course), but in the contexts of their lives. Expansive framing positions learners as agentic authors in relation to the content, the tools, and the other people and places affected by what is learned. It is not so much about bridging the individual contexts of structured learning environment and “real life” as it is about expanding the material in such a way that what are often considered distinct contexts become “part of the same, ongoing context” (Engle, 2006, p. 457). Engle calls this process of expansion that of creating

intercontextualities, and the sum of many intercontextualities is the “encompassing context” (Engle, 2006; Engle et al., 2012).

Engle (2006) and Engle et al. (2012) characterize intercontextuality as being achieved by expansively framing aspects of two related categories: learning settings and roles. Within learning settings, categories such as time, location, topics, participants and purposes can be expansively framed. Expansive framing of time includes making clear to students that they will be using what they’re learning in relevant ways in the future and that what they’re learning is connected to their prior knowledge or experience. Expansive framing of location includes promoting the idea that students’ new knowledge will be used in locations other than the learning context, and even that there are multiple, varied locations in which they might use their knowledge. Expansive framing of topics links the current topics of study with related topics or more general topics that the current topic is a subgroup of. Expansive framing of participants encourages students to see their work as connected to other people in the different communities they inhabit. Expansive framing of purpose encourages students to see that what they are learning can be used to achieve a variety of goals. All of these subcategories are part of the larger category of learning settings.

### ***Expansive Framing and Content, Person, Context Complementarity***

The goal of the CPC framework and expansive framing is to articulate how it is that people come to sustainably and meaningfully use their knowledge in their lives outside of formal learning settings; that is, how they connect what they are learning (content), their intentions for learning (person), and the use-value of

what they are learning in their life (context). Both frameworks were formulated with the idea that if we can understand what makes transfer occur, we can design for it. Although CPC and expansive framing are complementary, they don't map onto each other with a one-to-one correspondence. Seeing how the two frameworks align will illuminate how they complementarily express ways in which design can impact transfer. The ThriveCast research team adapted and extended the concept of expansive framing for use in ThriveCast (Jongewaard et al., 2021). The specific ways in which the platform design enlists expansive framing and the CPC framework will be explained later in this chapter. First, it is important here to discuss the literature that has thus far developed the two frameworks' connections, either implicitly or explicitly. I will explain where we see aspects of the CPC framework in expansive framing of settings and roles and the communal nature of both CPC and expansive framing.

When material is expansively framed, it is not unusual for students to align their attitudes with expansive framing perspectives (Lam et al., 2014). Educators' writing in an earlier iteration of the ThriveCast human trafficking professional development course, reported in Jongewaard et al. (2021), showed alignment with expansive framing in personal stories that connected one or more of the CPC dimensions with expansively framed elements of settings. For example, educators' reflections scored highly on both content and context tended to align with expansive framing of location and participants when they envisioned "integrating [course content] across spaces they care about, leveraging relational experience from one context to impact the other" (Jongewaard et al., p. 18).



Writing that demonstrated personal investment also aligned with expansive framing of location and of time in the “weaving together of their personal history and current learning in the service of preventing human trafficking” (p. 16).

Expansive framing uses “authority” in at least two senses. The first is that students are positioned as authors who bring forth disciplinary insights within their immediate contexts-of-learning and for an ever-widening audience (Engle et al., 2012). This positioning for authorship was developed along with the CPC framework by Quest Atlantis designers by, “creating key decision points” where the learner/author is required to leverage disciplinary formalisms and then “to observe and interrogate the consequences of those decisions” (Barab et al., 2010, p. 529). The second sense of “authority” in expansive framing is that as learners develop their skills in authoring new ideas, they become experts who are relied on to share knowledge and creatively adapt it for use. The CPC framework uses the term “innovate” to describe the activities that students in the roles of authors do. As individuals become personally invested they:

becom[e] innovators in their own right, not passive receivers, as they develop the capacity to envision new possibilities and integrate components of the innovation (e.g., technologies, concepts, expert models, and other perspectives) as tools to realize goals in which those individuals are invested (Barab et al., 2019, p. 136).

Further, with repeated opportunities for authorship, students form “socially constituted identities” (Engle, 2006, p. 457) as people who are capable of, and expected to, use ideas generatively. In terms of the “person” and “context”

components of the CPC framework, this identity is expressed when engaged learners “see their role not simply as understanding academic content but as having an impact on the world” (Barab et al., 2010, p. 529). A person whose identity is that of an author/innovator, can transform their contexts—their communities.

For both expansive framing and the CPC framework, agency is vital in the choices learners make that establish them as authors. Expansive framing locates agency in acts of authorship (Engle & Conant, 2002). In the CPC framework, agency is more specifically seen as being achieved when people integrate content, their personal intention, and their context in envisioning or enacting change in their lives and their communities (Barab et al., 2010). While agency is strongest when the three dimensions are enlisted as one, for analytic purposes they can be separated to better understand whether an individual’s agentic action is more rooted in content, person or context (Jongewaard et al., 2021). Both expansive framing and CPC view agency as being enabled by supportive communities and community members. However, the view of agency promulgated by Engle’s studies focuses on the way students are positioned with agency by teachers; students can choose not to take up agency and the responsibilities associated with it, but their teachers as the expansive framers are portrayed as being the sources that allow student agency to occur.

### ***Expansive Framing and Teacher Professional Development***

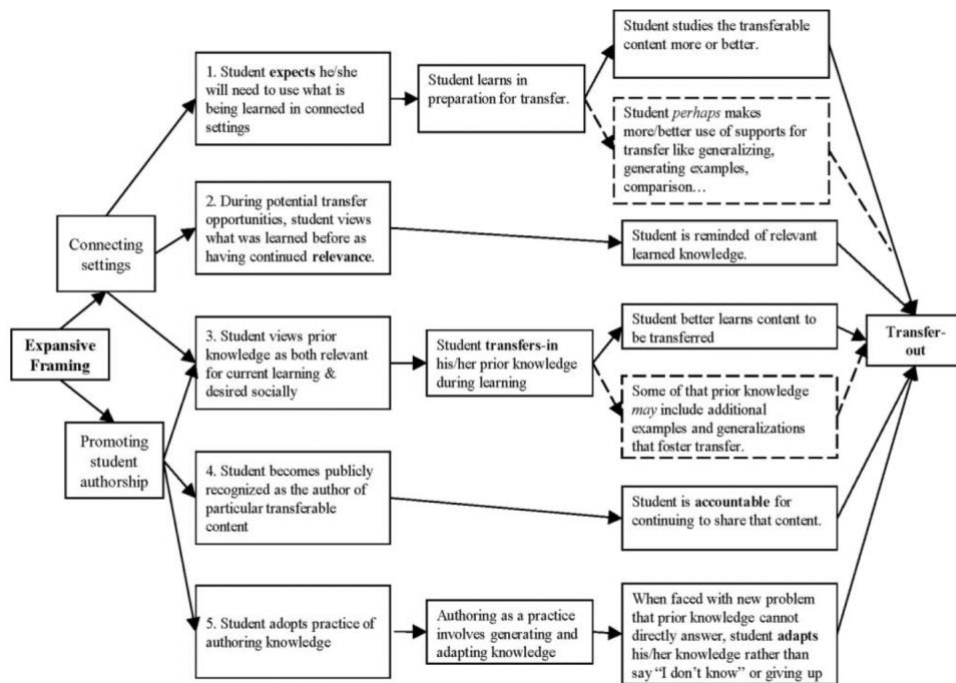
The concept of expansive framing for adult learners has not been studied extensively, with a search of two databases revealing few sources in which

expansive framing was explicitly employed for adult learning and even fewer where it was used for teacher professional development. Andrews et al. (2019) studied preservice teachers in an asynchronous online course but they did not study inservice teachers. Fasso and Knight (2015) studied expansive framing as one aspect of a larger approach to a hybrid (synchronous and asynchronous) professional development course. Chartrand et al. (2021) promote expansive framing in online learning contexts as an easy way to promote transfer. Despite little literature on expansive framing and the CPC framework as approaches to professional development, there is much overlap between strategies that have been shown to be effective for teacher professional development and characteristics of expansive framing and the CPC framework. To help explain the connections, I will refer to a figure used by Engle et al. (2012) to explain possible mechanisms for transfer fostered by expansive framing (Figure 3).

As has been explained, the two larger categories for expansive framing are Settings and Roles, with “roles” referring to learners being positioned as authors. Explanation 1, the student’s expectation that they will use what they are learning, is future-oriented and aligned with evidence that teacher PD is more effective when it is seen as relevant and closely linked to practice (Darling-Hammond et

**Figure 3**

*Five potential explanations for how expansive framing may foster transfer*



*Note:* From “How Does Expansive Framing Promote Transfer? Several Proposed Explanations and a Research Agenda for Investigating Them” by R.A. Engle et al., 2012, *Educational Psychologist*, 47, p. 220, Copyright 2012 by American Psychological Association

al., 2017). Related to the expectation of future use is the practice of giving teachers time in PD to plan how they will adapt and implement what they have learned in their particular contexts. Planning time is inherently a form of expansive framing and contributes to PD implementation (Penuel et al., 2007).

Also connected with Explanation 1 is that teachers are more likely to implement PD changes when they see the program's goals as cohering with—and therefore useful to—their own goals for their practice and their students (Penuel et al., 2007, p. 935). The expansive framing that led to Explanation 2 occurred when a teacher pointed out to his science students that what they were learning in lab activities connected with what they had previously studied outside of the lab (Engle et al., 2012). This aligns with the successful PD strategy in which courses are “connected to and derived from teachers’ work with their students” (Darling-Hammond, 1999. p. 98). In the case of teacher PD, “what was learned before” might come from a past PD but should also draw on teachers’ knowledge gained from their own experiences in the classroom. Intentional reflection on practice is an important characteristic of effective PD opportunities (Penuel et al., 2007) and qualifies as expansive framing in which learners are asked to consider the relevance of what they have learned in the past to their current and future practices. Back and forth connections like those that occur when teachers see their learning as relating to their past experiences and as relevant to future practice create intercontextualities of time and place that support transfer.

Explanation 3 spans both expansive framing domains--settings and roles--in that students as authors are encouraged to use their own experiences and ideas from outside of the learning context to create more robust understandings of the subject matter. Not only are their particular experiences useful to them, they are also framed as being useful to others in the learning community. This is what happens in successful PD experiences in which teachers are invited to engage

their prior knowledge and experiences as tools for their and others' learning (Darling-Hammond et al., 2017). This is congruent with Engle's view that "transfer can be fostered by framing learners as authors who are engaged with a broad community of people actively involved in the intellectual conversation with them" (2006, p. 457), a claim supported further in regards to teachers by research that says teachers are especially likely to implement PD innovations when they see them as, "aligned with their district's goals and with social pressures within the schools" (Penuel et al., 2007, p. 935). The types of PD opportunities described by Darling-Hammond et al. and Penuel et al. frame expansively by supporting authorship and creating intercontextualities of time and participants.

Explanation 4, in which students are publicly positioned as authors, describes a framing that leads to effective PD when teachers learn collaboratively with each other or those in the larger community and when they learn actively by "designing and trying out teaching strategies" (Darling-Hammond et al., 2017, p. v). "Designing" is one way that students as authors respond to the problems of their discipline (Engle & Conant, 2002). "Trying out teaching strategies," especially when outcomes are reported back to a group, aligns with the concept of learners' accountability to their authored knowledge and practices. Explanation 5, is an extension of 4 in that as result of consistent positioning as described in Explanation 4, students adopt the habits of creating and adapting knowledge to respond to new situations. The consistent expectation of authorship is inherent to effective PD activities such as active learning and ongoing collaborations. Positioned as authors, Engle & Conant argue, learners become "*contributors* who

may change the shape of collaborative projects” (2002, p. 404). This aligns with Darling-Hammond et al.’s observation that when “working collaboratively, teachers can create communities that positively change the culture and instructions of their entire grade level, department, school and/or district (2017, p. v).

All of these instances of authorship—trying out new strategies, adapting knowledge to respond flexibly in new situations, creating change that is relevant to teachers’ particular contexts—are examples of agency, which, though not explicitly featured in the above table, is inherent to authorship (Engle & Conant, 2002) and necessary for transfer because, for Engle, transfer, “involves not just knowing, but doing . . . [which is] an exercise of human agency” (Engle, 2006, p. 455). This understanding of agency and these authorial actions as agentic is in line with conceptualizations of agency that are promoted as qualities of effective professional development (Priestley et al., 2015; Severance et al., 2016). In particular, this is similar to Priestley, Biesta and Robinson’s claim that enabling teacher agency is necessary because agentic teachers can more flexibly and robustly develop and adapt effective practices within their particular contexts (2015). In supporting agency, expansive framing of teacher PD can lead to teachers more effectively transferring new concepts to their professional contexts.

In demonstrating the compatibility of expansive framing with effective professional development strategies, I do not intend to argue that any professional development expansively framed is also high-quality teacher professional development. For instance, the consensus of research on PD is that opportunities

for ongoing study are important to PD success (Darling-Hammond et al., 2017). While expansive framing can be greater with opportunities for ongoing study, and Engle et al. (2012) emphasizes the importance of the learner's sense of the ongoing relevance of what they're learning, expansive framing can be implemented effectively even in short-term lessons. In addition, while PD courses are more effective when they incorporate active learning (Darling-Hammond et al., 2017), Engle et al. encourages use of expansive framing "across all forms of instruction from traditional lectures to discovery-based approaches" (p. 228). Suffice it to say that while expansive framing alone might not make a professional development experience effective, professional development experiences are unlikely to be effective without characteristics of expansive framing. It is this overlap, and the view that expansive framing allows instructors to "leverage whatever student learning they are able to achieve through whatever means" (p. 228) to support transfer that make expansive framing a potentially rich area of study for enhancing the efficacy of teacher professional development, even those courses that are constrained in ways that make other effective PD strategies difficult. In addition, it might be that there are strategies for effective PD that expansively frame the PD but have not been emphasized in other research on expansive framing.

### ***Expert vs. Learner Expansive Framing***

Engle (2006) and Engle et al. (2012) focus on how the teacher—the expert—frames the to-be-learned material for the students. Although the teachers position students with authority and accountability, which necessarily entails



agency, these two studies do not discuss how *learners' perceptions* of expansive framing concepts affect transfer. Lam et al. (2014) made progress on this aspect of learners' relationship to expansive framing but did not show how students might be positioned to expansively frame the material for themselves or each other or to what extent agentic transfer occurs when learners expansively frame material in addition to teachers doing so.

Others have embraced Engle's conceptualization of expansive framing as a means to support learners' framing of content from their own perspective rather than that of an expert (Hickey et al., 2020). In their study of social annotations in an online course for pre-service teachers, Andrews et al. (2019) explicitly argue that teacher-designed expansive framing can be a means of supporting students expansively framing the material for each other and themselves. The professors in the Education Psychology course required students to consider and discuss ideas using attributes of expansive framing. For instance, the students were asked to discuss how the theories taught in class connected with their envisioned future practices. Using an open-ended final exam as proxy for transfer actions outside of class, the researchers found evidence that students who expansively frame course material are more likely to use it productively in future contexts outside of the original learning environment. This is particularly important to my study for three reasons: 1) it supports the idea that asynchronous, online learning programs can be expansively framed to support generative learning—something that Engle et al. (2012) did not address because their work occurred in in-person settings, 2) it shows that a combination of expert expansive framing and learner expansive

framing supports transfer, 3) it argues that this expert-learner combination of framing supports learner agency, a key component of transfer and efficacy of teacher PD (Engle, 2006; Priestley et al, 2015).

### ***Connecting the Research to This Study***

With learner agency a desired outcome of educators' professional development, the ThriveCast platform being used in this study aims to position participants to expansively frame their learning in what, drawing on Jongewaard et al. (2021), I characterize as a cycle of expansive framing (see Figure 2). This cycle promotes agency through authorship that honors and amplifies participant voice and through an orientation toward future action. ThriveCast modules begin with a statement of the goals of the module, in order to establish the “why” of the activity. The “why” ensures that from the first moment of the experience, the course is expansively framed in that it states the real-life use intention of the module, not that the course fulfills a legal requirement or earns a microcertification.

In the “Connect” phase, learners encounter and respond to narratives (called stories) from participants who have already taken the module and have written about how they plan to employ the concepts they learned in their lives. These stories serve to exemplify what can be done in real practices to support the module goals. This supports intercontextuality by displaying a variety of settings in which the professional development concepts can be instantiated. Beyond that, however, stories support authorship by showing new participants that their voice matters. The new participants are positioned as authors in that they now know

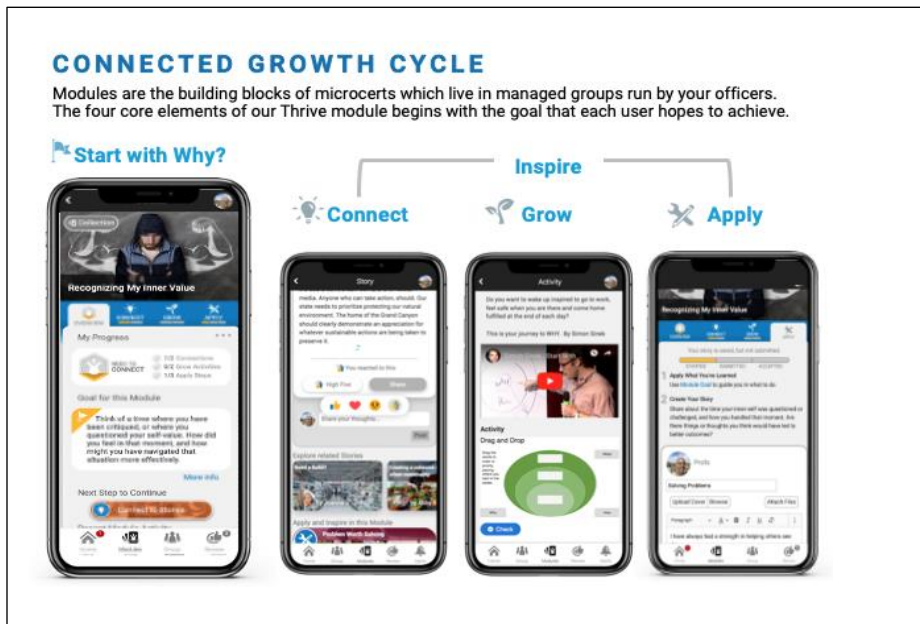
they will be asked to publicly consider the realities of what it will be like to agentically incorporate the content into their practices. and support active learning and accountability by showing participants they will be expected to forecast their own plans for application. The ThriveCast designers explain that “although individuals might be consumers learning from a peer in one moment, they are sharing their experience and insight in the next” (Barab et al., 2019, p. 142).

The second phase of the module is a “Grow” phase in which content and practices to be learned are presented. In the current iteration of this module, the content in the Grow is minimally expansively framed; participants watch a series of short videos geared toward emphasizing the importance of the subject matter and to delivering the most pertinent information to a wide variety of district employees in a short amount of time. Participants answer multiple-choice questions about the videos and have access to links to online resources. The third phase is the “Apply” phase which again frames the concepts expansively by inviting participants to envision the future uses of, and audiences for, their knowledge. This invitation positions participants as authors who can now adapt their learning for action in their particular contexts and share their story to expansively frame the concepts for new participants. Essential to these stories being considered expansive framing is that the experienced participants know they are writing to an audience of new participants; this positions them as authors whose work benefits a community, not just as individuals fulfilling a duty for district requirements. The experienced participants are therefore expansively framing their learning for action in their practices.

At the same time, in the final phase, the Inspire, participants' stories are positioned as relevant to the futures of others in similar roles. Authors may choose to share their stories back to the community, bringing the learning process full circle.

**Figure 4**

*ThriveCast Connected Growth Cycle*



This positioning for authorship, engagement of content, person, and context, and expansive framing that leads to impactful action is the intention of the design and arises from the CPC framework's and expansive framing's approaches to transfer. However, how and to what extent each of these ideals is embodied as near transfer in the educator stories has not been examined, and neither have the ways these frameworks can work to enhance the platform's support of transfer. These gaps have led to the focus of this study on how the frameworks of the Content, Person, Context framework and expansive framing

illuminate the ways in which the ThriveCast platform supports near transfer in teacher narratives.

## CHAPTER 3

### METHODS

This chapter will describe the data collection and analysis methods, detailing the context of the study, the data that was collected, and the codes with which the data was analyzed.

#### **Program**

The professional development course featured in this study is a 60-minute module on identifying and preventing human trafficking developed jointly by *3Strands Global Foundation* (hereafter 3Strands) and the Center for Games and Impact (CGI) at Arizona State University. 3Strands's mission is to, “mobilize communities to combat human trafficking through prevention education and reintegration programs.” With the motto, “Prevention changes everything,” 3Strands has created an education program called PROTECT which has a course for educators and a curriculum for teachers to use in classes with their students (3Strands Global Foundation, n.d.). The program description states, “PROTECT fosters an ongoing conversation and establishes a system of protocols within each county to protect children from exploitation.

The one-module “Human Trafficking Awareness and Prevention” course for educators is the focus of this study. Using CGI’s ThriveCast platform, 3Strands has implemented this course with over 50,000 educators in 223 districts across 3 states (*Human trafficking PREVENTION education: 3Strands Global*

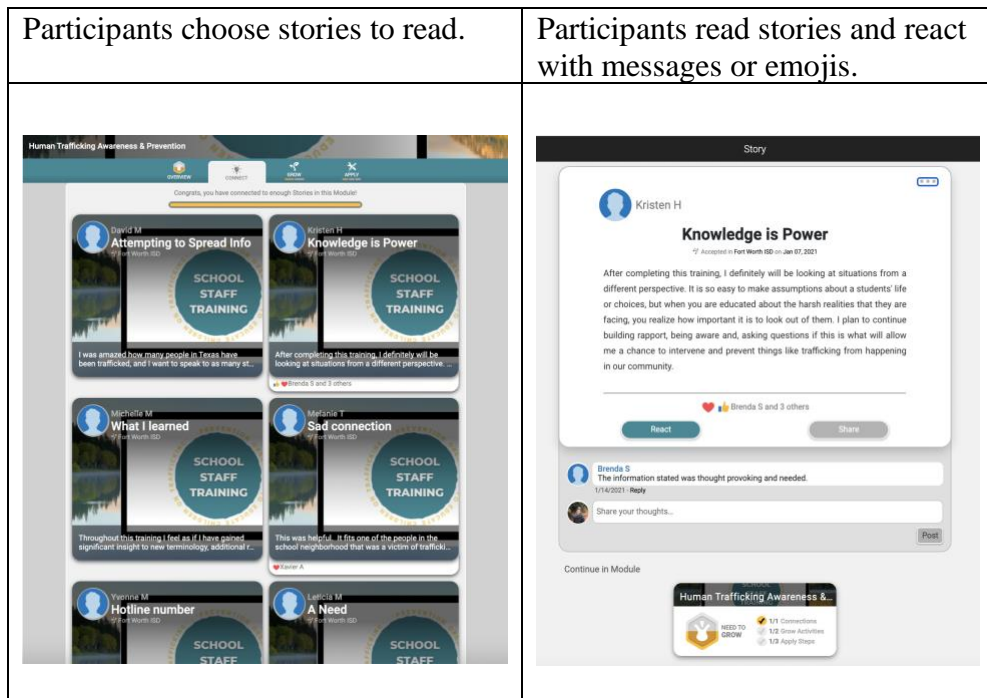
*foundation: Usa 2019*), with some adaptations for different state and district regulations.

As mentioned in the previous section, ThriveCast online modules have three phases: Connect, Grow, and Apply, with the expectation of a 4<sup>th</sup> phase in that the author can choose to share back the accepted Apply story with the community to Inspire (see Figure 4). When beginning the human trafficking prevention module, an intention for participants' use is articulated through the module goal: "You will learn about child trafficking, trauma-informed care, and what you can do if you suspect a student is a victim of human trafficking." Participants then connect by reading a personal reflection (called a story) written by an educator who has already completed the module. Figure 5 contains a screen shot of the page from which participants choose stories and a screen shot of one story with reactions. Stories talk about what the educator learned about preventing human trafficking and how they plan to apply what they've learned in their

practice. Participants react to the stories by leaving an emoji, such as a “high five” or by writing a comment.

**Figure 5**

*PROTECT Connect Phase*



After reacting to one or more stories, participants move to the Grow phase.

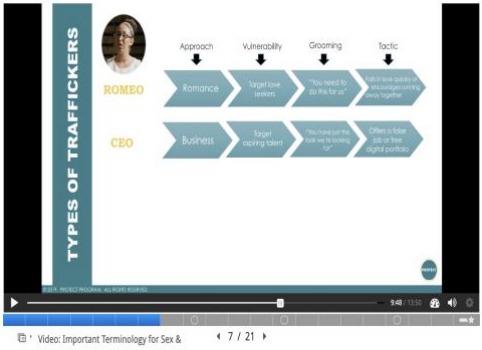
The Grow phase is the content-centered phase of the module, in which content created by the curriculum designers is presented to participants. Participants first take a multiple-choice pre-test to see how much they already know about trafficking. They then watch short videos interspersed with multiple-choice questions about topics covered in the videos, such as identifying trafficking, reporting suspicions, and understanding the importance of trauma-informed care. There is also a page of written information and optional links to other resources.



Figure 6 contains a screen shot of one video still and an example multiple choice question.

**Figure 6**

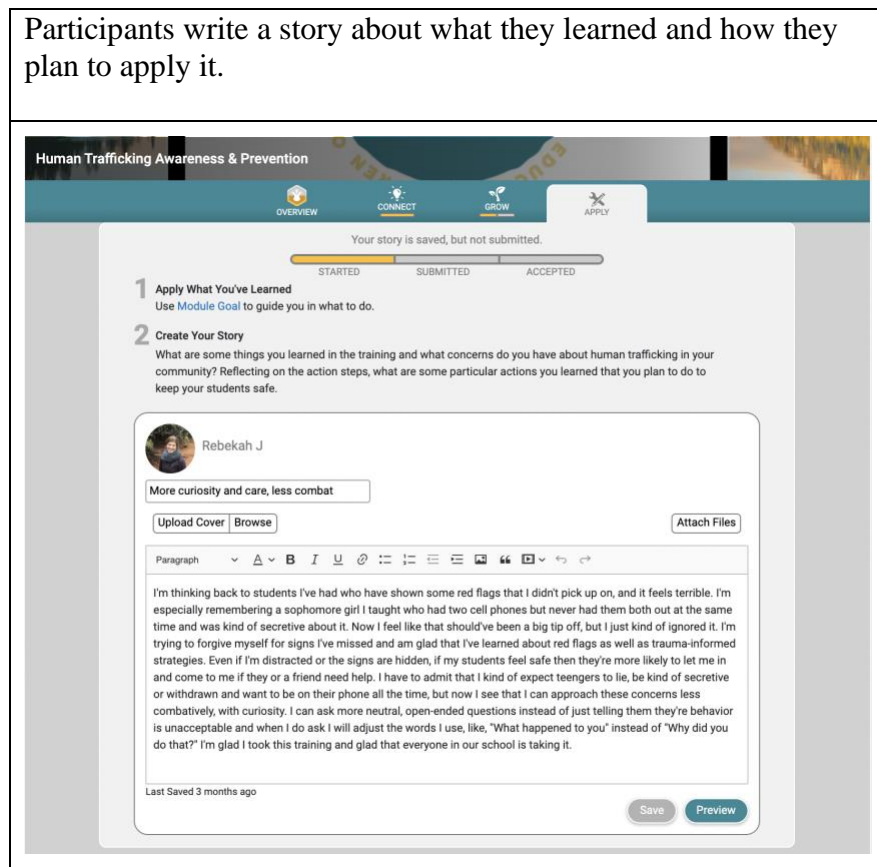
*PROTECT Grow Phase*

Participants watch videos.	Participants answer multiple choice question.
<p>Activity</p> <p>After completing the activity below, and reading "Learn About Victims with Physical, Cognitive, or Emotional Disabilities" <a href="#">click here</a> to proceed to <i>My Next Steps: Prevention and Awareness</i></p>  <p>TYPES OF TRAFFICKERS</p> <p>ROMEO</p> <p>CEO</p> <p>Approach: Romance</p> <p>Vulnerability: Target Line - Victim</p> <p>Grooming: You need to do this for us</p> <p>Exploitation: With availability in mind, getting things together</p> <p>Business: Target - Recruiting Talent</p> <p>They don't really look like we're looking out</p> <p>Then a real job or from a real employer</p> <p>Video: Important Terminology for Sex &amp; 7 / 21</p>	<p>Activity</p> <p>After completing the activity below, and reading "Learn About Victims with Physical, Cognitive, or Emotional Disa" proceed to <i>My Next Steps: Prevention and Awareness</i></p> <p><b>Human Trafficking 101</b></p> <p>What form of exploitation is responsible for nearly half of all child trafficking cases?</p> <ul style="list-style-type: none"><li><input type="radio"/> CEO trafficking</li><li><input type="radio"/> Romeo trafficking</li><li><input type="radio"/> Familial trafficking</li><li><input type="radio"/> Guerrilla trafficking</li></ul> <p><i>You must answer this question correctly to receive full credit.</i></p> <p>Question: Human Trafficking 101 9 / 21</p> <p>&gt; Learn about Victims with Physical, Cognitive, or Emotional Disabilities</p>

After correctly answering the multiple-choice questions, participants move to the Apply phase. In the Apply phase, picture in Figure 7, participants are asked to write a story about what they learned and how they expect to use the concepts in their practices. Participants then choose whether or not to allow their story to be made public to the group for new participants to read and react to in the

**Figure 7**

*PROTECT Apply Phase*



Connect phase. After finishing all activities, participants may print out a certificate of completion. The entire training is designed to take no more than 60 minutes from start to finish.

## **Participants**

The specific context of this study is a school district in a populous metropolitan area in the American southwest. A 2016 university study estimated that the state had 79,000 child and youth victims of sex trafficking alone (Busch-Armendariz et al., 2016). Because the city that includes this large district is located on a major interstate, it is a “hot spot” for human trafficking activity within the state. Participants were K-12 educators in a public school district. Because all employees of the district are required to take the course, participants’ professional roles varied and included district leadership, counselors, teachers, food service staff, bus drivers, etc. No data was collected that explicitly stated participants’ roles. Since participants did not identify their professions (e.g., counselor, principal, teacher, and so forth), I will refer to all participants generally as educators. Years of professional experience within the district also varied, so participants varied from new employees to seasoned professionals. Participants completed the course independently online, at a time of their choosing.

## **Data Generation**

Data consists of written responses to the two-part prompt in the ThriveCast Apply phase, at the conclusion of the human trafficking module. The prompt is as follows:

- 1) Apply what you’ve learned: Use the module goal to guide you in what you do.
- 2) Create your story: What are some things you learned in the training and what concerns do you have about human trafficking in your

community? Given these concerns, identify some actions that you have done or envision doing to keep students safe.

Each story is an artifact of the participant's completion of the Connect-Grow-Apply phases underlying the module and is conjectured to give evidence of how each participant envisions applying module content. The implementation generated 290 stories and a random sample of 60 stories was selected for this study. The sampled stories ranged from 12 to 512 words long, with average word count 105.

### **Data Analysis**

Each educator story is conjectured to give evidence of how that participant envisions integrating the course concepts into their practice. Each story, then, helps create a picture of what near transfer looks like in the PD module.

Qualitative and quantitative analysis through the lenses of the CPC framework and expansive framing will enable identification of patterns of transfer among the stories and will support characterization of transfer in this module in order to identify ways the module design currently supports transfer and ways the design should be enhanced.

### ***Qualitative Analysis***

In order to examine and compare participant stories, analysis of the stories utilized two analytical frameworks – the CPC framework and expansive framing - reflected in five coding schemes, four of which are rubrics. The schemes are presented and described in detail in the next section. In the process of coding, as well as once all 60 stories had been scored, brief analytic observations and

rationale for scores were written. These qualitative notes described stories that exemplified low, middle, and high rubric scores, stories that illustrated characteristics of the CPC framework and expansive framing, and stories that illuminated patterns of transfer related to those two frameworks. Special attention was paid to stories that had similar scores across rubrics and those that had contrasting scores within and across rubrics.

### *Quantitative Analysis*

The first analytical framework is the CPC framework. Jongewaard et al. (2021) further developed the CPC framework (introduced in Barab et al., 2010) by connecting it with expansive framing and value creation as well as by detailing the particular characteristics of each dimension. The expansive value creation rubric presented in Jongewaard et al. (2021) is a tool for researchers and course designers to evaluate how and to what extent participants expansively take up the professional development material along the dimensions of purposeful content, engaged person, and transformed context (see Table 1).

Each of three dimensions is assessed on a continuum of 0-5, with 0 signifying no evidence of the dimensional attributes and 5 representing very strong evidence of engaging the dimensional attributes to create value within the participant's context-of-use. Stories are scored high for expansive value creation along content, person and context insofar as they respectively position concepts as tools to enhance particular practices, demonstrate personal investment and

commitment to act or to advance a particular goal and envision integrating new practices for impact at their particular sites.

Jongewaard et al. (2021) characterize scores of 2 and 3 as “baseline” in that they seem to have achieved basic content acquisition goals that would be expected of traditional professional development. They characterize scores of 4 and 5 as “expansive” because they show the participant going beyond acquisition to connect the concepts with their own histories, intentions, passions and contexts. In order to maintain clarity between this rubric that codes for CPC framework themes and the rubrics that code for expansive framing themes as presented in Engle et al. (2012), I will refer to this rubric as the value creation rubric and the outcomes of this measure as low, baseline, or high.

**Table 1**

*Rubric for Expansive Value Creation in Storytelling*

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<i>Score</i>	<i>Description</i>
<i>Purposeful Content (positioning for use)</i>	
0	Story does not reference the key module concepts (e.g., ideas, facts, definitions)
1	Story superficially references the module concepts.
2	Story partially references some of the module concepts.
3	Story positions concepts as tools with partial reference to their function(s).
4	Story positions concepts as tools that are relevant to practice.
5	Story positions concepts as tools that enhance the particular practices that I engage in.
<i>Engaged Person (investing oneself)</i>	
0	Story does not express any personal or emotional reaction (e.g., commitments, values, affinities).
1	Story superficially references and personal or emotional reaction.
2	Story partially references personal or emotional reaction, but with no meaningful action.
3	Story illuminates personal motivation for the module goals.
4	Story demonstrates an investment in the issue and personal commitment to act in general.
5	Story demonstrates an investment in the issue and personal commitment to advance a particular goal.
<i>Transformed Context (integrating for impact)</i>	
0	Story does not reference any sort of grounding (e.g., setting, experience, ecosystem).
1	Story superficially references a particular grounding (e.g., setting, experience, ecosystem).
2	Story partially references a local site.
3	Story positions a local site with partial reference to goals.
4	Story describes how to create value within their particular site
5	Story describes how to create value by integrating the practices to transform their particular site.

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*Note:* from “Designing for Expansive Value: Fostering Agency in Professional Development,” by R. Jongewaard et al., Paper presented at American Educational Research Association Annual Meeting, virtual

The second analytical framework is the expansive framing theory. For expansive framing, I used two coding schemata to analyze the stories: one for identifying aspects of expansive framing and one for assessing degrees of expansive orientation toward the module concepts. In order to characterize how the expansive framing aspects of setting and roles were taken up by course participants, I adapted a scheme presented by Andrews et al. (2019). I coded for expansive framing settings and roles: time past, time future, place, topic, participants, and authorship. Table 2 gives a description and example of each aspect. In adapting this scheme for use with this particular study, changes needed to be made that better expressed the spirit of expansive framing for educators in a professional development course on building protective factors against human trafficking.

As was discussed in the previous chapter, the ostensible expectation of educator professional development is that educators will apply the concepts they have learned in their practices. Educators, then, in general, begin courses with some intercontextualities already presumed. Although they might be skeptical about the usefulness of a given PD course, they most likely already have in mind specific participants, places and times with whom they might consider applying the concepts. In addition, the presentation of the concepts in the module's Grow phase is geared to educators such that a participant could parrot what was said in the material and seem as though they were creating intercontextualities with their own potential contexts of use.

Both the scheme for aspects of expansive framing and for degree of expansive orientation needed to reflect the spirit of the expansive framing aspects. Drawing on Lam et al. (2014), I determined that reference to an aspect would be considered an intercontextuality when the stories expressed a genuine sense of the ongoing personal



relevance of the course concepts to envisioned contexts-of-use and individuals' ongoing agentic involvement with the concepts (authorship), not just a mention of the general settings referred to in the module, such as students and schools. This underscores the idea that intercontextualities are a sign that participants in a learning environment view their experience as “providing resources for productive action in potential future transfer contexts” (Engle et al., 2012, p. 218).

**Table 2**

*Coding Scheme for Aspects of Expansive Framing*

Code	Description	Example
Time Past	Refers to a past time, recent, distant, or ongoing, that what was learned then via experience or study is being, or will be, integrated with what was learned in the module.	“Sometimes we see students disappear for periods of times or guardians not answer when they believe we are “in their business.” It is very difficult when confronting abuse in any form to see things through and get victims the help they need with actual consent from the caregivers. Using best practices and knowledge and skills [from the module] of this topic is vital.”
Time Future	Refers to a future time in which the participant considers or plans on using what is learned in the module.	“I plan to raise awareness . . .”
Place	Refers to another place outside of the course in which the participant considers, or plans on, using what is learned.	“I envision being a suitable resource for my campus . . .”
Topic	Refers to a non-module topic with which the participant	“It is easy to dismiss certain situations as part the cultural or community norm . . . I will look further into . . . the cultural

Code	Description	Example
	considers, or plans on, integrating what is learned.	attitudes and traditions that affect my students.”
Participants	Refers to person(s) with whom the educator considers, or plans on, applying what they have learned.	“We should . . . serve as the resource students need to help them get out of or not get involved in a situation that is not safe. . .”
Authorship	Refers to self as coming up with or contributing to solutions or becoming an authority on HT. Restatement of facts alone does not constitute authorship. Might also raise novel questions or challenges and consider resolutions.	I want to open up the conversation among youth and understand their perspective on what this looks like and what they have seen in their school and community while also educating them on important information that can help keep them safe.

*Note:* Adapted from “Expansively Framing Social Annotations for Generative Collaborative Learning on Online Courses,” by C.D. Andrews et al., 2019, Paper presented at Computer Support for Collaborative Learning Conference, Copywrite 2019 by International Society for the Learning Sciences

Engle et al. (2012) argue that encompassing contexts, and therefore the chances of transfer, are formed by a magnitude of intercontextualities. The magnitude of intercontextualities, then, needed to be assessed. The following coding scheme aims to build on the identification of aspects to assess the degree to which each story, as a whole, took an expansive outlook. When I used this coding scheme, I considered the quality and variety of intercontextualities more than the exact number of aspects mentioned. Following the findings of Lam et al. (2014) and Andrews et al. (2019) regarding alignment with expansive framing and likelihood of transfer, I judged stories to be more expansive the greater their specificity regarding contexts-of-use and authorship. Ongoing

relevance of to-be-learned concepts can be seen through back-and-forth connections between past, present, and potential future settings and experiences. Ongoing personal involvement with the concepts can be seen through signs of ownership, often expressed through personal and possessive pronouns (Lam et al., 2014) and a sense of personal responsibility for enacting concrete solutions, including becoming an authority to whom others could turn for information. Another sign of authorship is a learner's engagement with the concepts as if they are in conversation with the course claims and other course participants, learning from them but also problematizing and suggesting original resolutions (Engle, 2012).

Although authorship and intercontextualities of settings are intertwined in highly expansive stories, I chose to score them as two separate categories and then combine their scores to assess overall degree of expansive orientation. Authorship and settings were scored on a scale of 0-3, with 0 signifying, respectively, no authorship and a bounded orientation that didn't extend mention of settings beyond what was described in the model, and 3 signifying strong authorship and multiple or more detailed setting intercontextualities, respectively. Tables 3 and 4 provide descriptions and examples.

**Table 3**

*Coding Scheme for Intercontextuality of Roles*

Code	Description	Example
0: No authorship	Might include restatement of facts, but no sense of a personal response to the concepts or of ongoing involvement.	“Human trafficking is a major concern in today's society. We have many children struggling each day with trust issues, homelessness, mental illness, economic disabilities and broken families. More and more people are being affected by trafficking by genders, race, ages and economic.”
1: Weak authorship	Projects an ongoing interest in and general use for module concept. Use mentioned is vague and might only be repeating ideas from the module.	“As educators it's our due diligence to recognize the signs . . .”
2: Moderate authorship	Takes ownership of ideas, expressing that they might share them or take action with them for others' benefit. Description might be vague. They might raise concerns/questions about the concepts or implementation and suggest or imply solutions.	“I think that it is imperative to teach our entire faculty and staff the trauma informed approach . . . I'm excited to work with students to help them understand especially internet safety, and also teaching the risk factor so that we are more preventive rather than reactive.”
3: Strong Authorship	Projects likely ongoing involvement, describing	“It is my hope that I can help increase awareness on

Code	Description	Example
	<p>specific, even novel, ways in which they see themselves as part of the solutions to the problems/questions they or the module raise. One in-depth or specific example might create strong authorship, or a number of different but somewhat vague examples can as well.</p>	<p>human trafficking by sharing information through my google site, campus website and video trainings.”</p>

Table 4

*Coding Scheme for Intercontextuality of Settings*

Code	Description	Example
0: Bounded	No settings mentioned outside of module, or only a repetition of general settings designated by the module (such as “students,” “communities”)	“I learned about signs to watch for, causes that may lead someone to be trafficked, and ways to go about bringing up the subject to a possible victim.”
1: Weak	1 or more aspect of setting mentioned as related to the participants (e.g. “my students, “my school”) but story doesn’t go beyond the orientation toward the material provided in the Grow phase.	“I have learned about the different types of trafficking and I now know the signs to look for in my students.”
2: Moderate	Participant conveys a sense of future, personal relevance focusing on one aspect in detail or mentioning multiple aspects.	“We need to continue to educate, motivate and empower our girls; teach them how to love themselves, participate in leadership programs, and develop a strong support system. Even if, “we” are the support system.”
3: Strong	Participant connects at least one aspect of setting to the module concepts in concrete detail and conveys a sense of ongoing, personal use for the module concepts in relation to the aspect(s)	“I have worked with several students that have survived trafficking and this training will be helpful in guiding my work with these students and incorporating trauma-informed interventions. I

Code	Description	Example
	OR connects multiple aspects to the module and to each other, possibly in less detail, and conveys a sense of the ongoing, personal use for the concepts in relation to the aspect(s).	want to open up the conversation among youth and understand their perspective on what this looks like and what they have seen in their school and community while also educating them on important information that can help keep them safe.”

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*Note:* Adapted from “Expansively Framing Social Annotations for Generative Collaborative Learning on Online Courses,” by C.D. Andrews et al., 2019, Paper presented at Computer Support for Collaborative Learning Conference, Copywrite 2019 by International Society for the Learning Sciences.

Degree of expansive orientation was determined by the sum of the intercontextuality of roles score and the intercontextuality of settings score. Each sum was then matched with its expansive orientation level. Table 5 shows the name of each point value:

**Table 5.**

*Degree of Expansive Orientation*

Sum of Intercontextuality Scores	Degree of Expansive Orientation
0	No expansiveness
1	Very low expansiveness
2	Low expansiveness
3	Somewhat moderate expansiveness

Sum of Intercontextuality Scores	Degree of Expansive Orientation
4	Moderate expansiveness
5	Somewhat high expansiveness
6	High Expansiveness

I wanted to gain understanding based on a quantitative relationship between codes for each analytical framework as they relate to transfer. I generated various descriptive statistics strategically in order to illuminate the range and variation of the data set and to develop conjectures about patterns these statistics suggest. For value creation scores I generated the following statistics: frequency count of value creation scores; average story scores, percentage of stories scoring 5s across all dimensions, and the percentages of stories in each category.

For the expansive framing codes, I first took the averages of intercontextualities of roles, intercontextualities of settings, and expansive orientation, and then tallied appearances of aspects and found the percentage of stories each aspect appeared in (this included both total number of times each aspect appeared in all the stories and the number of aspects included in each story). I further took the average number of total aspect references per story as well as the average for high expansive orientation stories (scored 5 or 6). Finally, I compared expansive orientation averages among various value creation story categories.



## **CHAPTER 4**

### **RESULTS**

This chapter considers what two analytical approaches reveal, both on their own and in comparison, about how the design of a particular online, asynchronous teacher professional development course supports near transfer. As part of the evaluation phase of a design-based research cycle, I wanted to know more about this design in order to improve it and better support transfer. I needed to develop a clearer picture of what transfer looks like in the educator stories in order to consider how and to what extent the module design leverages the Content, Person, Context framework and expansive framing to support transfer. In the next chapter, I will recommend related changes to the learning context to better support transfer. In this chapter, I will first present a qualitative analysis using illustrative stories in order to develop a clearer picture of how, to what extent, and in what relationships the two frameworks manifest. I will then present the quantitative results that aid in developing a more robust understanding of the connections between the two approaches and how each works in the module.

#### **Qualitative Findings**

In order to better illuminate what near transfer in the human trafficking module stories looks like in preparation for recommending improvements to the module, I will examine four stories through the lenses of both the CPC framework and expansive framing. Higher scores on the frameworks show higher transfer. Explanation of the elements of the stories that led to their scores will show how transfer manifests in each

framework. Titles given to the stories by the participants as well as rubric scores are given before each story. From the perspective of the CPC framework, this story scored high along the Content dimension and baseline along Person and Context. It scored a 5 on the expansive orientation rubric:

***Story 1 – Concerns***

(Content: 4, Person: 3, Context: 3; Expansive orientation: 5)

My concern is like many others that I have read. Even knowing the signs of abuse and possible human trafficking, sometimes it is hard to identify victims of human trafficking. Also, being extremely careful not to alert the offenders so that actual help can be given to the victims without them disappearing beforehand. In school settings we normally do wellness checks/calls. Sometimes we see students disappear for periods of times or guardians not answer when they believe we are “in their business”. It is very difficult when confronting abuse in any form to see things through and get victims the help they need with actual consent from the caregivers. Using best practices and knowledge and skills of this topic is vital.

I will first explain the rationale for this story’s value creation rubric scores, then explain its higher score on the expansive orientation rubric. Although the participant does not list many specific facts they took from the module, they convey the sense that the concepts are tools relevant to their practice and are, in fact, “vital” to helping students. Use of the word “vital” combined with the participant’s consternation about their lived experience of struggling to get children “the help they need” shows a motivation to help

students and a history of trying to do so but does not recommit to action or to personal goals centering around the module goals. Regarding the Context dimension, the participant links their particular practice to the module goals by describing a particular type of scenario and the fact that the module knowledge helps overcome the challenge faced in that context. The story does not go so far as to make claims about what particular module knowledge or module-inspired actions they plan to apply to mitigate the difficulties of their work. In short, the story did not make specific enough connections between module-motivated activities and module-inspired personal intentions to score high along all the Person and Context dimensions.

The story did, however, score as being somewhat highly expansively oriented. When determining expansive orientation, I looked at how the participant was creating intercontextualities of role (i.e. authorship) and settings. That is, what connections were they making that began to integrate the new concepts into that flow of time, place, identity, ideas, and participants that is the encompassing context of their professional life? Intercontextuality of roles, or authorship, has many possible forms, some of which are intellectual agency, problematization, and seeing oneself as part of an ongoing “conversation” on the to-be-learned concepts (Engle & Conant, 2002). Intellectual agency occurs when a learner expresses what they really think about concepts, not just what they think experts want to hear. This agency as well as a sense of themselves as an authority is apparent in this story when the participant focuses on the challenges they have experienced with students’ caregivers. This is also a form of problematization: drawing on the “conversation” afforded by the Connect phase as well as their own experiences, the participant seems to be responding to an invisible PD instructor, “Sure,

this information is well and good, but even so, what do we do about . . .?” Although the participant does not describe specific ways they will use what they have learned to address the problem, they do engage in another act of authorship which is suggesting a resolution to the problem: using best practices, knowledge and skills related to trauma and human trafficking. It was because of these multiple facets of authorship as well as the detailed connections made with current and past practice that this story scored a 5 for expansive orientation. Transfer is especially noticeable in these expansive views of their role and of time.

The following story was chosen for discussion because it scored 4s (high) on the value creation rubric across all three dimensions, but scored as having low expansive orientation, with a 1 for intercontextuality of authorship and a 1 for intercontextuality of settings. Contrasting this story with Story 1 will point to differences between what transfer looks like in the CPC framework and what it looks like in expansive framing.

***Story 2—Middle School Counselor***

(Content: 4, Person: 4, Context: 4; Expansive orientation: 2)

I see the red flags of trauma at my middle school almost daily. This training has made me aware of the possibility of trafficking being the cause of the trauma in some students. I have learned that students usually do not volunteer the information regarding being trafficked, due to trauma bonds. The training has given me the language to use when working with these students. I will be more vigilant in watching for the “red flags” and report any suspicions to the police.

The participant shows that they have not only grasped specific concepts about trafficking, such as the idea of trauma bonds, they also see the concepts as tools that they can use to create value in their daily interactions with students. They make an underspecified but personal commitment to using their new knowledge with their particular population. The participant's framing of red flags as something that they are now aware they commonly see and will continue to see in a student population they continue to work with shows a sense of the ongoing relevance of the concepts to the educator's practice, so demonstrates intercontextuality of time. However, the authorship is weak because it is little more than a restating of the general activities the module says educators need to do: be vigilant, report suspicions. This shows that for expansive framing, authorship may or may not involve envisioned action, but to be considered strong—to signify transfer—it ought to reveal original thought, which might manifest in questions asked, problems foreseen, conversations with ideas or people implied, roles imagined or, potentially, creative action. For the CPC framework, scores of 4 require that individuals articulate meaningful, action-oriented connections with their particular situation, but they do not require them to think with the originality or specificity of personal imagination.

The following story scored high on the value creation rubric and had the highest possible score on expansive orientation. Viewed from either framework, it demonstrates high transfer.

***Story 3—There's More to Every Story***

(Content: 5, Person: 5, Context: 4; Expansive Orientation: 6)

In dealing with our students it is easy to dismiss certain situations as part the cultural or community norm or typical teen behavior. What we have to do is listen with the purpose or intent to really hear or see what the student is trying to tell us. Many times they are reaching out for help even when it seems that they are not. I want to be more aware and work to build trust, so I can dig a little deeper when a student answers my questions in a way that I know could imply more. To do so I will look further into the resources available and the general “heartbeat” in the community so I can be informed, as well as the cultural attitudes and traditions that affect my students. This way I won’t be so quick to dismiss Things because I’m unaware.

Considering the story relative to the CPC dimensions, it is evident that the participant sees the module information about building trust and listening with intention as ways to enhance their ability to identify when a student needs help. The participant repeatedly expresses a personal desire and commitment to helping students and to working on the goal of being better informed in order to do so. While the author does not specifically envision what it might look like to understand the “‘heartbeat’ in the community,” the participant does see applying new skills as creating value for their interactions with students. This understanding of creating value, along with the participant’s conceptualization of the concepts as tools that they are committed to using to improve their relationships with students, shows transfer.

From the perspective of expansive framing this story is a good example of how the aspects of authorship and settings can intertwine to create a strong expansive

orientation that builds an encompassing context. The participant's observation that "it is easy to dismiss certain situations" shows authorship, articulating a challenge to identifying trafficking and suggesting that the resolution is to listen with intention. This same observation shows that the participant is drawing on past experience, an aspect they connect with the future in their desire to "be more aware" and not "dismiss things" as they have in the past. Intercontextuality of settings is increased when the participant expresses the relevance of a topic not mentioned in the module: students' cultural contexts.

The participant's authorship becomes stronger when they not only acknowledge the connection of cultural context to the practices promoted in the module but also express a plan to educate themselves further in order to better build the protective factor of trusting relationships. That the participant draws so many connections between aspects, especially in seeing a continuum of past practice with current learning and future practice, as well as a continuity from prescribed learning in the module to self-motivated learning identified outside the module and action surrounding both, is a sign that an encompassing context is forming. Creation of an encompassing context is a sign that the student sees the learning setting and the context-of-use to be continuous; what is happening in the module is important and useful and will continue to be so when the participant logs off. For Engle et al. (2012) and in this study, that is a marker of transfer.

The following story scored 5s for Content, Person and Context. It also scored a 6 for expansive orientation—high expansive orientation. This story is illuminative of how the CPC framework and expansive framing can work together to support and reveal transfer.

#### ***Story 4 Awareness Breeds Action!***

(Content: 5, Person: 5, Context: 5; Expansive Orientation: 6)

Awareness definitely breeds action on my part. I have learned that 50% of all human trafficking of children is done by a family member. This training has caused me to look at my students in a more detail and thorough way. I need to ask the right questions not why, but what happened to you? How can I help, without judgment? Once I ascertained the information, provide the student with safe and appropriate help. What I would like to know is how many of these students/children recover and go on to have “normal” and healthy relationships?

In the near future I would like to meet with my students and gain knowledge of what is happening on my campus and then give my students the tools that they need to combat human trafficking here at school such as guidance lessons, small groups and peer-to-peer counseling.

From the first sentence of this story, a connection with and between the CPC framework and expansive framing can be seen. The context of learning, where awareness is gained, is causally linked to a context of use where personally motivated action will be taken. This story incorporates concepts directly from the module, such as the guidance to ask “not why but what happened” and the idea of providing help. However, the story goes beyond repeating facts encountered. Related to the CPC framework, the story positions concepts as tools that motivate action towards improving the educator’s practice. Authorship and envisioning of transformation are evident in the educator’s expressed desire to “gain knowledge” and then “give students the tools.” Authorship and



transformed context are also bolstered by the specificity of the actions the educator intends to take (e.g., guidance lessons) and the value they see in taking them (giving students the tools they need). In addition to exhibiting authorship through constructing concrete ideas for using the module concepts and for being an authority to others on the information, the educator asks a novel question of the material, exercising intellectual agency in responding to the concepts. As the educator envisions changes they are personally invested in enacting, they form intercontextualities, describing the ongoing relevance of the concepts for their ongoing involvement with students in a variety of activities and configurations across time at their school/campus. The participant sees their role in fighting trafficking as an ongoing process of self-education and action, a process they lay out with some specificity. The more concrete their planning gets, the more they have to connect moments in time with each other and back to the context of learning, demonstrating one way in which the CPC framework and expansive framing are mutually supporting transfer for this participant.

### **Quantitative Findings**

To better understand the ways in which the two approaches to understanding transfer coincide and the ways in which they are different and to use that to make recommendations for enhancing the human trafficking prevention module and for further study, I generated quantitative statistics. I will report descriptive statistics for all 60 stories of how they scored on measures of value creation on the dimensions of content, person, and context. I will then report descriptive statistics of how the stories scored on expansive orientation, followed by general quantitative observations regarding frequency

of aspects. Finally, I will report and interpret descriptive statistics of the relationships between value creation scores and expansive orientation scores.

### ***Content, Person, Context Framework Results***

The average scores for each dimension were as follows: Purposeful Content, 3.85 (sd 1.22); Engaged Person, 3.59 (sd 1.39); and Transformed Context, 3.25 (sd 1.13).

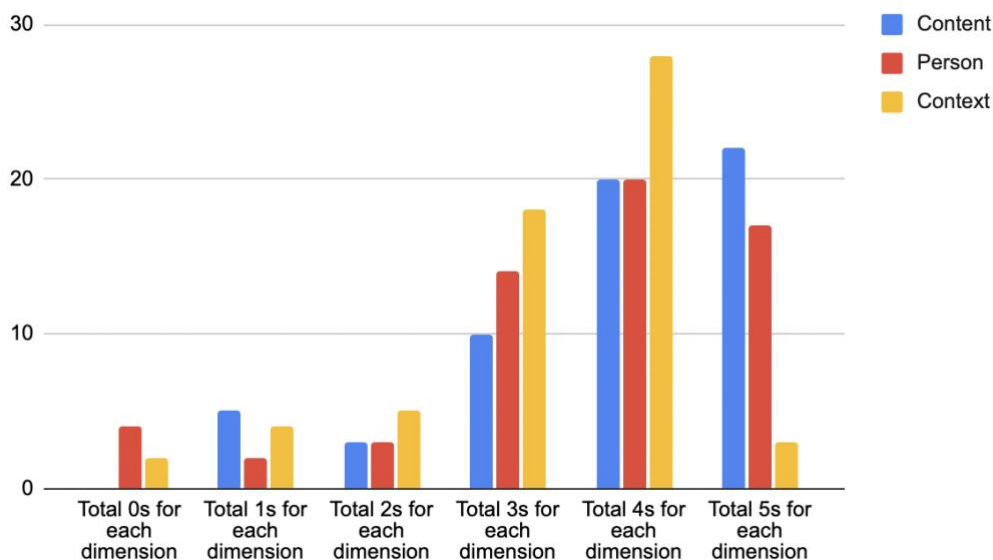
Jongewaard et al. (2021) differentiates between baseline scores (2s and 3s) and expansive scores (4s and 5s). I will refer to scores of 4 and 5 along the dimensions of content, person, and context as “high value creation” or simply “high” scores to avoid confusion with the term “expansive orientation” which refers to the expansive framing measures. Baseline scores are considered to reflect expectations of traditional professional development, as mentioned in the literature review, in which teachers are expected to receive information, but not to express how they might agentically integrate the concepts with their own particular practices. Baseline stories, therefore, show acquisition of and personal engagement with some of the module concepts. However, the goal of the human trafficking prevention PD design is for educators to respond to the material in such a way that they become personally committed to actively adapting the concepts to change their contexts in ways that are meaningful to themselves and their students. Average scores

were often a little higher than baseline, with 45% of scores showing high (4 or 5) value creation across dimensions. Figure 3 shows the score distribution for each dimension.

With the definition of “high value creation” being a score of 4 or 5, 70% of stories were scored as high value creation on the purposeful content dimension, 62% scored high on engaged person dimensions, and 52% scored high on the transformed context dimension. Note that the fewest stories scored high along the transformed context dimension and that only 3 stories (5%) scored 5s on transformed context. This low percentage combined with the fact that many scored 4s on transformed context suggests that there is room for improvement in how the platform supports participants in envisioning concrete changes they can make to their professional contexts.

**Figure 8**

*Value Creation Scores by Dimension*



While 45% of the stories scored 4s or 5s along all dimensions, only 3 (5%) scored 5s on all dimensions. Although it is a good start for 45% of the stories to have high value creation scores (i.e., 4s and 5s) along all three dimensions, I would like that percentage to

be even higher, and especially to increase the percentage of stories scoring 5s. To distinguish between “baseline” and the “high value creation” stories that better represent the designer’s intended outcomes, even if they did not attain 5s, I have included Figure 6, which reports the percentages of stories that scored within these designations as well as within the low value creation category across all dimensions and in the group of stories that did not fit into a consistent category along dimensions.

Value creation scores are intended to assess near transfer and to characterize the engagement of content, person and context that will support learner expansive framing, so the lower value creation scores are a sign the module can be enhanced, especially in the area of promoting context transformation.

**Table 6**

*Categories of Value Creation by Percentage*

Overall value creation level	Description	Percent of stories
Inconsistent	Dimension scores did not all fit one of the categories below	33.3
Low	0-1 on all dimensions	11.7
Baseline	2-3 on all dimensions	10
High Value Creation	4-5 on all dimensions	45

**Expansive Framing Results**

**Expansive Orientation.** Turning to measures related to expansive framing, the average score for stories’ intercontextuality of roles (authorship) was 1.50 out of 3 (sd

.95), which is designated as weak authorship but approaching moderate authorship. As shown in Table 7, the average score for stories' intercontextuality of settings was 1.43 out of 3 (sd 1.05), which is weak setting intercontextuality. The average score for total expansive orientation was 2.93 out of 6 (sd 1.87), which is designated just below "somewhat moderate expansiveness." The expansive orientation measure is meant to give evidence of transfer and a readiness for learner expansive framing, so higher scores are desirable. In the next chapter, I consider how an adjusted design might raise scores to high expansiveness and thereby better support transfer.

**Table 7**

*Average scores for intercontextualities and expansive orientation*

Intercontextuality of roles, out of 3 points	Intercontextuality of settings, out of 3 points	Expansive orientation, out of 6 points
1.5	1.43	2.93

*Note: Intercontextuality of roles + intercontextuality of settings = expansive orientation*

**Appearances of expansive framing aspects.** Coding for appearances of expansive framing aspects raised questions and pointed towards possible solutions for increasing intercontextualities. Authorship, Participants, and Future Time appeared in the most stories, with Authorship appearing in 87% of stories, Participants in 83% and Future Time in 70%. Place appeared in 35% of stories, Past Time in 27% and Topics in only 1.7%. These percentages raised the question of whether it would be more helpful to

design to elicit connections with aspects that are already frequently used or to design to increase the least-used aspects.

Some aspects appeared in the same story two or three times with different referents. For instance, the participant aspect might appear twice when one story mentions “my students” and “our staff.” Each time an aspect appeared with a new referent, I counted its appearance. If the same referent such as “my students” was mentioned more than once in a story, I did not include it more than once in the frequency count. I recorded frequency counts for all aspects, both overall counts and frequency of appearances in each story. However, because frequency counts alone do not get at the quality or extent of intercontextuality of each aspect, I have chosen not to report on overall sums. It is worth noting, however, that the entire data set’s average number of aspect appearances per story was 4.48. In contrast, among the stories that scored 5s and 6s, the average was 6.94, suggesting that, even though I did not assess degrees of expansive orientation based on strict quotas of aspect appearances, stories with the highest expansive orientation scores did make use of more aspects, creating both more and stronger links than those with lower scores.

### ***Quantitative Comparison of Value Creation and Expansive Orientation Results***

To get a better sense of the compatibility (or not) of the Content, Person, Context framework and expansive framing, I wanted to know what the relationship was between high value creation designations on the value creation rubric and scores of somewhat-high or high expansive orientation. Results are presented in Table 8. Whereas the average expansive orientation score for non-high value creation stories (i.e., stories that scored 3 or lower on *any* of the dimensions of content, person, and context) was 1.94, designated

as low expansive orientation, the average expansive orientation score for high value creation stories (i.e., stories that scored 4 or 5 across all three dimensions) was well above that at 4.15, a designation of moderate expansive orientation. The difference was even greater between baseline scores and high value creation scores: baseline stories scored an average of 1—very low—for expansive orientation.

**Table 8**

*Value creation designations and their expansive orientation averages*

Value Creation Designation	Average Expansive Orientation Score
Baseline across all dimensions (2s or 3s)	1
Non-high value creation (3 or lower on <i>one</i> or more dimension)	1.94
High value creation (4 or 5 on <i>all</i> dimensions)	4.15

*Note: Highest Expansive Orientation score possible is 6.*

While not all high value creation stories had high expansive orientation scores, there is reason to believe that a story is more likely to have a high expansive orientation score if it has high value creation along all three dimensions than if it does not. Conversely, because all 5 of the stories that scored as high expansive orientation and 8 of the 11 stories that scored as somewhat high expansive orientation also had high scores on all three CPC dimensions, there is reason to believe that if a story has a somewhat high or high expansive orientation score through an expansive framing lens, then it will also have a high score along the dimensions of content, person, and context. However, the evidence for the latter is not as strong as for the former.

## **CHAPTER 5**

### **DISCUSSION**

In this study I have examined what the Content, Person, Context framework and expansive framing reveal about near-transfer in an online professional development course. In analyzing teacher stories with these frameworks, my aim has been to better understand what mechanisms might be at work in the module that support near transfer of module concepts, not only to better understand the processes taking place, but also to make practically and theoretically informed recommendations about ways the course design might be improved to better support transfer. In this discussion, I will evaluate each framework in relation to transfer, acknowledge some of the limitations of this study, present general recommendations for iterations of the module and discuss implications for the next design steps and future research.

#### **Evaluating the Content, Person, Context Framework**

The Content, Person, Context framework prioritizes meaningful action taken up, even initiated and invented, by learners who are personally invested in using their knowledge to impact their context (Barab et al., 2019). According to this framework, stories that showed passion, enthusiasm for change, and decisive plans for specific ways the educator would use the module concepts showed high value creation, which was evidence of transfer. Authorship according to the CPC framework, was strongest when empowered educators formulated their own plans for change. This meant that planning to use the information from the module to support a continuation of the work already being done by the educator was not acknowledged as being important to transfer or authorship. One risk



of ignoring educators' perceptions of continuity is that their experience as educators goes undervalued and the context from which they view the new concepts goes underspecified. In addition, the role of doubt or uncertainty in educators' stories is generally unacknowledged in this framework; expressing doubt or uncertainty about use of the concepts did not contribute to higher scores along the transformed context dimension. From this framework, whereas envisioning action is seen as agentic transfer, envisioning problems and deferring making plans because of unresolved questions is not acknowledged as its own sort of intellectual agency.

### **Evaluating Expansive Framing**

In contrast, with expansive framing, raising personally relevant questions and problems about the concepts to be learned is a key characteristic of engaging fruitfully with content, and the freedom to question or criticize concepts as presented by experts is intellectual agency, a necessary form of authorship that should be fostered (Engle, 2012a). With expansive framing, degree of authorship was considered stronger not only if the participant expressed plans to use the material in concrete ways in their futures, but also if they raised questions or concerns that showed an engagement with potential challenges of integrating the concepts into their practices. This type of engagement reveals that the educator considers themselves to have some authority over the connections between their practice and the course concepts. It might also be a sign that the educator expects to use the concepts because they would most likely not look ahead to potential difficulties if they planned to walk away from the concepts as soon as they logged off the platform. Making space for this type of questioning (and, often, subsequent resolving) encourages educators to plan for integration and to make the concepts their

own in a way that accounts for their particular contexts, their prior wisdom, and their past experiences. This attention to the continuity of aspects is vital to expansive framing. Continuity created through intercontextualities is what allows the formation of encompassing contexts. For this reason, with expansive framing, stories could score higher for expansive orientation if they drew productively on the educators' past experience.

Past experience can, however, sometimes be a liability in that participants may find it hard to incorporate new ideas into their thinking and practices if they either perceive them as too different or if there are differences between old and new that they *don't* perceive and so end up ignoring or misinterpreting the new information (Engle et al., 2012). Both questioning the concepts and relying too heavily on past experience might contribute to inaction and lack of transfer if the educator does not also try to resolve the problems they identify or cannot break out of “habitual and socially reinforced ways of thinking about schooling” (Priestley et al., 2015) in order to commit to change in the way the CPC framework prioritizes.

I want to return to a question raised by the comparison of number as well as the qualitative analysis. More stories scored high on the expansive value rubric than scored high for expansive orientation. This may be due to the two frameworks' different attitudes towards authorship and its use in supporting PD goals.

If the goal of the PD course is action that impacts students in a particular context (regardless of whether action is envisioned or realized), then successful transfer can be measured from the CPC framework. Much of what counts as transfer for CPC is also

what counts as transfer when assessed using expansive framing. One difference that has emerged, however, is in the way the two frameworks view authorship.

In comparing the views of authorship, the analytical framework employed in this study diverge. The forms of authorship promoted by Engle & Conant (2002) and in Engle's work on expansive framing are varied and can include the learner seeing themselves as an authority on the subject-matter, as being personally responsible for resolving problems and as being a contributor to change. These elements are compatible with 5 scores for Person and Context on the value creation rubric. In particular, the criteria of being personally responsible for resolving problems occurs when a participant demonstrates "personal commitment to advance a particular goal." Authorship in the form of being a contributor to change is seen in "integrating the [module-suggested] practices to transform their particular site." These points establish points of convergence between the frameworks because these expansively framed expressions of authorship, stories that show 5s for value creation also show authorship, but the frameworks also diverge.

The framework of expansive framing can further interrogate authorship in ways that diverge from and extend beyond the CPC framework. These additional forms of authorship relate to the idea of learners as creators of knowledge, of questions, and of solutions. Whereas in the CPC framework, committed learners can innovate through the act of applying information to a specific context, it seems that for expansive framing, transfer that occurs through intercontextuality of roles will occur more readily if the learner 1) interacts with the concepts in an intellectually creative way and 2) is in the habit of doing so.

This different conceptualization of authorship and the extent to which it is necessary for transfer to occur raises questions for identifying whether or not transfer is, indeed, occurring for participants in the human trafficking prevention module and, ultimately, whether the conventional notion of transfer is the appropriate aim for the designers of the course. If a personally engaged educator adopts specific but predetermined goals for their own practice and puts their passion and the concepts to work to create an environment that protects students, is that enough to accomplish the goals of the human trafficking prevention course? From the CPC framework, that would be transfer and would satisfy the course's aim to educate about trafficking prevention. Meanwhile, from the framework of expansive framing, transfer might have occurred through intercontextualities of settings and even, to some extent, through authorship. However, might there be additional benefits to educators and their students if authorship in the form of creating and owning knowledge is intentionally supported?

Perhaps the answer to this question is related to the timescales in which transfer is observed and the broader goals for teacher professional development. The potential for immediate, impactful action brought about in tandem by the concepts of anti-trafficking experts and committed educators may result in protection against trafficking. In such a case, expansive framing that leads to greater authorship may seem unnecessary and even be viewed as a hinderance to progress given that the processes of owning and authoring knowledge take time.

These processes, however, are forms of action and especially--since the authorship supported by expansive framing is social--of social action. When time is taken to share ideas, develop nuanced understandings, and establish authority these processes

can create not only individual transfer for use, but transfer that leads to long-term, community transformation, which is, of course, not only the goal of expansively framing the antitrafficking module, but also the goal of the CPC framework.

In terms of goals for all professional development, any PD experience that supports authorship helps educators develop the habits of authorship. According to the framework of expansive framing, authoring habits encourage transfer, not just in relation to one topic, but in relation to any learning an educator participates in (Engle et al., 2012). If PD designers aim to foster communities where learning is consistently transferred, designs that set the expectation that educators will create and adapt knowledge will support that aim.

### **Transfer and the Two Frameworks Together**

Although the two frameworks have differences, they are largely complementary, and can work together to illuminate transfer in general and to support it in the human trafficking prevention module. One dominant strength of the expansive framing framework is that one can see what types of intercontextualities are generally formed by participants and can subsequently design ways to support the frequency and quality of their formation. Some of these intercontextualities, such as between past, present, and future time serve to amplify educator voices by honoring the wisdom of experience and the uniqueness of each educator's practice. This amplification works well with the CPC framework's emphasis on value creation, allowing educators to more easily adopt agentic roles as engaged professionals who can have the confidence to integrate new concepts into their existing practices. Another strength of expansive framing is that there are a multitude of ways authorship can manifest, which allows for better understanding how

educators are embracing authorship and better studying which types of authorship lead to expansive envisioning and action. Ultimately, including questioning and even resistance that may initially appear unnecessary through the CPC framework may lead to achieving value creation goals of greater personal investment due to greater ownership of the concepts as well as to greater action and impact due to educators having the intellectual space to envision and resolve the challenges of the realities of implementation. Attention to the interplay between the CPC framework's insistence on transformative impact and expansive framing's embracing of continuity and problematizing can create a productive dialectic that focuses the study and design of transfer opportunities and fosters educators' ability to agentially apply concepts in their practices with students as well as their capacity to expansively frame learning with colleagues.

### **Study Limitations**

The limitations of this study can be divided into two categories: logistical and theoretical. Logistical limitations primarily relate to the temporal scope of a thesis study. For this thesis, I generatively adapted coding schemes from Anderson et al. (2019) and created rubrics for assessing intercontextualities of authorship and settings as components of expansive orientation. It would be more desirable, however, to follow the model of DeCuir-Gunby et al. (2011) in taking time to collaboratively develop the expansive orientation rubric with a diverse group of individuals in dialogue with each other and the data. Another limitation due to time constraints was the inability to perform more focused quantitative analyses such as looking for correlations between individual dimension scores and aspects or expansive orientation scores.

One theoretical limitation is that both authorship in expansive framing and transformed context in the CPC framework require a measure of innovation and originality, but it is difficult to judge whether an idea or proposed activity is original or merely a repetition of disembodied ideas or a continuation of dominate norms when the context and its accompanying practices are unknown. For instance, I cannot be entirely confident that a story that mentions guidance lessons is introducing a new strategy rather than mentioning an activity that is already a required regular practice. Similarly, I cannot know the professional titles of the educators writing the stories. Whether a participant is a classroom teacher, a counselor or a principal will affect the actions they propose, and an assumption that one participant has a particular role might result in a skewed judgment about personal investment or transformative action. Researchers having greater knowledge of and interaction with practitioners at their local sites would help solve this problem.

Lastly, one major facet of the situative nature of the CPC framework and expansive framing that is underutilized in this study is a focus on learning as a collaborative, communal process. Collaborative learning communities require the building of trusting relationships over time (Barab et al., 2003), something that the constraints of the current module make difficult and that my study barely addresses in looking solely at participant stories rather than stories and the more communal Connect interactions.

## **Design Recommendations**

### *Design-based Research Context*

This study is one piece of an ongoing design-based research project. Design-based research (DBR) in education is an approach to research that has as its goal both the design of interventions (e.g., products, processes, practices) that are useful in real-life learning environments and the development of theory through the implementation of those interventions in the systems in which they are used (Bakker, 2018). DBR is iterative and cyclical: this study is part of what McKenney and Reeves (2018) refer to as an “evaluation and reflection” phase in a cycle of design. My findings will shed light on some of the ways the module design is working and ways it can be improved. I can then make recommendations for the next design cycle. The widespread use of this professional development program, the brevity of the course, and the ease with which changes can be made to the course design make it a good candidate for DBR because iterations can be implemented and evaluated relatively rapidly and responsively to the partners’ needs and their effects can be studied in a variety of local educational ecosystems.

Evaluating the human trafficking prevention module design using the Content, Person, Context framework and the expansive framing perspective reveals that the module appears to support near transfer both by eliciting integration of content within personally meaningful contexts and by fostering the creation of encompassing contexts. However, there were patterns in the data that pointed to some weaknesses in the current module and that raised questions that will help in making the module stronger. First, I



will enumerate the problems and questions raised through data analysis. Then I will briefly set forth recommendations for addressing those problems.

### *Challenges and Questions from the Data*

The average expansive orientation score was about a 3 out of 6. One challenge, then, is to figure out how to raise those scores. Since expansive orientation is the sum of degree of intercontextuality of roles and intercontextuality of settings, it will be necessary to determine ways to enhance authorship and connections between settings. Average value creation rubric scores were better, but still hovered just above baseline on all three dimensions and were lowest on the transformed context dimension, so a second challenge is to raise CPC scores.

A related question arose from the observation that there were a high number of 4s (28) and a very low number of 5s (3) along the context dimension. One observation I can make is that scoring a 4 requires a recognition of some value specific to the educator's site, but the articulation of the value can be somewhat vague. In contrast, to be scored a 5 a story needed to envision details of specific, even unique, activities that the participant conjectured would impact their practice. This is a difficult standard to meet in a short PD course in which little time is given to plan with concepts that might be new to the participant, especially if the participant is not used to the expectation that they have the authority to innovate course material and their practice. A third challenge, then is to better support participants in developing specific and personal plans for impacting their practices. Finally, a fourth challenge is determining how the CPC framework and expansive framing can work together to utilize the strengths of each approach: a strength of the CPC framework is its emphasis on envisioning future action through coordination

of content, person and context whereas potentially in tension with that spirit of action and change is expansive framing's emphasis on problematizing and continuity.

### ***General Recommendations***

Here are a few general recommendations for addressing the above-mentioned challenges:

- 1) Finding ways to support questioning of the concepts, especially encouraging consideration of potential problems and their potential resolutions would help strengthen authorship (Engle & Conant, 2002). It would also help participants draw on past experiences; if the pattern seen in this study holds, problematization can come from learners contrasting their prior experience with what they feel they are being asked to do to apply module concepts.
- 2) Providing concrete examples of actions different types of educational professionals can take to build protective factors for children will help participants make more connections between the module concepts and the aspects of their practices. In line with research that says that educators learn well from models (Darling-Hammond et al., 2017) and that planning time supports implementation of PD concepts (Penuel et al, 2007), I conjecture that concrete examples will support specific envisioning for action as well as learner expansive framing by giving participants models that might jump-start their own planning processes and give them more time to imagine their potential impact as they write their story.
- 3) Supporting an ongoing dialectic between continuity and change can help both the building of intercontextualities and the coordination of content, person, and

context to create transformative value. When a person reflects on past and current experiences they may affirm or shape their personal identity and the values that lead them to take action. Educators who reflect on their experiences judiciously are likely to “be able to develop more expansive orientations to the future”

(Priestly et al., 2015, p. 4).

Some of these recommendations can be implemented in the context of the 90-minute module. As of the writing of this paper, I am working with a faculty advisor and 3Strands to design and implement a Grow phase that provides concrete examples of actions educators can take, increases authorship, and supports agentic action for greater impact. Other recommendations require longer-term engagement from educators than one 90-minute module. This is why ThriveCast designers are developing site-specific implementation support that will encourage educators to revisit each other’s stories as collaborative authors in an extended conversation and will honor the practical wisdom gained from incorporation of concepts into particular contexts, both of which can create encompassing contexts while promoting positive change.

It is not within the scope of this paper to provide more specific details about these design cycles that iterate on the program I have evaluated through this current study. However, in the next section I briefly describe the possibilities for research afforded by additional iterations.

### **Research Recommendations**

By definition, the aim of educator professional development courses is to support educators in developing their knowledge and skills such that they can enhance their

teaching practice. Whether and how teachers achieve near transfer of concepts in their imagined futures, whether with the module design presented in this paper or with a design that includes a more expansive Grow phase, is an important question in what ought to be an ongoing research agenda that studies whether and how teachers are able to apply what they have learned productively in their practices, which are complex, reflexive worlds of nested phenomena, not fully predictable, even to the most seasoned practitioners. One implication for future research of this particular module is that my partners and I should study how and to what extent teachers are able to enact their envisioned implementations, both those who completed the module as presented in this study, and those who complete the module with a new, more expansive Grow. We would want to look at such measures as whether identification of human trafficking victims increases and if schools increase their use of trauma-informed approaches. A design-based research project will require that we not merely follow the teachers into their contexts to report on what they were able to enact, but that we work with our partners to design and study implementation support aimed at agentic, accountable integration.

In addition to studying how the human trafficking PD concepts are transferred to practice and how participants on many levels of the project can support that implementation, the more general question of how expansive framing and the Content, Person, Context framework can be utilized in online professional development courses should be investigated, perhaps especially for those courses that are constrained such that they are more “drive-by” courses than would be ideal. If my partners choose to adopt the recommendations I have made for the next iteration, we could study how teachers expansively frame the module concepts collaboratively through the stories and the

Connect phase and further develop an understanding of ways to foster agency and transfer through designing for learner expansive framing.

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<sup>1</sup> Asterisk signifies that all authors contributed equally.

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APPENDIX A  
IRB APPROVAL DOCUMENT



APPROVAL: MODIFICATION

[Sasha Barab](#)

[CGF: Future of Innovation in Society, School for the \(SFIS\)](#)

480/727-5674 [Sasha.Barab@asu.edu](mailto:Sasha.Barab@asu.edu)

Dear [Sasha Barab](#):

On 7/14/2021 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	MyLifelabs: Inviting, Enabling, and Releasing the Potential of All to Succeed.
Investigator:	<a href="#">Sasha Barab</a>
IRB ID:	STUDY00005894
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	None

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator