A REFLECTIVE REVISIT OF THE STANDARD MODEL OF INDIGENOUS LEARNING (SMIL): TURNING A THEORETICAL MODEL INTO APPLICATION

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ABSTRACT

Academic support is a necessity for Indigenous and non-Indigenous learners, whether that be curriculum, theory, instructional design models, or resources. Western educational systems, by keeping European-American curriculum and pedagogies while disregarding Indigenous methodologies, have tragically failed Indigenous learners. Published in 2013, the Standard Model of Indigenous Learning (SMIL) was introduced as a theoretical framework to support Indigenous learners, teachers, curriculum developers, instructional designers, and researchers. This paper revisits the SMIL and meticulously examines it by reflective practice, practical experiences, evidence-based research, and applications of the model. Based on pre-contract learning and Indigenous values, the model has five threads: place, storytelling, intergenerational interaction, experience, and interconnectedness. As the only Indigenous instructional design model, the SMIL provides a robust framework for housing content and is applicable to any subject area and grade level in the academic arena across various platforms of delivery. Indigenous ways of knowing, worldviews, and methodologies such as the SMIL are needed in the Western educational systems. If systemic barriers such as academic resistance to culturally responsive teaching and assessments, white comfort, educational variation, and power are not addressed, Indigenous learners will continue to face inherent academic hurdles.

Keywords: *Indigenous instructional design model, culturally responsive teaching, Indigenous ways of knowing, Indigenous learning theory, educational variation*

INTRODUCTION

While conducting a literature search for my dissertation, I could not find an Indigenous learning theory, a general instructional model, or even a definitive definition for the term Indigenous learning. A multitude of Anglo authors applied different meanings to what constituted Indigenous learning and what was encompassed by that learning. That literature offered suggestions for including/designing curriculum that would appeal to Indigenous learners, thereby classifying the curriculum as Indigenous education/learning, thus allowing educational institutions to check the diversity box. Bissonnette (2016) identified that a barrier exists within the presentation of multicultural curricula and instruction, whereby content is often presented in a 'holidays and heroes' approach. She explained that by including just the holidays and heroes approach, curricula is asserting an assimilation rather than actually incorporating culturally responsive teaching methods. Another superficial solution, based on the assumption that all Indigenous people like to work with their hands, is to include a hands-on (experiential) activity and

then classify the curriculum as Indigenous. Cajete (2005) emphasized that Indigenous education is "gleaned from mainstream American education and adapted to American Indian circumstances, usually with the underlying aim of cultural assimilation" (p. 28).

Even Indigenous scholars had varying viewpoints regarding what constitutes Indigenous education and learning. Often, that literature was written for a specific tribe/nation with specific cultural knowledge and, therefore, could not be generalized to include all Indigenous learners. An instructional design model or theory for Indigenous learning that could be applied across Indian Country simply did not exist. Consequently, my dissertation introduced the Standard Model of Indigenous Learning (SMIL) and provided a definitive definition for the term Indigenous Learning (Weiterman Barton, 2013, p. 23). As Moore declared (2019), it was precisely this lack of a model for Indigenous learners that caused Weiterman Barton to develop a robust framework. In her dissertation, Moore (2019, p. 4) succinctly and accurately defined the five threads of the model:

1. Place: The connection of self and place in relation to all that is seen and unseen, the spiritual, mental, and physical awareness and connection to everything (Cajete, 2005; Chief Seattle, 2005; Deloria, 1999; Mankiller, 2004; Supernaw, 2010; Weiterman Barton, 2013), related to self-respect, self-confidence, and self-efficacy (Weiterman Barton, 2013).
2. Storytelling: The transmission of information, knowledge, history, morals, life lessons, and entertainment through oral means (Weiterman Barton, 2013).
3. Intergenerational interaction: Sharing information and knowledge between generations (Weiterman Barton, 2013).
4. Experience: Witnessing, living, or involvement in an event that creates relevance for the learner (Weiterman Barton, 2013).
5. Interconnectedness: The belief that all things are connected—physical, mental, emotional, and spiritual, answering the question of why knowledge is important, how one will use it, and how the knowledge affects one's world (Weiterman Barton, 2013).

PURPOSE

Following the format of reflective practice as outlined by Greenberger (2020) and using the conceptual lens of the Standard Model of Indigenous Learning (SMIL), this reflective paper will revisit the SMIL and determine if the theoretical model has been validated by researchers, scholar practitioners, and/or others. Furthermore, questions surrounding concurrent applications of the model will be thoroughly discussed and evaluated. The intended outcome is to determine the viability of the SMIL in academic environments, culturally responsive classrooms, and the professional development domain.

Reflection is a necessary part of self-practice for instructors, curriculum developers, instructional designers, policy setters, trainers, and anyone who strives to understand processes or experiences that have occurred or even to understand themselves better. As noted, "Dewey, widely known as the founder of reflection, posited that education cannot be understood apart from one's experience and that reflective thinking is one way for individuals to make sense of that experience" (Anderson, 2022, p. 7). Reflection is an essential component of the interconnectedness thread of the SMIL, and as Moore (2019) observed, "The knowledge obtained increases one's ability to live a good life (mino bimaadiziwin)" (p. 79); to walk the Red Road.

Kovach (2021) pointed out that "it is rare that qualitative research conducted in the past decade does not mention the self-reflective component in its methodology, whether referring to it as reflexivity, critical reflexivity, self-reflection, or field notes" (p. 33). The reflective practice described by Greenberger (2020) encourages a rich narrative and has six primary components:

1. development of the problem
2. define working ideas for the problem
3. present a reflective-narrative
4. evaluate the working ideas
5. make a decision
6. provide a reflective critique

The SMIL contains five threads that will be woven throughout this paper. The threads of storytelling and experience will be evident when conveying personal experiences that I and others have

had. Intergenerational interaction, another thread, is equally involved as experiences recalled by the researchers and I frequently involve a different generation. Moreover, those who read this article may be of a different generation. The interconnectedness thread is throughout— connections are made, and connections are necessary. Without connections, we cannot understand the *why* and the *how*. Moreover, throughout this writing experience, my "place" thread has changed as it should with a reflective paper (Dewey, 1997; Greenberger, 2020). Intrinsically, the reader's "place" should change by reading this paper. Kovach (2021) reflected that "Reflexivity is the researcher's own self-reflection in the meaning-making process" (p. 32).

While examining various Anglo learning theories, Vygotsky's socio-cultural learning theory worked best for my dissertation as a theoretical framework. Aceves and Orosco (2014) stated that learning and teaching are both culturally situated, reiterating the premise of Vygotsky's sociocultural learning theory, which postulates that an individual begins to learn from the moment they are born (Vygotsky, 1978, 1987, 2003). Even though Vygotsky recognizes culture as part of learning, he does not specifically address an Indigenous component or Indigenous ways of knowing. I used his educational theory as my theoretical framework because it resonated with me, particularly the zone of proximal distance, the essence of scaffolding. This zone is the foundation of pre-contact learning of Indigenous peoples and is applied during all storytelling, intergenerational interaction, and experiences, determining interconnectedness and understanding of place. Archer Olson (2023b) noted, "Vygotsky's (1978) sociocultural learning theory is a constructivist Anglo-based learning theory representing key components essential to Indigenous learning, including social learning, oral learning, mentorship, and cultural context" (p. 22).

PROBLEM

I developed the Standard Model of Indigenous Learning (SMIL) as a theoretical framework from the synthesis of existing literature, including that of cultural interventions and accommodations. It was then tested through a phenomenological study of Native American college students (Weiterman Barton, 2013). Archer Olson (2023b) noted, "The standard model of Indigenous learning (SMIL), developed by Weiterman Barton (2013) for Native Americans, is the only *instructional design theory* found in research for Indigenous people" (p. 32).

The quintessential question/problem is: Can a theoretical learning model be transferred into the 'real' world? Is the SMIL generalized enough to serve a diverse population of instructors, students, and educational institutions who use different delivery platforms? Users will possess various educational levels, teaching experiences, and teaching styles. Delivery platforms will not be homogenous. Some courses will engage face-to-face, some via blended formats, including video-teleconferencing, while others will be solely online. Many times, face-to-face does not transfer to the online domain with limited verbal and non-verbal communication. Within an Indigenous population that values face-to-face communication as a sign of respect, the online world can be difficult to navigate (Sanchez et al., 1998; Weiterman Barton, 2013).

Frequently, when models, theories, frameworks, and educational philosophies are developed, the knowledge is based purely on research rather than on the practical or "real" world, thus applying specifically to a small population, which may or may not be representative of the larger population. Therefore, could others in academic and non-academic areas understand and use the SMIL? Could Indigenous and non-indigenous use some or all of the threads when developing their individual curriculum, professional development, or training material? Despite using the SMIL in my science classes, would instructors in other academic disciplines understand and use the treads? Would the model be transferable? Could the threads be woven into the Eurocentric educational system without being perceived as antagonizing or challenging? All these questions present inherent barriers.

According to Kovach (2021), both Western and Indigenous methodologies are necessary due to the epistemological difference between Western and Indigenous thought. This distinction is noted by several Indigenous authors (Archer Olson, 2023b; Cajete, 2005; Deloria, 1999, 2004; Kovach, 2021; Mankiller, 2004; Moore, 2019; Sanchez et al., 1998; Weiterman Barton, 2013). Hence, with the introduction of the SMIL—and it subsequently moving from theory to practice—a bridge between the two systemically different methodologies may be possible.

WORKING IDEAS

As a Eurocentric-trained geologist, when confronting a problem, I was taught to let thoughts bubble to the surface of our brain, no matter how inconsequential, odd, or unrelated the idea may be. We may jot notes, make lists, write words randomly, and then mull those thoughts incessantly around in our brains. This is part of the reflective process: to sort and sift what is pertinent to the problem and what may just be peripheral and unimportant right now. Greenberger (2020) similarly stated that the reflection on something unexpected or unknown could occur by an individual. Trusting the process of reflection and making connections will eventually narrow the list of possibilities, each of which will be closely examined and evaluated.

WORKING IDEA 1: APPLICATION OF THEORY

The following thoughts emerged as I initially thought about the problem. Understanding a theory is one level of knowledge, albeit applying that theory is another. Baeza (2019) agreed that people will know the theory but have no understanding of how to use it within the classroom. Therefore, a connection between theory and application must be made. This list of questions contains foundational questions of criteria that must be met, in my assertion, to move a theory into practice. Although the criteria may seem similar, they are not.

1. Is it appropriate (with respect to pluralistic voices)?
2. Is it valid.?
3. Is it reliable?
4. Is it usable (in classes, in the design, is it user-friendly to avoid frustration)?
5. Is it relevant?
6. Is it relatable?
7. Is it transferable (from one group to another)?
8. Is it a robust framework (supporting general and specific curriculum in all subject areas)?
9. Is it able to blend into other models, e.g., ADDIE, the classic instructional design model?
10. Can it stand the test of time?

WORKING IDEA 2: ACADEMIC RESISTANCE (SUBJECT MATTER EXPERTS, CULTURALLY RELEVANT TEACHING, EDUCATIONAL VARIATION, AND TIME)

Academic resistance can include the feeling/idea/thought of post-secondary instructors, believing they are subject matter experts rather than trained teachers and curriculum developers. Furthermore, as subject matter experts, they may object to adding culturally relevant curriculum. They may defend their frequently biased publisher curriculum as if guarding a battlement.

An instructor's fear of being culturally inappropriate, inaccurate, or unauthentic can impede the integration of Indigenous or culturally relevant material. Rhodes (2017) stated unequivocally, "Culturally responsive teaching is distinguished by its emphasis on validating, facilitating, liberating and empowering minority students by cultivating their cultural integrity, individual abilities, and academic success" (p. 46). Hora-Schwobe (2002) agreed that it is vital, in order to work effectively, for all educators who work with cultures different from their own to "build bridges" cross-culturally. Working with relationship bridge building in mind enriches the learning experiences for all those involved, both students and educators.

Frustration contributing to academic resistance ofttimes results from the "educational variation" of students; they all have a different knowledge base, style of learning, diverse socio-economic backgrounds, gender identities, and family structures, among other factors that contribute to educational variation. Many instructors do not want to meet students where they are at. However, opening the aperture of teaching to effectively reach our diverse student population should be taken as an opportunity to learn as instructional domains (scholastic or workplace) will become even more diverse and complex in the future (Lew & Nelson, 2016). For example, the advent of distance learning slowly changed educational and workplace learning environments while COVID demanded dramatic changes.

Students will possess not only different learning styles but varying levels of knowledge based on the type of educational facility, location, and course content. Not only will student and instructor race and ethnicity vary, but so will their worldview/emotional intelligence/age. One source noted, "College enrollment has become increasingly diverse in terms of students' race, ethnicity, gender identity, socioeconomic status, sexual orientation,

age, ability, etc. This trend is only expected to continue" (Montenegro & Jankowski, 2017, p. 4). All these factors contribute to what I call the educational variance of a student.

The perception of lacking time or lacking the knowledge to assess, design, develop, implement, and evaluate new projects is overwhelming and permeates academic resistance. Too often, instructors feel they have been forced to make academic changes without guidance. Conducting assessments, developing curriculum, meeting various state/federal grade-level standards, and implementing changes are all challenges that instructors face (Lew & Nelson, 2016).

WORKING IDEA 3: CURRICULUM, WHITE COMFORT, AND POWER

Curriculum and white comfort is another working idea that may block the transformation of the Standard Model of Indigenous Learning (SMIL) from the ethereal to grounded practice within scholastic and workforce environments. A dichotomy exists between the Western and Indigenous worldviews regarding the purpose of education/learning. Education, loosely defined, is the system by which knowledge is transferred and power can be acquired. Westerners usually want to check a box and hoard knowledge, hence the popular phrase: knowledge is power. Often, those with the knowledge use it for installing, keeping, and promoting barriers to keep power within one group and deny power to another. Remember, at one time, it was illegal to teach African Americans how to read, and women were refused admittance to higher educational institutions.

Typically, "Native Americans do not intentionally search for power as power is defined in the Anglo world. Knowing more than someone else does not bring power or respect. Therefore, there is no reason to withhold knowledge" (Weiterman Barton, 2013, p. 193). Indigenous learners want to understand and pass that knowledge on to others. Learning is meant to be shared for the survival of all. Weiterman Barton (2013) defined Indigenous learning as "the process of Native Americans receiving and internalizing information in order to solidify their place and interconnectedness with all others, seen and unseen; the knowledge can then be shared" (p. 21). The quote "European immigrants looked at nature and saw resources, we looked around and saw relatives" by Deloria and Wildcat (2001, p. 121) in their book *Power and Place: Indian Education in America*, clearly delineates the mindset difference between Anglos and Indigenous which is germane to the thread of interconnectedness and place.

UNEXPECTED EVENT

A completely unexpected event that shocked me was that the SMIL was being used by someone else and appeared more effective than expected. Katie Archer Olson emailed me in late 2020 asking permission to use the SMIL. Her subsequent revelations took the breath out of me; I was speechless, which does not happen often. She told me that the model had been validated by Moore's 2019 case study of the SMIL. Insofar as Moore had contacted me in 2014 asking permission to use my dissertation, we had no further contact; I surmised she had not finished her doctoral work.

Archer Olson sent me Moore's dissertation and notified me she had developed a rubric using the threads. By implementing this rubric in her courses at Alaska Christian College (ACC), Archer Olson noticed a significant improvement in student engagement and an almost 100% passing rate. ACC has the highest enrollment of Native Alaskan student population in Alaska. She continues to use the rubric in her courses and implements the SMIL in all aspects of her teaching because she believes in culturally responsive teaching. Lew and Nelson (2016) explained, "Pluralistic populations have retained their own unique cultures, traditions, and languages…for this reason, multicultural education seeks to develop instructional curricula and practices in school communities that meet the needs of diverse student populations" (p. 7).

INTUITION

My intuition told me that the Standard Model of Indigenous Learning was already being used, unconsciously, by Indigenous educators and tribally-controlled colleges and universities (TCU), and I recommended that as a project for further research (Weiterman Barton, 2013). Subsequently, Moore (2019) published her dissertation, *The Standard Model of Indigenous Learning: A Case Study*. I also felt that the SMIL was being used by *all* Indigenous cultures who maintained a strong oral tradition as a way of keeping and passing knowledge.

I believed that the SMIL could be a bridge between the Eurocentric ways of education and the traditional Indigenous ways of learning/knowing. Kovach (2021) stated, "Indigenous methodologies offer a systematic but different approach to knowledge construction and are prompting Western institutions to expand the notion of what counts as knowledge (p. 28). Using the threads in my science classes at traditionally white institutions helped students achieve a deeper level of learning with storytelling, evaluating experiences, and learning to understand the interconnectedness of all things. Since I felt the model was important and useful, I had not expected the model to be applied in the real world by anyone but me.

REFLECTIVE NARRATIVE

As a professor for almost 40 years, I took my student evaluations seriously and made changes accordingly. I instinctively knew students could see what I might not want to see, and the same with peer evaluations. Both were valuable feedback tools. My goal was to be not only a good instructor but one that students wanted to take. Besides having students learn content, I wanted them to understand and apply what they had learned in the course. I did not want them to feel that I wasted their time and money.

"Subversive teaching" is what I jokingly called my teaching style because, throughout my career, other instructors and department heads did not really understand what I did. My students did not either. In fact, I would tell my students, "You'll think this is easy and that you aren't learning because you'll be interested. But by the end of the class, you'll be surprised with how much you've learned, how proficient you are, and how you'll actually apply what you've learned." They did not need to know that I was scaffolding their work with respect to their abilities and needs.

Throughout my career, I implemented the threads of the Standard Model of Indigenous Learning (SMIL) to promote each student's learning, autonomy, and self-efficacy, albeit in the early years, I had not formally defined what I was doing. In fact, while writing this paper, I discovered that my teaching style is considered culturally responsive teaching (CRT). Aceves and Orosco (2014) stressed the need to "create opportunities for students to make decisions regarding the content and form of instruction and support that students need to self-regulate their learning" (p. 19). My method of teaching is supported by Gay, who, in 2010, defined CRT as "teaching that builds on student's personal and cultural strengths, their intellectual capabilities, and prior accomplishments" (p. 26). CRT follows Vygotsky's learning theory and the zone of proximal distance.

An example that sticks out in my mind is that when I started as a professor in the early 90s, long, boring lectures were de rigueur. Lectures were the predominant modality. Occasionally, an overhead projector was used. Assignments were usually written, and a hands-on activity in the classroom was extremely rare, even in the geology field. I decided to get my students actively learning (I do not think that phrase was even used in the early 90s). My students had to pick a Geologic Period from the geologic time scale that interested them. They then had to write a two-page paper about the environment, the biological organisms, the landforms, and the animals of that time period. In addition, I required them to make a diorama representing the time they chose. I told them, "Make your kids help you as payback for all the last-minute science projects you had to help them with. I don't care what you use—lipstick, make-up, pencils, markers, crayons, whatever you have on hand. Just have fun with it, be creative." My department head thought this was weird and told me not to do it again; he thought it was too whimsical and not serious science. Meanwhile, the students absolutely loved the project. They shared wonderful stories of their experiences making the dioramas and laughed about making their kids or nieces/nephews help. That project was the beginning of the Standard Model of Indigenous Learning: intergenerational work, experience, connectedness, and storytelling. I always think of that experience with fondness whenever I am uncertain about implementing a new assignment or project, and that usually gives me the courage to go ahead and try.

The student papers were in-depth and exceeded my requirements because they had a choice. I found that as each student pursues their area of interest, they dive deeper and wider into a topic than I would require. Aceves and Orosco (2014) wrote that when researchers were studying the Native American educational systems and communities, they noticed that the children were "allowed

a high level of autonomy and decision making in their homes and communities," and therefore, the students were more motivated and comfortable participating in activities "they generate, organize or direct themselves" (p. 18–19).

By allowing students to choose their own topics to research, I learned about new topics in the science field and stayed up to date with the latest research. It was a win-win situation for me and the students. As Bissonnette stated, "I invite my students to participate in a sort of dialogism–one in which we vacillate the roles of teacher and learner, itself a mark of culturally responsive teaching" (p. 19).

I felt, and still do that learning opportunities exist for me everywhere that will help me improve my style of instruction, whether that is from a casual conversation or a professional development workshop. I will never stop learning until I take my last breath. This idea, coincidentally, is the fifth conclusion and implication in my dissertation, which says, "The participant's belief that life is learning…their place is affected by learning, and they will never stop learning because the world and life keeps changing" (Weiterman Barton, 2013, p. 192). This is what prompted me to declare that for Indigenous people, "Learning is life, and life is learning" (p. 193). It is our philosophy which also includes the five threads of the SMIL.

MOVING FROM A SUBJECT MATTER EXPERT TO A CULTURALLY RELEVANT TEACHER

Sharing some of the lessons I have learned is part of my responsibility as an Indigenous person and an elder. So, here is some of my story.

After receiving my master's degree in geology with a specialty in micropaleontology, I started teaching at a local community college. I was a subject matter expert and therefore eligible to teach at colleges and universities, but not elementary or secondary schools because I was not taught how to teach and had never had an education class. Postsecondary faculty often do not have pedagogical training "but are specialized content experts" (Archer Olson, 2023b, p. 18).

When I started teaching labs as an undergraduate student in the early 1980s, I followed the methods of the way I was taught. It was familiar and comfortable to me. Subject matter experts "perpetuate outdated instructional practices from their personal experiences in schooling without the scope of needing to change" (Archer Olson, 2023a, n.p.). However, I observed and learned from my college professors, subsequently changing my lecture style to include student participation. Thus began my journey of self-reflection and self-evaluation processes that I continue today.

Hired as an adjunct instructor for a local community college in 1993, my repertoire was limited. I taught how I liked being taught and avoided methods I did not like. Luckily, as a geology instructor, I was able to demonstrate practical applications and bring in outside resources. Generally, at the university level, we are given a book and told to teach. Content, delivery method, and sequencing were at the instructor's discretion unless the class was a standardized lab.

In the early 2000s, standards of learning and specific course objectives were introduced as frameworks for college classes, forcing me to adjust syllabi and assignments to reflect the new standards. Faced with no guidance and a lot of frustration, I finally looked at this as a challenge to make those assignments interesting for the student. I wanted their engagement, not groans due to another dreaded rote assignment on a boring topic. I told students, "Choose your own topics because I don't want to read 25 papers on the same topic. It will bore me, and then I will unconsciously/unintentionally start judging one student against another, and that won't be fair as each of you has a different knowledge base and way of understanding—an educational variation. Plus, I'll get to learn something new. So have fun and learn about something you want."

Current research-based evidence suggests it is important to incorporate into the learning environment culture and cultural identities of the students (Rhodes, 2017). My students were encouraged to write about experiences and geologic features in their homelands. One wrote about the volcano in Cameroon, while another wrote about the geology of the silk trade route through Tajikistan. Gay (2010) suggested "using the cultural characteristics, experiences and perspectives of ethnically diverse students as conduits for teaching them more effectively" (p. 106).

I was a subject matter expert, and after years of revising course content to be accessible and equitable, I started working on my Ph.D. in education. I began understanding various educational

philosophies, theories, and instructional design models. Understanding the relationships between objectives, outcomes, and assessments helped me design curricula that were better received and easier to assess equitably. I was drawn to the humanistic view, educational equity, and the sociocultural learning theory of Vygotsky. Finally, I understood the theory behind the teaching and had words to describe what was instinctive to me. I just thought I had been applying the scientific method: observe, experiment, evaluate, revise, and repeat.

When I teach, I try to remember *why* I teach. My foundational purpose is that I want my students to learn at a deeper level, not just memorize facts. I want my students to enjoy, understand, and appreciate the subject. They may not love it, but there is something they can connect with somehow, so I give them flexibility by opening up or tailoring an assignment to their interests. For example, they can do a report on anything to do with geology, not just the rock cycle. One student wrote about the rocks used in the ink for tattoos, while another wrote about the gemstones they loved to wear.

For true learning to occur, I believe a respectful relationship must be established. As Hora-Schwobe (2002) emphasized in her thesis, *Building Bridges: Menominee Conversations and Emerging Patterns*, "Relationships are essential if a non-native person is to be successful in providing educational programs" (p. 22). She further clarified that teachers do not always need to be experts, but they do need to be role models in the teacher-student relationship. Furthermore, sometimes the instructor needs to take a step back and rethink education, curriculum, and how it will be delivered. There has to be a *why* for the students. *Why* is this important to me? What can I do with it, and how does it help? These questions are the basis of the place and interconnectedness thread. If the connection is not there, learning does not happen.

As I reflect on my use of the SMIL in classes, I am convinced that using the model helped deepen student learning beyond memorization. Moreover, I used assessments based on the upper levels of Bloom's taxonomy. Many students told me that they were surprised at the end of class by how much they learned and how much they understood their relationship to the topic. This happened in any of the classes I taught, such as geology, oceanography, and evolution. To this day, I still get emails from students saying, "Hey, Doc, I thought of you today when I saw/read/heard…." One of my greatest honors was being told, by a student, I was on the ESL list. Not because I was easy but because I respected my students, had clear, relevant assignments, and worked with them where they were at. By incorporating the model, my teaching was culturally responsive.

The SMIL shifts the emphasis from rote memorization, which does have its place for ceremonial storytelling and certain tasks, into a real understanding of a subject and its relationship to self and others. The model encourages and respects all. I adamantly believe that understanding and implementing the SMIL shifts an instructor's perspective of teaching and provides a robust framework to hold curriculum for Indigenous learners.

EVALUATION OF IDEAS

The evaluation process is an essential component of the reflective process (Dewey, 1997). After working ideas are developed, it is necessary to examine each one thoroughly to determine the viability of each working idea. Using literature, theories, and experiences in a narrative form can help ascertain the suitability of each working idea as a solution to the initial problem.

CURRICULUM, WHITE COMFORT, AND CULTURALLY RESPONSIVE TEACHING

Curriculum is built around "white comfort" of the dominant culture as a result of colonialism, the Manifest Destiny Act, and the Doctrine of Discovery of 1452. Aceves and Orosco (2014) explained that cultural and linguistic aspects of diverse learners are voided as curricula are developed in favor of white middle and high socioeconomic backgrounds. Many in the educational field do not want to change curriculum to be more inclusive to other ethnic groups, instead "preferring a strategy of 'adding-on': that is, keeping European-American curriculum and pedagogies intact but supplementing them with materials speaking to the marginalized person's contribution in order to help all students see they belong to American society" (Bissonnette, 2016, p. 17). This is, basically, a forcing of assimilation rather than culturally responsive teaching (CRT). Tragically, many educational institutions are reluctant to acknowledge CRT. This critically relevant research can "provide insights for faculty of how to weave Western cur-

ricula with a culturally responsive instructional design, amplifying pluralistic voices to challenge narrow perspectives of Western academia" (Archer Olson, 2023b, p. 19).

A plethora of research on CRT, defined by Gay (2010) as "teaching that builds on students personal and cultural strengths, their intellectual capabilities, and prior accomplishments" (p. 26), is readily available. This approach to building directly reflects Vygotsky scaffolding. In addition, Aceves and Orosco (2014) present a table of culturally responsive teaching practices. Columns on the table are labeled: relevant themes of CRT, emerging evidence-based CRT practices, and recommended CRT approaches and considerations. Many of the aforementioned instructional strategies are included in the table, all of which could use the Standard Model of Indigenous Learning (SMIL) as a foundational instructional design framework when developing curriculum.

Would the SMIL be useful in a traditionally white institution? This is a question I am still debating with myself. Kovach (2021) believes, "Many young people not of Indigenous identity are attracted to Indigenous approaches because, I believe, they are part of a generation setting ways to understand the world without harming it" (p. 14). I think that several of the threads would be easily accepted and have already been added to current methodologies. For example, mentoring/coaching/one-to-one teaching are the generational thread, whereas incorporating personal stories of both student and instructor is the storytelling thread. In fact, teaching itself, no matter which side you are on, is an experience and thus relates to the experience thread. I find this resonates with the threads of interconnectedness and perhaps place, seeking a connection to all and understanding your place in that connection.

The reluctance of policymakers in academia, typically older white males, to support the curriculum or methodologies that appeal to multicultural students does not need to impede the implementation of culturally responsive teaching. Nor does the fear of being uncomfortable with a diverse student population. Arif et al. (2022) acknowledged that individuals might "be paralyzed by discomfort, afraid to cause friction, or lack awareness and knowledge about social justice actions. Either way, we are responsible for the inequity if we do nothing to change it" (p. 377). However, each and every one of us Indigenous people have the responsibility to support and encourage our allies and advocates. Kovach (2021) stressed, "Allies have a role in pushing back against all-consuming Eurocentrism" (p. 12).

According to Wolfe et al. (2018), many instructors worry about making mistakes with incorporating Indigenous curriculum and are only comfortable with their own area of expertise. In other words, their own discipline-specific content, particularly in mathematics and physical sciences. Knowing what to incorporate or teach in a lesson can be confusing or overwhelming, thereby causing instructors to become frustrated or anxious and find it too hard to do, so they refuse to try.

Professional development workshops are a resource not only for instructors but administrative staff and stakeholders. Those who are instructional designers or curriculum developers assist with designing and implementing curriculum changes, especially if instructors are feeling out of place with the proposed changes, do not know where to begin, or lack confidence in their knowledge base. Professional developers can help answer why the changes should be incorporated, they can help develop a plan, and they can help develop capacity in the academic staff with respect to the changes (Wolfe et al., 2018).

With appropriate professional development workshops, mentoring and/or coaching those involved with Indigenizing curriculum or programs can increase their knowledge, confidence, and efficacy. Meyer and Aikenhead (2021) found that during professional development workshops involving the Indigenizing of Western mathematics curriculum, "The teacher's confidence increased dramatically with their second experience of planning, teaching, reflecting, and being mentored collaboratively" (p. 114).

Speaking from experience, very subtle incremental changes work best. You do not want to cause undue stress for students or faculty. It is important to understand that change does not have to happen all at once. Large structural changes can be daunting, so implement small changes that can lead to larger foundational organizational changes. These changes do not happen overnight. Aceves and Orosco (2014) emphasized that "Even if starting at the micro level, culturally responsive educators contribute to structural changes" (p. 12).

As Arif et al. (2022) proclaimed, "It is everyone's responsibility to start somewhere" (p. 378).

ACADEMIC RESISTANCE TO CHANGE

Educators and academic staff often feel unqualified, uncomfortable, awkward, unsure, and unable to deliver curricula related to Indigenous content (Wolfe et al., 2018). I think that most academic staff also feel this way when asked to incorporate *any* new methodology into their primary teaching style. I know that when I had to implement major changes because of policy, I immediately felt anger and then frustration. Fortunately, after pouting, I looked at the situation as a puzzle that needed a creative solution. I almost met my Waterloo when working simultaneously for a college and a university. They concurrently decided that the writing skills of incoming freshmen were severely lacking. As a result, institution-wide edicts were issued that *all* classes, no matter the subject area, had to incorporate writing assignments. This is often easy to do in the humanities but more difficult in the math discipline. How to make it interesting, right? I decided to let students choose their topic/story. I let them take the initiative to learn what they liked and wanted to learn within the realm of the course.

EDUCATIONAL VARIATION: MEET THE STUDENTS WHERE THEY ARE AT

An added complication facing instructors at post-secondary institutions is the students' educational variation. Students have different educational experiences which contribute to their level of learning, including but not limited to different schools, racial and ethnic backgrounds, ages, lifestyles, gender identities, and experiences. All these factors relate to the educational foundation that a student possesses. The collection of that knowledge is what I call educational variation. In elementary and secondary schools where standards of learning and other standardized curricula are implemented, the learning may be more homogenous. However, with several educational paths to high school graduation, the knowledge foundation of each student still varies according to the classes they have or have not taken. We cannot put everyone in the same educational/academic knowledge box; there is variation. Just as in storytelling, each person hears what they need to hear, and it may not be the same for the person sitting right next to them hearing the exact same story.

This range of knowledge is a component of educational variation, and with each and every student possessing educational variation, I need to meet my students where they are. Many learners have mastered cultural skills and the Indigenous way of knowing. Subsequently, when teaching builds on these capabilities the students possess, academic success will occur (Gay, 2013). Using the Standard Model of Indigenous Learning, I can meet my students where they are. Understanding the zone of proximal distance and providing scaffolding helps develop student self-efficacy. Allow students autonomy and trust them to choose topics to self-direct their learning. Bissonnette (2016) shares, "To realize my pedagogical goals, I turn to a constructivist approach to instructional delivery….I intentionally frame readings, discussions, and activities to rupture the transmission model of knowledge. In my classroom, we are all teachers; we are all students…a mark of culturally responsive teaching" (p. 19).

Allowing students to start where they are at and then building on that foundation of their knowledge can help prevent them from becoming overwhelmed, then so frustrated that they stop trying because once they zone out of your class, you will never be able to recapture their interest. One thing I had to finally understand in my heart and brain was that in order to establish authentic learning relationships with my students, I had to meet them where they were at and bring them to the level I wanted or to the goals I had set for learning; the objectives to which I tied my assessments. Surprisingly, most exceeded my expectations for a passing grade. Having open and honest two-way communication is essential. According to Hora-Schwobe, "First, before any formal educational program can be delivered a trust relationship needs to be established…second, respect for cultural differences is an essential part" (p. iii).

TIME

Time constraints are an area of concern but can be managed. One thing I found helpful was to understand that changes do not have to happen all at once. My way was to include incremental changes in the curriculum—this was less stressful for the students and the instructor. Rather than revamping your whole curriculum, substitute a new assignment while removing an old one. Mod-

ify what is already in your curriculum; do not reinvent the wheel. Remember, "Time is a gift from the Creator—an opportunity to discover your life's purpose and experience creation" (Hora-Schwobe, 2002, p. 24).

With this in mind, understand that you are learning with your students, so ask them for input on how a change or modification could be made. Evaluate how the students react to the change, assess the quality of the submissions, and assess the students' engagement. Moreover, ask yourself, "Did I learn something new from the information/assignment? Did the students teach me something"? If the project does not go as envisioned, reflect on what could be changed. Evaluate the steps and ask questions of the students. Student feedback is crucial to help you redesign the project for your next class. Unfortunately, many of the barriers/concerns that instructors face are actually self-imposed.

APPLICATION

Katie Archer Olson, Stephanie Graham, and I have all applied the Standard Model of Indigenous Learning (SMIL) in our work (personal communication). Each of us has been challenged by one or more of the working ideas. However, we overcame any reluctance, fear, or uncertainty to create learning opportunities for our students, thus providing culturally responsive teaching methods and assessments using the SMIL.

My Applications of the Standard Model of Indigenous Learning (SMIL)

I have applied the Standard Model of Indigenous Learning (SMIL) to all post-secondary geophysical sciences courses I have taught, which are as follows: Physical Geology, Historical Geology, Oceanography I and II, Earth Science, Physics in Science Fiction, Global Warming: Fact or Fiction?, Global Energy Use, and Your Inner Fish: An Examination of Evolution, Integrated Physical Science and Integrated Biological Science. I have taught classes face-to-face, with WebCT, Blackboard, D2L, VTT, and blended VTT.

Often students do not have a book the first week of the semester, so I give a writing assignment to get a feel for the student's ability to read and write; how they think and process information. These assignments also help me with plagiarism later as I can recognize the linguistic pattern of the student. Some of my assignments include:

1. The prompt, "How do you affect the Earth? Think about and explain how you personally affect the Earth. One-page, free-form writing. Your thoughts, your opinions, your ideas." It is a story they are telling me with experiences and interconnectedness. A math instructor could ask, "How do you use math in your life?" A chemistry instructor could ask, "How do you use chemistry in your life?"
2. "Think about a river you have seen and write about it: the physical features, the water, the location, who you were with, and your feelings about that river. At the end, relate the terms of the physical features to the official terms used in your textbook. If you have never been to a river, pick one from a movie or TV show you've seen or from an article online or in a magazine."
3. A paper for the energy class would be: "List five things that your ancestors would have used in the early 1900s, five things your ancestors would have used in the 1940s, five things your ancestors would have used in the 1980s, and things you use in the 2020s. How has the energy changed? Why did it change?"
4. A scaffolding exercise for the energy class is: "Track your energy use, everything that you used that took energy. Later on, describe the type of energy used. The final exam is a one-two page paper on how you would build or what changes you would make to your house energy-wise if you had unlimited funds. If you live with your parents, discuss with them what changes they would make."
5. "At the end of class, the final exam is to write a one to two-page paper on a topic that you feel very strongly about in the physical science world. What is the problem, and how would you solve it? You have unlimited funds and are the king or queen."
6. Selfie with a cloud. "Record temperature, relative humidity, and dew point for one week. Take a selfie each day with the sky/cloud. Then, write a one to two-page paper

about the data, include the pictures, and discuss the weather trend you observed."

7. "Pick a natural disaster that interests you. Write a one-page paper answering: What is it? Where did it occur? Why do you like it? How does it affect people, the Earth? How do people protect themselves? How has that changed over time?"

The threads of SMIL include place, interconnectedness, intergenerational, experience, and storytelling. All the assignments incorporate threads of the SMIL, although not *all* the threads are in *all* the assignments. I would give room for the students to incorporate the threads organically, as they do not know about the threads. Thus, the students are given flexibility and choice and are challenged to think deeper by making connections that are important to them and their worldview.

Katie Archer Olson Application of Standard Model of Indigenous Learning (SMIL)

Katie Archer Olson uses the Standard Model of Indigenous Learning (SMIL) in rubric form for her classes at a small Alaska Native college located in Soldotna, Alaska (see Figure 1). Archer Olson, after reading the dissertations of Weiterman Barton (2013) and Moore (2019), developed the following rubric. This powerful yet easy-to-understand rubric employs the SMIL as a framework to house content incorporating the threads for each course she teaches. Seeing a significant improvement in student engagement and an almost 100% passing rate, she continues to use the rubric. Archer Olson follows the advice that "Culturally responsive teachers should be able to design meaningful assessments and rubrics…important that they be able to use assessment data to support individual student learning" (Lew & Nelson, 2016, p. 8). The classes Archer Olson teaches are not in the scientific field, proving that the transferability of the SMIL is viable.

Educational barriers detrimental to Indigenous student learning have been imposed by the dominant culture, and higher education is not immune. Many Indigenous cultures in the United States and elsewhere have educational policies heavily influenced by colonization and privilege (Archer Olson, 2023b; Baeza, 2019; Deloria, 1999, 2004; Kovach, 2021; Moore, 2019; Weiterman Barton, 2013).

Regardless, Archer Olson has thrown down the gauntlet and is working to dismantle the oppressive systemic barrier found in higher education by using the five threads of the SMIL. As she explained, "Yielding to the sacred stories of Indigenous people brings new insights into connecting place (nature, spirituality, and intellect), experiences, intergenerational learning, and interconnection of all things, which disrupts bias traditionally experienced in the academy and Western academia" (Archer Olson, 2023b, p. 81). She mentioned that the SMIL has strengthened and reinforced her pedagogical approach. The SMIL is one of the theoretical frameworks used in her dissertation (Archer Olson, 2023b).

Stephanie Graham Application of Standard Model of Indigenous Learning (SMIL)

An interesting use of the Standard Model of Indigenous Learning (SMIL) involves the HEXAGON PROJECT #2 for Indigenous Peoples' Day, 2022. Stephanie Graham (2022), a teacher at Southern Berkshire Regional School District and Berkshire County Arts Professional Learning Network, facilitated the Hexagon #2 Project, which was a county-wide arts integration project with the SMIL built into the framework. More than 12 schools throughout Berkshire County, Massachusetts, participated. Over 600 pieces of art were submitted, and on Indigenous Peoples' Day, 2022, the artwork was displayed as a mural of hexagons in Great Barrington, Massachusetts (Graham, 2022).

Graham (2022) stated, "This arts integration project is divided between parts that are intended for students to explore culture and history through the five threads of the SMIL, while relating it to themselves. By using a non Euro-centric approach to education to teach about Indigenous Culture, it is my hope that students will better understand history from multiple perspectives" (para. 6).

By using the SMIL with non-Indigenous students, Graham is trying to facilitate the process of what in the First Nations is known as *etuaptmumk*, which is defined as "Two-Eyed Seeing" (Hatcher et al., 2009), the process of learning the strengths of both the Indigenous and Western worldview "so that the person can idiosyncratically view the work through two different lens; drawing bits and pieces from either knowledge system, or choosing one over the other, in order to solve a problem or make

Figure 1, A SMIL rubric developed by K. Archer Olsen. Reprinted with permission.

Week: Topic	Experience	Storytelling	Interconnectedness	Place (Spiritual, Emotional and Physical)	Intergenerational
1: Intro to Course	Penn State University Online Readiness Survey Student Study Skills Survey	Student Success Stories Marilyn Moore	With peers who have been in this course before sharing wisdom	Emotionally	Peer to Peer
2: Accountability Partner and Intro Videos	Evelien Verschroe... Share about Relational learning/sharing gifts to empower and mentor those around you.	Create a Short video (2 minutes or less) from your phone or other electronic device stating where you are from (maybe use a map or be extremely descriptive), your native language and culture, why you decided to attend college, and how you plan to contribute to the world as you gain more knowledge.	Sharing and learning from each other as a community	Emotionally and maybe even spiritually	Peer to Peer, Peer to Professor/Mentor
3 What ways do we Communicate?	Yaarlyan (Need mud and knife and volunteer)	Yuuyaraq: Lit Circle Jobs and time to read	Connect to traditional cultural communication methods	Connect with all levels of place	Student to classroom community
4 What ways we communicate?	Saguyak (need a drum and volunteer)	Yuuyaraq: Lit Circle Report of Jobs from Reading	Connect to traditional cultural communication methods	Connect with all levels of place	Student to classroom community
5: What things influence and interfere with our communication	Drawing Activity to support the Transactional Model of Communication (blank paper, crayons, colored pencils)	Yupik Ways of Knowing by Kawagley	Connect to traditional cultural communication methods bridging Western communication models	Connect with all levels of place	Student to classroom community
6: What things influence and interfere with our	Indigenous Ways VS Western Ways of Communicating Activity (have student	Indigenous Knowledge Systems and Alaska Native	Connect to traditional cultural communication	Connect with all levels of place	Student to classroom community and culture

sense out of an issue" (Meyer & Aikenhead, 2021, p. 103).

Laura Moore Application of Standard Model of Indigenous Learning (SMIL)

In 2019, Laura Moore used the Standard Model of Indigenous Learning (SMIL) as a case study for her dissertation. Her pivotal work substantiated and validated that the threads of the model are being used at tribally-controlled colleges and universities (TCU). Moore wrote, "The SMIL will be generally defined as an instructional design model that was created to meet the unique needs of Native American and other indigenous peoples learning needs" (p. 5). Her mission was to review class syllabi, observe classroom interactions, and interview professors in order to determine whether the five threads were being used at the TCU in her study. She said, "Overall the analysis of the data supported the SMIL as an important learning model

for Indigenous learners and found that faculty members within the tribal college utilize the components of the model" (Moore, 2019, p. 85). Her study demonstrated "the extent of the SMIL's current use within a tribal college whose mission is to provide post-secondary and continuing education to Native American communities while promoting and progressing the language, history and culture of the Ojibwa" (p. 8). Moore's research supports the overarching suitability of the SMIL to be used at other TCUs. In fact, she mentioned, "Native American philosophy is determined and expressed through understanding one's place in the world, maintaining connections with and experiencing all that is around a person. This expression of Native American philosophy is consistent with the threads of the SMIL further supporting the appropriateness of this model for Native American learners" (p. 87).

Professional Development Workshops

I use the Standard Model of Indigenous Learning (SMIL) in all my work, whether conducting in-house training at the Stockbridge-Munsee Community or workshops outside the community. For example, I used the SMIL as the framework when developing curriculum for a series of professional development seminars and one-to-one meetings with predominantly Anglo professors, administrators, and academic support staff who work at an Alaskan college with the highest enrollment of Alaskan Natives representing 23 villages. The three workshops were (1) What is Indigenous Instruction & Why is Indigenous Instructional Design Important?, (2) The Power of Leadership: Incorporating Indigenous Curriculum/Instruction, and (3) Academically Supporting Indigenous Students.

DECISION

The Standard Model of Indigenous Learning (SMIL) has transitioned from the realm of theory into the domain of the real world by fitting the criteria previously listed for moving a theory to practice. The model is applicable, usable, easy to understand, relatable, transferable from one academic subject to another, valid, timely, appropriate, and relevant. The generality of the model allows it to be used across generational levels and tribal affiliations. The SMIL has been used across disciplines and delivery platforms, including face-to-face, blended, VTT, WebEx, and Zoom. It is robust and sustainable.

This model does not take away from anyone; it just provides a framework for content, regardless of that content. The SMIL is an Indigenous-based framework, not a Eurocentric educational-based framework, and although based on pre-contact, it is still valid today for Indigenous and possibly non-Indigenous learners because the threads of the SMIL are related to the values of culturally responsive teaching. The question of whether a non-Indigenous person can truly understand "place" is open to debate and further research. If the SMIL is used in a non-Indigenous setting with non-Indigenous participants, they may not be able to fully comprehend the threads of place and interconnectedness in a true way of knowing. However, the other threads of storytelling, experience, and intergenerational interaction can easily be understood and incorporated into curricula.

Academic resistance can be overcome with honest self-reflection and appropriate support. Acknowledging and addressing existing barriers is the first step to becoming a culturally responsive person. From that point, reflective practices and professional development can support and elevate teaching practices. Implementing this model can be done incrementally, thereby potentially reducing stress and anxiety when changes in curriculum are suggested, particularly in an area where an instructor may not feel confident, be inexperienced, or lack foundational knowledge.

As stated in my dissertation, I believe the SMIL is probably being used at tribally-controlled colleges and universities (TCU) and by Indigenous teachers every day in some way. Moore's (2019) study at one TCU bears witness to that statement. She determined, "The study findings supported the components of the SMIL as inherent in Native American learning and utilized by faculty members at a tribal college without knowledge of their composite as a learning model (p. 85).

SUMMARY

1. The theoretical model is good and can be transferred into practice at different educational levels by practitioners at educational institutions, whether they are instructors, evaluators, instructional designers, curriculum developers, or

administrative policymakers. This model can also be utilized in Indigenous and non-Indigenous learning environments.

2. The model can be used as a foundation for culturally responsive teaching and assessments. Instructor evaluations can be tied to implementing the Standard Model of Indigenous Learning (SMIL) while "Indigenizing" the curriculum. One suggestion is to use one or more threads in one or more assignments per semester as part of a professional development plan.
3. The SMIL is a good framework for instructional design to support curriculum, as Archer Olson and I have demonstrated. Moore (2019) declared, "For researchers, this study provides additional validation for its use as an instructional design model for practitioners" (p. 87).
4. The SMIL was designed specifically for the Indigenous world. Moore (2019) asserted, "Weiterman Barton (2013) stated, and a review of the literature confirms, that no other instructional design model exists which is uniquely situated to Native American learners" (p. 1). Four years later, Archer Olson (2023b) verified, "Weiterman Barton of the Stockbridge-Munsee Band of the Mohican Nation developed the standard model of Indigenous learning (SMIL), the only Indigenous instructional design model in literature for Native American learners" (p. 17).

REFLECTIVE CRITIQUE

Using the reflective practice outlined by Greenberger (2020) while working on this paper was both comforting and yet extremely uncomfortable. The discomfort came from having to write in the first person in an academic paper. Being trained in the sciences, the first-person view is usually never allowed. Moreover, after publishing in 2013, I had not planned to write anything but short informative articles for the local geology club. Needless to say, having to actively research, once again, was a slow, painful, and frustrating process in the beginning. However, similar to riding a bike or ice skating, the process came back.

The reflective part was not difficult or uncomfortable because reflection is part of my academic and personal life (geologists usually keep field notes, even when not in the field); I adamantly believe reflection is important for personal growth. Over my academic career, reflection and objectiveness were important to keep curriculum relevant, understandable, and relatable to students. I now carry this over in my role as a trainer and continuous improvement coordinator for the Stockbridge-Munsee Community. Evaluations are done, and a self-reflection paper is created after every workshop. Reflection has become a habit, a good habit.

This reflective practice has transformed my knowledge base; I now understand and can describe the process of moving an untested theoretical model into the world of application. I am thankful for the opportunity to have learned that while writing this paper. By following the list of criteria, unconsciously, the model moved seamlessly into practical applications whereby researchers, scholar practitioners, educators, and others can easily understand and implement individual threads of the model. My thought when proposing the model was that if it were simple, easy to understand, and relatable, it would be used. Otherwise, what is the use of creating something that only a handful of people can understand or explain? Information/knowledge needs to be shared and power distributed in a good way.

The generality of the model makes it universal for Indigenous peoples. Learning that others in academia have used the model is comforting. My heart sings knowing that the model resonates with them and that they are, in turn, encouraging their colleagues and students to use the Standard Model of Indigenous Learning (SMIL) as a framework to support curriculum for Indigenous and non-Indigenous people. In geology, we call that the "each one teach one" philosophy.

Although I automatically used the threads of the SMIL in this paper, I was simultaneously *very* uncomfortable with writing *about* the SMIL. My belief is that this is part of being Indigenous. We are brought up to be humble and not brag about ourselves or our accomplishments, so quoting myself was difficult. I guess I fully did not understand the impact the model has made, and I am excited to find out what new innovative applications will be generated.

FUTURE RESEARCH

While I do not see the Eurocentric educational models miraculously changing or vanishing overnight, I believe the threads in the Standard Model of Indigenous Learning (SMIL) can be incorporated into current educational and workplace systems (Weiterman Barton, 2013). With further research and understanding, this model can be widely disseminated to help Indigenous learners and those who provide support. Suggested research areas include:

1. Use the model in tribal schools with different grade levels to help determine if the model can be generalized to other Indigenous populations.
2. Apply the SMIL inside the ADDIE, a framework in the workforce, training, and development area.
3. Conduct a study with male Indigenous participants since all the participants in my study were Indigenous females.
4. Conduct a study with Indigenous people of other countries and ethnic groups to determine whether the model can be generalized to other populations.
5. Conduct research to determine the suitability of the SMIL in non-academic areas.
6. Develop an Indigenous educational philosophy using my research as a foundation to build upon.
7. Apply the SMIL with culturally responsive teaching and assessments; the SMIL could be used as a culturally responsive instructional design model.

FINAL WORDS

I love the reflective practice, and I think of the words of Kovach (2021), "Indigenous methodologies-start where you are; it will take you where you need to go" (p. 12). For me, this is so true. I feel the ancestors guiding me along the path, whispering words into my ear, watching the words flow onto the paper, and encouraging bravery when doubt seeps in. I hear the whispers of the ancients who say, "You have this child; you must speak for us, you are the one to make the connections, and we will help you, always. Listen, Listen."

"This thing, we need to do…for all our relations" (Weiterman Barton, 2013, p. 197).

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