Teacher Professional Development in a Pandemic and Post-Pandemc Era:

Does Practice Reflect Adult Learning Theory?

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Abstract

This research studied the ideas, theories, and practices of instructional leaders, as presented through analysis of Knowles adult learning theory. Specifically, the study explored the ways instructional leaders do and do not consider adult learning realities in their planning and implementation of virtual professional development. A qualitative case study research design based on interviews, observations, and document analysis was used to examine the decisions and implementation of professional development created by instructional leaders in relation to the principles that drive adult learning. Data illustrated that adult learning concepts were present in the planned professional development sessions of each participant, though sometimes loose connections were made. Additionally, the data analysis demonstrated a reality that instructional leaders' beliefs can drive what content is shared with teachers, and is based on personal preference and the instructional leader's perceived understanding of teachers' needs.

Key words: leadership, Knowles' Adult Learning Theory, professional development.

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Introduction

As the focus on teacher improvement intensifies in a post-Covid world where some students have yet to return to pre-Covid proficiency levels, states, school districts, and individual schools are being tasked with determining what, where, and how they want to invest in improvement strategies that will, hopefully, transfer to student achievement (Weiss & McGuinn, 2016). To meet teacher professional development policy requirements, many districts and schools are turning to educational consultants, instructional coaches, and teacher leaders to present professional development sessions to their staff. Identifying instructional leaders to manage learning and improve pedagogy is founded in the hope that placing a priority on providing teachers with instructional sessions on high-impact strategies and best practice topics will translate to classroom instruction and student achievement. Given the field's emphasis on career-long professional growth—not only preservice and induction—this study foregrounds how adult learning theory can inform the design and enactment of continuing professional development for in-service teachers.

This research studied the ideas, theories, and practices of instructional leaders, as presented through analysis of adult learning theory. Specifically, the study explored the ways instructional leaders do and do not consider adult learning realities in their practice. The planning and implementation of professional development utilizing adult learning theory assumptions were explored from the perspective of those who plan and implement practitioner learning opportunities. While there is research that investigates what constitutes effective professional development practice, there is little research that examines the perspectives of those who plan and implement continuing education sessions. Insight into this area is needed so that professional development can be more targeted and purposeful to truly alter teacher practice that translates to impactful instruction for student learning. It was guided by the research question:

> In what ways do the ideas, theories, and practices of instructional leaders align with Knowles Theory of Adult Learning?

This paper will explore professional development creation and implementation through the lens of Knowles' Adult Learning Theory. Against the backdrop of a rapidly evolving professional landscape, the imperative for educators and trainers to adapt their methods to meet the unique needs of adult learners is more pronounced than ever. The implications of this theoretical framework on adult education learning

experiences and instructional leader practice are highlighted as a method for making professional learning more engaging and effective. The introductory section establishes the tenets of Knowles' theory and its significance in shaping effective learning experiences for adults. The core of the paper focuses on dissecting the preparation, creation, and implementation of professional development opportunities via the lens of a case study. Through an in-depth analysis of instructional leader practice, insights into the presence of the theoretical underpinnings of adult education as a method of effective learning are presented. In addition, practical recommendations for optimizing professional development initiatives are asserted. This synthesis of theory and practice is essential in fostering a more nuanced understanding of adult learning processes and, consequently, in enhancing the efficacy of professional development programs tailored to the unique characteristics and motivations of adult learners.

Adult Learning Theory

Instructional leaders supporting teacher change are critical for growth and achievement of both students and teachers but change cannot occur without high-quality, well-designed professional development (Sharma & Bindal, 2013). Teachers bring to a professional development their previous experience, specific mindsets regarding the impact of what will be learned and different needs and wants (Patton et al., 2015). As a result, professional development must be learner-centered and recognize teachers' needs for knowledge-sharing that integrates theory and experience (Darling-Hammond & McLaughlin, 1995). A clear understanding of human learning is essential for professional development to have purposeful, significant impact on teacher practice (Jenkins, 2009). When considering instructional leaders' planning and implementation of professional development in relation to the varieties, realities, and intended outcomes of staff development, learning theory must be applied—specifically Knowles' Adult Learning Theory—and its six basic assumptions that act as a necessary element to meet teachers' learning and professional development needs.

Knowles' Adult Learning Theory

The exploration of adults as learners is an ongoing mosaic of context, place, and process of the learning itself (Merriam, 2001). Spanning from the 1920s with Thorndike's focus on learning ability to the insights from the *Journal of Adult Education* in the 1940s,

adult education has been difficult to define (Knowles, 1978; Merriam, 2001). In fact, much of the initial research on adult learning examined whether adults could learn at all, and many times knowledge about adult learning was reliant on the research focused on children or based on adults operating in child-dependent conditions (Merriam, 2001). Yet as adult learners began to be distinguished from their child counterparts, the theory of andragogy emerged, and was defined by Malcolm Knowles in 1968 as "the art and science of helping adults learn" (Knowles, 1978; TEAL, 2011). This new theory contrasted with pedagogy, the art and science of helping children learn (Knowles, 1980), and from these assumptions and beliefs emerged a framework of understanding that acts as a foundation of best practices for educating teachers and providing continuing professional development that best fits the needs of adult participants (Ross-Gordon, 2003). With Darling-Hammond et al. (2017) defining impactful professional development as "structured professional learning that results in changes in teacher practices and improvements in student learning outcomes" (p. v), it is essential to understand and recognize andragogy and the tenants of adult education as vehicles for impact on learning. As such, for professional development to be effective and purposeful for teachers as adult learners, specific elements of andragogy and adult learning must be present (Williams, 2005).

In 1968, Knowles's definition of an adult learner included someone who:

> Has an independent self-concept and who can direct his or her own learning, has accumulated a reservoir of life experiences that is a rich resource for learning, has learning needs closely related to changing social roles, is problem centered and interested in the immediate application of knowledge, and is motivated to learn by internal rather than external factors. (p. 202-203)

Using this definition, Knowles defined a set of six assumptions that are in direct contrast with the assumptions of pedagogy, further illustrating the differences between adult and child learners and the need for those who educate adults to recognize that the adult learner simply learns differently (Knowles, 1990). Knowles's six assumptions of adult learners include: self-direction, enhanced experience, readiness to learn, problem centered, internal motivation, and need to know (Blondy, 2007; Knowles, 1990; Merriam, 2001; TEAL, 2011). These pillars of learning can be applied to professional development and result in teacher change in that for continuing education of teachers to be effective, the teaching must reflect the learning realities

of the learners themselves (Graham, 2017; Knowles, 1989; Masuda et al., 2013). Listed below are each of Knowles's assumptions as they apply to education practitioners and considerations of professional development.

Self-Direction

According to Knowles (1975), self-directed learning is a process in which individuals take the initiative to plan, accomplish, and evaluate their own learning experiences (TEAL, 2011). Self-directed adult learners need to be actively involved in the decisions that affect them and experience a collaborative environment that encourages learner input (Blondy, 2007). Many times, teachers and their professional experiences with instructional leaders and learning opportunities are framed via a deficit model (Smith, 2017). As such, this model of professional development encourages an ongoing cycle of reliance on external expertise among teachers that results in learning opportunities that do not adequately address teacher needs, demands, and classroom realities (Smith, 2017). As initiatives change and standardized compliance becomes more prevalent, teachers are many times forced into roles that do not necessarily match their needs and desires as professionals and continual learners. Instead, the assumption of teachers as self-directed facilitators of knowledge is many times only permitted via daily lesson planning and implementation of curricula and content (Gregson & Sturko, 2007). Yet, teachers enter professional development contexts and practitioner learning environments as self-directed adult learners who want to be seen. When that reality is ignored, it may result in passive disconnection that will never translate to active practitioner change (Smith, 2017, p. 129).

Enhanced Experience

Teachers are agents for change with regard to student achievement, but recognition of their life experiences can impact their disposition towards learning opportunities and change in their own practice (Altan & Lane, 2018). The role of a learner's experience with regard to adult learning context is important because as individuals grow, their experiences become a resource for further learning (Woodard, 2007). Often, teachers' experiences are not valued in interactions with instructional leaders and within professional development contexts causing feelings of rejection and minimization of practitioner competency (Terehoff, 2002). As such, effective professional development should offer practitioners moments to explore ideas and

consistently collaborate within the context in which they work and exercise their professional skills (Gregson & Sturko, 2007). In order for adult learners to make sense of the unknown, links to the known are important and newly gained knowledge is more impactful when it is assimilated and interwoven with what is already mastered, experienced, or part of current practice (Terehoff, 2002, p. 68). Teachers learn from both their successes and failures and use that experience to shape their future instructional moves and decisions (Pinsky, Monson, & Irby, 1998). Adult learners want to actively recall experiences from their classrooms and have opportunities to form connections between new learning and familiar experiences (Simmons & Borden, 2015). In order for professional development to effectively serve educational practitioners, space must be given to acknowledge foundational experiences as professionals and adults (Simmons & Borden, 2015).

Readiness to Learn

Readiness is the idea that "learners see education as a process for developing increased competence to achieve their full potential in life" (Woodard, 2007, p. 45). The adult scholar wants learning objectives based on their personal needs, interests, and skills (TEAL, 2011) and they are most ready to learn when necessity, changing roles, or social context and situations create a need to learn something new (Blondy, 2007). Knowles (1980) noted that learners' needs and attributes based in society or institutions must be recognized and integrated for adult learner readiness (Blondy, 2007, p. 123). This statement parallels instructional leaders' reality of balancing district, school, and community goals and realities with educational initiatives and best practices for educators. Adult learning must be oriented to changing contexts that require new knowledge (Graham, 2017); targeted focus and alignment of professional development with teacher needs, interests, or desires helps to support purposeful learning opportunities that will translate to teacher motivation and change in practice. When learning is grounded in practical, applicable topics in which teachers can see themselves, their readiness and appreciation of the education climate will increase (Beavers, 2009). Timing is also an important factor in readiness and the adult learner, as a beginning teacher's learning needs will vary greatly from a veteran teacher's concerns for practice (Gregson & Sturko, 2007). According to Merriam and Bierema (2014), readiness to learn intersects with "teachable moments" that arise from changes in social roles that create an immediate need or a desire to prepare for future engagements (p. 52). As careers progress and formal

learning is extended for future positions, teachers' social roles change, resulting in varying learning needs; practitioner continuing education must address these demands properly to support growth in practice (Masuda et al., 2013; Merriam & Bierema, 2014).

Problem-Centered

Adult learners want educational experiences that are grounded in problem-solving and opportunities to immediately apply the knowledge that has been gained (Merriam & Bierema, 2014). Motivation in an adult scholar emerges when learning perceptions illustrate an immediate application to life or work realities (Gregson & Sturko, 2007; Knowles et al., 2005). As such, teachers want practitioner-friendly, substantial professional learning opportunities that relate to their practice and allow for instant implementation in their classroom (Gregson & Sturko, 2007).

Teachers want to be offered learning experiences that present pragmatic knowledge that supports problem-solving and more effective practice (O'Neill, 2020); as such, recognizing a use for shared knowledge and learning opportunities encourages teachers to utilize and implement what was taught in a timelier manner (Petrie & McGee, 2012).

Internal Motivation

Internal motivation guides adult learning (Gregson & Sturko, 2007). Increased job satisfaction and self-esteem, as well as improved quality of life and personal fulfillment, motivate adult learners to seek out educational opportunities that fulfill their internal needs and support their self-actualization (Merriam & Bierema, 2014). Professional development is "a period of ongoing intellectual and cognitive growth for teachers" (Terehoff, 2002, p. 70) and must recognize that the structure, process, and motivation of learners will vary based on their needs and interests. Creating a conducive environment in which teachers excel to high levels of learning can only be achieved when internal rewards are present (Woodard, 2007). While external factors like job promotion, salary increases, or professional incentives do have an effect on willingness and desire to learn, intrinsic factors are more important to adult pupils and have greater impact on learner motivation (Gregson & Sturko, 2007). In order for the teaching practitioner to be fully engaged, the learning experience must be grounded in the learners' ambition to engage in learning opportunities and recognize individual needs (Simmons & Borden, 2015).

Need to Know

Adult learners must understand the necessity of their learning prior to experiencing the learning itself (Knowles et al., 2005); presenting the value behind the learning will aid adult motivation and receptiveness regarding opportunities to experience new knowledge (Ota et al., 2006). While collaboration to identify learner needs is important (Blondy, 2007), it is also essential that learning objectives and their corresponding explanations regarding reasoning be acknowledged (Woodard, 2007). To avoid deficit teaching and also encourage agency over learning, teachers must see the need and implications of the knowledge they are expected to master (McGrath, 2009). When perception of value is present, teacher-learners demonstrate more positive attitudes and willingness to participate in learning opportunities (Masuda et al., 2013). Adult learners invest in learning that is perceived to be necessary (Masuda et al., 2013). Teacher practice will only be affected by learning that is perceived to be purposeful and practical (Ota et al., 2006). If professional development encourages teachers to see "why it is important to learn something before they begin a learning activity," teacher motivation and attainment of desired objective can be positively impacted (Merriam & Bierema, 2014, p. 55).

Methods

Adult learning and adult learning theory recognize that creating quality learning experiences for adults requires recognition of the differences between andragogical and pedagogical practices (Merriam & Bierema, 2014). While alignment with Knowles's assumptions is widely associated with more impactful adult learning, we treat these assumptions as design principles that can enhance—not categorically determine—PD effectiveness. In some contexts (e.g., compliance, safety, or when misconceptions are consequential), more directive approaches may be warranted. In order for professional development to truly impact teachers, the assumptions of Malcolm Knowles's Adult Learning Theory must be present in the learning opportunities that are being created by instructional leaders to promote practitioner growth. For this study, the decisions and implementation of professional development as determined by instructional leaders were explored in relation to the principles that drive adult learning and impact learner comprehension and instructional change. For this study, a qualitative case study research design based on interviews, observations, and document analysis was used to examine the decisions and implementation of professional development created

by instructional leaders in relation to the principles that drive adult learning. All participants received an information sheet describing the study purpose, procedures (interviews, observation, document collection), risks, and benefits, and provided informed consent prior to participation. Institutional Review Board (IRB) approval was obtained in August 2020; the study was closed in June 2023 upon completion of all research activities. To minimize observer effects, the researcher refrained from intervening during PD sessions and triangulated across interviews, observations, and documents.

Research Participants

The participants in the study were instructional leaders and educational consultants who worked across school districts with multiple elementary, middle, and high school sites in suburban and urban districts. In this manuscript, "instructional leaders" refers to external providers (independent consultants and district-level coaches) responsible for designing and delivering PD to school staff; it does not refer to site-based administrators (e.g., principals/assistant principals). We distinguish these roles because external status can shape authority, relationships, and enactment dynamics during PD. There were three instructional leaders who participated in the study. Consideration for inclusion was based on experience level and current role as an instructional leader and educational consultant. For the purpose of this study, an instructional leader participant was responsible for "building [the] capacity of teachers to help students learn" (DiPaola & Hoy, 2014). Any reference to participant or company names are pseudonyms.

The first participant, Miss M, works full time as an instructional coach in a large district. Her experience in education includes 23 years in positions including an academic facilitator and a university instructional coach for beginning teachers. Participant two, Ms. I, taught 19 years in the classroom and currently works full time as the owner of an instructional coaching and professional development business that provides K-12 schools and teachers with support on classroom management, student engagement, feedback, and personalized professional development. She has teaching experience in elementary, middle, and high school as an English-Language Arts teacher, Multi-Tier Systems of Support (MTSS) coach, lead teacher, media coordinator, and AIG Coordinator. She has also worked as a band director and instructional coach. Finally, Mr. O has over 18 years of experience in the education profession serving in a variety of roles

including English-Language Arts teacher, instructional specialist for secondary schools, and as a university instructional coach. He is employed full-time as an independent instructional coach for large districts.

Research Setting

Due to the nature of the participants' roles as instructional leaders and independent educational consultants, the research setting was dependent on the participants themselves and the locations in which they were contracted to conduct continuing education sessions with teachers. In addition, with the circumstances surrounding COVID-19, remote learning, and school closings, all the participants completed their professional development virtually. Because participants were external to schools, the virtual modality also shaped enactment, which was considered when interpreting alignment.

Despite this, the instructional leaders were committed to plan and present professional development remotely at three different suburban schools surrounding a city in the Southeastern United States. The selection of the schools was based on convenience in that the instructional leaders planned and conducted observable professional development for these locations at the start of the school year. All the participating school locations served middle school students in grades six through eight. The schools represented a variety of educational settings ranging from one school that opened in 2011 and recently applied as an International Baccalaureate candidate to another setting that was established in 1914 and is a traditional community school. All selected schools had similar demographics and data in that there were teaching and learning gaps based on income and race/ethnicity. The schools were included in the study due to their implementation of additional instructional support in an effort to impact student achievement, teacher effectiveness, and academic performance. This instructional support included identifying instructional leaders who were tasked with planning and implementing professional development for the teaching staff.

Data Collection and Analysis

For this study, data collection utilized triangulation and consisted of multiple sources including interviews, observation, and document analysis with the intent of increasing the validity of the findings. The three participants were interviewed twice, and each interview lasted approximately 45-60 minutes. All interviews were semi-structured but

followed an interview protocol and were conducted via a scheduled, virtual video meeting with the researcher. The initial interview with participants aimed to identify how instructional leaders plan and implement professional development within their current roles as educational consultants and allowed the researcher to better understand the participants' perceptions and experiences. Inquiry questions were focused on participants' ideas and theories about the planning and implementation of professional development for teachers and allowed open-ended responses. Probing questions were planned and implemented to explore participants' answers that needed additional clarity or depth of response. Table 1 illustrates the inquiry and probing questions regarding the ideas, theories, and practices of instructional leaders.

Observations were conducted to watch the participants implement planned professional development sessions with teachers and capture them presenting the work they planned. Field notes focused on the presence/absence and form of each of Knowles's six assumptions during enactment (e.g., evidence of choice/self-direction, explicit problem framing, activation of prior experience), along with instances of directive instruction. The observations were conducted as a method of insight into practitioner professional development implementation; specifically, the sessions were observed to see if the instructional leaders were aligning the activities and language they presented with the assumptions and theories of adult learning. All participants were asked to share with the researcher any materials from the professional development, including any created professional development

Table 1

Inquiry and Probing Questions

Inquiry Question	*Probing Question*
How would you define professional development participants?	Probe: Tell me/say more about…
How do teacher's experiences impact professional development planning and facilitation? What motivates teachers to learn during professional development sessions?	Probe: Do teachers serve a role in the planning and implementation of professional development?
What impacts your planning and implementation of professional development positively? Negatively?	Probe: Do you utilize participant expertise and experiences in planning and facilitating professional development?

materials and presentation and related documents regarding the planning and implementation of the professional development session, notes, and reflections. As such, participants shared slide decks, note-catchers, shared images or external texts, and learning materials that were created, shared, or utilized during the implementation of the professional development. Following data collection, an across case analysis was utilized to answer the research question. This qualitative data analysis included a thematic analysis and progressive coding of all interviews after transcription with the intent to develop analytic generalization (Saldana, 2016; Yin, 2009). A deductive approach with two cycles of coding was utilized to identify codes and present patterns (Saldana, 2016).

Findings

The study findings were grounded in the beliefs that drive the work of instructional leaders and illustrated alignment with current theories of adult learning. Data from each participant on integration of the six assumptions of Knowles adult learning and the presence of those assumptions in the planning and implementation of professional development, illustrated that adult learning concepts were present in the planned professional development sessions of each participant, though sometimes loose connections were made. Additionally, the data analysis demonstrated a reality that instructional leaders' beliefs can drive what content is shared with teachers and is based on personal preference and the instructional leader's perceived understanding of teachers' needs.

Self-Direction

According to Knowles (1975), self-directed learning is a process in which individuals take the initiative to plan, accomplish, and evaluate their own learning experiences (TEAL, 2011). While none of the cases planned or illustrated professional development that encouraged teachers to take initiative to seek out their own professional development, almost all the cases included some elements of self-direction for adult learners. From evaluations and feedback opportunities that were used for future planning to hyperdocs that contained additional resources for teacher exploration, the theme of self-direction for adult learners was loosely present in all the instructional leaders' practice. In her reflections on teacher participants who were alternatively trained, Miss M explained, "What I found is that they are self-directed learners, that, whenever there's a need, they will go and seek information for

themselves for the most part. A lot of them are changing careers and shifting careers, and they're used to being independent and doing things on their own." Additionally, she explained the need for practitioners to recognize this adult learning reality, stating, "I found that the adult learners, especially those who are transitioning from one career to the next, are very independent in their thinking and they will seek and find information for themselves."

While all participants incorporated some sort of recognition of self-direction, there were also non-examples that contrasted with this adult learning need. All participants verbalized and demonstrated some form of directive instruction or planning that recognized them as the expert and their experience as a compass for perceived teacher needs. Ms. I explained,

> I see that they have needs that they may not see. An example would be last year, I had a social studies teacher who did not see the need to not freely express her biases when teaching. She felt it was very important that her students knew where she stood on issues about, you know, current culture. And so she had a very definite solid need, that as an experienced educator I knew that she did not need to be sharing that information with students. And in fact, I thought it was detrimental to the students.

Mr. O also demonstrated this when reflecting on how he selected content for and implemented his professional development session. He stated:

> It was definitely information that they needed, that they needed to be aware of, especially considering that they had been delivering instruction to students for I think, at the time, a little bit of a month and hadn't actually met some of the modifications that were mentioned in the professional development. So it was definitely something that they needed to hear.

Overall, the use of self-directed learning was minimal in that the instructional leaders aimed to support teacher growth and development through their own experience and expert vision. While consideration about participant agency over learning was frequently expressed, it was not necessarily implemented fully, as participants were not encouraged to explore content during the learning sessions but rather practice and apply what was shared. Enactment often featured fixed agendas, presenter-controlled pacing, and limited choice points (e.g., no parallel breakout task options or elective mini-modules), signaling drift from planned self-direction to delivery-oriented formats.

Enhanced Experience

Recognition of adult learners' life experiences can impact their disposition towards learning opportunities and change in their own practice (Altan & Lane, 2018). In order for adult learners to make sense of the unknown, links to the known are important and newly gained knowledge is more impactful when it is assimilated and interwoven with what is already mastered, experienced, or part of current practice (Terehoff, 2002, p. 68). While the assumption of enhanced experience was not explicitly present, it did emerge in instructional leaders' reliance on teacher reflection and in the use of shared experiences. Mr. O addressed this when he said,

> There were people who probably knew or have known some of this information inthe past. And so I tried to structure it in a way that was not beneath them; that itwas a way to maybe reenergize the information and bring it back to something different, show some different possibilities to basically show how it may be different from the physical classroom setting to the virtual classroom setting that they were in. I try to make it, you know, more on their level as possible.

Additionally, Miss M confirmed this in her assertion that "I want everybody to feel like they're a part of the professional development that nobody has the opportunity to hide and everybody has an equal voice." That said, all instructional leaders did not plan or implement a specific time during the professional development for participants to "actively recall experiences from their classrooms and [be offered] opportunities to form analogies between new learning and familiar life experiences" (Simmons & Borden, 2015). In fact, many times during the professional development observations, participants were not asked to share their work or vocalize their experiences that connected to content. While the instructional leaders' beliefs and planning recognized their desire to have a transactional learning occur during professional development, the implementation of the learning sessions were many times "expert driven" and did not necessarily recognize participant voice. Much of the documents and language utilized in professional development sessions was directive and this limited the amount of space given for back-and-forth conversations that recognized participant experience and voice. Concretely, prompts tended to solicit short share-outs rather than structured protocols (e.g., paired consultancy, case clinics) that would surface and leverage teachers' classroom cases as learning material.

Readiness to Learn

When learning is grounded in practical, applicable topics in which teachers can "see" themselves, their readiness and appreciation of the education climate will increase (Beavers, 2009). All participants addressed readiness to learn in their desire to obtain knowledge about participant needs and realities. Mr. O explained this concept, stating, We have teachers in the audience, or any other, you know, educator in the audience who has been traditionally trained in an educator prep program, [and] they generally are needing a little bit higher level instruction, so they are the ones who you really have to make sure that what you're presenting is engaging for them…The issue arises [when] another larger group of the participants right now in state are lateral entry or residency teachers. These are people with very little experience in education, and so just about all of the information presented is brand new to them. They often need for you to go a little bit slower; they need more of the modeling, and they need a little bit more of a hands-on to be able to actually see and to feel what it looks like and what it may feel and look like in their classroom...So when you mix these two groups together, you get an audience that is very diverse.

Furthermore, according to Merriam and Bierema (2014), readiness to learn intersects with "teachable moments" that arise from changes in social roles that create an immediate need or a desire to prepare for future engagements (p. 52). This was another theme that emerged from the case studies. Miss M confirmed this in her observation of the adult learners she instructs. She said, "I'm always doing something to activate their prior knowledge. I need to know what they don't know and what can be some of their barriers to being successful so I can embed those things very organically into professional development, knowing that may not have been in the plan." This idea of flexibility to deviate from plans if the instructional leader deems it necessary or worthwhile demonstrates the idea of the instructional leader as the driving force behind what's essential and important to be recognized. That said, it was clear that Miss M recognized the adult learning assumption of Need to Know in that she is attempting to focus her guidance on participant gaps in learning. She also attempted to recognize participant realities and address the "barriers to being successful" that can inhibit follow up and implementation of the learning by the participants.

Timing was also an important factor in adult learner readiness, as a beginning teacher's learning needs will vary greatly from a veteran teacher's concerns for practice (Gregson & Sturko, 2007). All participants

mentioned time as an impacting factor to their successful planning and implementation of professional development. From the timing and scheduling of the session to the content selected during specific parts of the school year, timing was cited as a factor that can negatively impact professional development outcomes by all participants. The concept of Readiness to Learn was recognized frequently by the participants as demonstrated in their desire to know their audience, make relevant connections to daily practice, and recognize the experiences that the learners were bringing to the PD sessions. Despite this, the instructional leaders also made the assumption that their judgment calls about content, questioning, and shared experiences accurately recognized participants' readiness and appropriately addressed knowledge gaps.

Problem-Centered

Adult learners want educational experiences that are grounded in problem-solving and opportunities to immediately apply the knowledge that has been gained (Merriam & Bierema, 2014). As such, teachers want practitioner-friendly, substantial professional learning opportunities that relate to their practice and allow for instant implementation in their classroom (Gregson & Sturko, 2007). Problem-centered practice was cited by all participants and was represented by the activities and questioning these instructional leaders selected. Mr. O expressed a need to problem solve and "generally play in any type of activity that is a means to kind of once again, kind of bridge that gap between the professional development and what happens in their classrooms." Additionally, Miss M highlighted during her implementation that she "talked a lot about what are the barriers. And we talk through those barriers collectively, but they always have an opportunity for teachers to talk." She went on to explain that she "want[s] to present an opportunity to teachers who don't get professional development, [an] opportunity to become problem solvers and critical thinkers to reflect on their own practices."

While problem-centered practice was referenced and attempted during the planning and implementation process by instructional leaders, they all relied heavily on a model of expert-apprentice presentation of content, which inhibited the problem-centered practice in that the experts knew the solutions to the problem all along. While modeling, scenarios, and collaborative activities and content exploration helped to alleviate some direct instruction and recognized the need for immediate application of newly gained knowledge, this was an area that instructional leaders struggled with balancing recognition of

adult learner participants and ownership of their own leadership roles. Observed activities frequently stopped at demonstration plus brief guided practice; opportunities for teachers to work through authentic artifacts (e.g., their own lesson plans, student work) and to leave with a tested, ready-to-run product were rare, weakening the "immediate application" affordance.

Internal Motivation

Creating a conducive environment in which teachers excel to high levels of learning can only be achieved when internal rewards are present (Woodard, 2007). In order for the teaching practitioner to be fully engaged, the learning experience must be grounded in the learners' ambition to engage in learning opportunities and recognize individual needs (Simmons & Borden, 2015). Internal motivation was an adult learning assumption that was not as evident across cases. While feedback opportunities are offered for teachers to highlight their needs, Ms. I demonstrated the attempts instructional leaders make to incite internal motivation, stating, "I try to discern through the conversations, what the missing pieces are for them, what is not evidence to them? What is not coming easily? And how can I provide them with tools, strategies and resources to meet those needs?" However, a lack of internal motivation may leave many adult learners feeling the learning is forced rather than pursued as an opportunity for improvement. Ms. I explained this reality, "What I hope motivates them is their students. That is my hope. Unfortunately, I think often what motivates a lot of teachers is the required certificate for the PD. I mean, I'm just being honest."

Mr. O also cited a lack of district internal motivation to support teaching learning as a reality in which instructional leaders operate. Mr. O stated: I have in the past been asked to give three professional developments revolving around literacy. And I was simply told, we just need three professional elements on this topic. We don't care what you do. And when it's worded like that you feel like, what you're being asked to plan is not something really that the district wants…[and] that the district isn't really concerned, how it comes off, or how it comes across the teachers.

All the instructional leaders expressed an understanding and recognition that internal motivation and agency over learning was essential to impacting future use of PD content and gained knowledge. All the instructional leaders studied expressed intentionality in their planning and implementation around this concept and desired flexibility to adapt their implementation to try and achieve this for participants.

Need to Know

Adult learners must understand the necessity of their learning prior to experiencing the learning itself (Knowles et al., 2005). Additionally, adult learners invest in learning that is perceived to be necessary (Masuda et al., 2013). This concept was demonstrated in the theme of Participant Knowledge. All participants cited a desire to know teacher preferences for content and learning and highlighted wanting to address the needs of the teachers with whom they work. The instructional leaders all cited using information collected during observations that allowed them to see practitioners' needs.

While Mr. O acknowledged that "professional development that is offered to teachers sometimes does not always meet the needs of where they are right then and there in the school setting in their classroom," he recognized that "for the motivation, basically, it's tied into whether or not the topic was something that they were actually interested in [and] that they thought would benefit them that day and moving forward."

That recognition by instructional leaders is essential for meeting adult learner needs; however, the instructional coaches also were unsure that attendees were aware of their instructional needs. Ms. I explained, "I find, especially with the beginning teachers, they don't always know what their needs are," and Miss M reflected that "some teachers get a very false perspective of how they're performing in the classroom. And so because of that, they feel like they don't need to learn anything else." Regardless, almost all of the instructional leaders aimed to plan and implement professional development that encourages teachers to see "why it is important to learn something before they begin a learning activity" (Merriam & Bierema, 2014, p. 55). However, leaders also noted that some participants mis-estimated their needs (e.g., novices unaware of gaps), suggesting a design tension: honoring adult agency while responsibly addressing critical unknowns.

The instructional leaders all had a desire to know their audience and actively pursued data to support their knowledge of participants. This not only accurately reflects adult learners' need to know reality but also illustrates instructional leaders' attempts to recognize their learners and the real knowledge, skills, and experiences they carry with them into the learning session. In addition, it demonstrates the practice that instructional leaders engage in during planning and implementing PD sessions in that they must balance what they as the expert feel is needed, desired, and helpful to both participants and the stakeholders that hire them with what the participants themselves feel is necessary for their learning, growth, and current gaps in practice.

Discussion

A major theme that emerged from the study was the concept of adult learner autonomy and personalized learning. This theme could be beneficial to school leaders, districts, educational consultants, and those practitioners that support teacher growth and learning through professional development opportunities. Knowledge of participants, especially around the concepts of topic and time of professional development situated within the school year were repeatedly emphasized by instructional leaders. The demand to know, recognize, and highlight participant needs was seen by instructional leaders as essential to increase engagement and plan and implement professional development sessions that were relevant and timely for practitioners. Despite instructional leaders reciting a mantra of personalized learning, they did not provide truly personalized learning sessions. The analysis suggests three interacting reasons for the planning-to-enactment gap: (a) role expectations—as external experts, leaders felt accountable to deliver answers efficiently, (b) time constraints—short sessions prioritized coverage over co-construction, and (c) learner heterogeneity—mixed experience levels pushed leaders toward directive scaffolds. Teachers' engagement increased when tasks were clearly useful and success felt attainable; where tasks felt generic or rushed, value and expectancy fell. These dynamics help explain why some assumptions (Readiness, Need to Know) appeared robust while others (Self-Direction, Internal Motivation) were under-realized during enactment. The study demonstrated a mismatch between instructional leader beliefs and initiatives and their ability to create and adhere to personalized learning that was authentically based in practitioner need and not the perceived needs the leaders felt were important to address.

Based on this juxtaposition of a desire to meet learners' needs but a lack of specific, objective knowledge about participants, interested stakeholders should encourage data collection from professional development attendees prior to session planning and implementation. Implications for practice are immediate. Co-design agendas by collecting brief pre-PD inputs (goals and classroom artifacts) and building one or two elective micro-modules that honor teacher autonomy without sacrificing coherence. Make problems the curriculum by centering teachers' own artifacts (lesson plans, assessments) and using simple protocols so every participant leaves with a ready-to-run product. Balance agency and responsibility by incorporating short "directed moments" when safety, compliance, or high-stakes misconceptions are at issue, then pivot back to adult-learning-aligned tasks. Finally,

engineer relatedness through structured peer consults or case clinics that normalize help-seeking, increase belonging, and support persistence after the session. Continuing education sessions should not only be designed and guided by instructional leaders and the school and district leadership who schedule the learning sessions. Instead, PD topics and content should be driven by the participants themselves.

In order for the teaching practitioner to be fully engaged, the learning experience must be grounded in the learners' ambition to engage in learning opportunities and recognize individual needs (Simmons & Borden, 2015). In addition, this pre-work around the learning topic, tasks, and targets allows for foundational understanding of participant readiness and distance from mastery. Adult learning theory and Knowles's assumptions of adult learners support this reality. As such, the pursuit of more data driven, personalized learning opportunities for teaching practitioners will not only better meet adult learner needs but also encourage instructional leaders to plan professional development that is purposeful in content and implement sessions that result in positively changed behaviors of participants.

Future research is needed to focus on identifying specific criteria for assessing professional development sessions by expanding the number of instructional leaders studied. Exploring the ideas, theories, and practices of instructional leaders with regard to assessment of professional development sessions and deepening questioning around what makes effective PD may result in a tool that could positively impact the learning experiences of professional development attendees. Future work should trace outcomes beyond PD (changes in teaching practice and student achievement), comparing sessions with high vs. low alignment to adult learning assumptions. A follow-up, mixed-methods design (artifact analysis, classroom observation, student outcome trends) would help test whether alignment predicts downstream impact. In addition, this study did not explore the online nature of the professional development implementation due to COVID. While the virtual environment in which the study and professional development took place demonstrated the presence of Knowles's adult learning assumptions, it would be helpful to investigate the transfer of Knowles's assumptions to face-to-face environments. As more schools and districts continue to offer virtual professional development in the post-pandemic era, additional comparative research between the virtual implementation of professional development due to pandemic events and the implementation of professional development in the traditional environment could identify similarities and differences in instructional leader planning and implementation of professional learning opportunities.

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