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THE COMPONENTS OF PROFESSIONAL DEVELOPMENT DESIGN AND METHODS THAT TEACHERS PERCEIVE AS THE MOST VALUABLE.

Elizabeth EsquivelHofstedt

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A Dissertation

Presented to the

Faculty of

California State University,

San Bernardino

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Doctorate of Education

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by

Elizabeth Xuchitl Esquivel-Hofstedt

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Approved by:

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ABSTRACT

The purpose of this study is to determine the key design components of transformational teacher professional development programming using sensemaking theory and adult learning theory. This research study was comprised of five phases: 1) needs assessment pre-survey of participating teachers, 2) follow-up interviews with participating teachers, 3) construction of professional development session using the needs assessment pre-survey and follow-up interviews 4) professional development session presentation to teachers 5) post-survey after the professional development session repeating the needs assessment survey to compare pre to post surveys.

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INTRODUCTION

Problem Statement

The problem this study addresses is the impact teacher identity and perceptions of self-actualization have on defining the key components of effective teacher professional development design (Sprott, 2018, p.322; Darling-Hammond et al., 2017, p.v). Educator self-perception is the nexus of instructional improvement, for it is the teacher who constructs curriculum lesson delivery (Tantawy, 2020; Sprott, 2018; Allen & Penuel, 2015). Because each teacher is an individual, their genesis of skillset is particular to their foundational training, personal experiences, interests, and efforts at lifelong learning to achieve their conceptions and intimate standards of self-actualization as a quality educator (Tantawy, 2020; Allen & Penuel, 2015; Bayar, 2014).

To channel this wealth of knowledge to achieve district goals, teacher professional designers must start with a clear understanding of the makeup and assets the teachers' administrators wish to develop (Kennedy, 2016; Soine & Lumpe, 2012). Professional development designers must be educated with regard to the context of curriculum objectives and technological systems that instructional delivery must use to meet the requirements of the 21st century (Kelly, 2019; Darling-Hammond et al., 2017; Osborn, 2016; Allen & Penuel,

2015). These parameters must be considered when creating an engaging program to bring about transformational teacher professional development (Darling-Hammond et al., 2017; Bayar, 2014; Soine & Lumpe, 2012).

Purpose Statement

The purpose of this study is to determine the key design components of transformational teacher professional development programming. The research questions that will be explored in this study are:

Research Questions

1. What effect do teachers' self-perceptions have on their professional development interests and skill development?
2. What components of professional development design and methods do teachers perceive to be the most valuable?
3. What are the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable?

Need for the Study

Past research has shown that many teacher professional development programs are inadequate in garnering changes in educator practices and student outcomes (Darling-Hammond et al., 2017). Little research has been done on how and why teachers form their discernments regarding their choice to utilize or

not use certain professional practices offered to them. Little data has been studied as to why teachers' keenness and support of district professional development may vary within a district grade level for the same reform (Allen & Penuel, 2015). This juncture of teacher sensemaking, valuation, choice, investment, and implementation of practice is the moment any new educational objective succeeds or fails. Yet, this nexus of a teacher's professional practice continues to be overlooked, underestimated, undervalued, and even disregarded to the detriment of the practice and student outcomes (Allen & Penuel, 2015; Bayar, 2014). Educators are practitioners, not robotic applicators that are programmable. Education is a holistic human experience. Educational reform requires that teachers who are human be instrumental in their own professional development. How this process works and determining the components of a professional development system that is effective in fostering and facilitating teacher achievement and, thus desired student outcomes need to be explored (Sprott, 2018; Darling-Hammond et al., 2017; Allen & Penuel, 2015; Bayar, 2014).

Significance of the Study

To function within today's tech-centric society, people must be able to master and produce challenging content, practice critical thinking, be able to solve complex problems, communicate and collaborate effectively with a team and be self-disciplined to achieve long-term individual and group goals (Göçen Kabaran, 2021; Kelly, 2019; Darling-Hammond et al., 2017; Osborn, 2016). In

broad terms, these abilities seem basic, but combined with technological advances and modern standards, such skills become increasingly nuanced and complex and are constantly advancing (Kelly, 2019; Osborn, 2016). Thus, educators must continuously receive training to maintain mastery of modern skill sets required of today's job market to train their students to succeed in the tech-progressing world (Darling-Hammond et al., 2017; Kennedy, 2016; Osborn, 2016).

In a study of four districts conducted by the Learning Policy Institute (2017), the average spent on training is $18,000 a year, and in another study of nine districts, teacher professional development averages 49 hours a year (Darling-Hammond et al., 2017, p.1, p.15). Such time commitment and costs greatly impact a school's budget. Therefore, teacher professional development programming needs to be worth the money spent. Teacher professional development programs need to be the instruments of change that schools seek. In order to meet this need, the how and whys of designing successful transformational teacher programming need to be explored (Darling-Hammond et al., 2017; Kennedy, 2016; Bayar, 2014).

The study will keep in mind that student success itself is qualifiable. Depending on the specific goal of a professional development program, the curriculum of the professional development translates into worthy student outcomes. Whether the student outcome is a specific goal of a teacher professional development (TPD) seminar, a generic commercial instrument, or a

state test, throughout this study, the research will start by examining what elements of TPD are perceived to have garnered optimum student outcomes; then the examination will deconstruct to lesser aggregates of success, and then examine the unintended consequences of TPD that needs to be addressed (Darling-Hammond et al., 2017; Kennedy, 2016; Allen & Penuel, 2015 Bayar, 2014). This study will use the commonality of standards and the descriptions of desired practices as well as quantitative explanations to interpret the success of measurable student achievement. The goal is to determine the interconnected components that constitute an effective teacher professional development apparatus that achieves the ultimate goal of universally understood successful student outcomes (Darling-Hammond et al., 2017; Kennedy, 2016; Allen & Penuel, 2015 Bayar, 2014). From this process, it is anticipated that the research will reveal what inhibits teacher and student achievement (Darling-Hammond et al., 2017; Bayar, 2014). But the focus of this study is to ascertain foremost what works to get educators to invest themselves fully in district-desired reform through TPD.

This study will start with approval from a Pre K12 public school district to work in conjunction with the Office of Secondary Curriculum and Instruction to conduct an online needs assessment survey of teachers from the high school regarding their perceptions, teaching processes, operational knowledge, and learning needs to successfully meet their teaching objectives. Through this survey, high school teachers will be asked to volunteer in a follow-up interview

session. Two teachers from each grade level of a specified department will be interviewed in person or via Zoom to answer semi-structured open-ended questions to gather nuanced information regarding teachers' perceptions, needs, prior knowledge, learning preferences, professional goals, and level of achievement in garnering their goals. Teachers will be asked to contribute their ideas on what quality professional development design looks like to identify the standards teachers hold most important (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

Teacher interview responses will be qualitatively coded to identify and isolate patterns of program features, characteristics, and themes to determine a list of significant deductive codes validated by previous literature (Darling-Hammond et al., 2017; Bayar, 2014).

Deductive codes may include, for example, collaboration and time duration, sustained duration, opportunities for feedback, reflective practice, increased motivation, satisfaction, quality of the professional conference, informal communication with colleagues, uniformity of assessment, pre-test determiner, post-test determiner, comparison of teachers who used the new curriculum with professional development (PD) versus teachers who used new curriculum without PD, history of previous year student achievement, percentile of student achievement, match to existing teacher need, match to existing school need, teacher involvement, active participation opportunity, long-term

engagement opportunity, and perception of high-quality PD instructors (Darling-Hammond et al., 2017; Bayar, 2014).

These elements that teachers identify are essential to discern their full investment in the professional development process (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015). The goal is to determine from teachers' responses the key components of professional development design create a transformational teacher-professional development (TPD) system that is routinely measurably successful (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Bayar, 2014; Soine & Lumpe, 2012).

Theoretical Framework

This study will use a quasi-experimental research design that is approached through the lens of constructivism's sensemaking theory and adult learning theory, otherwise known as transformational learning theory, which are key elements of the professional development design.

Sensemaking is the process of turning words into action (Weick & Sutcliffe, 2005). This theory is the deconstruction of and interpretation of a process that qualifies a system's purpose and value (Weick & Sutcliffe, 2005). Since humans are the driving force of any organization, stakeholder sensemaking is central to the organization's enthusiasm and commitment to any action (Weick & Sutcliffe, 2005). The ability of an organization to harness the

power of stakeholders' thinking and turn thought into productivity is the nexus of transformational change (Weick & Sutcliffe, 2005). Sensemaking is the systemization of questioning presumptions and analyzing retrospectives. This metacognitive technique is the process of actors simultaneously trusting and mistrusting frameworks through testing new frames of reference and new interpretations.

Sensemaking Theory. According to Campbell (1997), the sensemaking-making process is predicated on enactment theory, which is the sequence of change-enactment-selection-retention dynamics (Weick & Sutcliffe, 2005). Sensemaking is the reciprocal exchanging of ideas amongst actors (enactment), examination of their work environment (ecological change) that are qualified to ground meaning (selection), and then linked to the organization's purpose (retention) (Weick & Sutcliffe, 2005). These steps are the sensemaking activity that talks events and organizations into existence determined by the patterns of conversations that define a common ground for the stakeholders (Weick & Sutcliffe, 2005).

For stakeholders to adapt their thinking in alignment with the central focus of the organization's leadership, they must trust the framework they are working through to guide their collective actions into a consensus of plausible validity (Weick & Sutcliffe, 2005). Any change within an organization should be nuanced and feature sensemaking support.

To facilitate sensemaking, organizational leadership should explain how chosen central frameworks are routinely applied to their industry's situations caused by the natural life cycle of the organization's practice so that stakeholders can easily make sense of procedures and envision desired outcomes. Extolling transparent customary methods is important because clarity is more easily internalized. When industry methods are clearly explained, they do not require actors' full attention because such mechanisms are a simple use of common protocols that accurately discern plan feasibility, decision quality, and ease of use (Weick & Sutcliffe, 2005).

Facilitators of sensemaking need to use a system of discernment, enactment, and accountability. This process builds ease of action, generates desired ideas, and provides accessibility to methods that are not normally utilized by stakeholders (Weick & Sutcliffe, 2005). Because individuals utilize their prior knowledge to make sense of new knowledge, facilitators have to take into account the amount of transformational change they want within the time frames available to them (Weick & Sutcliffe, 2005). The most effective transformational change is done slowly from the bottom up, where new ideas are correlated to prior understandings, determinations, and commitments of the agents of change (Weick & Sutcliffe, 2005).

Dramatic and rapid organizational change objectives from the top down are risky because they are often disconnected from or in conflict with prior or current institutional constructs and actors' thinking. Abrupt challenges for

change required by leadership readily fail because their initiatives evoke resistance, conflict, and disregard for stakeholders' desired alternatives. Top-down abrupt change is often unreliable because stakeholders have not had enough time to process the elements of the new initiatives through organized sensemaking, shared understanding, or consensus. Due to these unstable dynamics, directives from leadership for rapid change are often dismissed as unthinkable because of their lack of forewarning (Weick & Sutcliffe, 2005). To change this paradigm, change must occur with micro-level actions built upon the ground level of the organization actors' prior knowledge, institutional awareness, anticipatory power, and desire for the thinkable (Weick & Sutcliffe, 2005).

According to Ancona (2012) and Dweck (2016), to be successful change agents, leaders need to employ the 4-CAP model of leadership capabilities, where administrators refrain from dominating discourse amongst their teams and remain confident in trusting the preliminary hiring practices that they have employed to hire the best people with a growth mindset to effectively do the job. The role of the leadership in the 4-CAP process is to create a map of a system that provides teams with a goal-oriented vision, organize constructs that build relationships amongst team members, as well frameworks and processes that support inventing and employing effective sensemaking.

Leadership that applies a growth mindset approach based on sensemaking actively promotes stimuli that enable teams to comprehend, justify, attribute, deconstruct, and anticipate achievable, measurable outcomes (Ancona,

2012). This does not mean that leadership is laissez-faire in the sensemaking process. Effective transformational leadership works alongside colleagues to actively test, validate, and refine plausible understandings as a member of their working teams (Ancona, 2012; Dweck, 2016). During the sensemaking process, engaged leaders utilize emotional intelligence, self-awareness, withness with cognitive complexity, and expound upon the present to expand to the possible (Ancona, 2012; Dweck, 2016).

Since sensemaking theory is how teachers negotiate and construct meaning from new information by using their prior knowledge to manage their uncertainty of change. In choosing or developing professional development design to improve institutional practices, leadership must lay the groundwork for sensemaking through collaborative meetings and messaging to simply utilize the current thinking of stakeholders to meet their needs in an obvious overt manner to achieve a collective vision. Once the new information makes sense to a teacher, he/she can invest themselves fully in using the new information effectively to complete desired tasks (Darling-Hammond et al., 2017; Allen and Penuel, 2015).

Adult Learning Theory. Adult learning theory is the refined methodology combination of the humanist theory, experiential instruction, and transformative theory for adults that builds upon sensemaking receptivity to training. Adult learning theory is a necessary active, engaging teacher professional learning model that is “inquiry-based, subject focused, collaborative, and addresses

teachers' conceptual understanding, pedagogical content knowledge" and metacognitive routines (Darling-Hammond et al., 2017, pp.7-8).

The humanist theory part of adult learning theory centers upon an individual's experience, their hierarchy of needs, and the directness of their motivation (Merriam & Caffarella, 1999; Manslow, 1970; Rogers, 1961). Understanding these dynamics is instrumental in building relationships with learners (Merriam & Caffarella, 1999; Rogers, 1983). In designing professional development learning programs, programmers must:

1) take into account participants' natural potentiality for learning
2) their perception of the relevance of the program's purpose to their individual objectives
3) anticipate and work to minimize participants' natural anxiety and resistance to perceived threatening change
4) design programming to be collaborative, active, and engaging in easing learning and encouraging ownership of the desired methods and ideology
5) create opportunities for participants to self-initiate learning;
6) provide moments for participant reflection, riskfree self-evaluation, and internalization to beget oneness with the change process and establish a learning environment that is open to incorporating all individuals in the change process (Belanger, 2011; Merriam & Caffarella, 1999).

Throughout the aforementioned element of the professional development process, the facilitator must consistently be other person-centered by expressing positive and genuine feelings for the success of the learner, accepting of the learner's ability and valuing their potential, whilst demonstrating empathy towards the learner as they explore new information without fear of repercussion for failure (Belanger, 2011).

The experiential theory ingredient of adult learning theory is the learner-centered approach to instruction that transforms the learner through the genesis of their new experience (Kolb, 1984; Belanger, 2011). The experiential learning process is action-oriented teaching techniques and strategies that build on the learners' prior knowledge emphasizing analysis of the new information, its applicability to the learners' problem-solving and practice improvement, facilitation of the learners' evaluation of self to practice and problem, and the learner's investiture and support of the implementation of the new knowledge to the collective goal (Kolb, 1984; Belanger, 2011). Professional development designers should envision the experiential learning cycle beginning with a concrete/immediate experience > reflective observation/critical reflection > formation of abstract concepts/observation assimilation into theory > active experimentation/reality testing > ending with a concrete/immediate experience (Kolb, 1984). The culmination of this cycle is to link the perspectives of the individual's thinking and environment to the desired thinking to manifest progressive conditions for organizational growth (Belanger, 2011).

Lastly, the transformational theory part of adult learning theory is analyzing and interpreting adult learning processes that retrospectively account for individual and social change (Belanger, 2011; Mezirow, 1980; Freire, 1970). Programmers and practitioners must evaluate the evolution's success to determine whether outcomes are mere assimilation manipulating existing knowledge structures to conform or a true transformational shift that completely changes structures to form a new reality (Belanger, 2011; Mezirow, 1980; Freire, 1970). The transformational process is a step-by-step critical learning reflexive mechanism:

1) Recognition of a problem in need of resolution
2) Self-examination of role in the problem
3) Assessment of potential biases
4) Recognizing that the problem is universal
5) Exploration of options to remedy
6) Creation of a specific action plan
7) Research information and for action plan implementation
8) Piloting new roles
9) Negotiating positions and repositioning existing roles
10) Building competence in new roles and relationships
11) Reorienting self and acting upon new perspectives

(Belanger, 2011; Mezirow, 1991).

Transformative learning's purpose is to acquire new knowledge through experience as well as to acquire a system that retrieves, examines, composes, and solidifies current knowledge and progressive perspectives (Belanger, 2011; Mezirow, 1991).

In summary, adult learning theory is a multidimensional ideology of training of the mature mind that compliments sensemaking theory's investiture process in the transformational change of an organization (Darling-Hammond et al., 2017).

Understanding sensemaking and adult learning theory ideology and methodologies afford the professional development designer the ability to reconfigure the training process to meet the constraints of district time frames and budgets whilst remaining true to these philosophies and techniques. This study will focus on three phases of teacher professional development design: 1) teacher professional development programmers must get to know their clientele, the teachers: who they are, their perceptions, their thought processes, and how they operate 2) understand and respect the world in which the teachers have to operate and 3) construct a professional development apparatus that systematically addresses and measures each educators' needs and achievements (Göçen Kabaran, 2021; Tantawy, 202; Kelly, 2019; Sprott, 2018; Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Shaw, 2017; Kennedy, 2016; Osborn, 2016; Allen & Penuel, 2015; Bayar, 2014; Soine & Lumpe, 2012).

Assumptions

This study assumes that there are different disparities between grade levels and subject departments at the high school level and those subject teachers have different needs that are not interrelated with each other. Through the institutional survey process, questions will be posed to respondents to verify or nullify these presumptions. This study assumes that teachers are avid life-long learners who want to develop their teaching skills further (Olsen & Buchanan, 2017; Allen & Penuel, 2015).

Delimitations

This study will only examine professional development for public school teachers and will not extend to private and charter schools. The public school teachers who will be surveyed will come from one high school within one public school district but will span four grade levels and multiple departments. Only respondents who volunteer for the follow-up interview portion of the study will be interviewed.

Definitions of Key Terms

Professional learning communities (PLC) are collaborative and intentionally reflective educator-grouped sessions usually by grade or department level that facilitate meaningful dialogue-driven exchanges of information (Sprott, 2017).

Professional development activities are meaningful training experiences that meet teachers' needs, whilst addressing a school's goals through the involvement of teachers in the design, planning, and implementation of said activity over a period of time (Bayar, 2014).

Program design is the element of a strategic construct of a systematic apparatus of training (Darling-Hammond et al., 2017; Soine & Lumpe, 2012).

Skill development is mastering practices of a profession an individual achieves with training and practice (Darling-Hammond et al., 2017).

Teacher professional development (TPD) is professional development that is designed to meet the goals and objectives of educational institutions through the training of faculty (Darling-Hammond et al., 2017).

Transformational professional development is professional development that entails the cognitive and emotional involvement of participants to build their capacity and readiness to examine their convictions and beliefs as they explore, practice, adopt, and implement available alternatives for improvement (Tantawy; 2020).

Summary

Teacher professional development design is the construction of an education program for people who have been highly trained to be educators (Kelly, 2019; Olsen & Buchanan, 2017; Allen & Penuel, 2015; Soine & Lumpe, 2012). Educators usually are and need to be lifelong learners (Olsen &

Buchanan, 2017). Teachers are constantly seeking new ways to develop their skills are most often knowledgeable about instructional delivery systems, which does not make them the easiest people to teach because educators' expectations of other educators and themselves are so high and aligned with exceptional standards (Göçen Kabaran et al., 2021; Sprott, 2018; Olsen & Buchanan, 2017; Shaw, 2017; Allen & Penuel, 2015).

The goal of teacher professional development is to align, guide, and refine the resources and skillsets of teachers to district goals and to enhance their teaching skills to increase student learning outcomes or resolve a particular problem or deficiency (Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Allen & Penuel, 2015; Bayar, 2014). Educators may attend professional development training seminars, but if they do not value the professional development programming, it will not be transformational in achieving district goals (Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Allen & Penuel, 2015; Bayar, 2014). Consequently, teaching practices and student outcomes will remain the same. However, if teachers identify, attach to, and internalize new information and instructional strategies they most often willingly change their teaching practices to align with district objectives and achieve desired outcomes (Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Kennedy, 2016; Allen & Penuel, 2015; Bayar, 2014).

The goal of this study is to determine the structure and key elements of effective professional development design that directly speak to educators'

expectations, needs, and standards, causing them to invest themselves fully in the new practices and thus transform into the change agents that districts desire (Darling-Hammond et al., 2017; Osborn, 2016; Bayar, 2014).

The following literature review will examine the impact of teacher identity on sensemaking and professional development buy-in, the role that educators play in the new tech-centric community, and the influence and impact teachers have on their own professional development design (Kelly, 2019; Sprott, 2018; Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Osborn, 2016).

CHAPTER TWO

LITERATURE REVIEW

Quality teaching starts with the teacher (Bayar, 2014). Skilled teachers are effective because they are constantly using prior knowledge, learning, and adapting. and developing themselves through educator training, professional development, and teachable moments during their instructional practice (Tantawy, 2020; Olsen & Buchanan, 2018; Darling-Hammond et al., 2017; Bayar, 2014). At the juncture a teacher and student meet for their lesson, it is ultimately the teacher who decides the pedagogy used to deliver instruction, not the district (Darling-Hammond et al., 2017; Allen & Penuel, 2015). Even the best-laid lesson plans can shift in the moment of contact between teacher and student because a teacher usually uses their sensemaking skills and pedagogical strengths to deliver what they feel is effective instruction for that instructional moment. Districts whose goal is to change their teachers' use of pedagogy must address and influence a teacher's sensemaking first in order to facilitate teacher investment in the process of professional development. Understanding teacher sensemaking leads to awareness of an individual teacher's interests, strengths, and weaknesses that offers teacher professional development programmers a starting point to create a bespoke comfortable adult learning apparatus for teachers to invest themselves in that is transformative to achieve student outcomes (Tantawy, 2020; Olsen & Buchanan, 2018; Sprott, 2018; Darling-Hammond et al., 2017; Allen & Penuel, 2015; Bayar, 2014; Soine & Lumpe,

2012).

The Impact of Teacher Identity on Sensemaking and Professional Development Buy-in

The literature reviewed in Chapter Two examines teacher professional development at its starting point, the teachers themselves. Teacher professional development designers must understand who their audience actually is or the educator's professional development programming will not resonate with their student-teacher audience, resulting in non-use in the teacher's personal practice, wasting everyone's time and the district's money. Teacher professional development design must be bespoke to the group of educators TPD facilitators wish to serve (Darling-Hammond et al., 2017; Soine & Lumpe, 2012).

This professional development design comes down to three phases: 1) teacher professional development programmers must get to know their clientele, the teachers: who they are, their perceptions, their thought processes, and how they operate 2) Programmers must understand and respect the world in which the teachers have to operate and 3) programmers must construct a professional development apparatus that systematically addresses and measures each educators' needs and achievements over a duration of time.

Teacher Training Matters

Researchers Olsen and Buchanan (2017) revealed in their study that teacher professional development (TPD) programmers must understand what teacher preparation their TPD participants have already received so TPD programmers can build upon professional teachers' prior training to enhance their current pedagogical skill set. Olsen and Buchanan (2017) learned that professional development designers have to ask: Who were the university teacher educators training our professional teachers attending the TPD program? What were the university teacher educators' theoretical and pedagogical foci (p.9, p.12)?

It seems most university teacher educators are former K12 teachers who stumbled into the university teacher educator role with little support or full-time employment from colleges and universities (p.15, p. 24).

Undervaluation of these very important university teacher educator positions impacts them and their programs by minimizing their identities, professional understandings, professional development, support networks, and delivery systems (Olsen and Buchanan, 2017, p.10, p.28).

According to the survey research study by Olsen and Buchanan (2017), teacher educators are predominantly White, middle-aged females trained in K12 teaching and emerge from primary and secondary school systems, generally not from the postsecondary level (p.10). In the hierarchy of the university system, which is dominated by Caucasian males, university teacher educators, and their

teaching programs seem to exist as an underclass in a caste system of academia (pp.10-11, p.12, p.28). University teacher educators reported that they were unable to ascend the university hierarchical ladder where research and publishing are the drivers of career advancement at the university level. The predominantly adjunct university teacher educator/full-time classroom teachers' self-study or practitioner inquiry does not count toward a promotion at the university level thus, combined with time constraints, prevents career advancement (p.28).

According to the researchers, university teacher-educators, their training programs, and even their students do not receive the support as other departments do at the university level (pp.26-27, p.28). University teacher-educators must rely on themselves to professionally grow (p.28). University teacher educators often are required to develop their own curricula and practicum systems to deliver ideal lessons centered on the educational theory that serves the contemporary reality of today's dynamic classroom (p.23). Serving the dynamic classroom can only be accomplished if university teacher educators and their student teachers have strong foundational skills they can draw upon to be confident in their identities, continue their professional and personal training, and collaborate and develop their departments and classrooms (Olsen & Buchanan, 2017).

How and from where do teacher educators develop their understanding of what it means to do their work?

This research study by Olsen and Buchanan (2017) used a mix-methods design examining teacher educator knowledge through the review of teacher educator self-studies on race, culture, teacher preparation, and teacher educator approaches to their own learning. Teacher educators examined the conflicting worlds of the classroom teacher and university educator.

For this study, sixteen respondents were garnered from one private research university, one public research university, one state teaching university, and one alternative/online private university to create an institutionally diverse research sample for this study. Sixteen educators enlisted to participate in this study, most notably two academic teacher education faculty and two student-teacher supervisors from each university program. One faculty member and one supervisor were from elementary education, and the other two were faculty members and one supervisor from secondary education. Each subject engaged in two 60-minute, semi-structured interviews, which were transcribed, coded, and analyzed three times using open, axial, and then hierarchical constant comparison computations. In addition, Olsen and Buchanan collected and analyzed the university curriculum documents from the four teacher-educator programs to correlate their findings to reveal themes.

According to the researchers, university teacher-educators, much like their student-teachers, exist in a parallel conundrum: where the university world does not respect, support, or prepare K12 educators on par with other university

departments, but ironically it is the quality of the K12 education world that the university system needs to survive (Olsen and Buchanan, 2017, p.28).

In this study, the researchers found that although trained and experienced K12 teachers, the university teacher-educators were not professionally trained university professors (p.28). This research found that teacher-educator professors had to rely on self-education to train themselves to teach student-teachers and prepare themselves to thrive in a researched-driven employment environment. Respondents revealed to the researchers that the university tenure system does not recognize or reward the classroom practicum and observation part of teacher education and teacher educator self-study as a means to gain footing on the tenure ladder (Olsen and Buchanan, 2017, p.28).

According to the researchers, the university requires teacher educators to conduct research outside themselves, focusing on K12 student dimensions, but not the actualization efforts of the teacher educator or the student-teacher. Such indifference to the K12 teacher-educator's skill development is the antithesis of and interferes with the foundational process of developing quality student-teacher preparation.

This study found that at the heart of quality education is a self-assessing, fully formed, actualized lifelong learner who is the teacher, which is a process that starts with a devotee to education both personally and professionally. Olsen and Buchanan point out that education is not simply an interest. It is an intellectual mission of service that combines goals, idealism, theory, and daily

reality in every moment of practice with no tolerance for error. This diversification is not readily understood or rewarded by those who are not in the midst of this type of education practice that serves the needs of the very young, vulnerable, and often marginalized people.

The researchers suggested future research needs to be conducted to identify, standardize, and reward a professionally agreed-upon knowledge and approach to teacher-educator accomplishment. The researchers determined that teacher-educator identity development needs to be recognized as a tangible part of the productive inquiry that is crucial to professional learning.

By standardizing and recognizing the achievements of teacher-educators at the university level as the intelligentsia that they are, the entire profession will be elevated, recognized, and grow.

Traditional vs. Non-Traditional Teacher Professional Development on Educator Growth

In a study by Bayar (2014), the researcher said that teachers are at the heart of effective education, yet many are assigned teaching positions for which they are not adequately prepared. According to Bayar, student achievement is directly linked to the caliber of their teachers. In order for communities to be competitive in the global economy, there need to be educational systems that prepare their members to be competitive. The United States demands that teachers be “high quality” ignited by No Child Left Behind but does not provide

any standard guidance as to the design of programming that ensures that those standards are met to remediate teacher deficiencies and improve student outcomes.

Often school systems believe that teacher pre-service training programs are the fail-safe for producing high-quality teachers, but that is a misnomer because pre-service is only the initial training for the very fluid enterprise of teaching that can have a very specific clientele due to demographics and cultural norms of employing communities (Bayar, 2014).

Professional development activities have been found to be the most effective in training teachers to meet their student's needs and the community they serve (Bayar, 2014). In many progressive communities, in-service teaching education is seen as a normal part of teacher training that is simply done in the field of service. These communities tend to have better outcomes than school systems that rely solely on teacher pre-service programs to develop their teachers. Communities that not only develop their new teachers but also support and maintain the development of their veteran teachers usually garner more of the outcomes they target. This achievement is because students' needs shift, and so should the delivery of the education programs that support and develop their clientele's success.

Traditional and nontraditional teacher professional development is separated by duration. Traditional professional development tends to be short one-and-done workshops and conferences, while nontraditional professional

development is progressive, utilizing the processing methodologies of mentoring, coaching, and peer observations.

Traditional professional development is less expensive and easier to implement by administrators, it has been found to be less effective than progressive professional on-task training that offers participants processing, practice, and assessment opportunities that document effectiveness or immediate remediation of pedagogy toward desired outcomes. Often teachers view traditional professional development as a waste of their time because it is generic in nature and is too swift to process and directly apply the knowledge to specific teachers' practices (Bayar, 2014). According to Bayar, when teachers have such perceptions they are less likely to invest themselves in that particular professional development activity.

The hypotheses and research questions Bayar's study included:

1) What is the driving force behind transformational professional development activities that increases motivation, satisfaction, learning, and teacher quality?
2) What strategies help academics acquire new knowledge and skills that affect change in their instructional practice?
3) What are the components of effective teacher professional development?
4) Should professional development design be bespoke to each learning community

This study surveyed 10 elementary schools in Turkey, asking teachers to report the number of professional development training they had participated in within one year. Sixteen respondents (half male and half female) who had participated in a minimum of three PD activities the year prior were interviewed.

The study began with a document analysis of district reports and a brief survey of the faculty clientele to generate perspective and ideas for the research of this population. The researcher utilized a qualitative research approach collecting data from respondents' written, spoken, and observable behavior in a 60-minute interview to a series of open-ended questions regarding in-depth descriptions of specified programs, activities, implementation practices, and settings. Teachers were asked to explain their perceptions of effective professional development and define the elements of effective professional development based on their own experiences. All recorded responses were directly transcribed. Lastly, all 16 teachers were asked to create a list of what they believed were key components to effective professional development activities.

The researcher found that teachers defined effective professional development as activities that directly address their existing individual personal needs over a set period of time. Teachers articulated that an effective professional development program contains the following five elements: 1) designed around existing teachers' needs, 2) designed with the specific school culture and demographics in mind, 3) designed with teacher clientele during the

planning process to create activities that directly meet their needs 4) creates an engaging program that participants are active in, not passive listeners, 5) includes programming that is progressive and uses long term engagement of participants in systematic development opportunities, 6) and uses the instructors who are experts in their fields.

According to the researchers, one-size-fits-all professional development training that does not garner client input at the onset simply is inadequate in meeting the direct needs of educators because it does not take into account that teachers are in different places in their practices and does not respect their valuable time. This perceived lack of institutional respect undermines professional development activities from the very beginning because the participants hesitate to invest themselves in programs that do recognize their identity during the design and planning process. In this study, teachers went as far as to articulate their desire to be involved in the design and planning process of professional development activities, which most readily support their buy-in when utilized.

According to Bayar (2014), professional development programmers need to keep in mind that teachers are active metacognitive life-long learners who appreciate structured well-timed practice through coaching support (not evaluative) which short sporadic professional development does not offer. Lastly, educators stated that to keep their interest, programmers must be

knowledgeable and well-organized. When PD facilitators are unprofessional, educators disengage from the sessions.

How Teachers Think

In a study by Allen and Penuel (2015), researchers found that the recognition and status of teachers as society's systematic thinkers is meaningful to the stability of education. The entire education establishment, including students and parents, must be taught to appreciate that teachers use their prior knowledge to process new ideas through the lens of their daily goals, planning efforts, and available resources. These individual judgments are central to the success of educators' professional development and the appreciation of the educators' work. Yet, little study has been done on shaping individual teacher practice. Most research has been focused on organizational conditions and situations, which discounts the nexus of success for schools, that is, the immediate knowledge and choices made by teachers during their lesson planning.

This study by Allen and Penuel deduced that a useful framework is needed to guide the analysis of teachers' prior knowledge of teaching, current goals, support needs, and overarching resources as a prelude to designing and creating professional development that requires teachers to confront their activity and integrate change into their individual practice.

Clinicians of this study determined that a generic one-shot professional development often misses the mark of meeting teachers' needs, impacting their instructional planning, and therefore often falls to the wayside because it does not actually provide teachers with solutions to the obstacles that they face. Simply put, professional development that is not designed with the interests and sense of logic of the clientele who will immediately be using it is a waste of time and money. The researchers of this inquiry theorized that this perspective is in conflict with administrators who require and fund professional development because administrators see professional development from their perspective of sense giving to teachers in the hope of achieving what the administration believes is needed. This narrow lens of administrators often undermines the efforts to make institutional changes that they want.

The research questions for this study were:

1. What causes doubt and disconnect between teachers' logic and administrators' goals during professional development?
2. How do a teacher's prior knowledge and logic influence his/her choices during lesson planning and implementation?

Researchers in this study used a multiple-case methodology to examine how teachers employed sensemaking during their professional development over a 16-month period. The researchers examined the observational data from PD field notes, classroom videos, teacher online logs, teacher responses to surveys, teacher interviews, and artifacts of teaching such as teacher-developed

assessments and teacher-constructed instructional resources from two separate school districts. Two school sites populated by minorities and students eligible for free and reduced lunch were selected (one from each participating district) for closer examination. Each researcher coded the data set using focus analysis and Cohen's Kappa to discern theme patterns amongst the subject sets.

In order for professional development to be successful, this research found that teachers need to attach themselves to the goals and the processes to achievement through sense-making of the processes and the objectives. If the goals, objectives, and processes line up with what the teachers are already trying to achieve, and the material that they have is useful in taking control of the curricula, then teachers are more likely to adapt themselves to new strategies and materials that they have connected to during professional development.

The researchers discerned that the major obstacle to effective professional development, according to the findings in the research, was the incoherence of goals for student learning and goal conflict between administrators and teachers. Teachers crave clarity for their lesson planning, but that clarity gets muddled when district mandates do not align with the supplied curriculum and resources, which are insufficient to meet the required outcomes that fall short of alignment with Common Core Standards.

The study ascertained, at a certain point, usually due to time constraints, teachers are tasked with prioritizing a few core ideas as best they can during their instructional time to meet high-value performance expectations. The

findings in the study showed this type of rapid restructuring during lesson planning undermined professional development efforts because the melding of old and new was rushed.

The study also found incoherence between professional development goals and the targets of their district administration often causes teachers to default back to what they have been doing before PD because it is easier and more comfortable during time constraints caused by performance pressure to meet high-stakes assessment expectations.

According to the researchers, the resolution to this sensemaking struggle is a bottom-up approach to the professional development design. After having instructional teams analyze their own outcomes, identify their own deficiencies, and articulate possible solutions they feel that they need to achieve their goals, only then should professional development offerings be designed and implemented to meet the needs of educators. The researchers noted that PD developers need to get to know their audience better so they can deliver their instruction effectively.

The researchers also found that the most effective sensemaking was supported in part by the principals. Therefore, researchers recommended that principals need to be made aware of the value of sensemaking in the development of the teaching craft. In addition, teaching teams need time to collaborate with each other over artifacts to guide their collective lesson planning. The researchers further noted that through collaboration, teachers find

coherence that makes the key system components more achievable in a whole school push towards school achievement.

Teacher Sensemaking

In a study by Shaw (2017), the researcher examined sensemaking, which respondents described as a teacher's inner drive to continuously improve their skills through participating in professional development and reflective practices with the goal to transform their knowledge, skills, and values that improve their students' learning outcomes. This study was initiated through the use of surveys that elicited teachers' quest to participate in a 7-day professional development short summer course to elevate music teachers' growth.

Researchers found that related literature revealed that music teachers had experienced professional development in the form of one-shot conferences to graduate study to site-based projects. Music educators seek professional development that is content-specific targeting skills and strategies; prefer sustained professional development over longer periods of time; require choice and control over their learning options; insist on being recognized for their wisdom and collective knowledge of music; readily utilize reflection and self-assessment as part of their everyday personal and professional music practice, and prefer to work with experienced mentors.

The following questions were examined throughout the study:

1) What professional development did music teachers believe would best elevate their skillset?
2) How did this 7-day professional development short summer course offer music teachers the opportunity to examine their ideas and methodologies regarding their educator practice?
3) Did teachers believe that the professional training they received during the 7-day professional development short summer course (a) met their immediate growth targets and (b) did the training facilitate the teachers' achievement of their goals within a 6-month period (Shaw, 2017)?

The researcher used Clarke and Hollingsworth's (2002) Interconnected Model of Teacher Professional Growth to analyze the following findings: external domain (source of information, stimulus or support), personal domain (teachers' knowledge, beliefs, and attitudes), the domain of practice (new pedagogical strategies, rehearsals techniques, and repertoire) and domain of consequence (student learning outcomes, student engagement, teacher control). The ultimate goal of this study was to discern teacher change through professional growth, but PD providers conceded that not all change was the result of change sequences facilitated by professional development. Some changes were growth spurts, while others were interconnected consequences that lasted longer but were not transformational.

The design of this professional development study was a 7-day workshop that transpired every summer with a curriculum that spanned over the course of three years, offering three levels of instruction. This workshop has been going on each summer for the past 12 years. Participation was voluntary, and all who applied were accepted. Student-teachers were provided professional development training and then were immersed in practice by teaching the accompanying youth camp students (grades 3-8th) music by implementing what the student-teachers had learned in their workshop sessions. As music teachers taught, they were observed and critiqued by their professional development providers. After the practice sessions, the music teachers met for peer critiques and group discussions to process their findings from their practice.

From this group of 30 workshop attendees, seven teachers were chosen to participate in a case study of the program. The case study participants completed a questionnaire to garner their biographical information (qualifications, teaching specialization, age of students, years of teaching experience, gender), clarification of the instructional content they practiced, and the learning goals they chose for their professional development during the workshop.

Over the course of the research, PD instructors took field notes of workshop participants' practice to review the structure and content of the workshop sessions with the participants through semi-structured interview questions that took approximately 30 minutes each. These preliminary interview questions also included teacher perception inquiries regarding their personal

backgrounds, teaching situations, and thoughts regarding the application of the professional development programming and the alignment between the teachers' personal goals and that of the program.

The study was conducted during the seven-day workshop, where seven respondents participated in two coaching sessions using two video replay videos of their teaching and conducting. One video from the beginning of the workshop and the other video from the middle of the workshop used the practices they learned during the workshop. These video replay coaching sessions helped music teachers solidify their views of their proficiency, mindset, practice, and self-described growth.

A follow-up to the study was organized six months after each workshop's completion to gather written reflections on the current practices of the workshop participants. To support the students' reflection, the workshop organizers sent the music teachers transcripts of their summer interviews, copies of their summer teaching videos, and prompts to facilitate their reflection development by comparing their workshop practice to their present practice.

The study triangulation was conducted using 60-minute interviews of the professional development providers' perspectives of the workshop participants practice during the summer session. All of these interviews were transcribed for analysis by the researcher which totaled 63 hours of empirical data.

The data was analyzed using a fixed linear approach and a constant comparative method analysis coding process to show the interconnected model

of teacher professional growth (Shaw, 2017). The videos were analyzed using HyperRESEARCH software. The videos were broken down into the following categories: interview transcripts, field notes, videos of workshop sessions, and written reflections. Participants were offered the opportunity to modify their data; none did. According to the researcher, because so much data was collected, it triangulated itself through cross-checking. Finally, only the adoption of practices learned throughout the workshop was considered applicable to determine professional growth for this study.

The researcher admitted that she struggled to separate herself from being a teacher-educator to being a stand-alone researcher during the collection of data during this research study. The researcher tried to remediate her personal bias by tagging sections of her data with the initials TE (teacher educator) so as to denote the teacher-educator influence present in the data. She also tracked her methodological decision-making in a journal to manage her undue influence during parts of the study.

From mapping the findings from the seven case studies, the researcher found that the following domains interconnected with one another to bring about change: the sharing of vision-inspired change, new content and ideas developed exposition, collaboration advanced conceptual understanding, cross-checking standards offered by participants the opportunity to self-assess their positioning to standards, training was key to new skill acquisition, experimentation elicited innovation to teaching techniques, and coaching facilitated reflective practices

that transformed student educators practices. Participants articulated to the researcher that the video replay examinations, self-assessment, colleague critiques, and coaching were the most impactful features of the professional development process.

Participants expressed that the only barriers to growth were their own egos. Repeatedly, student-teachers exhibited symptoms of imposter syndrome, self-effacing thoughts, feared being labeled as an incendiary instigator, and were caught in an emotional cage of insecurity. Once teacher participants shifted their focus from self to the service of their students, they were able to regroup, grow, and become more self-confident, which improved their practice (Shaw, 2017).

Teachers' Perceptions of Self through the Lens of Their Calling and Craft

Tantawy (2020) showed that being a teacher holds a certain amount of status, especially in Dubai, UAE because teachers are seen to be experts in their subject areas. Teachers in the UAE are viewed through two lenses: first for their professionalism, which emanates from their status within their society as an education expert, and second, for their professionalism, which is based on their skills, knowledge, and conduct. Teachers in the UAE are expected to be lifelong learners, and as such, they are considered the exponents of knowledge and skills.

According to the researcher, teachers in Dubai are the incubus of innovation through practical experience, and the formation of new instructional

strategies yielded from their personal cognitive attempts to generate new ideas and implement new approaches that improve the learning and emotional development of the citizenry. Who better to be pivotal in creating professional development programs than the experts in their own field, which are practicing teachers? Practicing teachers are best placed to know the obstacles to learning which are currently happening. The researcher posited that in order to develop professional development for teachers, it is vital that professional development programmers have a clear understanding of how teachers actually feel about their own professional development so as to remediate any deficiencies and meet the needs of their clientele.

According to Tantawy, the goal of any education program is to transform a teacher's knowledge into practice to develop students' skill sets. In order to do this, school cultures must be open-minded and useful to the ongoing learning of all involved including teachers. Administrators must create and reward an organization that enhances workplace learning in a continuous manner. Such facilitation must be realms that are harmonious so that the sharing of ideas, confidence construction, and individual capacity building to perform innovation through improving teacher curriculum knowledge can develop in spite of traditional hindrances. Tantawy notes when teachers are fulfilled learners, they become self-actualized ambitiously confident educators moving the community forward.

Teacher career paths can often be flat without few opportunities for progression that are rewarded through promotions, incentives, and salary increases. Such stagnation undermines the growth that is necessary for any standard business practice of professions that require the same amount of education.

The research questions for this study were:

1) How does school culture influence its teachers' view of professional development?
2) What specific influence does professional development have on teacher instruction and student results?
3) Does teacher dedication translate to career progression? Or is teaching a dead-end job?

The researcher used a qualitative study to interpret interviews and examine contextual observations of teachers' understanding of the real problems of practice that they were encountering on a daily basis. Three teachers were interviewed: a female middle school teacher (9 yrs.), a male high school teacher (15+ yrs.)/ coordinator of the English department (5 yrs.), and a male elementary teacher (10 yrs.). The researcher employed semi-structured interviews with individual participants to discuss everyday issues in an informal setting to encourage each interviewee to disclose their true feelings about the policies and procedures of their institutions without the risk of reprimanding from supervisors or other colleagues. The researcher conducted in-person interviews to be

cognizant of the participant's spoken and unspoken body language responses to questions. Furthermore, the researcher focused on participants' body language, tone, inflection, expressions, and gestures.

The interview transcriptions were manually analyzed using a thematic color-coding system; the confidentiality of respondents was protected using pseudonyms.

The female middle school teacher (9 yrs.) revealed that at the beginning of her career she preferred informal professional development such as observing colleagues and having discussions to learn practical strategies for daily classroom management. Later, after she was able to solidify her daily management of instruction, she sought more formal training to update her subject area knowledge and associated instructional strategies.

The female middle school teacher (9 yrs.) reported to the researcher that she felt unsupported by her administration in her attempts to earn her post-graduate degree. She believed herself relegated to the training of a novice teacher even though she has been practicing for nine years. This lack of momentum in her career development left the female respondent feeling undervalued and contemplating looking for a placement elsewhere that would respect her efforts to improve her practice and lead to promotion.

The male high school teacher (15+ yrs.)/ coordinator of the English department (5 yrs.) and the male elementary teacher (10 yrs.) both revealed to the researcher that they are at the point in their careers that they prefer formal

professional development that targets specific areas of knowledge of their choosing and offers opportunities for career progression.

The male high school teacher (15+ yrs.)/ coordinator of the English department (5 yrs.) and the male elementary teacher (10 yrs.) both voiced to the researcher that because they felt supported by their administration through professional development that met their individual intellectual and career needs, they do not think about seeking employment elsewhere.

All three educators articulated to the researcher that professional development was a key component of self-confidence, motivation, inclusion within the profession, and career achievement toward leadership positions. All three educators intimated that teacher professional development should be differentiated to meet the needs of the teacher at the level of progression of their career where they are at to improve their current performance.

In conclusion, according to the participants, a one-size-fits-all approach to professional development was deemed a waste of time and disrespectful of their current placement needs, their prior knowledge, and their potential.

This research demonstrates that professional development programmers must take a holistic approach to TPD design. Designers must consider the individuality of the educators and the oneness of the educators' skills to themselves. In order to do this, TPD designers have to meet the needs of teachers' sensemaking, self-assessment, self-study, self-education, self-authorship, their self-confidence, and self-determination because this mindset

dictates the direction of an educator's intellectual endeavors embodied by their skill of teaching. This critical thinking is what makes a dedicated educator's love of learning translate into a mission of teaching (Tantawy, 2020; Olsen & Buchanan, 2017; Shaw, 2017; Allen & Penuel, 2015; Bayar, 2014).

The Role of Educators in a Tech Economy

This literature review examines educators' placement, role, the sphere of influence, and responsibilities in the nonstop tech-centric world that is today. Educators are constantly being thrust into the forefront of progress because they are the facilitators of change through their instruction of the new generation. Professional development programmers must take into account the part of educators within the realm of tech-ed to support progress (Göçen Kabaran & Usun, 2021; Sprott, 2018; Osborn, 2016).

Teachers and Technology

Sprott (2018) proposed that the goal of education is to prepare students for their careers. Today's job marketplace is fluid, constantly evolving, and changing in real-time. In traditional teaching practices, curriculums and teachers' strategies remained the same year-to-year which was acceptable because in the past career paths of students were consistently known entities that were conventional in nature.

In the 21st century, that no longer is the case. Because of technology, the

global economy is connected and moving at a pace never seen before. Professional educators are a vital part of the economy, whether they choose to accept it or not. Their knowledge, wisdom, and teachings will greatly impact the success of their students and community in the global market. The problem is those educators who do not recognize, engage, utilize, and teach in real-time the machinations of the global economy and society will undermine their students' education. Such impairment causes underserved students to be left behind, left out, and relegates them to lower-paying wages of the manual working class. Today's teachers have to be explorers, researchers, and learners too in order to best serve their students and communities. "Most educator professional development today uses antiquated approaches such as the 'spray and pray' model that never seemed to yield sustained improvement" (Sprott, 2018, p.321).

According to the researcher, a better option to this out-of-date model of professional development is on-the-job training and professional development that responds immediately to the demand of the global economy. Sprott posits, "Teacher professional development happens in three developmental stages: instrumental, socializing, self-authoring, or self-transforming" (p.321). According to Sprott, the operative word is self: which can be a misnomer.

Teachers need to be self-driven in their professional learning, but that does not mean that this happens in isolation and without direction, support, facilitation, incentivization, and reward from their institutions. Teachers possess an advanced capacity to integrate multiple viewpoints, assess respectfully, and

deliberate effectively. Yet, according to Sprott, these resources are being underutilized by individual educators and educational institutions, which needs to be addressed.

The hypothesis of this study was to focus on teachers' learner-oriented mode of leadership in the two latter development states, self-authoring and self-transforming because teachers in these stages exhibit many of the traits identified as critical for success in today's global and rapidly changing contexts. These teachers possess an advanced capacity to harmonize multiple perspectives, think critically and responsively, and collaborate effectively.

Sprott's study focused on the following question:

> How do teachers, who are seen by educational leaders as exhibiting traits beyond the socializing way of knowing, describe their professional learning experiences in terms of promoting and deterring their development?

This study utilized a qualitative narrative methodology centered on the learner-oriented model of leadership. The study focused on the individual teacher perspective. The research site was a predominantly Hispanic community in South Texas. Participants were garnered from 20 public school districts through snowball and purposeful sampling facilitated by administrators.

The researcher used initial interviews to screen potential research candidates. From these interviews, the researcher conducted follow-up interviews to verify and evaluate their fitness for the study. Ultimately, three

participants were selected to participate in conversational interviews with the author who based his guiding questions on descriptions and definitions from the book *Leading Adult Learning: Supporting Adult Development in Our Schools* by Drago-Severson. The interviews were organized into documented narratives called “restory”. The researcher’s data analysis used literary theory and a sequential approach to storytelling to clarify the participant’s experience by theme and phenomenon.

During the final interview, the researcher used descriptive coding to analyze data through a category inventory to illuminate key themes. Elaborative coding was used to identify commonalities across three participants’ interviews and restores. Learner-oriented model of school leadership and elaborate coding were used to evaluate themes that emerged from the participants’ interviews relating to the learner-oriented model and pillar practices.

Participants reported to the clinician that they valued the time and space provided to them by their institutions that facilitated collaborative reflection. Further, these findings indicated participants’ collaborations focused on 1) learning alongside students as professional development collaborators, 2) developing practices that meet various situations, 3) being supported by theory-driven educational scholars, 4) establishing mentor/mentee relationships with master educators, 5) accessing problem-solving skills from prior careers outside of education.

The researcher deduced specific themes relating to collaboration, which

included the following:

1) Time and Space for Collaborative Reflection- Structured discussions for sharing ideas, concerns, and questions with their colleagues, students, and other professionals assist teachers in building their capacity for problem-solving and diminishing their own biases.

2) Students as Professional Development Collaborators- Through building communicative relationships with students, the respondents admitted they could more readily address their academic and social needs.

3) A Lasting, Core Professional Relationship- Engaging in a mentor/mentee relationship with one other educator offers a reliable flow of feedback from a professional collaborator.

4) Developing Problem-solving Skills in Careers Outside of Education- Prior work experience of educators was a valuable resource for resolving issues in education, which is a shift from previous strategies used for resolution in education.

5) Factors Deterring Professional Development- The two biggest hurdles to professional growth were systematic barriers preventing allotted professional learning communities and interference from last-minute administrator demands.

6) Structural Obstacles to Collaboration-Remediate logistical issues that impede meaningful collaboration was found to be both temporal and spatial exemplified as scheduling, physical distance, bureaucratic duties, and pressing requirements that prevented time for self-assessment and collaboration causing teacher

isolation and diminishing teams' professional learning communing time.

7) Large-scale Hierarchical Mandates-Teachers felt that administrator orders interfered with their accessibility to improvement opportunities by taking up their time with immaterial training that has nothing to do with modern academic ideologies of inclusion, oneness, and student-centered approaches to teaching.

Other Findings

Teachers voiced to the researcher that the lack of common planning time prevented them from collaborative problem-solving and reflecting on their practice of meeting students' needs. Respondents to the study stated that district directives focused too much on standardized testing keeping teachers from their mission of crafting lessons for students' direct needs.

In conclusion, out of the three studied teachers, two were so frustrated by the bureaucracy of the education system that they sought employment elsewhere so they could practice teaching's core values of student-centered learning that emerged from their own self-authorship and self-transforming professional development.

Techs' Impact on Instructional Delivery

Göçen Kabaran and Usun (2021) examined how the world and education have been forever altered due to the pandemic. This study explored how technology has become the mainframe of global infrastructure, which includes the delivery of instruction.

To live in the modern world today, a person must be technologically competent (Göçen Kabaran & Usun, 2021). The current expectation is that all publicly educated students should be taught how to use a computer and in turn, are using those skills to engage in their instruction.

Teachers are expected to utilize techno-pedagogical education to explore dynamic options, access a wide range of curricula, create differentiated content, disseminate information, communicate in real-time with students, parents, and colleagues; and be accessible outside of the physical classroom. According to the researchers, this teacher's classroom is no longer a physical space, it is a digital portal. This expenditure on technology requires that teachers must have high-caliber competency in tech pedagogy to meet the modern standard of instructional delivery. Because the tech world is not stagnant, in order to be current with the latest applications, it takes continuous training to utilize the most advanced delivery systems and bring forth relevant information.

The literature review conducted for the Göçen Kabaran and Usun study recommended that teacher professional development programs be conducted by field experts in digital design with the goal to elevate teacher tech competencies to a professional standard of teaching methods that are tech-centric. For this study, the professional development programming used was the Taba-Tyler Model and System Approach Model. This system encompasses planning, design/development, implementation, and evaluation stages as key components to effective professional development.

The researchers of this study sought to answer the following questions:

1) What are the teachers' perceptions of the professional development program for digital material design?
2) Through what lens should the teacher design competencies pre-test and post-test scores be analyzed?
3) Has there been a momentous change in individual teachers' confidence in their capacity to design digital materials between pre and post-testing?
4) What is the teachers' digital material design competency level at the end of this professional development program?
5) What are the teachers' perceptions of digital material application at the end of this professional development program? (p. 67)

This study used a quasi-experimental approach of quantitative and qualitative research methods to help answer the aforementioned researched questions. Two study groups were utilized during this research. The first group's members were K12 teachers who participated in the professional development program. A pre-test was given at the beginning of the training to garner a baseline understanding of the participants' computer competency level. This pretest was evaluated using the Digital Materials Design Competency Scale. Respondents were also post-tested at the end of the study using the same matrix to reevaluate teacher techno-pedagogical competence.

From the educator respondent group, two teachers were selected to be observed conducting lessons using three digital applications that they had learned during their training. Teacher A held her lessons in a computer lab while Teacher B had students use the digital applications on their cell phones. All students were observed to be actively engaged in each lesson and there were no reports of any application malfunctions.

Follow-up interviews of teachers after the professional development training and the observations were acquired via a focus group or face-to-face. There were five interview questions that were semi-structured in nature regarding the teachers' intended use of the materials and their choice of applications. Each interview transcript was reviewed by an expert in the field and the transcripts were analyzed using context analysis and coded according to the themes. The four themes that emerged in this study were the positive aspects of the program, usability of information learned in the program, the negative aspects of the program, and suggestions for the program. The study was analyzed using Kabaran's "The Digital Materials Design Competences Scale (DMDCS) (2020) and Wang's "The Scale of Self-Efficacy Perception of Technology Integration (SSEPTI)(2004) (Göçen Kabaran & Usun, 2021, p.69).

The second study group was composed of the 13 students of teachers who participated in the tech- professional development program. The students were interviewed using four semi-structured questions on a follow-up evaluation

form garnered after the professional development classes were completed and the teacher practice had commenced.

Researchers used Kirkpatrick's Model (1976) to evaluate the program, which focused on participants' reactions, learning, behavior, and outcome/effect. The Shapiro-Wilk test, Skewness, and Kurtosis were used to test for the normality of the small sample size. Levene's Test for Equality of Variances was used to validate the homogeneity of distribution. Sample "t-tests" evaluated the scale numbers. Cohen's-d formula calculated the effect size using both study groups' means.

One of the major findings of this study was teachers' perceptions gravitated mostly toward the theme of positive aspects of professional development, the components of which are: digital materials, process, training, and personal and professional contribution.

The research intake interview and pretest exposed that teachers in Turkey, prior to this study's professional development training, were not as well equipped with techno-pedagogical knowledge as was previously thought. Teachers lacked sufficient knowledge and skills to create digital content, gravitated toward basic digital applications that were adequate but not innovative, struggled to obtain digital materials, did not readily receive digital material, defaulted back to traditional teaching methods and materials when given the opportunity; and did not receive expert support or training in digital material design prior to this study's professional development program.

The study's posttest, observations, and exit interviews revealed that professional development had a positive impact on both teachers and students. The teachers' post-test revealed an increase in higher competency in techno-pedagogy and digital application usage from the pretest. Furthermore, professional development expanded teachers' self-efficacy in designing digital materials using application training. Both teachers and students articulated that digital materials diminished the monotony of the curriculum and increased student motivation, attention, engagement, and enjoyment of the educational material and process.

Osborn's (2016) study showed the world is tech-driven, including the school sphere, where educators prepare students for college and career readiness. Schools that have not integrated technology into their management, communication, and their instructional delivery are causing their students to fall behind, which is why technology professional development and teacher buy-in are so important because without either students will not be prepared for 21st-century employment opportunities. Both business leaders and government officials who are not seeing students prepared for the technological job market are sounding the alarm isolating the deficiency of tech integration in schools at the teacher level. This deficiency is of great concern because it is not keeping in line with Common Core Standards, including technical skills training for students.

The literature reviewed for Osborn's study revealed that well-designed professional development that impacts teachers' knowledge, influences their

beliefs, and changes their performance is the key to solving this problem of instructional ineffectiveness and lack of efficacy in the classroom.

Further, the literature review demonstrated that teachers will integrate technology into their lesson plans if they believe that the tech will enhance their lesson's value. The problem in Osborn's study is that not enough teachers were integrating technology into their everyday use as instructional leaders. As a result, the researcher centered the research study around the use of technologies by teachers that support constructivist and socio-constructivist instruction through learning.

The question explored by Osborn was: To facilitate and promote more teacher buy-in, how can professional development programmers create learning opportunities that facilitate a change in educational and social practices that integrate technology throughout the content area learning and collective school community?

The hypotheses for this study were: Teacher technology professional development and teacher preparation will fundamentally correspond with the level of technology integration. How does technology professional development direct and drive professional practice?

Qualitative Research Method

For the qualitative part of the study, the researcher explored the question: Does teacher technology professional development increase technology use in teacher instructional methods?

Quantitative Research Method

For the qualitative part of this study, the researcher explored the connection between technology professional development and the amount of technology amalgamation in a classroom?

The null hypothesis for this study was: There is no compelling interrelationship between technology professional development, teacher preparation, and integration of instructional technology. The overarching hypothesis for this study was: Teacher technology professional development and educator training will significantly correlate with the amount of technology amalgamation within the instructor's classroom.

For this study, the researcher used a one-time partial Likert survey with a consent form foreword using Google Forms to gather descriptive information from 100 participants to formulate a profile and aggregate the relationships amongst characteristics. After the initial survey, 10 participants were selected for a follow-up interview. The profile consisted of the teachers' ages, gender, years of teaching experience, courses being taught, and educational levels in relation to the amount of technology being used in the classroom.

The follow-up interview gathered data on teacher pedagogy, instructional practices, perceived technology self-efficacy, and level of technological integration. The researcher trusted the teachers' self-reporting and perceptions of their experiences. The researcher used eight scripted, open-ended questions to drive the narrative of the personal interviews which were followed up with

constructed response questions and more open-ended response questions to facilitate the expansion of ideas generated during the personal interviews. All information was kept confidential; the researcher did not know the contact information of the Internet respondents. The ten volunteer subjects' information was collected using the Google Forms Add-on application, which allowed participants to create their own email notifications, send emails to the researcher, and volunteer themselves for the personal interview phase of this study from a voluntary contact list. Interviews were conducted using Skype, IM, or telephone. The researcher triangulated their findings from the data collected from the survey instrument, interview responses, and member-checking responses that clarified nuances and meaning.

Three themes emerged from this mixed-methods study: 1) Participants sought more training in order to operate the technology devices properly, 2) Participants did not have a uniform background of technical knowledge, and 3) Participants were most interested in face-to-face breakout technical training sessions whilst a few were open to and had participated in other training such as online videos that were self-propelled. All participants stated that once fully trained and comfortable with the operating systems, they would be more inclined to utilize them in their lesson plans.

A few participants indicated they were willing to share their current knowledge with others. Most of the participants have requested formal multiple scheduled technological training by the professional development department

intimating that a well-designed program would be the most successful for them to become completely knowledgeable and comfortable with using technology in their classroom management and content delivery routines. Most participants indicated that direct instruction on the use of devices, application systems, and tools, modeling the implementation of technical skills within the curriculum, and cultural integration goals would be the most effective form of training for them.

Participants reported that at the time, technology professional development was not widely promoted nor easily accessible. The form of technological training notification required teachers to seek out the training information on the district website. Some noted they had to receive school email notifications of upcoming training sessions but missed dates due to late receipt of information or they had forgotten the information. Most participants who did attend training indicated participation was due to their immediate signup, colleague word of mouth anticipation, mandatory calendared event, or direct invitation and follow-up confirmation from the organizer.

Many of the participants felt that the training offered was too basic and there was no opportunity for feedback on the quality of the session or the ability to request further information or training, and there was little or no support after the initial training.

In conclusion, educators required a better-designed professional development program series to meet the school's technological goals whilst

utilizing organizational engagement and support strategies to gather participants to attend training sessions and buy into new sustained cultural norms.

Supporting teacher professional development as tech educators is vital to the success of the global economy, which depends on competent educators to create a pipeline of college and career-ready students to thrive (Göçen Kabaran & Usun, 2021; Sprott, 2018; Osborn, 2016).

Teacher Professional Development Program Design

The final phase of effective teacher professional development is strategic design. According to the literature, there are specific components, methodologies, and measurable characteristics to design-thinking practices and design-led pedagogy that facilitate the enactment of ideas that support educator growth translating into students' achievement (Darling-Hammond et al., 2017; Kennedy, 2016; Soine & Lumpe, 2014).

Kennedy (2016) revealed that most educational agencies agree that teacher professional development is a requirement, but there is no central standard as to what is the most effective system to ensure teachers' use of the new desired practice. Administrators and professional development trainers grapple with trying to figure out what kind of professional development fosters the most teacher learning that transforms the teachers' educational practice inside the classroom. PD programmers look to customize their presentations' design

features by focusing on traditional teaching practices, subject-centric strategies, curriculum, and pedagogy that build upon how students learn.

Professional development trainers begin their programming design by identifying the central problem of practice that needs targeting to come up with a pedagogy that will support teachers in resolving that problem within their classrooms. The underlying issue of program design is to build upon a teacher's prior knowledge because there isn't any standardized language that defines teachers' work and their analytical knowledge that guides all their work.

This research study sought to define programs according to their underlying theories of action. The following questions were central to the study:

1. What problems of practice do TPD programs aim to use to inform professional development?
2. What pedagogy do programs use to facilitate the enactment of their ideas?

This study by Kennedy evaluated 28 prior studies of professional development to create a "best-evidence synthesis" (p.94) from journal issues between 2000-2014. The studies were published in the following journals: American Educational Research Journal, Journal of Educational Psychology, Journal of Teacher Education, Teaching and Teacher Education, Teachers College Record, Peabody Journal of Education, American Journal of Education, The Elementary School Journal, Journal of Research in Mathematics Education,

Journal of Research in Science Teaching, School Science and Mathematics, and Reading Research Quarterly (p.949).

The criteria for a study's selection were:

1) The study was about professional development only.
2) The study included evidence of student achievement.
3) The study design controlled motivation to learn.
4) The study had a minimum duration of 1 year.
5) Researchers follow teachers, rather than students, over time (p.949-951).

The researcher estimated the individual program effects by analyzing the computed effect sizes for the student-learning outcomes of each study. The data study included analysis of variance or covariance, desegregation of student-level data and classroom-level (teacher unit) data, and hierarchical linear models that determined different estimates of effect sizes.

This research generated a framework for defining the important aspects of professional development. Programs that focus on content knowledge that helps teachers learn to expose student thinking were found to be one of the most effective professional development strategies.

A learning community's motivation was also important in professional development effectiveness. Teachers who were given a choice to choose their professional development, even limited, showed more interest than those who were mandated to participate in training. Also, collaborative professional

development programs where coaches shared and utilized observation and evaluation rubrics with participants tended to be more successful than ones that did not. Finally, professional development that paid direct attention to who the attendees are, their ideals, and intrinsic motivations to infuse pedagogical content knowledge were more easily accepted than new programming that required teachers to completely set aside old knowledge.

Kelly (2019)conducted a study that determined that teachers seek to actively develop their skill throughout their professional life. Educators prefer long-term coaching professional development instead of the one-off workshops that are generic, do not offer indelible support, and seldom take into account the teachers' experience and knowledge. Future teachers require that professional development facilitators demonstrate respect for their self-determination, support teacher relationships with their school, and provide guidance to assist teachers in developing and polish existing competencies.

According to the researcher, a global shift is happening in the 21st-century skills required to be successful. Foundational knowledge is no longer enough. Teachers must turn their attention to holistic and meta-cognitive development of themselves and their students.

This study examined the development processes of these competencies through initiating, constructing, and testing a model of teacher professional development referred to as co-design for curriculum development (CDCD). In this study, a team of professional development programmers fluent in pedagogy,

education program design, and content creators worked with educators to actualize high-caliber teacher professional development through the collaborative design of lesson plans to enhance 21st-century learning.

After reviewing the current national policy, these researchers determined that active collaboration (peer mentoring, coaching, team teaching, and co-teacher projects) was the most engaging form of professional development that fostered the most teacher investment. The scope of this collaborative work goes beyond the simple sharing of resources and casual advice. The target is the meta-cognitive development of the educator.

This study sought to 1) define a problem of practice and target success goals, 2) identify a theory that can support solution design, 3) ascertain computative testing of the design through stakeholder use, and 4) gather data and artifacts to support outcome determinations that can be used to design and build future effective professional development opportunities.

The outcome of the study was to develop a co-design for curriculum planning to meet the needs of implementation of the Digitech curriculum within two public schools (one city and one rural) in Queensland, Australia. The areas of concentration were technological knowledge (programming and data structures), content knowledge (concepts taught within the curriculum), and pedagogical knowledge (strategies for implementing this project-based learning).

The questions that guided this study were:

1) What design thinking practices and design-led pedagogy can be utilized to facilitate the learning of basic computer skills, enhance problem-solving capabilities, and build creative confidence?
2) What pedagogical practices, co-design efforts of curriculum planning, and design-thinking frameworks and processes develop computation skills for 21st-century learning?
3) How will these new instructional designs meet the curriculum achievement standards?
4) How will these new instructional designs be measured and assessed?
5) How does co-design generate quality professional development? How can this model be tested?
6) Does the online modality work? Can this model be implemented on a larger scale?

This study used design-based research to develop solutions for the implementation of a new computer instructional service called Digitech. Educators were asked to act as a co-design team to come up with strategies to implement the model of instructional design. These co-design teams were made up of experts in STEM education, design-based pedagogy, design thinking, and digital technology curriculum. Only one of the team members was a registered teacher.

This study took place in two schools, one from the city sphere and one from a rural area of Queensland, Australia. The goal was to teach the computer software system of Digitech effectively to students in the ninth and tenth grades.

The construction phases were: design research (examining real-world problems design and testing), co-design (solution planning), design-led pedagogy (planning of a 10-week project-based curriculum), and design thinking (examination of the student development process that evolved from the instruction) (Kelly, 2019).

The research process progressed as follows: the research teams contacted school administrators to pitch the project to them. Teacher participants were interviewed using semi-structured questions, and selection commenced. The research team solidified the subject participation criteria by limiting the sample to ninth and tenth-grade students. The research team decided to conduct two workshops with teachers. The first workshop scaffolded the learning goals garnering creative ideas from the teacher participants. Then these co-designers developed and tested materials to meet the foreseen challenges using an experience/ journey map to assist them in visualizing the students' anticipated experience to foment more curriculum design.

During this workshop, lesson plans were created using the standard structure of lesson planning formation: overview, objectives, time frames for activities, and step-by-step instructions.

Amid the second workshop, co-design teams demonstrated achievable real-world outcomes through website design practice. Later on, during the classroom implementation phase, teachers and research team members collaborate back and forth using emails and digitally shared documents to discuss progress through the examination of student artifacts. Then teachers and researchers drafted a plan based on revisions of co-design collaboration via emails and digitally shared documents. Teachers redesign the implementation plan over the course of instruction to document mitigation efforts to deliver effective instruction that results in measurable outcomes. Towards the end of the study, researchers conducted semi-structured exit interviews with the teachers. Teacher-research teams shared their findings from the software implementation project with their community and the Digitech portal. No data was gathered on student engagement, perceptions, or success rates.

The outcomes from this study showed that co-design for the curriculum planning model led to high-caliber teacher professional development. Results included documentation of a tested design model for teacher professional development; evidence of objectives met through the completion of the assigned task of website creation; positive teacher perceptions as documented from their exit interviews; and the construction of reusable research design principles to duplicate the study again for scalability testing.

The more teacher professional development design centers itself around and collaborates with the educators they wish to influence, the more effective teacher professional development will be.

The Essential Components of Effective Educator Professional Development Design

Darling-Hammond, Hyler, Gardner, and Espinoza (2017) analyzed 35 research studies that explored the links between teacher professional development of teaching and learning. This study was based on PD that is 1) included content that was focused on teaching strategies and specific curriculum content that supports teacher learning, 2) included incorporation of active learning that directly engaged teachers in designing and practicing teaching strategies, 3)included the creation of collaborative spaces that are non evaluative and safe to share ideas, 4)included modeling of curricula implementation and instruction instill a vision of goal achievement, 5) included coaching services for individual teachers and PLCs to receive, support, and share one another's expertise about content and evidence-based practices, 6) included built-in feedback and reflection opportunities that support teacher processing of new initiatives to generate investment, ownership, and buy-in of new skills and knowledge, 7) included sustained duration for implementation which provides time for teachers to "learn, practice, implement, and reflect" upon new strategies that improve their practice (Darling-Hammond et al., 2017, p. vi).

Darling-Hammond et al.'s (2017) vision of quality teacher professional learning encompassed the following: 1) the adoption of standards for professional development, 2) the evaluation of the use of time and school schedules for optimization through redesign, 3) the use of staff needs assessment surveys to identify areas of need and desired development, 4) further development of coaching services to provide universal supports and prescriptive professional development, 5) amend current initiatives such as the Every Student Succeeds Act to formally embrace new standards, reform measures, and generate funding for teacher professional development, and 6) lobby policymakers to provide flexible funding and pay for continuing education units at higher education institutions to support professional educators as life-long learners and further their professional skill-sets. Furthermore, the researchers believe that well-designed professional development is the cornerstone of a comprehensive education system where students develop knowledge, skills, and competencies from highly trained, strategically developed, effective educators.

Darling-Hammond et al.'s (2017) goals were to determine a researched-based framework and process that teacher professional development designers can use to construct transformational learning opportunities for educators that achieve district goals and heighten student learning outcomes. Darling-Hammond et al.. analyzed the elements of quality, dynamic professional development, and the expectations of policymakers and academia to define the

challenges and targets of education systems that teachers must competently execute to succeed.

The researchers reviewed 35 empirical studies from peer-reviewed journals or studies submitted to federal agencies to determine what constitutes statistically positive elements of professional development that are the most effective in improving teaching practices that improve student outcomes. They qualitatively coded the studies to isolated features and pinpointed seven themes of positive constructs, practices, structures, delivery systems, supports, schedules, controls, and indicators from within the 35 studied professional development implementations that collectively had measurable, effective professional outcomes. All of these features of effective PD were generated, defined, and explained by theory and purpose. In addition to the aforementioned criteria, each reviewed study had its own control group that validated its findings.

The researchers also identified when strategies were not used, which often leads the reader to reflect upon how the absence of each method may have impacted outcomes. Furthermore, this report examined the constructs of quality on-the-job training that are collaborative, reflective, fluid, and measurable.

Lastly, the researchers found areas where improvement was needed to increase the effectiveness of professional development but did not elaborate on those themes because they were not the focus of this study. The researchers identified seven common design elements of effective PD approaches as follows:

1. They are content-focused;

2. They incorporate active learning strategies;

3. They engage teachers in collaboration;

4. They use models and/or modeling;

5. They provide coaching and expert support;

6. They include time for feedback and reflection; and,

7. They are of sustained duration (p.22).

According to this study of the literature, a set of effective professional development designs emerged and needs further exploration as to how to actualize these elements.

Why Continuous Learning for Educators Matters

Soine and Lumpe (2014) revealed that great schools embody teachers who are lifelong learners committed to continuously developing their skills in collaborative communities. High-quality educators and teaching teams do not happen by chance, nor in isolation.

In their study, the researchers determined that teaching teams of excellence are strategically formed, nurtured, and developed through mindful professional development practices focused on collective accountability programming amongst the grade level and department teams. According to Sone and Lumpe, the progress and achievements of these teaching teams are definable and measurable because they emanate from a series of well-designed professional development opportunities that are interconnected and sequential.

Researchers deduced that the primary purpose of an efficient, professional development program is to design, construct, and implement an effective training apparatus that is dynamically measurable.

According to the literature reviewed by the researchers, there are five empirical indicators of effective professional development surfaced during a review of the literature: (a) duration, (b) interactive and interesting activities, (c) subject-enhancing knowledge, (d) foundational understanding and appreciation of teachers' needs and circumstances, and (e) collaborative opportunities (Desimone 2009; Garet et al.. 2001).

The second goal of this study was to determine if the five qualitative characteristics of professional development forecast outcomes, thus adding to the predictive validity of the professional development apparatus. Guskey (2000) defined five crucial elements for assessing professional development, which included: (a) participants' perceptions, (b) participants' scholarship, (c) organization infrastructure for progress, (d) participants' incorporation of new knowledge and skills into their practice, and (e) student learning outcomes.

In this study, researchers ascertained that professional development programmers must consider the following measures when creating their programming:

(1) What is the underlying amplitude of the professional development apparatus?

(2) Does the professional development system measure teachers' judgment about the components of professional development? What evidence substantiates the PD system's internal consistency and testability?

(3) What components of professional development forecast teachers' use of new knowledge and skills within their practice?

(4) Do components of professional development calculate student learning outcomes?

Soine and Lumpe (2014) collected data from the Summit District Improvement Initiative Research Project. The Summit Initiative focused on specific outcomes within the themes of (a) compelling leadership, (b) progressive instruction and learning, (c) forward-thinking school culture, and (d) definable and synergetic teaching team relationships.

Their study used a dynamic methodology that immersed psychometric quantitative and qualitative measurable elements to deduce the most transformative components of professional development. The researchers determined that individual educators' talent, demeanor, character, and sophistication influence their instructional practices, self-assessment, and conscious plan to improve student learning.

The researchers tested the criterion variables of this study from student scores on Washington State's Mathematics Measures of Student Progress which measured students' instructional outcomes. Students' scores were reported

using an interval scale of (200-575) and class averages. The third, fourth, and fifth-grade mathematics students' exams had 20 multiple-choice items, six completion items, and four short-answer items.

In addition, this study measured teachers' use of knowledge and skills through the lens of the STAR observation protocol. The STAR observation protocol evaluated teacher and student activities in areas of skills, knowledge, aptitude, engagement, and collaboration. The researchers conducted thirty-minute classroom observations that were rated using an ordinal scale from STAR observers whom the researchers trained in a weeklong seminar.

The researchers utilized a predictor variable rating system centered upon the characteristics of professional development using a 5-point Likert scale of which the mean score of each subordinate range of values was calibrated to align with a particular characteristic. Lastly, researchers used Spearman's Rank-Order correlation to quantify the data.

During this study, clinicians studied a sample group of teachers from five public school districts who were issued. Soine and Lumpe used an outreach survey email that listed the purpose of the study, approval by the district leadership, a declaration of implicit consent, a list of possible audiences for presentation and publication, and the contact information of one of the clinicians. From the information collected by the outreach email, researchers assembled a focus group of seven teachers to interview.

The clinicians asked 12 open-ended questions related to the five elements of professional development (a) participants' perceptions, (b) participants' scholarship, (c) organization infrastructure for progress, (d) participants' incorporation of new knowledge and skills into their practice, and (e) student learning outcomes. The researchers used factor analysis to examine 300 case studies. Lastly, clinicians conducted a focus group of 7 teachers encouraging participants to share their ideas and insights as to the constructs of effective professional development.

One of the major findings of this study was a framework of efficiency for the Teacher Professional Development (TPD) survey due to its low-cost, high-impact online delivery system that reached a lot of teachers in a short period of time. The apparatus found there was no significant relationship between professional development and teachers' implementation of new knowledge and skills upon student outcomes. This finding challenges the validity of professional development's contribution to the enhancement of the school improvement process.

The study revealed that teacher collaboration does increase teacher subject knowledge, which theoretically should improve instructional practices and student outcomes, but this assumption was not substantiated through this investigation. The influence of teachers' professional development on their teaching skills was diverse. This study found that the definitive difference in student improvement was identified between high and low-functioning faculty

groups which affirmed the concept that lifelong learning educators are always progressing.

The studies described in this section revealed that there are custom-fit components and measures to teachers' professional development design that needs to be standardized to ensure that the TDP is effective. Further study needs to be conducted to create, test, and regulate such a research-based construct as identified by the researchers: Darling-Hammond et al., 2017; Kennedy, 2016; Soine & Lumpe, 2014.

Summary

This literature review shows that teacher professional development is about supporting individual people in a very personal endeavor. Professional development programmers need to meet the teachers where they are at in the process of honing their skills as educators (Tantawy, 2020; Olsen & Buchanan, 2017; Shaw, 2017; Allen & Penuel, 2015; Bayar, 2014).

This holistic approach must also be framed in the context of the tech-centric society in which all people live and work so that everyone may be successful (Göçen Kabaran & Usun, 2021; Sprott, 2018; Osborn, 2016).

The literature in Chapter Two provides a starting point for the professional development of the teachers with the characteristics of the client and the context in which they have to utilize any content and skills learned. This literature review also revealed several interconnected elements that have been identified as

effectively shaping a functioning apparatus that needs further study and testing (Darling-Hammond et al., 2017; Kennedy, 2016; Soine & Lumpe, 2014).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This study will start with approval from a Pre K12 public school district to work in conjunction with the Office of Secondary Curriculum and Instruction to conduct an online professional development needs assessment survey of teachers from the high school regarding their perceptions, teaching processes, operational knowledge, and learning needs to successfully meet their teaching objectives.

Through this preliminary survey, high school teachers will be asked to volunteer in a follow-up interview session. Two teachers from each grade level of a specified department within the high school will be interviewed either in person or via Zoom to provide answers to semi-structured open-ended questions to gather nuanced information regarding professional development (PD) related to teachers' perceptions, needs, prior knowledge, learning preferences, professional goals, and level of achievement in garnering their goals. Teachers will be asked to contribute their ideas as to what quality professional development design looks like in order to identify the standards teachers hold most important (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

Teacher interview responses will be qualitatively coded to identify and isolate patterns of program features, characteristics, and themes to determine a

list of significant deductive codes validated by previous literature (Darling-Hammond et al., 2017; Bayar, 2014).

Deductive codes may include, for example, collaboration and time duration, sustained duration, opportunities for feedback, reflective practice, increased motivation, satisfaction, quality of the professional conference, informal communication with colleagues, uniformity of assessment, pre-test determiner, post-test determiner, comparison of teachers who used the new curriculum with professional development (PD) vs, teachers who used new curriculum without PD, history of previous year student achievement, percentile of student achievement, match to existing teacher need, match to existing school need, teacher involvement, active participation opportunity, long-term engagement opportunity, and perception of high-quality PD instruction (Darling-Hammond et al., 2017; Bayar, 2014).

These elements that teachers identify are essential to discern their full investment in the professional development process (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015). The goal is to determine from teachers' responses the key components of professional development design that would create a transformational teacher professional development (TPD) system that is routinely measurably successful (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Bayar, 2014; Soine & Lumpe, 2012).

From the data collected during phases one: the professional development needs assessment survey and two: follow-up respondent interviews, the researcher will design a professional development program under the auspices of the Office of Secondary Curriculum and Instruction utilizing elements and key components that the survey respondents identified are most important to them to constitute their personal investment in new teaching methods desired by the district (Darling-Hammond et al., 2017; Shaw, 2017; Bayar, 2014). The bespoke training session will be conducted by the researcher at a district-wide training day, where participants will choose this study's professional development session from a catalog of training. The training will be open to all district-wide faculty. Study participants' anonymity will continue during the training session amongst the non-study participants. The presence of non-study participants will help conceal the identities of the study's participants amongst the crowd of teachers. No administrators will be present during the professional development session. After the training session, respondent-participants will answer a post-survey to reveal if the researcher's constructed professional development design components met the study respondents' needs and will be instrumental in improving the research participants' teaching practice (Olsen & Buchanan, 2017; Kennedy, 2016; Allen & Penuel; 2015).

Research Setting

This quasi-experimental study will be conducted in five phases. The first phase is the quantitative portion, which consists of an online professional development needs assessment survey. The survey will be distributed via district emails. The second phase will be followed by recorded qualitative interviews conducted in person or using Zoom whose participation will be garnered through the preliminary professional development needs assessment survey as a volunteer opportunity (Göçen Kabaran, 2021; Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Allen & Penuel, 2015). The third phase is the design of the researcher's training session based on the teacher respondents' needs assessment survey and the follow-up interviews ((Darling-Hammond et al., 2017; Shaw, 2017; Bayar, 2014). The fourth phase will be the implementation of the researcher's experimental professional development training session conducted by the researcher under to oversight of the Office of Secondary and Instruction (Darling-Hammond et al., 2017; Shaw, 2017). The fifth phase will be a follow-up post-survey of participants who attended the professional development training session. The post-survey will be used to determine the success of the training and verify the validity of the needs assessment survey and follow-up interview findings (Göçen Kabaran, 2021; Kennedy, 2016).

Research Sample

This study will include high school teachers from a Pre K12 public school district that serves a population of ten thousand one hundred forty-two students that is fifty-nine point five percent economically disadvantaged, twenty-one point two percent ELD, forty-eight percent female, fifty-two percent male, ten-point six percent white, eight-point six percent Black, one point seven percent Asian or Asian/Pacific Islander, seventy-three point five percent Hispanic/Latino, two percent Native American or Alaska Native, and point six percent Native Hawaiian or other Pacific Islander. The high school graduation rate is ninety-three point five percent. The annual per-pupil spending is twelve thousand three hundred five dollars (USNews.com, 2022).

Research Data

To gather a representative sample of the Pre K12 teachers' perspectives of relevant teacher professional development design, teachers across the participating district will be asked to answer a professional development needs assessment survey that includes an invitation for teachers to volunteer their time to participate in a follow-up interview to answer semi-structured open-ended questions regarding their perceptions and needs to be required of professional development design to garner their full investment in professional development training that is consistent and measurable. The data from the professional development needs assessment survey and the follow-up interviews will be

utilized to construct a professional development training seminar to meet the needs of participating teachers. After the professional development training, teachers-participants will complete a post-survey regarding the professional development training to determine if their needs were met from the training and determine if the professional development training was able to effect change within the educators' teaching practice.

Validity and Reliability of the Data Collection

The qualitative validity procedure of this study will be cross-checking the research's framework and procedural steps against what other researchers have used in their approaches to conducting similar research (Creswell, 2018). The evidence of this study will be validated through the process of triangulation using academic sources to justify the identification of themes and attributing educational theory (Creswell, 2018). Throughout the research process, a reflective journal will be kept so that transparency of the process is maintained and interpretation of the findings is chronicled so as to mitigate any concerns of bias of the researcher (Creswell, 2018).

To mitigate transgressions during the study, themes will be identified that both solidify the findings and challenge the findings to ensure validity (Creswell, 2018). This project will be under the auspices of the Office of Secondary Curriculum and Instruction, whose director and the director of English Learners and Categorical Programs will monitor the researcher for integrity purposes

through questioning and debriefing of the content construction of the professional development session phase of the study to ensure that training information used is in alignment with the State's instructional frameworks. The research may be reviewed by the Office of Secondary Curriculum and Instruction, which may review, question, and audit the aggregate information of the study for integral assurance and interpretation by the authorizing district (Creswell, 2018). Participants identifying information will remain confidential from the district office.

The data for the quantitative phase of this study will be gathered using Qualtrics. Respondents will be asked to answer a Likert-scaled survey designed to ask comparison questions to identify respondents' perceptions of quality teacher professional development practices that met their individual needs (Darling-Hammond et al., 2017; Allen & Penuel, 2015). The preliminary survey questions will be generated from the findings of the literature review in chapter 2. Qualitative validity will be determined through the use of member-checking the data collected by the respondents themselves (Creswell, 2018). Before submission of the online survey, respondents will be prompted to check their answers and afforded an option to provide a comment for each section along with the Likert scale response.

The qualitative interview questions will be generated from the survey responses to the preliminary survey. After the interviews are completed and transcribed, the respondents will be afforded the opportunity to review their own responses and utilize an option to engage in a follow-up interview review to

provide clarification to their responses via the additional interview session (Creswell, 2018).

The professional development program's design will be constructed from the responses from the preliminary needs assessment survey, and follow-up interview responses. The post-survey will be constructed from the preliminary study responses, the follow-up interview responses, and the responses of the participants during the professional development activity (Göçen Kabaran, 2021; Darling-Hammond et al., 2017; Shaw, 2017; Bayar, 2014).

In-depth descriptions will be used to richly qualify the findings gathered during the interview process, and the observation process during the professional development training so that the study's results are more realistic to the reader so they may experience the respondents' perspectives (Creswell, 2018).

The qualitative reliability of this project will be conducted through the meticulous documentation of each procedural step so that the process can be easily duplicated in the future (Creswell, 2018). Transcripts of interviews will be generated automatically via Zoom, or the interview recording will be transcribed manually and checked against the recorded interviews manually. The code index will be meticulously maintained, and the transcripts' interview coding will be cross-checked twice in order to ensure the accuracy and consistency of the coding (Creswell, 2018).

A pilot test will be conducted after the needs assessment survey, and the follow-up questionnaire to field test the validity and reliability of the needs

assessment survey and the follow-up questionnaire as instruments of inquiry to predicate professional development design. Pilot testing also helps in assessing upscaling of the results to further develop professional development design by determining how long programming should take, the types of materials needed, participant fatigue, and procedural and data flaws (Creswell, 2018).

Data Analysis

The preliminary survey's data will be assessed using cross-tabulation charts, graphs, and bar charts to compare results from different respondents. Scale data will be used to determine the mode, mean, and median of how respondents strongly feel about specific areas of sensemaking, competencies, learning modalities, and desired training services. Results will be compared to teacher professional development averages from the Learning Policy Institute findings (Darling-Hammond et al., 2022). The survey will be used to establish the follow-up interview and experimental professional development's internal goals to discover the key components to effective teacher professional development. The survey will afford the researcher the ability to find trends in teachers' perceptions and ground those perceptions in educational theories such as constructivism's sensemaking theory and adult learning theory otherwise known as transformational learning theory (Darling-Hammond et al., 2017, p.7-8; Allen and Penuel, 2015, p.137). The data collected will afford the

researcher the ability to construct open-ended questions to facilitate the follow-up interview more effectively.

The qualitative interview responses will be analyzed first using deductive coding that isolates patterns of program features, then inductive reasoning and analysis will draw conclusions to determine thematic content to discover commonalities and differences across the data set. The researcher will analyze the respondents' narratives to find critical points to align with educational theory to construct meaningful professional learning opportunities for educators (Göçen Kabaran et al., 2021; Creswell & Creswell, 2018; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

Trustworthiness of the Study

The trustworthiness of this study will be established through the use of data triangulation (Creswell & Creswell, 2018). The preliminary survey, the interview responses, the researcher's observations during the professional development activity, and the post-survey will be compared to each other to identify recurring patterns, and isolate themes to ground them in educational theory (Creswell & Creswell, 2018). Before the final report is issued, interview respondents will be given the opportunity to review the transcripts of their interviews and verify their responses for accuracy as well as participate in a follow-up interview to provide clarity to their initial interview (Creswell & Creswell,

2018). A code matrix that is grounded in educational theory will be created to establish consistency of the coding (Creswell & Creswell, 2018).

Positionality of the Researcher

As an educator who has taught 4th, 6th, 7th, 8th, 9th, 10th, 11th, and 12th grades full time as well as been a Teacher-on-Special Assignment (TOSA), I have attended and conducted teacher training before, but not through the lens that I am studying now. I have had both a positive experience and negative experiences receiving professional development training and conducting professional development training.

I have to be very careful that my past experiences do not cloud my judgment through this deeper process that is centered around teacher input to design and construct the professional development experience. Usually, teacher professional development is a top-down endeavor where the district tells the educators every step of the process toward the target. This study attempts to determine the feasibility and validity of professional development with a bottom-up approach. This concept is new to me, which is exciting and anxiety-building at the same time because it is very different. As a former TOSA, I am used to being in the driver's seat with a map provided to me by the district, disseminating district-mandated training to take everyone toward the district's goal.

In this study, the teachers are the driving force of professional development strategies that need to align with district targets to resolve issues.

Trying to develop a delivery system that addresses and empowers educators' needs and ultimately aligns those needs to the district's demands effectively within my own school community is a little unnerving because I don't want to let anyone down. As an educator, I am a service-oriented person. My goal for this study is to be an instrument of service to the educator community.

Keeping this in mind, during the interview phase and professional development activity, I have to remember to actively listen at all times and keep my own personal experiences on the back burner so that my respondents' needs are clearly recorded, understood, and utilized to support their needs, not mine. I am simply a documentarian and facilitator.

Summary

This research is a quasi-experimental study that shall be conducted in 5 phases: an investigative survey of teachers within one K12 school district, followed by interviews of six voluntary candidates: two from the elementary level, two from the middle school level, and two from the high school level. A professional development activity will be designed around teacher-articulated needs and implemented to volunteer participants. Lastly, a follow-up survey will be conducted to ascertain the success of the professional development in meeting the teachers' needs whilst aligning with the district's targets. Triangulation will be based on the multiplicity of data collected during the five

points of the process. The data will be assessed through the process of cross-tabulation of the data and grounded in constructivism's sensemaking theory and adult learning theory otherwise known as transformational learning theory (Darling-Hammond et al., 2017, p.7-8; Allen and Penuel, 2015, p.137). The end goal is to identify the key components of professional development design that address the immediate needs of teachers to influence and increase their investment in district-desired instructional change to their instructional practice that is measurable, upwardly scalable, and conducive to further improving professional development design.

CHAPTER FOUR

RESULTS

Introduction

This chapter presents the findings from the research study exploring the key components of teacher professional development design. This quasi-experimental study sought to understand the impact of teacher identity and perceptions of self-actualization on defining the key components of effective teacher professional development design (Sprott, 2018, p.322; Darling-Hammond et al., 2017, p.v). This study aimed to determine the key design components of transformational teacher professional development programming. The research questions explored in this study were:

Research Questions

1. What effect do teachers' self-perceptions have on their professional development interests and skill development?
2. What components of professional development design and methods do teachers perceive to be the most valuable?
3. What are the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable?

This study started with a pre-survey followed by follow-up interview questions used to develop a professional development session. This research

ended with a post-survey administered at the end of the professional development session. The constructed study ascertained the holistic development of educators' processes and determined the components of a professional development system that is effective in fostering and facilitating teacher achievement and, thus, desired student outcomes (Sprott, 2018; Darling-Hammond et al., 2017; Allen & Penuel, 2015; Bayar, 2014). The study was not developed as an evaluative tool to assess individual teacher performance.

This study tested three central aspects of professional development design: 1) teacher professional development programmers must get to know their clientele, the teachers: who they are, their perceptions, their thought processes, and how they operate 2) Programmers must understand and respect the world in which the teachers have to operate and 3) programmers must construct a professional development apparatus that systematically addresses and measures each educators' needs and achievements over a duration of time (Darling-Hammond et al., 2017; Soine & Lumpe, 2012).

Participants.

The pre-survey and post-interview sessions had eleven respondents. Five of those respondents attended a professional development seminar that was developed from the pre-survey responses and follow-up interviews. The five professional development attendees completed a post-survey after the professional development session. To safeguard confidentiality, the research

data collected in the surveys will be reviewed in the aggregate, and pseudonyms will be used to attribute statements made by the respondents.

Participants were verified as employees of the school district as part of triangulation. The demographic information of the study participants reveals the effect of teachers' self-perceptions of themselves, their professional development interests, and skill development. Please see Tables 1-20.

Nearly 100% of the interviewees identified as classroom teachers, with only 9.09% identified as push-in teacher who specializes in teaching SPED students who are on their caseload inside their regularly scheduled general education class taught by a general education teacher. The following findings are presented by the research question.

Because the response rate for attendees of the professional development session and the post-survey sample was only 5 participants, only inferential statistics will be used to analyze the data.

Research Question 1: What effect do teachers' self-perceptions have on their professional development interests and skill development?

Professional development design comes down to three phases: 1) teacher professional development programmers must get to know their clientele, the teachers: who they are (e.g., demographics), their perceptions, their thought processes, and how they operate (e.g., their roles in the school setting, student populations taught, years of experience in education, etc.) 2) programmers must

understand and respect the world in which the teachers have to operate and 3) programmers must construct a professional development apparatus that systematically addresses and measures each educators' needs and achievements over a duration of time (e.g., types of professional development teachers have previously attended).

This portion of the study centered upon the question: What effect do teachers' self-perceptions have on their professional development interests and skill development?

According to Sprott (2018) and Tantawy (2020), teachers' professional development starts internally through their perceptions of self. Teachers cannot cultivate themselves in isolation; they require their institutions' guidance, support, assistance, encouragement, and recognition.

Tables 1-2 show the participants' roles at their schools.

Table 1

Pre-Survey to Post-Survey

Which of the following best describes your role at your school?

Response	**Pre-survey**		**Post-survey**		**Difference**
	N	**%**	***N***	**%**	**%**
Classroom Teacher	10	90.91%	5	100.00%	9.09%
Push-in Teacher	1	9.09%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

Table 2

Follow-up Interview Conducted After the Pre-Survey

Which of the following best describes your role at your school?

Response	***N***	**%**
Classroom Teacher	10	90.91%
Push-in Teacher	1	9.09%
	11	100.00%

According to Tables 1-2, the teachers in this study 90.91% of the teachers saw themselves as practicing classroom teachers. The majority of whom in the pre-survey, 86.96%, identified as high school teachers.

Tables 3-4 show the participants' grade level that they currently teach at their school.

Table 3

Pre-Survey to Post-Survey

What grade levels do you currently teach? Please select all that apply.

Response	**Pre-survey**		**Post-survey**		**Difference**
	N	**%**	***N***	**%**	**%**
Grade 6	1	4.35%	0	0.00%	4.35%
Grade 7	1	4.35%	0	0.00%	4.35%
Grade 8	1	4.35%	0	0.00%	4.35%
Grade 9	4	17.39%	1	11.11%	6.28%
Grade 10	4	17.39%	2	22.22%	4.83%
Grade 11	6	26.09%	4	44.44%	18.35%
Grade 12	6	26.09%	2	22.22%	3.87%
	23	100.00%	9	100.00%	

Table 4

Follow-up Interview Conducted After the Pre-Survey

What grade levels do you currently teach?

Response	***N***	**%**
Grade 6	0	0.00%
Grade 7	0	0.00%
Grade 8	0	0.00%
Grade 9	2	8.70%
Grade 10	3	13.04%
Grade 11	4	17.39%
Grade 12	2	8.70%
	11	100.00%

In Tables 3- 4, the data show that 100% of the teachers identified as high school teachers.

This is important because the customs and school cultures are very different among elementary, middle school, and high school. The roles of the teachers in each particular grade level are nuanced to meet the needs of students' maturity level, the type of care needed, and the guidance delivered to their students and student's families. These teacher perspectives influence how teachers administer their duties of service in education (Weick & Sutcliffe, 2005).

Tables 1-4 demonstrate the teachers' identification of their respective grade levels.

To get a good understanding of teachers' sense of self and their goals, professional development designers must know who the teachers are by inquiring as to their experience levels and individual goals (Darling-Hammond et al., 2017; Osborn, 2016; Bayar, 2014). While all respondents in this study were actively practicing teachers, 9.09% of the respondents identified initially as a push-in teacher. A push-in teacher is a teacher who works with students on their caseload within the general education classroom. Push-in teachers are usually special education teachers, English language learner teachers, and intervention teachers.

Tables 5-6 denote the participants' school sites where they spend the majority of their time.

Table 5

Pre-Survey to Post-Survey

Where do you work (2022-2023 school year)? If you work across multiple school sites, please respond to the school-level questions in this survey for the site where you spend the majority of your time.

Response	Pre-survey		Post-survey	
	N	%	*N*	%
High School	11	100.00%	5	100.00%

Table 6

Follow-up Interview Conducted After the Pre-Survey

Where do you work (2022-2023 school year)? If you work across multiple school sites, please respond to the school-level questions in this survey for the site where you spend the majority of your time.

Response	***N***	**%**
High School	11	100.00%

According to Tables 5-6, 100% of the teachers in this study indicated that they spend the majority of their time teaching high school students. Only one teacher indicated that she taught middle school. During the follow-up interview, the teacher confirmed that she presently teaches high school and had just recently transferred to the high school from the middle school. The teacher indicated that she may have erred in her completion of the survey thinking that the grade level identification question referred to where she has taught over the majority of her career, not simply specifying where she is currently teaching now, which is the high school.

This error in the teacher's reporting may be an indicator that grade level and subject matter are part of an educator's identity. This revelation may be an important indicator that identity is what connects a person to their practice and drives an individual's sense of purpose, which influences individual teachers' buy-in into professional development (Kelly, 2019; Sprott, 2018; Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Osborn, 2016). Tables 4-9 demonstrate respondents' current grade levels.

Teachers, as all professionals do, acquire new knowledge that builds their skill set of practice through on-the-job experiences where they test education theory through their practice (Belanger, 2011; Mezirow, 1991). The more job experience a teacher has, the more practical knowledge they acquire. This study captured the ideas of teachers who mainly had 4 to 6 years of experience and 16 to 20 years of experience (see Tables 7-8).

Tables 7-8 denote the participants' total years of experience in the field of education.

Table 7

Pre-Survey to Post-Survey

What are your total years of experience in the field of education?

Response	Pre-survey		Post-survey	
	N	**%**	***N***	**%**
1 to 3 years	1	9.09%	0	0.00%
4 to 6 years	2	18.18%	3	60.00%
7 to 10 years	2	18.18%	0	0.00%
11 to 15 years	2	18.18%	0	0.00%
16 to 20 years	2	18.18%	1	20.00%
	11	100.00%	5	100.00%

Table 8

Follow-up Interview Conducted After the Pre-Survey

What are your total years of experience in the field of education?

Response	***N***	**%**
1 to 3 years	1	9.09%
4 to 6 years	2	18.18%
7 to 10 years	2	18.18%
11 to 15 years	2	18.18%

Table 8 cont.

Follow-up Interview Conducted After the Pre-Survey

What are your total years of experience in the field of education?

Response	*N*	%
16 to 20 years	2	18.18%
More than 20 years	2	18.18%
	11	100.00%

According to Tables 7-8, 9.09% of the teachers who took the pre-survey and participated in the follow-up interviews had less than 4 years of teaching experience, and 100% of the teachers who took the post-survey had 4 or more years of teaching experience. The length of time a teacher has been practicing indicates their commitment to the profession (Kelly, 2019; Sprott, 2018; Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Osborn, 2016).

Tables 9 -10 demonstrate the participants' years of experience in their current school district.

Table 9

Pre-Survey to Post-Survey

How long have you been employed by [the] School District?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Less than 1 year	1	9.09%	1	20.00%	10.91%
1 to 3 years	2	18.18%	1	20.00%	1.82%
4 to 6 years	3	27.27%	3	60.00%	32.73%
7 to 10 years	2	18.18%	0	00.00%	18.18%

Table 9 cont.

Pre-Survey to Post-Survey

How long have you been employed by [the] School District?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
11 to 15 years	1	9.09%	0	00.00%	9.09%
16 to 20 years	2	18.18%	0	00.00%	18.18%
	11	100.00%	5	100.00%	

Table 10

Follow-up Interview Conducted After the Pre-Survey

How long have you been employed by [the] School District?

Response	*N*	%
Less than 1 year	1	9.09%
1 to 3 years	2	18.18%
4 to 6 years	3	27.27%
7 to 10 years	2	18.18%
11 to 15 years	1	9.09%
16 to 20 years	2	18.18%
	11	100.00%

According to the pre-to-post surveys and follow-up interviews (Tables 9-10), all of the teachers, 100%, have spent most of their careers in their current school district. This information gives us a sense of the domain the teachers have been working in for a set amount of time and also offers professional development programmers a sense of who their audience is to create their adult learning apparatus (Darling-Hammond et al., 2017; Soine & Lumpe, 2012).

Teachers are effective because they constantly use prior knowledge, learn, adapt, and develop themselves through life-long and teachable moments through job experience during their instructional practice (Tantawy, 2020; Olsen & Buchanan, 2018; Darling-Hammond et al., 2017; Bayar, 2014).

Tables 11-12 outline the subject matter respondent teachers currently teach.

Table 11

Pre-Survey to Post-Survey

What do you teach? Please select all that apply.

Response	Pre-survey		Post-survey		Difference
	N	**%**	***N***	**%**	**%**
English Language Arts	9	69.23%	5	83.33%	14.07%
English Language Development	3	23.08%	1	16.67%	6.41%
Other	1	7.69%	0	0.00%	7.69%
	13	100.00%	6	100.00%	

Table 12

Follow-up Interview Conducted After the Pre-Survey

What do you teach?

Response	***N***	**%**
English Language Arts	9	69.23%
English Language Development	3	23.08%
Other	1	7.69%
	13	100.00%

According to the pre-survey in Table 11-12, the majority of the teachers, 92.13% of the respondents, teach either English Language Arts (69.23%) or English Language Development (23.08%). Only one teacher identified as a push-in special education teacher at 7.69%. During her follow-up interview, the SPED teacher revealed that she specializes in teaching English, which would raise the actual percentage of English teachers to 76.92%.

Table 12 acknowledges teachers' identity, which is the key to understanding teacher sensemaking and leads to awareness of an individual teacher's interests, strengths, and weaknesses. That awareness offers teacher professional development programmers a starting point to create a bespoke comfortable adult learning apparatus for teachers to invest themselves in the education process of their students and develop their craft further as educators (Tantawy, 2020; Olsen & Buchanan, 2018; Sprott, 2018; Darling-Hammond et al., 2017; Allen & Penuel, 2015; Bayar, 2014; Soine & Lumpe, 2012). This theory is supported by Darling-Hammond et al.'s, (2017) findings that professional development designers must understand and respect the world in which the teachers have to operate to meet their needs.

Table 13-14 shows the participants' experience with particular student populations.

Table 13

Pre-Survey to Post-Survey

Do you teach or directly work with any of the following student populations?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
All indicated subjects	7	46.67%	3	37.50%	9.17%
English Language Learner	4	26.67%	2	25.00%	1.67%
General Education	3	20.00%	2	25.00%	5.00%
Special Education	1	6.67%	1	12.50%	5.83%
	15	100.00%	8	100.00%	

Table 14

Follow-up Interview Conducted After the Pre-Survey

Do you teach or directly work with any of the following student populations?

Response	*N*	%
All the indicated subjects	7	46.67%
English Language Learner	4	26.67%
General Education	3	20.00%
Special Education	1	6.67%
	15	100.00%

Tables 13-14 showed that 20% of the teachers were general education teachers. All the teachers in this survey taught either English Language Arts, English Language Development, or both. Those values shifted slightly from the pre-survey and follow-up interviews to the post-survey by plus 5% for general education, minus 1.67% for English Language Learners, and plus 5.83% for

special education. They declined by 9.17% for those who identified as teaching all of the above.

Researchers Olsen and Buchanan (2017) revealed in their study that teacher professional development programmers must understand the prior teacher professional development participants have already received so TPD programmers can build upon teachers' prior training to enhance their current pedagogical skillset.

Table 15 shows teachers' responses pre and post-survey data related to the professional development programs or workshops they participated in during the 2021-2022 school year offered by their school or district.

Table 15

Pre-Survey to Post-Survey

PROFESSIONAL DEVELOPMENT PARTICIPATION In which of the following types of professional development (PD) programs or workshops did you participate during the 2021-2022 school year that was offered by your school or district? Please select all that apply.

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Social & Emotional Learning (SEL)	11	14.67%	3	10.00%	4.67%
Technology-related (e.g., integration, skill development)	9	12.00%	4	13.33%	1.33%
Promoting equitable Education (e.g., cultural competency, equity practices)	8	10.67%	3	10.00%	.67%
Supporting special student populations	8	10.67%	1	3.33%	7.34%

Table 15 cont.

Pre-Survey to Post-Survey

PROFESSIONAL DEVELOPMENT PARTICIPATION In which of the following types of professional development (PD) programs or workshops did you participate during the 2021-2022 school year that was offered by your school or district? Please select all that apply.

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
(e.g., ELD, Special Education, At-Risk)					
Subject-specific programs (e.g., math, literacy, foreign language)	6	8.00%	1	3.33%	4.67%
Classroom management	6	8.00%	3	10.00%	2.00%
Lesson planning/ curriculum development	6	8.00%	5	16.67%	8.67%
Safety, (e.g., bullying mandatory reporting OSHA)	5	6.67%	1	3.33%	3.34%
Professional responsibility (e.g., legal and ethical responsibilities)	5	6.67%	2	6.67%	0.00%
Developing and using formative/summative Assessments	5	6.67%	1	3.33%	3.34%
Differentiated instruction	4	5.33%	4	13.33%	8.00%
Data collection and analysis (e.g., analyzing or tracking Student assessment or progress)	1	1.33%	2	6.67%	5.34%
Other	1	1.33%	0	0.00%	1.33%
	75	100.00%	30	100.00%	

Table 15 demonstrates teachers in this study (14.67%) reported in the pre-survey that they participated in social and emotional learning training provided to them by their district. Twelve percent of teachers spent their time in technology-related training. Participants were also trained in promoting equitable education and supporting special populations, which tied in third place at 10.67% each. The data shows teachers' prior knowledge acquired during the 2021-2022 school year, which provides professional development programmers the opportunity to build upon a baseline of teacher prior knowledge to further teacher education practices that are aligned with district objectives..

The most effective transformational change is done slowly from the bottom up, where new ideas are correlated to prior understandings, determinations, and commitments of the agents of change (Weick & Sutcliffe, 2005). Effective professional development includes content that is focused on teaching strategies and specific curriculum content that teachers recognize and supports the growth of their professional practice (Darling-Hammond et al., 2017). To facilitate teachers learning, professional development programmers and administrators should take the pulse of teachers' goals and the desired professional development training that teachers are seeking to improve their teaching practice before professional development programmers and administrators make any decisions in planning for future professional development training for their teachers (Weick & Sutcliffe, 2005).

Table 16 shows participants' areas of interest in receiving additional professional development.

Table 16

Pre-Survey to Post-Survey

In which of the following areas would you be most interested in receiving additional professional development?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Technology-related (e.g., integration, skill development)	5	12.82%	2	7.14%	5.68%
Differentiated instruction	4	10.26%	2	14.29%	4.03%
Promoting equitable education (e.g., cultural proficiency, differentiated instruction for ELL, SPED)	4	10.26%	2	14.29%	4.03%
Parent communication and engagement	4	10.26%	1	7.14%	3.12%
Developing and using formative/summative Assessments	4	10.26%	0	0.00%	10.26%
Subject-specific programs English Language Arts	4	10.26%	0	0.00%	10.26%
Lesson planning/ curriculum development	3	7.69%	2	14.29%	6.60%
Data collection and analysis (e.g., analyzing or tracking student assessment or progress)	3	7.69%	3	21.43%	13.74%
Subject-specific programs English Language Development	2	5.13%	0	0.00%	5.13%
Supporting special student populations	2	5.13%	1	7.14%	2.01%
Social & emotional	3	7.69%	1	7.14%	.55%

Table 16 cont.

Pre-Survey to Post-Survey

In which of the following areas would you be most interested in receiving additional professional development?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
earning (SEL) Classroom	1	2.56%	1	7.14%	4.58%
	39	100.00%	14	100.00%	

Table 16 shows that in the pre-survey, teachers were interested in receiving additional professional development in 5 areas at 10.26% each: differentiated instruction, promoting equitable education (e.g., cultural proficiency, differentiated instruction), parent communication and engagement, developing and using formative and summative assessments, and subject-specific programs. Those values changed in the post-survey. Interest in differentiated instruction and promoting equitable education professional development increased by 4.03%. Interest in parent communication and engagement and professional development decreased by 3.12%, and interest in developing and using formative and summative assessment professional development decreased by 10.26%, along with the desire for more subject-specific programs for English Language Arts decreased by 10.26%.

Table 17 shows participants' responses to the follow-up interview, which were conducted after the pre-survey to determine the perceived professional development needs of teachers.

Table 17

Follow-up Interview Conducted After the Pre-Survey

What type of professional development training would you like to receive in the future?

Response	***N***	**%**
Lesson planning & curriculum development	5	20.83%
Technology-related (e.g., integration, skill development)	4	16.67%
Differentiated instruction	4	16.67%
Promoting equitable education (e.g., cultural competency, equity practices)	3	12.50%
Supporting special student populations (e.g., ELD, Special Education, At-Risk)	3	12.50%
Classroom management	3	12.50%
Subject-specific programs (e.g., math, literacy, foreign language)	2	8.33%
	24	100.00%

In Table 17, teachers revealed in the follow-up interviews conducted after the pre-survey that (20.83%) would like to receive training in lesson planning and curriculum development, followed by a tie between more technology-related training at 16.67% and more differentiated instruction at 16.67%.

Consequently, after the professional development session, which was designed based on this study's pre-survey and follow-up interviews, teacher interests changed or increased interest to other areas. This interesting change and increased interest in other areas show the flexibility of mind and progressive growth of the teachers' practice.

Table 18 shows participants' three favorite professional development methods and activities that specifically addressed and served school culture and demographics best.

Table 18

Follow-up Interview Conducted After the Pre-Survey

In reflecting upon these three favorable professional development sessions, what program methods and activities specifically addressed school culture and demographics best?

Response	***N***	**%**
Meets the needs of LGBTQ	4	40.00%
District makes an effort to provide activities to meet the cultural needs of the community	2	20.00%
Professional development provided cultural sensitivity training, how to pronounce names properly	2	20.00%
School is not culturally competent District does not provide enough Culturally sensitive professional development training for teachers	2	20.00%
	11	100.00%

Table 18 shows that in the follow-up interview, teachers revealed that 40.00% of the teachers believe that the district provided training that served the LGBTQ student community. Teachers indicated that the district made an effort to train the teachers to provide activities that met the cultural needs of the school community by 20.00% and provided professional development that taught teachers how to be and teach students how to be culturally sensitive such as

pronouncing student's names correctly by 20.00%. Lastly, 20.00% of the teachers responded that the school is not culturally competent and that the district has not provided enough professional development training for teachers to provide and perform culturally sensitive practices at the school.

Consequently, teachers are split 80% indicated that the district is providing culturally sensitive training to the faculty, and 20% believe that more training needs to be provided for the teachers to be culturally competent.

Table 19 denotes participants' preference for the professional development system that best suited them.

Table 19

Follow-up Interview Conducted After the Pre-Survey

When looking back on your professional development experiences, can you describe the professional development system that best suited you?

Response	***N***	**%**
Single seminars (all day) district prescribed (no follow-up coaching services)	5	41.67%
Single seminar (all day) with follow-up continuous coaching support	3	25.00%
Short (half day) single seminar that provides teachers time to self-reflect	2	16.67%
Short (half day) professional development that provides smaller chunks of information (e.g., mini-lessons)	2	16.67%
	12	100.00%

Table 19 shows that teachers prefer single-seminar professional development sessions that are district prescribed by 41.67%. Twenty-five percent of teachers prefer single-seminar professional development with follow-up continuous coaching support. The rest of the participants were split 16.67% each between short single seminars that provide time for teachers to self-reflect and teachers who preferred short seminars that chunked information into mini-lessons for students.

Overall this study's participants saw themselves as practicing high school-level teachers. The highest number of years that the participating teachers have been employed in this district has been 4 to 6 years. Most participants in this study identified as English Language Arts teachers. A high number of the participants indicated that they worked directly with English Language Learners, general education students, and special education students simultaneously (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

The participants of this study revealed that they spent the majority of their professional development training during the 2021-2022 school year learning about the social and emotional learning (SEL) of students (14.67%), which emphasized the care of students from the LGBTQ community (40%), followed by technology-related training to build their skill set to serve their students (12.00%), and training to promote equitable education (e.g., cultural competency, and equity practices) (10.67%).

During the follow-up interview after the pre-survey, participants indicated that they would like to receive more professional development to reach their goals in lesson planning and curriculum development by 20.83%, more technology-related training by 16.67%, and differentiated instructional strategies for high school students who are general education students, English Language Learners, and special education students training by 16.67% (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

According to Belanger (2011) and Mezirow (1991), the transformational process begins with a teacher's perception of self. To effect change, a teacher recognizes a problem in need of resolution while examining themselves in the problem and their role in the problem. To do this, a teacher must reorient their sense of self and act upon their new perspectives.

The data show that participants of this study see themselves as experienced high school teachers who are trained in social and emotional learning (SEL) and cultural competency that promotes and provides equitable education that is inclusive of all students.

What the teachers indicated in the pre-survey and follow-up interview was that even though participants spent 16.67% of their time in technological training, they required more training in technology integration. The participants revealed in their interviews that they understand that technology is always advancing, which interests them. Teachers would like continuous training to keep them up to date on the advances of technology and add to their technical skill sets so they can

utilize technology to implement the educational process more easily and effectively while teaching their students how to utilize technology to advance their working knowledge, utilization, and application of the curriculum content.

Using the information from the pre-survey and the follow-up interview, a professional development session was constructed and conducted centered on teaching teachers how to use technology to provide differentiated instruction to meet the needs of their English Language Learner students. After the professional development session, teachers indicated in the post-survey that their need for more training in using technology dropped from 12.87% to 7.14%.

After the professional development session created for this study, teacher demand for more differentiated instruction training increased from 10.26% to 14.29%, and their request for additional equitable education strategies increased from 10.26% to 14.29%.

Teacher interest in learning new strategies for parent communication and engagement fell from 10.26% during the pre-survey to 7.14% in the post-survey. Teacher demand for professional development in developing and using formative and summative assessments vanished from the pre-survey at 10.26% to 0.00% in the post-survey.

Participants of this study indicated that they preferred district-prescribed single seminars that are all day with no coaching services provided by 41.67% which is contrary to Darling-Hammond et al. (2017) theory that effective

professional development must include follow-up coaching services for individual teachers for the professional development training to be completely successful.

Twenty-five percent of the participants stated that they prefer single seminar all day professional development with follow-up coaching supports which indicates that teachers seem to prefer to fully invest themselves in the time they are using to further their professional skills. Professional development for the participants is not simply a perfunctory act. Professional development for the participants is an investment of the mind and their time which should be as individualistic as the participants themselves. (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

Research Question 2: What components of professional development design and methods do teachers perceive to be the most valuable?

Olsen and Buchanan (2027) pointed out that education is not simply an interest; it is an intellectual mission of service that combines goals, idealism, theory, and daily reality in every moment of practice with no tolerance for error from themselves, their colleagues, and trainers.

Abrupt change required by leadership often fails because their initiatives evoke resistance, conflict, and disregard from teachers who feel disconnected from the new initiative (Weick & Sutcliffe, 2005). Top-down abrupt change is often unreliable because teachers need more time to process the elements of the

new initiatives through organized sensemaking, shared understanding, or consensus (Weick & Sutcliffe, 2005). Due to these unstable dynamics, directives from leadership for rapid change are often dismissed as unthinkable because of their lack of forewarning (Weick & Sutcliffe, 2005). Professional development programmers must identify, standardize, and demonstrate a professionally agreed-upon knowledge and approach to teacher-educator programming to meet teachers' needs.

The professional development researcher used the information from this particular survey and follow-up interviews to design and deliver a professional development session to the teacher participants. The participants who attended the professional development session completed a post-survey which is reported in this study.

Table 20 below demonstrates participants' satisfaction before and after the professional development experience, where their needs were considered from the pre-survey and follow-up interviews when developing the professional development session used in this study.

Table 20

Pre-Survey to Post-Survey

Overall, how satisfied are you with the PD programs offered by… …your school district?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Very Satisfied	1	9.09%	1	20.00%	10.91%
Satisfied	4	36.36%	3	60.00%	23.64%
Neither Satisfied nor Unsatisfied	4	36.36%	1	20.00%	16.36%
Unsatisfied	0	0.00%	0	0.00%	0.00%
Very unsatisfied	2	18.18%	0	0.00%	18.18%
Don't Know/NA	0	0.00%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

In Table 20, teachers in the pre-survey indicated overall by 45.45% were satisfied to very satisfied with professional development training provided by their district. In the post-survey, after the professional development session that was created using participants' pre-survey and follow-up interviews to create the professional development session to meet the demands of the participants, teacher satisfaction increased to 80% in the professional development provided by the district.

Thirty-six-point thirty-six percent of participants indicated in the pre-survey that they were neither satisfied nor unsatisfied with the professional development offered by their district. This pre-survey percentage decreased to 20.00% in the post-survey.

Eighteen-point eighteen percent of participants in the pre-survey were very unsatisfied with the district-provided professional development. That percentage decreased to 0.00% after participants participated in this study's bespoke professional development session, which was based on their pre-survey responses and follow-up interviews.

According to Darling-Hammond et al. (2017), effective professional development includes coaching services for individual teachers and professional learning communities to receive, support, and share one another's expertise about content and evidence-based practices. It provides built-in feedback and reflection opportunities that support teachers processing new initiatives to generate investment, ownership, and buy-in of new skills and knowledge. Effective professional development considers participants' natural potentiality for learning and their perception of the relevance of the program's purpose to their objectives (Belanger, 2011; Merriam & Caffarella, 1999).

Tables 21-22 show teacher satisfaction with district professional development before and after the designed professional development workshop.

Table 21

Pre-Survey

Please indicate how much you disagree or agree with the following statements about professional development at your school: In general, the professional development opportunities offered by my school…

Question	*N*	Strongly disagree	*N*	Somewhat disagree	*N*	Neither agree nor disagree	*N*	Somewhat agree	*N*	Strongly agree	Total
…meet my needs as an educator	0	0.00%	1	9.09%	2	18.18%	6	54.55%	2	18.18 %	11
…are relevant to my work	0	0.00%	0	0.00%	1	9.09%	7	63.64%	2	27.27 %	11
…positively impact my instructional practices	0	0.00%	2	18.18 %	1	9.09%	5	45.45%	3	27.27 %	11

Table 22

Post-Survey

Please indicate how much you disagree or agree with the following statements about professional development at your school: In general, the professional development opportunities offered by my school…

Question	*N*	Strongly disagree	*N*	Somewhat disagree	*N*	Neither agree nor disagree	*N*	Somewhat agree	*N*	Strongly agree	Total
…meet my needs as an educator	0	0.00%	0	0.00%	1	20.00%	1	60.00%	1	20.00%	5

Table 22 cont.

Post-Survey

Please indicate how much you disagree or agree with the following statements about professional development at your school: In general, the professional development opportunities offered by my school…

…are relevant to my work	0	0.00%	0	0.00%	0	0.00%	4	80.00%	4	20.00%	5
…positively impact my instructional practices	0	0.00%	0	0.00%	0	0.00%	2	40.00%	2	60.00%	5

Table 22 showed 54.55% of the teachers indicated in the pre-survey that they somewhat agreed that the professional development opportunities offered by the school district met their needs as an educator. The post-survey (Table 22) showed that the percentage increased by 5.45%. Also, in Table 21, 63.34% of participants in the pre-survey indicated that professional development was relevant to their work. Those who agreed that the professional development opportunities provided by the district were relevant to their work increased by 16.36% in the post-survey to 80%. In addition, 45.45% of the teachers indicated in the pre-survey that the professional development provided by the district positively impacted their instructional practices; that number declined in the post-survey by 5.45% to 40%.

While these changes align with what the research contends, these changes may be skewed by the difference (reduced) in the number of participants between the pre-survey to the post-survey.

Table 23 denotes the participants' three best professional development sessions they ever attended.

Table 23

Follow-up Interview Conducted After the Pre-Survey

Please describe the best three professional development sessions you ever attended. These sessions may differ in content, format, or subject matter. Think as to why these sessions were so beneficial to you. What made these sessions so effective, memorable, and supportive of your teaching practice?

Response	***N***	**%**
Provided social-emotional curriculum training	6	16.67%
Provided practical suggestions that can be done immediately to teach more effectively	5	13.89%
Presenter modeling best practices	3	8.33%
Classroom management techniques	3	8.33%
Teacher choice from district-wide professional development day multiple PD offerings	3	8.33%
School law governance of management	2	5.56%
Didn't waste tenured teachers time with things they already know	2	5.56%
Technology to use new applications & digital tools deliver effective instruction	2	5.56%
Individual Education Plan training for special needs populations	2	5.56%
General school procedures training	2	5.56%
Create standards-based	2	5.56%

Table 23 Cont.

Follow-up Interview Conducted After the Pre-Survey

Please describe the best three professional development sessions you ever attended. These sessions may differ in content, format, or subject matter. Think as to why these sessions were so beneficial to you. What made these sessions so effective, memorable, and supportive of your teaching practice?

Response	***N***	**%**
assignments training Create frameworks of how standards should be taught common practices vs. best practices	2	5.56%
Presentation of statistics, data, taught terminology to the staff	2	5.56%
	36	100.00%

Table 23 showed that participants valued the social-emotional curriculum training that the district provided by 16.67%, and professional development that taught practical suggestions to teach more effectively in the classroom by 13.89%. Presenter modeling best practices, classroom management techniques, and teacher choice from the district-wide professional development day multiple professional development offerings each rated 8.33%.

Table 24 shows that participants believe that professional development designers should include their input in their teacher professional development design process through outreach prior to training to take into consideration, utilize, and incorporate their prior knowledge and their level of expertise.

Table 24

Pre-Survey to Post-Survey

How important is it to you that teacher professional development designers include your input in the TPD design process through outreach prior to training to take into consideration, utilize, and incorporate your prior knowledge and level of expertise into the professional development design?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	2	18.18%	1	20.00%	1.82%
High priority	1	9.09%	1	20.00%	10.91%
Priority	7	63.64%	3	60.00%	3.64%
Low priority	1	9.09%	0	0.00%	9.09%
Not a priority	0	0.00%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

In Table 24, the data show that teachers believe in the pre-survey by 90.90% and increased in the post-survey to 100.00% that professional development designers should collaborate with them and prioritize their input, prior knowledge, and expertise in the TPD design process through outreach before the implementation of professional development by programmers.

Table 25 demonstrates participants' need for professional development designers to demonstrate consideration for their time in creating professional development programming through prior outreach and in consultation with teachers before the teacher professional development session takes place

Table 25

Pre-Survey to Post-Survey

How important is it to you that teacher professional development designers demonstrate consideration of your time by creating programming that is targeted to your needs through prior outreach to you and in consultation with you before any TPD sessions take place?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	2	18.18%	2	40.00%	21.82%
High priority	3	27.27%	1	20.00%	7.27%
Priority	5	45.45%	2	40.00%	5.45%
Low priority	1	9.09%	0	0.00%	9.09%
Not a priority	0	0.00%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

In Table 25, the data show that teachers believe in the pre-survey by 90.90% and increased in the post-survey to 100.00% that professional development designers should demonstrate consideration for teachers' time in creating professional development programming through prior outreach and in consultation with teachers before the teachers' professional development session takes place.

Table 26 shows participants in the study were interviewed to determine their perceptions of their most favored professional development session methods and activities and to ascertain if those methods and activities were constructed to meet the individual teacher's needs.

Table 26

Follow-up Interview Conducted After the Pre-Survey

In reflecting upon these three favorable professional development sessions, what program methods and activities were personalized to meet your existing needs?

Response	***N***	**%**
No teacher input was requested by teacher professional development designer or organizer the session	11	100.00%

Table 27

Follow-up Interview Conducted After the Pre-Survey

Would you like to have been contacted prior to the professional development to share your input in constructing the professional development in order to ensure it met your existing needs?

Response	***N***	**%**
Teacher would like to be contacted to share their input before training	11	100.00%

In Tables 26-27 teachers revealed that none of the professional development training they have received was personalized to meet their needs. Teachers stated that no one has ever reached out to them before the professional development training to ask them for their input regarding the subject matter to be discussed or what strategies they would like to learn. Nor has anyone ever asked them how they wish to receive their training. Teachers have only been offered a choice from a catalog of training options to an already scheduled teacher development training day.

All of the interviewees stated that they would appreciate it if the professional development programmers had reached out to them for their input prior to requiring them to spend their time attending mandatory training. Table 28 shows how teachers believe that districts can improve their professional development programming design.

Table 28

Follow-up Interview Conducted After the Pre-Survey

Using your valuable experience, please describe how you believe districts can improve professional development programming design?

Response	***N***	**%**
Outreach prior to the professional development sessions	3	13.04%
Bespoke professional development designed to meet departmental needs	3	13.04%
Provide support materials to teachers	3	13.04%
Professional development presenters need to embed collaboration time in the professional development so teaching teams can practice, coordinate, & support one another	3	13.04%
Follow-up coaching after the professional development	2	8.70%
District must stop micromanaging teachers	2	8.70%
More communication between professional development organizers, presenters, and teachers feedback surveys	2	8.70%
Need more collaboration between Presenters and teachers after the departmental PD for follow-up	2	8.70%

Table 28 Cont.

Follow-up Interview Conducted After the Pre-Survey

Using your valuable experience, please describe how you believe districts can improve professional development programming design?

Response	***N***	**%**
support of teachers		
	22	100.00%

Table 28 demonstrates that teachers in this study believe districts can improve their professional development programming by conducting teacher outreach prior to the professional development sessions by 13.04%, creating bespoke professional development designed to meet specific departments' needs by 13.04%., provide support materials to teachers during and after professional development by 13.04%, and having presenters pay attention during the teacher collaboration time to facilitate and support the discussion fully by 13.04%.

Table 29 shows participants in the study were interviewed to determine their most valued training sessions and what they find most important in professional development.

Table 29

Follow-up Interview Conducted After the Pre-Survey

Upon reflection of your most valued training sessions, what was most important in those PD sessions?

Response	***N***	**%**
Presenter demonstrates & conduct teaching strategies during the professional development as an activity	3	13.64%
Professional development strategy activity needs to make sense in the real classroom's everyday practice	3	13.64%
Teacher prefers content focused professional development	3	13.64%
Teacher prefers coaching & expert support	3	13.64%
Teacher prefers active learning strategies to motivate students	3	13.64%
Teacher prefers that presenter respects the teachers' time & manages the professional development time well	3	13.64%
Collaboration time amongst teachers required, sharing experiences & problem solving with colleagues is most valuable in helping each other	2	9.09%
Teacher likes professional development that asks their input before designing & preparing the professional development so as to meet the teachers' needs	2	9.09%
	22	100.00%

Table 29 indicates participants most valued professional development presenters to demonstrate and conduct the teaching strategies during the

professional development as an activity by 13.64%. Teachers indicated that professional development programmers need to
ensure that the teaching strategy makes sense in a real classroom's everyday practice by 13.64%. Participants chose professional development to be content focused by 13.64%. Teachers preferred coaching and expert support by 13.64%. Teachers stated that they appreciated training about active learning strategies to motivate students by 13.64%. Teachers favored the presenter for respecting their time and managing the professional development time well by 13.64%. The participants in this study's responses validate Bayer's (2014) claim that one-size-fits-all professional development training does not garner client buy-in. Teachers want to contribute to the construction of their professional development so as to ensure that the training is engaging and meets their current needs.

Table 30 indicates the participants' least favorable professional development experiences and why the teachers found them ineffective.

Table 30

Follow-up Interview Conducted After the Pre-Survey

Now think about your three least favorable professional development experiences. Please explain why those sessions were ineffective in meeting your needs or that of your colleagues.

Response	***N***	**%**
Presenters treated teachers like 3rd-grade talk down to teachers	2	25.00%
The big district-wide sessions	2	25.00%

Table 30 cont.

Follow-up Interview Conducted After the Pre-Survey

Now think about your three least favorable professional development experiences. Please explain why those sessions were ineffective in meeting your needs or that of your colleagues.

Response	***N***	**%**
are too long and have too many people.		
Presenter lecturing throughout professional development is the worst, need an interactive engaging activity that models best teaching practices	2	25.00%
Content not applicable to teachers' class setting because it is a general PD	2	25.00%
	8	100.00%

Table 30 shows that the participants were evenly split on hat their least favorite professional development experiences were and why they were ineffective in meeting the teachers needs. Twenty-five percent of the teachers indicated that they were tired of professional development presenters talking down to them. Twenty-five percent of the participants revealed that the district-wide professional development sessions were too long and too many people attending each session at once. Twenty-five percent of the presenters were tired of lecture-based professional development and wanted professional development to be interactive modeling teacher best practices. Lastly, teachers indicated that 25% of their professional development experiences were about content that did

not apply to their current teaching practice. The professional development had been a one-size-fits-all presentation without consideration of their current practice.

In Table 31, teachers revealed in the follow-up interviews conducted after the pre-survey what they found most valuable about professional development training.

Table 31

Follow-up Interview Conducted After the Pre-Survey

What professional development training would be most valuable to you?

Response	***N***	**%**
Lesson planning/curriculum development	5	20.83%
Technology-related (e.g., integration, skill development)	4	16.67%
Differentiated instruction	4	16.67%
Promoting equitable education (e.g., cultural competency, equity practices)	3	12.50%
Supporting special student populations (e.g., ELD, Special Education, At-Risk)	3	12.50%
Classroom management	3	12.50%
Subject-specific programs (e.g., math, literacy)	2	8.33%
	24	100.00%

Table 31 shows that participants most valued lesson planning and curriculum professionals development by 20.83%, technology training at 16.67%, and differentiated instruction training at 16.67%. This information was used to construct a professional development session to meet teachers' stated needs as part of this study to determine the components of professional development design and methods that teachers perceive to be the most valuable.

As expressed, the purpose of this section of the study was to determine the components of professional development design and methods teachers perceive to be the most valuable. In Bayar's (2014) study, teachers articulated that an effective professional development program contains the following five elements: 1) designed around existing teachers' needs, 2) designed with the specific school culture and demographics in mind, 3) designed with teacher clientele during the planning process to create activities that directly meet their needs 4) creates an engaging program that participants are active in, not passive listeners, 5) includes programming that is progressive and uses long term engagement of participants in systematic development opportunities, 6) and uses the instructors who are experts in their fields (Bayar, 2014).

According to Belanger (2011), when designing professional development learning programs, programmers must:

1) take into account participants' natural potentiality for learning
2) their perception of the relevance of the program's purpose to their individual objectives
3) anticipate and work to minimize participants' natural anxiety and resistance to perceived threatening change
4) design programming to be collaborative, active, and engaging in easing learning and encouraging ownership of the desired methods and ideology
5) create opportunities for participants to self-initiate learning;

6) provide moments for participant reflection, risk-free self-evaluation, and internalization to beget oneness with the change process and establish a learning environment that is open to incorporating all individuals in the change process.

In this study, teachers indicated that they were satisfied with the district's professional development. Teacher satisfaction with the district's delivery of professional development increased overall after the professional development session constructed for this study from the teachers' pre-survey and follow-up interviews was implemented, which centered upon their input and request to learn more about the available technological applications, their usefulness, and implementation to provided differentiated instruction the meet the needs of their general education students who included English Language Learners and special education students.

Teachers were very clear that they valued the social-emotional curriculum training over the previous year. The teachers stated that they wanted from professional development presenters practical suggestions that could be done immediately in their classrooms to teach effectively, and found presenter modeling of best practices using them as pseudo students to be most engaging and fulfilling because teachers were able to see in real-time how instructions should be delivered and get a feel for how the instruction should or could be received by their students.

All the participants in the study revealed that they had never been asked before this study to provide their input and share their needs with regard to professional development design and planning. All of the participants voiced that they would have appreciated the courtesy of a needs assessment survey or contact prior to professional development by district professional development programmers to take into account their natural potentiality for learning to ensure that their needs were being considered for the professional development (Belanger, 2022). All of the participants stated that such outreach validated them because it recognized and showed respect for their identity and expertise as educators.

This study's participants were very vocal about making sure that their desire for outreach prior to the professional development be documented for the study in order to change current professional development practices more towards bespoke design to meet individual and departmental needs (Belanger, 2022).

Participants stressed that collaboration time during professional development was very important to problem-solving and collegial support within their departments. Participants were clear that they wanted to make sure that collaboration time amongst the professional learning community members was regularly embedded during professional development (Belanger, 2022). Participants emphasized that the selection of strategies taught during

professional development be practical, modeled, and immediately useful in classroom practice (Belanger, 2022).

This study's participants were adamant that this study conveyed that presenters need to work on their presentations' delivery so as not to be perceived as condescending by teachers, more teacher-centered, and activity driven. The participants of this study indicated that curriculum study and lesson planning, technology training, and differentiated instruction training were most valuable in helping them to meet their objectives (Belanger, 2022).

Research Question 3: What components of professional development design and methods do teachers perceive to be the most valuable?

This section of the study's goal was to determine the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Bayar, 2014; Spine & Lumpe, 2012). The objective of this study was to determine the structure and key elements of effective professional development design that directly addresses educators' expectations, needs, and standards, causing them to invest themselves fully in new practices and thus transform them into the change agents that districts desire (Darling-Hammond et al., 2017; Osborn, 2016; Bayar, 2014).

Darling-Hammond et al.'s (2017) identified seven common design elements of practical PD approaches as follows:

1. They are content-focused;

2. They incorporate active learning strategies;

3. They engage teachers in collaboration;

4. They use models and/or modeling;

5. They provide coaching and expert support;

6. They include time for feedback and reflection; and

7. They are of sustained duration (p.22).

Tables 32-34 demonstrate participants' beliefs (pre and post) about professional development design related to effective design elements.

Table 32 shows teacher responses from the pre and post-survey data are content-focused and identify the importance of learning strategies through the use of authentic artifacts, interactive activities, and other strategies provided during professional development sessions along with space for participating teachers to share ideas, design or practice new strategies, collaborate in their learning and use highly contextualized professional learning.

Table 32

Pre-Survey to Post-Survey

How important is it to you that professional development uses authentic artifacts, interactive activities, and other strategies that provide you with space for you and other participating teachers to share ideas, design or practice new strategies, collaborate in your learning and use highly contextualized professional learning?

Response	Pre-survey *N*	%	Post-survey *N*	%	Difference %
Essential 21.82%	2	18.18%	2	40.00%	
High priority 7.27%	3	27.27%	1	20.00%	
Priority 34.55%	6	54.55%	1	20.00%	
Low priority 20.00%	0	0.00%	1	20.00%	
Not a priority 0.00%	0	0.00%	0	0.00%	
	11	100.00%	5	100.00%	

Table 32 shows that teachers' rated the importance of professional development be content-focused by incorporating the use of authentic artifacts, interactive activities, and other strategies be provided during professional development sessions along with space for participating teachers to share ideas, design or practice new strategies, collaborate in their learning and use highly contextualized professional learning overall as a Priority, High Priority, and Essential combined during the pre-survey at 100% to decreasing in the post-survey to 80%.

Even though the percentage decreased overall, the number of teachers who rated the need for professional development be content-focused through the

use of more authentic artifacts, interactive activities, and other strategies that provide teachers with space for them and other participating teachers to share ideas, design or practice new strategies, collaborate in their learning and use highly contextualized professional learning as a Priority or higher was greater than the one teacher who rated the need for authentic artifacts, interactive activities, and other strategies be provided during professional development sessions as a low priority.

According to Allen and Penuel (2015), professional learning communities need time to collaborate to guide their collective lesson planning. Through collaboration, teachers find coherence that makes the key curriculum components more achievable in a school-wide push toward school achievement (Allen & Penuel, 2015). Tantawy (2020) noted when teachers are fulfilled learners, they become self-actualized, ambitiously confident educators moving the community forward.

Table 33 demonstrates participant responses to the need for professional development to be collaborative working methods.

Table 33

Pre-Survey to Post-Survey

How important is it to you that professional development strategies model and facilitate collaborative working methodologies to help teachers create communities that positively change the culture and instruction of their entire grade level, department, school, and/or district?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	3	27.27%	2	40.00%	12.73%
High priority	2	18.18%	1	20.00%	1.82%
Priority	6	54.55%	2	40.00%	14.55%
Low priority	0	0.00%	0	0.00%	0.00%
Not a priority	0	0.00%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

Table 33 shows respondents indicated that the importance of having professional development strategies facilitated through collaborative working methodologies to help teachers create communities that positively change the culture and instruction of their entire grade level, department, school, and/or district was a Priority, High Priority, and Essential in the pre-survey at 100%. The Priority, High Priority, and Essential ratings remained the same in the post-survey at 100%.

Overall, the participants rated the importance of having professional development strategies facilitated through collaborative working methodologies to help teachers create communities that positively change the culture and instruction of their entire grade level, department, school, and/or district as a priority or above at 100% from pre to post surveys. No one rated it as a low priority.

Teachers were clear regarding their belief that effective professional development incorporates active learning strategies with clear, concise objectives, providing an ideal descriptive tangible vision of the practice, presenter modeling of leading the instructional strategy, and simultaneous coaching and feedback throughout the professional development practice (Darling-Hammond et al.'s, 2017). The only split from (Darling-Hammond et al.'s (2017) findings that teachers require was in section 2, Table 19, where participants in this study were split as to whether they valued follow-up coaching after all day single seminar professional development. Forty-one point sixty-seven percent of participants indicated that they preferred no follow-up coaching services after their professional development, whilst 25% of participants indicated that they did value continuous coaching support after their professional development.

Table 34 shows participants' responses to the question using effective curriculum practices and modeling of best practices.

Table 34

Pre-Survey to Post-Survey

How important is it to you that professional development instructors utilize demonstrations of effective curricula practices and modeling of instruction with a clear vision of what best practices look like?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	1	9.09%	1	40.00%	30.91%
High priority	4	36.36%	1	20.00%	16.36%
Priority	6	54.55%	2	40.00%	14.55%
Low priority	0	0.00%	0	0.00%	0.00%
Not a priority	0	0.00%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

According to the data outlined in Table 34, teachers rated the importance of professional development instructors utilizing demonstrations of effective curricula practices and modeling of instruction with a clear vision of what best practices look like as a Priority, High Priority, and Essential in the pre-survey at 100%. Participants' priorities did not change in the post-survey. The participants' values of Priority, High Priority, and Essential remained 100% in the post-survey.

Guskey (2000) defined five completing components of professional development, which included: (a) participants' perceptions, (b) participants' scholarship, (c) organization infrastructure for progress, (d) participants' incorporation of new knowledge and skills into their practice, and (e) student learning outcomes. Organized knowledge, best practices exemplified, and measurable outcomes are the foundations of instructional practice (Soine and Lumpe, 2014) .

Table 35 shows participants' views about particular examples used in professional development sessions.

Table 35

Pre-Survey to Post-Survey

How important is it to you that lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching are utilized during your professional development?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	0	0.00%	0	0.00%	0.00%
High priority	5	45.45%	2	40.00%	5.45%
Priority	2	18.18%	2	40.00%	21.82%
Low priority	4	36.36%	0	00.00%	36.36%
Not a priority	0	0.00%	1	20.00%	20.00%
	11	100%	5	100.00%	

As show in Table 35, teachers rated the importance of lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching are utilized during your professional development as a Priority and High Priority in the pre-survey at 63.63%, which increased in the post-survey to 80%.

Consequently, where in the pre-survey, teachers rated the importance of lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching are utilized during their professional development as Low Priority and Not A Priority in the pre-survey at 36.36%, only 1 teacher in the post-survey identified the importance of lesson planning training and observation of peers as a Low Priority and Not A Priority in the post-survey

at 20%. Therefore, the importance of the aforementioned training remained a higher priority for most participants from pre to post-survey than the one participant who identified the training as a low priority.

According to Darling-Hammond et al. (2017), effective professional development includes coaching services for individual teachers and professional learning communities to receive, support, and share one another's expertise about content and evidence-based practices.

Table 36 demonstrates participants' responses to the need for professional development that provides coaching and expert support that involves one-on-one sharing of expertise about content and evidence-based practices, that are bespoke to teachers' individual needs pre-survey to post-survey.

Table 36

Pre-Survey to Post-Survey

How important is it to you that professional development instructors provide coaching and expert support that involves one-on-one sharing of expertise about content and evidence-based practices focused directly on teachers' individual needs?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	0	0.00%	1	20.00%	20.00%
High priority	2	18.18%	0	0.00%	18.18%
Priority	5	45.45%	3	60.00%	14.55%
Low priority	3	27.27%	1	20.00%	7.27%

Table 36 cont.

Pre-Survey to Post-Survey

How important is it to you that professional development instructors provide coaching and expert support that involves one-on-one sharing of expertise about content and evidence-based practices focused directly on teachers' individual needs?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Not a priority	1	9.09%	0	0.00%	9.09%
	11	100.00%	5	100.00%	

Tables 36 shows teachers rated the importance that professional development instructors provide coaching and expert support that involves one-on-one sharing of expertise about content and evidence-based practices, focused directly on teachers' individual needs as Priority and a High Priority in the pre-survey at 63.63%, which increased in the post-survey as Priority and Essential at 80%. In the pre-survey, teachers did not rate the need for coaching and expert support as essential, but in the post-survey, teachers elevated the need for coaching and expert support to 20%. Only one teacher continued to rate coaching and expert one-to-one support as a low priority in the post-survey.

Table 37 shows the importance of effective professional development, including built-in feedback and reflection opportunities that support teacher processing of new initiatives to generate investment, ownership, and buy-in of new skills and knowledge (Darling-Hammond et al's, 2017).

Table 37

Pre-Survey to Post-Survey

How important is it to you that professional development instructors provide built-in time for teachers to intentionally think about, receive input on, and make changes to their practice by facilitating reflection and soliciting risk-free (non-evaluative) reflection and feedback?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	1	9.09%	2	40.00%	30.91%
High priority	2	18.18%	1	20.00%	1.82%
Priority	6	54.55%	0	0.00%	54.55%
Low priority	1	9.09%	1	20.00%	10.91%
Not a priority	1	9.09%	0	0.00%	9.09%
	11	100.00%	5	100.00%	

As shown in Table 37, teachers rated the importance of professional development instructors providing built-in time for teachers to intentionally think about, receive input on, and make changes to their practice by facilitating reflection and soliciting risk-free (non-evaluative) reflection and feedback as a Priority, High Priority, and Essential in the pre-survey at total of 81.82 % which decreased to 60% in the post-survey.

In the pre-survey, participants indicated the importance of built-in time for teachers to intentionally think about, receive input on, and make changes to their practice by facilitating reflection and soliciting risk-free (non-evaluative) reflection and feedback rated at Low Priority and Not a Priority at 18.18% in the pre-survey which increased as a Low Priority to 20% in the post-survey. The majority of participants in the pre-survey and post-surveys agreed that feedback and reflection are a priority such data is in alignment with Darling-Hammond et al.'s (2017) seven common design elements of practical professional development

(PD) approaches, which states that effective professional development includes expert support and time for feedback and reflection,

Beanger (2011) and Mezirow (1991) theorized that the transformational process for teachers' professional growth toward an experts vision of practice includes self-examination of role in the problem, assessment of potential biases, exploration of options to remedy, and reorienting self and acting upon new perspectives all of which is done through reflection and feedback.

Table 38 shows participants' responses pre and post-survey data about the importance of feedback and reflection to help teachers thoughtfully move toward an expert vision of the practice.

Table 38

Pre-Survey to Post-Survey

How important do you believe feedback and reflection are to help teachers thoughtfully move toward the expert visions of practice?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	3	27.27%	1	20.00%	7.27%
High priority	1	9.09%	0	0.00%	9.09%
Priority	7	63.64%	2	40.00%	23.34%
Low priority	0	0.00%	2	40.00%	40.00%
Not a priority	0	0.00%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

The teachers in Table 38's pre-survey rated the importance of feedback and reflection to teachers to help them thoughtfully move toward the expert visions of practice as a Priority or higher at 100.00% decreased by 40% in the post-survey in the Low Priority category.

The majority of participants in the study agree with Darling-Hammond et al.'s (2017) theory that feedback and reflection are important to moving teachers toad the expert vision of their practice.

According to Darling-Hammond et al. (2017), professional development programmers must construct a professional development apparatus that systematically addresses and measures each educator's needs and achievements over a duration of time. This nontraditional professional development is progressive, utilizing the processing methodologies of mentoring, coaching, and peer observations (Bayar, 2014).

In many progressive communities, in-service teaching education is seen as a regular part of teacher training that is simply done in the field of service (Bayar, 2014). These communities tend to have better outcomes than school systems that rely solely on teacher pre-service programs to develop their teachers (Bayar, 2014). Communities that not only develop their new teachers, but also support and maintain the development of their veteran teachers usually garner more of the outcomes they target (Bayar, 2014).

Table 39 demonstrates participants' beliefs (pre and post-surveys) about the importance of professional development sustained over a duration.

Table 39

Pre-Survey to Post-Survey

How important is it to you that professional development is sustained over a duration?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	2	18.18%	1	20.00%	1.82%
High priority	2	18.18%	0	0.00%	18.18%
Priority	5	45.45%	2	40.00%	5.45%
Low priority	2	18.18%	1	20.00%	1.82%
Not a priority	0	0.00%	1	20.00%	20.00%
	11	100.00%	5	100.00%	

Table 39 shows teachers rated the importance of professional development being sustained over a duration as a priority in the pre-survey at 45.45%. This status fell in the post-survey to 40%.

Overall, Table 39 shows teachers rated the importance of professional development being sustained over a duration as a Priority, High Priority, and Essential in the pre-survey at 81.81%, which decreased in the post-survey to Low Priority and Not a Priority at 40%, which does not align with Darling-Hammond et al.'s (2017) theory of the importance that professional development be sustained over a duration of time to be successful.

According to Shaw (2017), teachers have an inner drive to continuously improve their skills through professional development and reflective practices to transform their knowledge, skills, and values that will enhance their students' learning outcomes.

Table 40 shows teachers' responses pre and post-survey data related to the importance of adequate time required by teachers to learn, practice,

implement, and reflect upon new strategies that facilitate changes in their practice.

Table 40

Pre-Survey to Post-Survey

How important is it to you that professional development provides teachers with adequate time to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice?

Response	Pre-survey		Post-survey		Difference
	N	%	*N*	%	%
Essential	1	9.09%	2	40.00%	30.91%
High priority	5	45.45%	1	20.00%	25.45%
Priority	5	45.45%	2	40.00%	5.45%
Low priority	0	0.00%	0	0.00%	0.00%
Not a priority	0	0.00%	0	0.00%	0.00%
	11	100.00%	5	100.00%	

Table 40 shows teachers rated the importance of adequate time required by teachers to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice in the pre-survey as a Priority, High Priority, and Essential by 100% which remained constant in the post-survey where teachers rated the elements of the question as a Priority, High Priority, and Essential by 100% as well. This data supports Darling-Hammond et al.'s. (2017) theory that teachers need time use models and modeling for practice to solidify their learning of skills during professional development.

According to Göçen Kabaran & Usun (2021), educators require a better-designed professional development program series to meet their needs. There are specific components, methodologies, and measurable characteristics to design-thinking practices and design-led pedagogy that facilitate the enactment

of ideas that support educator growth and translate into students' achievement (Darling-Hammond et al., 2017; Kennedy, 2016; Soine & Lumpe, 2014).

Table 41 shows participants in this study were interviewed to determine their perceived favor of professional development sessions, methods, and activities that most engaged them.

Table 41

Follow-up Interview Conducted After the Pre-Survey

In reflecting upon these three favorable professional development sessions, what program methods and activities most engaged you? Please describe any activities utilized before, during, and after the session that facilitated or solidified your investment in the training process?

Response	***N***	**%**
Found that two-way conversations (collaboration) that solved problems or potential problems helpful	7	25.93%
Found collaboration team building activities during the session helpful	7	25.93%
Found provided support materials	5	18.52%
Coaching sessions after the session helpful	4	14.81%
PD was obligatory, did not volunteer to do.	2	7.41%
PD is worthless when implemented for a short period of time, changes every two years when professional development contract is up	2	7.41%
	27	100.00%

Table 41 showed educators indicated that they found both that two-way conversations (collaboration) that solved problems or potential problems helpful

at 25.93% and collaboration team building activities during sessions helpful at 25.93%.

Teachers who were given a choice to choose their professional development, even limited, showed more interest than those who were mandated to participate in training (Kelly, 2009). Soine and Lumpe (2014) revealed that great schools embody teachers who are lifelong learners committed to continuously developing their skills in collaborative communities.

Participants in this study were interviewed to determine their perceived valued professional development session's instructional system that has impacted their teaching methods and academic career.

Table 42 shows participants' responses to the follow-up interviews, as mentioned earlier, interviews conducted after the pre-survey.

Table 42

Follow-up Interview Conducted After the Pre-Survey

Being a professional educator please reflect on how your most valued professional development session's instructional system has impacted your teaching methods and academic career?

Response	***N***	**%**
Training teachers on active learning strategies most helpful in providing engaging instruction	5	19.23%
Found follow-up coaching after professional development and expert support helpful in supporting best teaching practices	3	11.54%

Table 42 cont.

Follow-up Interview Conducted After the Pre-Survey

Being a professional educator please reflect on how your most valued professional development session's instructional system has impacted your teaching methods and academic career?

Response	***N***	**%**
Teacher input before professional development most helpful in getting needs met	3	11.54%
PD designer/teacher co-design most helpful in getting needs met	3	11.54%
Instructor expertise desired to provide the best scaffolding for teaching subject matter	3	11.54%
Collaboration time amongst teachers facilitated problem-solving	3	11.54%
Content-focused, most helpful providing accurate subject-specific information to students	2	7.69%
Time management of PD show respect for the teacher's time	2	7.69%
Duration of PD, short PD better than long PD sessions	2	7.69%
	26	100.00%

In Table 42, teachers indicated that they most valued professional development instructional sessions that provided active learning strategies most helpful in delivering engaging instruction by 19.23%. Teachers were mostly split on whether they valued coaching after PD and expert support, teacher input prior to professional development, wanted to co-design professional development with programmers, desired best scaffolding for teaching subject-specific curricula, and desired more collaboration time at 11.54% each.

According to Darling-Hammond et al. (2017), effective professional development programs contain the following five elements: 1) designed around

existing teachers' needs, 2) designed with the specific school culture and demographics in mind, 3) designed with teacher clientele during the planning process to create activities that directly meet their needs 4) creates an engaging program that participants are active in, not passive listeners, 5) includes programming that is progressive and uses long term engagement of participants in systematic development opportunities, 6) and uses the instructors who are experts in their fields.

Participants in this study were interviewed to determine their opinion of the structural strengths of effective professional development.

Table 43 shows participants' responses to the follow-up interview mentioned above conducted after the pre-survey.

Table 43

Follow-up Interview Conducted After the Pre-Survey

In your opinion, what are the structural strengths of effective professional development?

Response	***N***	**%**
Collaboration time during PD	4	12.12%
Feedback that is specific and facilitates teacher reflection during PD	4	12.12%
Teacher input	3	9.09%
Content-focused	3	9.09%
Follow-up coaching & expert support after Pd	3	9.09%
Outreach prior to training	2	6.06%
PD designer/teacher co-design	2	6.06%

Table 43 cont.

Follow-up Interview Conducted After the Pre-Survey

In your opinion, what are the structural strengths of effective professional development?

Response	***N***	**%**
Choice of PD	2	6.06%
Instructor expertise	2	6.06%
Bespoke objectives	2	6.06%
Active learning strategies	2	6.06%
Practice time during PD	2	6.06%
Duration of PD that respects teachers time	2	6.06%
	33	100.00%

In Table 43, teachers indicated that they believe the structural strengths of effective professional development to be collaboration time by 12.12%, and feedback that is specific and facilitates teacher reflection during professional development by 12.12%. Teacher input and content-focused were tied in third and fourth place at 9.09% a piece. The data from the follow-up interviews is in keeping with Darling-Hammond et al.'s theory of seven common design elements of practical professional development require the engagement of teacher collaboration, time for feedback and reflection, and content-focused.

Tables 32-43 the data show us that the number of teachers who agreed with Darling-Hammond et al.'s theory of seven common design elements of practical professional development by believing that professional development be content-focused through the use of more authentic artifacts, interactive activities, and other strategies that provide teachers with space for them and other participating teachers to share ideas, design or practice new strategies,

collaborate in their learning and use highly contextualized professional learning was a priority to them. Only one teacher did not consider content focus to be a priority (Table 32).

Teachers were unanimous (Table 33) in their agreement that structured collaboration is key to creating positive change in culture and instruction for their department and school, which is in agreement with Darling-Hammond et al.'s (2017) seven common design elements of practical professional development.

Teachers indicated in Table 34 that effective professional development incorporates active learning strategies with clear, concise objectives, providing an ideal descriptive tangible vision of the educator's practice. The data show PD presenters should model the instructional strategy whilst simultaneously coaching and providing feedback to the PD participants throughout the professional development session to cultivate participant investment, facilitate formative measurement, and promote learning satisfaction. Teachers were split as to whether they wanted follow-up coaching after the professional development session, but were of one mind that coaching should happen during professional development sessions.

Table 35 shows most of the teachers indicated that professional development should be content-focused as a Priority or higher in the pre-survey. In the post-survey, only one teacher rated that content focus was still not a priority for them. These findings are in keeping with Darling-Hammond et al.'s

(2017) theory that content focus is a key component of effective professional development.

Table 36 showed that participants in the pre-survey were in alignment with Darling-Hammond et al.'s (2017) theory that coaching and feedback are key components of effective professional development. Table 37 shows that the majority of participants in the pre-survey agreed that built-in time for teacher metacognition, (nonevaluative) feedback, and reflection are a Priority or higher. That rating decreased in the post-survey to 60%, but the majority of respondents did remain in alignment with Darling-Hammond et al.'s (2017) theory that coaching and feedback are key components of effective professional development. Only one participant rated coaching and feedback as a Low Priority in the post-survey.

Again Table 38 shows a decrease in the pre-survey to the post-survey regarding the importance of feedback and reflection to help teachers move toward the expert vision of the practice. Once more, participant responses disagree with the Darling-Hammond theory has arisen. A couple of participants' responses disagree with Darling-Hammond et al.'s (2017) theory that feedback and reflection are important to moving teachers toad the expert vision of their practice. But the majority of participants do agree with Darling-Hammond et al.'s (2017) theory that coaching and feedback are effective components of effective professional development.

Table 39 shows that participants rated the importance of professional development being sustained over a duration as a Priority, High Priority, and Essential in the pre-survey, which decreased in the post-survey to Low Priority and Not a Priority which does not align with Darling-Hammond et al.'s (2017) theory of the importance that professional development be sustained over a duration of time in order to be successful.

Table 40 shows teachers rated the importance of adequate time required by teachers to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice in the pre-survey as a Priority, High Priority, and Essential by 100%, which remained constant in the post-survey where teachers rated the elements of the question as a Priority, High Priority, and Essential by 100% as well. This data supports Darling-Hammond et al.'s. (2017) theory that teachers need time to use models and modeling for practice to solidify their learning of skills during professional development.

Table 41 showed that all the participants indicated that they found both two-way conversations (collaboration) that solved problems or potential problems helpful, which is in keeping with Darling-Hammond et al.'s. (2017) theory that teachers need time to engage in collaboration during professional development in order to be successful in meeting expectations both individually and collectively as a department.

In Table 42, the follow-up interview data indicate that participants' most valued professional development instructional sessions, which had impacted

their teaching methods and academic career were active learning strategies. Again, participants split their opinions as to whether coaching after professional development had positively impacted their teaching methods and academic careers or not. Though 11.54% rated follow-up coaching as important, it was of equal value to other professional development methods such as teacher input prior to professional development, wanting to co-design professional development with programmers, the desire for best scaffolding training for subject-specific curricula, and the desired more collaboration for more time. The findings in Table 42, which concur with the top three findings in Table 43, both align with Darling-Hammond et al.'s (2017) theory that active learning strategies, coaching and feedback, and collaboration are effective components of effective professional development.

From the data seems that teachers do have an inner drive to improve their skills through reflective practices, but they do not necessarily require coaching after professional development sessions have taken place. Participants do want professional development programmers to reach out to them to collaborate with participants before professional development occurs. Some participants prefer coaching, time to reflect, and feedback embedded into the professional development sessions. Some participants are open to coaching support services after professional development has occurred (Table 19).

Summary

Overall this study's participants perceive themselves as experienced, culturally competent, and social-emotionally aware practicing high school-level English Language Arts and/or English Language Development teachers. Though the teachers have had technology training in the past, the teachers understand that technology is ever advancing and wished to learn more about the instructional applications of technology. Teachers see themselves as culturally competent people whose interest lie in learning more about differentiated instructional practices to effectively deliver subject content to all their students which include English language learners and special education students.

The data show that participants valued their district's professional development (PD) efforts, but there is room for improvement. All of the participants indicated that professional development programmers had never reached out to them before for their input prior to PD sessions. Participants articulated that they wished the district professional development programmers had reached out to them for their input prior to their PD sessions.

A professional development session was designed for this study which happened after outreach to the participants via the pre-survey and follow-up interviews. The information from the pre-surveys and follow-up interviews was used to construct professional development sessions to specifically meet the needs expressed by the participants indicated in the pre-survey and follow-up interviews. The participants also expressed that the key component of

professional development sessions have presenters demonstrate active learning strategies and practical teaching applications, be content-focused professional development, provide coaching and expert support during PD, embed collaboration time during the PD, and be careful of time management of the PD. Participants indicated that lesson planning and curriculum development PD, technology training, and differentiated instruction were of value to them. Lastly, participants were adamant that this study conveys that professional development presenters need to work on their presentations' delivery so as not to be perceived as condescending by teachers, be more teacher-centered, and be activity driven. Clearly, the participants value respect for their status as educators, are focused on their needs, and be engaging.

Participants indicated that the key components of professional development design are content-focused professional development using authentic artifacts, interactive activities, and technology. Participants determined that collaborative working methodologies are a key component of transformational professional development. Participants indicated that professional development that is content-focused and models curricula practices as well as, models instruction are of value to them. The majority of participants rated coaching and expert support as a priority. The majority of participants rated reflection and feedback as important.

Participants' value of professional development being sustained over a duration decreased after the professional development session. All of the participants'

valuations of the key components of professional development are aligned with Darling-Hammond et al.'s (2017) theory of the key components of professional development, except for sustained coaching support after professional development. Even though the participants valued coaching and expert support during professional development sessions, participants were split over whether they valued coaching and expert support after a professional development session had occurred.

CHAPTER FIVE

RECOMMENDATIONS AND CONCLUSIONS

Chapter 5 contains an overview of the study, recommendations for educational leaders, next steps for educational reform, recommendations for future research, limitations of the study, and a conclusion.

Overview

This study aimed to determine the key design components of transformational teacher professional development programming. The research questions explored in this study were:

Research Questions

1. What effect do teachers' self-perceptions have on their professional development interests and skill development?
2. What components of professional development design and methods do teachers perceive to be the most valuable?
3. What are the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable?

This study started with approval from a Pre K12 public school district to work in conjunction with the Office of Secondary Curriculum and Instruction to conduct an online professional development needs assessment survey of teachers from the high school regarding their perceptions, teaching processes,

operational knowledge, and learning needs to successfully meet their teaching objectives.

This preliminary survey asked high school teachers to volunteer for a follow-up interview session. Two teachers from each grade level of specified departments within the high school were interviewed either in person or via Zoom to provide answers to semi-structured open-ended questions to gather nuanced information regarding professional development related to teachers' perceptions, needs, prior knowledge, learning preferences, professional goals, and level of achievement in garnering their goals. Teachers were asked to contribute their ideas on what quality professional development design looks like to identify the standards teachers hold most important (Göçen Kabaran et al. l, 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

Teacher interview responses were qualitatively coded to identify and isolate program features, characteristics, and themes patterns to determine a list of significant deductive codes validated by previous literature (Darling-Hammond et al., 2017; Bayar, 2014).

Deductive codes may include, for example, collaboration and time duration, sustained duration, opportunities for feedback, reflective practice, increased motivation, satisfaction, quality of the professional conference, informal communication with colleagues, uniformity of assessment, pre-test determiner, post-test determiner, comparison of teachers who used the new curriculum with PD vs., teachers who used new curriculum without PD, history of

previous year student achievement, percentile of student achievement, match to existing teacher need, match to existing school need, teacher involvement, active participation opportunity, long-term engagement opportunity, and perception of high-quality PD instruction (Darling-Hammond et al., 2017; Bayar, 2014).

These elements that teachers identify are essential to discern their full investment in the professional development process (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015). The goal of this process was to determine from teachers' responses the key components of professional development design that would create a transformational teacher professional development system that is routinely measurably successful (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Bayar, 2014; Spine & Lumpe, 2012).

From the data collected during phases one: the professional development needs assessment survey and two: follow-up respondent interviews, the researcher designed a professional development program under the auspices of the Office of Secondary Curriculum and Instruction utilizing elements and key components that the survey respondents identified were most important to them to constitute their personal investment in new teaching methods desired by the district (Darling-Hammond et al., 2017; Shaw, 2017; Bayar, 2014). The researcher conducted the bespoke training session under the guidance and with permission from the Office of Secondary Curriculum and

Instruction. After the training session, respondent-participants answered a post-survey to reveal if the researcher's constructed professional development design components met the study respondents' needs and would be instrumental in improving the research participants' teaching practice (Olsen & Buchanan, 2017; Kennedy, 2016; Allen & Penuel; 2015).

The findings from the data seem to indicate that teachers do have an inner drive to improve their skills through reflective practices, but they do not necessarily require coaching after professional development sessions have taken place, which is similar to the findings of Tantawy, 2020; Olsen & Buchanan, 2017; Shaw, 2017; Allen & Penuel, 2015; and Bayar, 2014.

This study demonstrates participants want professional development programmers to reach out to them to collaborate before professional development occurs, similar to Soine and Lumpe (2014). Some participants prefer coaching, reflection time, and feedback embedded in the professional development sessions. Some participants are open to coaching support services after professional development (Table 19), similar to Darling-Hammond et al.'s (2017, p. vi) findings.

The findings from this study show that teachers' self-perceptions impact their professional development interests and skill development. The findings revealed the components of professional development design and methods teachers perceive to be the most valuable are outreach before professional development, embedded collaboration time during professional development

sessions, professional development presenters who respect teachers' status, presenter subject matter expertise, and time management within professional development sessions itself similar to the findings of Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Allen & Penuel, 2015; Bayar, 2014. The key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable were discernible and testable are content-focused, active learning strategies, collaboration time, modeling of instructional practices; and coaching, feedback, and reflection time during the professional development session reinforcing the findings of Darling-Hammond et al., 2017; Kennedy, 2016; Shaw, 2017; Bayar, 2014; Soine & Lumpe, 2014.

Recommendations for Educational Leaders

As a result of this study, the research solidifies five components of Darling-Hammond et al.'s (2017) theory of the seven common design elements necessary for effective professional development. Effective professional development should 1) engage teachers in collaboration, 2) incorporate active learning strategies, 3) be content-focused, 4) model best practices, 5) provide coaching and expert support, and 6) include time for feedback and reflection.

One hundred percent of participants in this study indicated that professional development programmers should construct professional

development (PD) for teachers starting with outreach to teachers before professional development sessions to garner teacher input to ascertain teachers' educational practice needs. Participants (13.04%, Table 28) of this study agreed that professional development programmers must construct professional development that is bespoke to individual teachers' needs and the department's objectives simultaneously to ensure that professional development aligns with the educational partners' goals.

Participants (19.23%, Table 42) noted that professional development programmers should construct sessions incorporating active learning strategies. Participants (13.89%, Table 23) indicated that model practical teaching applications be curriculum content-focused, and 16.67%, Table 31) said professional development should integrate technology. Further, 60% of the participants in Table 38 indicated professional development efforts should provide coaching and expert support during professional development. In addition, 25.93% of participants in Table 41 indicated professional development should embed collaboration time so teachers can exchange ideas, give feedback, reflect, and problem-solve during professional development. Lastly, participants (7.69%, Table 42) indicated time management of professional development would show respect for participants' valuable time.

Next Steps for Educational Reform

The findings of this study demonstrated that professional development should no longer be a one-size-fits-all experience. Professional development should be bespoke to its audience (Bayar, 2014). Like the educational process for students, the educational process for teachers should be centered upon the participants to meet their bespoke learning needs (Sprott, 2018). Professional development programmers should not construct and plan professional development from one direction. Teachers should be engaged in professional development design from the onset of the planning (Kelly, 2019). In addition, the next step in implementing effective professional development is getting professional development planners and presenters to routinely reach out to their audience for their input before the construction and implementation of professional development (Soine & Lumpe, 2014). The next step of developing truly effective professional development is to answer the question: how do we get administrators to let go of presumptive mindsets and take the time to truly reach out and assess the needs of their teachers using teachers' direct input and offering teachers the opportunity to co-design their own professional development with district professional development programmers (Kennedy, 2016)?

Recommendations for Future Research

According to Shaw (2017), student-teachers exhibited symptoms of imposter syndrome, self-effacing thoughts, feared being labeled as an incendiary instigator, and were caught in an emotional cage of insecurity. In Sprott's study (2018), participants reported to the clinician that they valued the time and space provided to them by their institutions that facilitated collaborative reflection through the establishment of mentor/mentee relationships with master educators to accessing problem-solving skills from colleagues which supports Merriam and Caffarella's (1999) theory that in designing professional development learning programs, programmers must anticipate and work to minimize participants' natural anxiety and provide moments for participant reflection, risk-free self-evaluation, and internalization to beget oneness with the change process and establish learning. In the future, researchers should study how professional development designers can create more intimate collegial professional development experiences for teachers' professional development (Shaw, 2017).

Future research should utilize adult learning theory's learner-centered approach to provide instruction that transforms the teachers through the genesis of their new experience that is a safe and comfortable experience. Darling-Hammond et al.'s (2017) theorized that creating collaborative spaces that are non-evaluative and safe to share ideas is an essential component of effective educator professional development design. However, how that is done does not or looks like needs more study. Future research should ask the question: how

can professional development programmers create a safe space for teachers to discuss their professional problems without fear of being judged or punished by administrators (Darling-Hammond et al., 2017)?

According to Ancona (2012) and Dweck (2016), administrators struggle with dominating discourse amongst their teams. In this study, participants indicated that administrative micromanagement inhibited participants professional growth. This does not mean that leadership should be laissez-faire in their duties, just that they should trust their professional learning communities will actively test, validate, and refine plausible understandings as members of their working teams to reach collective goals (Ancona, 2012; Dweck, 2016). Future research should ask the question: how do we get administrators to let go of presumptive mindsets and take the time to truly reach out and assess the needs of their teachers using teachers' direct input and offering teachers the opportunity to co-design their own professional development with district professional development programmers (Kelly, 2019; Kennedy, 2016; Soine & Lumpe, 2012)?

Limitations of the Study

This study was focused on examining components to create an apparatus that could be replicated easily and flexible enough to be nuanced to meet the needs of specific audiences (Göçen Kabaran, 2021; Tantawy, 202; Kelly, 2019; Sprott, 2018; Darling-Hammond et al., 2017; Olsen & Buchanan,

2017; Shaw, 2017; Kennedy, 2016; Osborn, 2016; Allen & Penuel, 2015; Bayar, 2014; Soine & Lumpe, 2012).

This study was limited to one district and one high school therefore, the pool of participants was small.

Another limitation of the study was that the professional development session was conducted on a district-wide development day. Some participants could not attend this study's professional development sessions because they had to attend other mandatory training or meetings that conflicted with this study's time slot.

Lastly, bias towards the researcher may or may not have been present because the researcher is a member of the high school faculty at the center of this study. To reduce bias, the researcher chose her words carefully when asking questions and did not lead the participants in their interview responses. The researcher tried to limit her language and facial expressions to avoid leading the participants during the interviews. During the professional development session, the researcher maintained fidelity to the content, activities, methodologies, and strategy the participants indicated they wanted in their pre-survey and follow-up interviews.

Conclusions

The goals of this study were threefold. The purpose of this study was 1) to understand the effect teachers' self-perceptions have on their professional

development interests and skill development, 2) to determine the components of professional development design and methods teachers perceive to be the most valuable, and 3) to identify the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable (Darling-Hammond et al., 2017; Kennedy, 2016; Shaw, 2017; Bayar, 2014; Soine & Lumpe, 2014).

Research Question 1: What effect do teachers' self-perceptions have on their professional development interests and skill development?

To understand the effect teachers' self-perceptions have on their professional development interests and skill development, professional development programmers must recognize and value that humans are the driving force of any organization. Stakeholder sensemaking is central to the organization's enthusiasm and commitment to any action (Weick & Sutcliffe, 2005). The ability of an organization to harness the power of stakeholders' thinking and turn thought into productivity is the nexus of transformational change (Weick & Sutcliffe, 2005). The findings in Table 16 of this study indicate that 12.82% of the participants would like additional technological training, 10.26% wish to receive training on how to perform differentiated instruction for their students, and 10.26% indicated that they would like more training on promoting equitable education professional development. The participants' interest in additional training aligns with the district's goals. The most effective transformational change is done slowly from the bottom up, where new ideas are

correlated to prior understandings, determinations, and commitments of the agents of change, who are the teachers (Weick & Sutcliffe, 2005).

Sensemaking theory is how teachers negotiate and construct meaning from new information by using their prior knowledge to manage their uncertainty of change. In choosing or developing professional development designs to improve institutional practices, leadership must lay the groundwork for sensemaking through collaborative meetings and messaging to utilize the current thinking of stakeholders to meet their needs in an obviously overt manner to achieve a collective vision (Darling-Hammond et al., 2017; Allen and Penuel, 2015).

The findings of this study indicated in Table 28 that 13.04% of teachers would like professional development presenters to embed collaboration time in their professional development sessions. In Table 29, this study found that 9.09% of participants wanted collaboration time with their colleagues to share their experiences and problem-solve. In Table 43, 12.12% of the participants indicated that collaboration time is a structural strength of professional development. Table 33 shows that 100% of participants regarded the professional development strategies model and facilitating collaborative working methodologies as a priority or higher importance.

The teachers in Table 38's pre-survey rated the importance of feedback and reflection to teachers to help them thoughtfully move toward the expert visions of practice as a Priority or higher at 100.00%.

To do this leadership and professional development, programmers must know and respect the backgrounds and current mindset of their teachers and recognize how teachers operate in the world in which they practice to construct a suitable apparatus to facilitate individual and institutional achievement (Göçen Kabaran, 2021; Tantawy, 202; Kelly, 2019; Sprott, 2018; Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Shaw, 2017; Kennedy, 2016; Osborn, 2016; Allen & Penuel, 2015; Bayar, 2014; Soine & Lumpe, 2012).

In Table 27, all interviewees stated that they would appreciate it if the professional development programmers had reached out to them for their input before requiring them to attend mandatory training. Table 29, 13.64% of the participants in this study indicated that professional development strategy activity must make sense in the real classroom's everyday practice.

In Tables 1-14, this study's participants saw themselves as practicing high school-level teachers. The highest number of years that the participating teachers have been employed in this district has been 4 to 6 years. Most participants in this study identified as English Language Arts teachers. Many participants indicated that they worked simultaneously with general education students, English Language Learners, and special education students (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

The participants of this study revealed in Tables 15 and 18 that they spent the majority of their professional development training during the 2021-2022

school year learning about the social and emotional learning (SEL) of students (14.67%), which emphasized the care of students from the LGBTQ community (40%), followed by technology-related training to build their skill set to serve their students (12.00%), and training to promote equitable education (e.g., cultural competency, and equity practices) (10.67%).

During the follow-up interview after the pre-survey, participants (20.83%) indicated in Table 17 that they would like to receive more professional development to reach their goals in lesson planning and curriculum development, Participants (16.67%) said they needed more technology-related training, and 16.67% of the participants indicated they needed differentiated instructional strategies for high school students who are general education students, English Language Learners, and special education students training by 16.67% (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

According to Belanger (2011) and Mezirow (1991), the transformational process begins with a teacher's perception of self. To effect change, a teacher must recognize a problem needing resolution while examining themselves in the problem and their role in the problem. To do this, a teacher must reorient their sense of self and act upon their new perspectives. The data from this study showed that participants see themselves as experienced high school teachers trained in social and emotional learning (SEL) and cultural competency that promotes and provides equitable education that is inclusive of all students.

The teachers indicated in the pre-survey and follow-up interview that although participants spent 16.67% of their time in technological training, they required more training in technology integration. The participants revealed in their interviews that they understand that technology is always advancing, which interests them. Teachers would like continuous training to keep them up to date on the advances of technology and add to their technical skill sets so they can utilize technology to implement the educational process more easily and effectively while teaching their students how to utilize technology to advance their working knowledge, utilization, and application of the curriculum content.

Using the information from the pre-survey and the follow-up interview, a professional development session was constructed and conducted centered on teaching teachers how to use technology to provide differentiated instruction to meet the needs of their English Language Learner students. After the professional development session, teachers indicated in Table 16, the post-survey, that their need for more training in using technology dropped from 12.82% to 7.14%.

After the professional development session created for this study, teacher demand (Table 16) for more differentiated instruction training increased from 10.26% to 14.29%. Their request for additional equitable education strategies increased from 10.26% to 14.29%. Teachers wanted more training.

Table 16, teacher interest in learning new strategies for parent communication and engagement fell from 10.26% during the pre-survey to 7.14%

post-survey. Teacher demand for professional development in developing and using formative and summative assessments vanished from the pre-survey at 10.26% to 0.00% in the post-survey. Teachers' priorities and focus had shifted after attending the professional development session that was constructed using outreach (pre-survey and follow-up interviews) to gather teacher input before professional development construction with the goal of meeting the needs of participants during the development.

Participants of this study indicated in Table 19 that they preferred district-prescribed single seminars that are all day with no coaching services provided by 41.67%, which is contrary to Darling-Hammond et al. (2017) theory that effective professional development must include follow-up coaching services for individual teachers for the professional development training to be completely successful. Therefore, this study's professional development session was a single seminar with no formal systematized coaching support constructed after the PD session. Support materials and the presenter's contact information were offered and disseminated to all the participants.

Twenty-five percent of the participants preferred single seminars and all-day professional development with follow-up coaching support. This data indicate that teachers prefer to fully invest themselves in the time they are using to further their professional skills (Darling-Hammond et al., 2017; Kennedy, 2016; Allen & Penuel, 2015 Bayar, 2014). Professional development for the participants is not simply a perfunctory act. Professional development for the participants is an

investment of the mind and their time, which should be as individualistic as the participants themselves (Göçen Kabaran et al., 2021; Darling-Hammond et al., 2017; Shaw, 2017; Allen & Penuel, 2015).

Research Question 2: What components of professional development design and methods do teachers perceive to be the most valuable?

This study aimed to determine the components of professional development design and methods teachers perceive to be the most valuable. In Bayar's (2014) study, teachers articulated that an effective professional development program contains the following five elements: 1) designed around existing teachers' needs, 2) designed with the specific school culture and demographics in mind, 3) designed with teacher clientele during the planning process to create activities that directly meet their needs 4) creates an engaging program that participants are active in, not passive listeners, 5) includes programming that is progressive and uses long term engagement of participants in systematic development opportunities, 6) and uses the instructors who are experts in their fields (Bayar, 2014).

According to Belanger (2011), when designing professional development learning programs, programmers must:

1) take into account participants' natural potentiality for learning,
2) their perception of the relevance of the program’s purpose to their individual objectives,

3) anticipate and work to minimize participants' natural anxiety and resistance to perceived threatening change
4) design programming to be collaborative, active, and engaging in easing learning and encouraging ownership of the desired methods and ideology
5) create opportunities for participants to self-initiate learning;
6) provide moments for participant reflection, risk-free self-evaluation, and internalization to beget oneness with the change process and establish a learning environment that is open to incorporating all individuals in the change process.

In this study, teachers indicated they were satisfied with the district's professional development. Teacher satisfaction with the district's delivery of professional development increased overall after the professional development session constructed for this study from the teachers' pre-survey and follow-up interviews was implemented, which centered upon their input and request to learn more about the available technological applications, their usefulness, and implementation to provided differentiated instruction the meet the needs of their general education students who included English Language Learners and special education students.

Teachers were very clear that they valued the social-emotional curriculum training over the previous year. The teachers stated that they wanted from professional development presenters practical suggestions that could be done

immediately in their classrooms to teach effectively, and found presenter modeling of best practices using them as pseudo students to be most engaging and fulfilling because teachers were able to see in real-time how instructions should be delivered and get a feel for how the instruction should or could be received by their students (Darling-Hammond et al., 2017).

All the participants in the study revealed that they had never been asked before this study to provide their input and share their needs about professional development design and planning (Soine & Lumpe, 2012). All participants voiced that they would have appreciated the courtesy of a needs assessment survey or contact before professional development by district professional development programmers to take into account their natural potentiality for learning to ensure that their needs were being considered for the professional development (Belanger, 2022; Soine & Lumpe, 2012). All participants stated that such outreach validated them because it recognized and respected their identity and expertise as educators (Weick & Sutcliffe, 2005).

This study's participants were very vocal about ensuring that their desire for outreach before the professional development was documented for the study to change current professional development practices towards bespoke design to meet individual and departmental needs, similar to Belanger's findings, 2022.

Like Sprott (2018), participants stressed that collaboration during professional development was crucial to problem-solving and collegial support within their departments. Participants clearly wanted to ensure that collaboration

time amongst the professional learning community members was regularly embedded during professional development, which were similar to the findings of Belanger's (2022) study. In addition, participants emphasized that the selection of strategies taught during professional development be practical, modeled, and immediately useful in classroom practice also found by Belanger.

This study's participants were adamant that findings convey that presenters need to work on their presentations' delivery not to be perceived as condescending by teachers, more teacher-centered, and activity driven. The participants of this study indicated that curriculum study and lesson planning, technology training, and differentiated instruction training were most valuable in helping them to meet their objectives. These findings reinforce the findings of Belanger, 2022; Göçen Kabaran & Usun, 2021.

Research Question 3: What are the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable?

The final objective of this study was to identify the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable (Darling-Hammond et al., 2017; Kennedy, 2016; Shaw, 2017; Bayar, 2014; Soine & Lumpe, 2014).

In Tables 32-43 (pages 138-154), the data show us that the number of teachers who agreed with Darling-Hammond et al.'s theory of seven common design elements of practical professional development by believing that professional development be content-focused through the use of more authentic artifacts, interactive activities, and other strategies that provide teachers with space for them and other participating teachers to share ideas, design or practice new strategies, collaborate in their learning and use highly contextualized professional learning was a priority to them. Only one teacher did not consider content focus on being a priority (see table 32, page 138).

Teachers agreed unanimously (Table 33, page 140) that structured collaboration is key to creating positive change in culture and instruction for their department and school, which agrees with Kelly's (2019) findings and Darling-Hammond et al.'s (2017) seven common design elements of practical professional development.

Teachers indicated in (see Table 34, page 142) that effective professional development incorporates active learning strategies with clear, concise objectives, providing an ideal descriptive tangible vision of the educator's practice. The data show that PD presenters should model the instructional strategy while coaching and providing feedback to the PD participants throughout the professional development session to cultivate participant investment, facilitate formative measurement, and promote learning satisfaction (Darling-Hammond et al., 2017). Teachers were split as to whether they wanted follow-up

coaching after the professional development session, but they thought coaching should happen during professional development sessions.

Table 35 (page 143) shows that most teachers indicated that professional development should be content-focused as a Priority or higher in the pre-survey. In the post-survey, only one teacher rated that content focus was still not a priority for them. These findings align with Darling-Hammond et al.'s (2017) theory that content focus is a key component of effective professional development.

Table 36 (page 144) showed that participants in the pre-survey aligned with Darling-Hammond et al.'s (2017) theory that coaching and feedback are key components of effective professional development. Table 37 (page 123) shows that most participants in the pre-survey agreed that built-in time for teacher metacognition, (nonevaluative) feedback, and reflection are a Priority or higher. That rating decreased in the post-survey to 60%, but the majority of respondents did remain in alignment with Darling-Hammond et al.'s (2017) theory that coaching and feedback are key components of effective professional development. Only one participant rated coaching and feedback as a Low Priority in the post-survey.

Again, Table 39 (page 149) shows a decrease in the pre-and post-surveys regarding the importance of feedback and reflection to help teachers move toward the expert vision of the practice. Once more, participant responses disagree with the Darling-Hammond theory has arisen. A couple of participants'

responses disagree with Darling-Hammond et al.'s (2017) theory that feedback and reflection are important to moving teachers toad the expert vision of their practice. But most participants agree with Darling-Hammond et al.'s (2017) theory that coaching and feedback are effective components of effective professional development.

Table 39 (page 149) shows that participants rated the importance of professional development being sustained over a duration as a Priority, High Priority, and Essential in the pre-survey, which decreased in the post-survey to Low Priority and Not a Priority which does not align with Darling-Hammond et al.'s (2017) theory of the importance that professional development be sustained over a duration of time to be successful.

Table 40 (page 150) shows teachers rated the importance of adequate time required by teachers to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice in the pre-survey as a Priority, High Priority, and Essential by 100%, which remained constant in the post-survey where teachers rated the elements of the question as a Priority, High Priority, and Essential by 100% as well. This data supports Darling-Hammond et al.'s. (2017) theory that teachers need time to use models and modeling for practice to solidify their learning of skills during professional development.

Table 41 (page 151) showed that all the participants indicated that they found two-way conversations (collaboration) that solved problems or potential problems helpful, in keeping with Darling-Hammond et al.'s (2017) theory that

teachers need time to engage in collaboration during professional development to be successful in meeting expectations both individually and collectively as a department.

In Table 42 (page 152), the follow-up interview data indicate that participants' most valued professional development instructional sessions, which had impacted their teaching methods and academic career were active learning strategies. Again, participants split their opinions on whether coaching after professional development had positively impacted their teaching methods and academic careers. Though 11.54% of the participants rated follow-up coaching as important, it was of equal value to other professional development methods such as teacher input before professional development, wanting to co-design professional development with programmers, the desire for best scaffolding training for subject-specific curricula, and the desire for more collaboration for more time. The findings in Table 42 (page 152), which concur with the top three findings in Table 43 (page 154), align with Darling-Hammond et al.'s (2017) theory that active learning strategies, coaching and feedback, and collaboration are effective components of effective professional development.

The findings from the data seem to indicate that teachers do have an inner drive to improve their skills through reflective practices, but they do not necessarily require coaching after professional development sessions have taken place, which is similar to the findings of Tantawy, 2020; Olsen & Buchanan, 2017; Shaw, 2017; Allen & Penuel, 2015; Bayar, 2014.

This study demonstrates participants want professional development programmers to reach out to them to collaborate before professional development occurs, similar to the findings of Soine and Lumpe, 2014. Some participants prefer coaching, reflection time, and feedback embedded in the professional development sessions. Some participants, similar to the findings of Darling-Hammond (2017) are open to coaching support services after professional development has occurred (Table 19, page 112).

The findings from this study show that teachers' self-perceptions impact their professional development interests and skill development. The findings revealed the components of professional development design and methods teachers perceive to be the most valuable are outreach before professional development, embedded collaboration time during professional development sessions, professional development presenters who respect teachers' status, presenter subject matter expertise, and time management within professional development sessions itself similar to the findings of Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Allen & Penuel, 2015; Bayar, 2014. The key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable were discernible and testable are content-focused, active learning strategies, collaboration time, modeling of instructional practices; and coaching, feedback, and reflection time during the professional development session

reinforcing the findings of Darling-Hammond et al., 2017; Kennedy, 2016; Shaw, 2017; Bayar, 2014; Soine & Lumpe, 2014.

This study is not simply applicable to just professional development of teachers but is good generalizability to all professional development programmers to learn the effective components of professional development in general Göçen Kabaran, 2021; Tantawy, 202; Kelly, 2019; Sprott, 2018; Darling-Hammond et al., 2017; Olsen & Buchanan, 2017; Shaw, 2017; Kennedy, 2016; Osborn, 2016; Allen & Penuel, 2015; Bayar, 2014; Soine & Lumpe, 2012).

If I had to do this study all over again, I would have made some of the questions more targeted for the pre-survey and follow-up interviews so as to be more concise in my questioning to streamline this study's outreach and intake process.

The highlight of this study is the importance of outreach and collection of teacher input prior to the construction of professional development. Constructing professional development that satisfied participants was easy due to their input at the outset of the design and development process of the professional development. The old adage, "Know your audience and give them what they want." is true. The participants of this study valued being a part of the development process of professional development design to ensure that their needs were being met during professional development and their time was not wasted on things they already knew. Participants were 100% clear regarding their valuation for collaboration amongst colleagues to share expertise and

problem-solve was highly important to them. Peer collaboration and mentorship also showed that participants valued one another, building community and commitment to the collective goal.

APPENDIX A

THE KEY COMPONENTS OF PROFESSIONAL DEVELOPMENT DESIGN THAT TEACHERS MOST VALUE QUESTION ALIGNMENT MATRIX

The Key Components of Professional Development Design that Teachers Most Value Question Alignment Matrix

Sprott, 2018 Tantaway, 2020 Bayar, 2014	**Research Question 1 Teacher Description of Self** **1. What effect do teachers' self-perceptions have on their professional development interests and skill development?**	**Bayar, 2014 Belanger, 2011**	**Research Question 2 PD Satisfaction** **2. What components of professional development design and methods do teachers perceive to be the most valuable?**	**Darling-Hammond, 2017**	**Research Question 3 Professional Development Interests** **3. What are the key components of transformational professional development design that increase teacher motivation, investment, satisfaction, learning, and quality of what are measurable?**
	Pre-Survey to Post-Survey Which of the following best describes your role at your school?	teachers' needs	**Pre to Post Survey Question** Overall, how satisfied are you with the PD programs offered by… …your school district?	content-focused	**Pre to Post Survey Question** How important is it to you that lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching are utilized during your professional development?

	Pre-Survey to Post-Survey What grade levels do you currently teach? Please select all that apply.	teachers' needs	**Pre to Post Survey Question** Please indicate how much you disagree or agree with the following statements about professional development at your school: In general, the professional development opportunities offered by my school…	content-focused	**Pre to Post Survey Question** How important is it to you that professional development instructors utilize demonstrations of effective curricula practices and modeling of instruction with a clear vision of what best practices look like?
	Follow-up Interview Conducted After the Pre Survey What grade levels do you currently teach?	engaging program	**Follow-up Interview Conducted After the Pre-Survey** Please describe the best three professional development sessions you ever attended. These sessions may differ in content, format, or subject matter. Think as to why these sessions were so beneficial to you. What made	content-focused	**Follow-up Interview Question** Please describe the best three professional development sessions you ever attended. These sessions may differ in content, format, or subject matter. Think as to why these sessions were so beneficial to you. What made these sessions so effective, memorable, and supportive of your teaching practice?

			these sessions so effective, memorable, and supportive of your teaching practice?		
	Pre-Survey to Post-Survey Where do you work (2022-2023 school year)? If you work across multiple school sites, please respond to the school-level questions in this survey for the site where you spend the majority of your time.	designed with teachers Teacher input	**Pre-Survey to Post-Survey** How important is it to you that teacher professional development designers include your input in the TPD design process through outreach prior to training to take into consideration, utilize, and incorporate your prior knowledge and level of expertise into the professional development design?	active learning strategy	**Pre to Post Survey Question** How important is it to you that professional development uses authentic artifacts, interactive activities, and other strategies that provide you with space for you and other participating teachers to share ideas, design or practice new strategies, collaborate in your learning, and use highly contextualized professional learning?
	Follow-up Interview Conducted After the Pre-Survey		**Pre-Survey to Post-Survey** How important is it to you that teacher professional development designers demonstrate consideration of your time by	active learning strategy	**Pre to Post Survey Question** How important is it to you that professional development strategies model and facilitate collaborative working methodologies to help teachers create

	Where do you work (2022-2023 school year)? If you work across multiple school sites, please respond to the school-level questions in this survey for the site where you spend the majority of your time.		creating programming that is targeted to your needs through prior outreach to you and in consultation with you before any TPD sessions take place?		communities that positively change the culture and instruction of their entire grade level, department, school, and/or district?
	Pre-Survey to Post-Survey What are your total years of experience in the field of education?	teachers' needs	**Follow-up Interview Conducted After the Pre-Survey** In reflecting upon these three favorable professional development sessions what program methods and activities were personalized to meet your existing needs?	active learning strategy	**Follow-up Interview Question** In reflecting upon these three favorable professional development sessions what program methods and activities most engaged you? Please describe any activities utilized before, during, and after the session that facilitated or solidified your investment in the training process?
	Pre-Survey to Post-Survey	designed with	**Follow-up Interview Conducted**	active learning	**Follow-up Interview Question** Being a professional

	How long have you been employed by [the] School District?	teachers Teacher input	**After the Pre-Survey** Would you liked to have been contacted prior to the professional development to share your input in constructing the professional development inorder to ensure it met your existing needs?	strategy	educator please reflect on how your most valued professional development session's instructional system has impacted your teaching methods and academic career?
	Pre-Survey to Post-Survey What do you teach? Please select all that apply.	engaging program	**Follow-up Interview Conducted After the Pre-Survey** Using your valuable experience, please describe how you believe districts can improve professional development programming design?	collaboration	**Follow-up Interview Question** How important is it to you that professional development instructors provide coaching and expert support that involves one-on-one sharing of expertise about content and evidence-based practices, focused directly on teachers' individual needs?

	Pre-Survey to Post-Survey Do you teach or directly work with any of the following student populations?	engaging program Teacher needs	**Follow-up Interview Conducted After the Pre Survey** Upon reflection of your most valued training sessions, what was most important in those PD sessions?	collaboration	**Follow-up Interview Question** In your opinion, what are the structural strengths of effective professional development?
	Follow-up Interview Conducted After the Pre-Survey Do you teach or directly work with any of the following student populations?	engaging program	**Follow-up Interview Conducted After the Pre Survey** Now think about your three least favorable professional development experiences. Please explain why those sessions were ineffective in meeting your needs or that of your colleagues.	modeling	**Follow-up Interview Question** In reflecting upon these three favorable professional development sessions what program methods and activities most engaged you? Please describe any activities utilized before, during, and after the session that facilitated or solidified your investment in the training process?

	Pre-Survey to Post-Survey *PROFESSIONAL DEVELOPMENT PARTICIPATION In which of the following types of professional development (PD) programs or workshops did you participate during the 2021-2022 school year that was offered by your school or district? Please select all that apply.*	Teacher needs	**Follow-up Interview Conducted After the Pre-Survey** What professional development training would be most valuable to you?	coaching expert support	
	Pre-Survey to Post-Survey In which of the following areas would you be most interested in receiving additional professional development?			feedback reflection	How important is it to you that professional development instructors provide built-in time for teachers to intentionally think about, receive input on, and make changes to their practice by facilitating reflection and soliciting risk-

					free (nonevaluative) reflection and feedback?
	Follow-up Interview Conducted After the Pre-Survey What type of professional development training would you like to receive in the future?			feedback reflection	**Pre to Post Survey Question** How important do you believe feedback and reflection are to help teachers thoughtfully move toward the expert visions of practice?
	Follow-up Interview Conducted After the Pre-Survey In reflecting upon these three favorable professional development sessions what program methods and activities specifically addressed school culture and demographics best?			feedback reflection	**Pre to Post Survey Question** How important is it to you that professional development is sustained over a duration?

	Follow-up Interview Conducted After the Pre-Survey When looking back on your professional development experiences, can you describe the professional development system that best suited you?			sustained duration	

APPENDIX B

NEEDS ASSESSMENT SURVEY

TEACHER INFORMED CONSENT

Welcome to the Needs Assessment Survey!

Teacher Informed Consent

My name is Elizabeth Esquivel-Hofstedt. I am an Ed.D. candidate at CSUSB conducting a survey under the supervision of Professor Dr. Sharon Brown-Welty of CSUSB-College of Education in cooperation with ********** to identify, understand, and utilize the components of professional development design and methods that teachers perceive as the most valuable.

Specifically, this survey addresses what educators perceive as the strengths and areas for improvement in their existing school/district professional development programming as well as their desired elements for future professional development programs. Findings will help inform the district's professional development priorities. The goal is to design effective transformational teacher professional development programming that utilizes teachers' self-awareness, and knowledge, as well as demonstrates the district's respect for teachers' time.

Your responses will remain confidential unless you volunteer your contact information at the end of this survey to be contacted to participate in a follow-up interview to help clarify your ideas. Volunteer interviewees' information will remain confidential. All data will be reported in the aggregate. The survey should take you no more than 15 minutes to complete.

Elizabeth Esquivel-Hofstedt the researcher from CSUSB declares is a colleague of the respondents from ********** in particular **********.

This being the case the researcher understands and will neutralize any confirmation bias that presents itself to retain the fidelity of the study's purpose. Ths researcher is a doctoral student at CSUSB. The researcher is not employed or paid by CSUSB or ********** to conduct this study.

The risks of this study are minimal due to the anonymity measures and confidentiality precautions taken. The nature of the study is to ascertain a true understanding of teachers' perceptions and needs in order to design effective

transformational teacher professional development. This study is not evaluative of the participants and will in no way be used to evaluate their professional performance by their employer.

Your participation in this research is voluntary. You have the right to withdraw at any point during the study. The Principal Investigator of this study, Elizabeth Esquivel-Hofstedt, can be contacted at 007445588@coyote.csusb.edu.

By clicking the button below, you acknowledge:

- Your participation in the study is voluntary.
- You are 18 years of age.
- You are aware that you may choose to terminate your participation at any time for any reason.

Thank you for your valuable time, attention, wisdom, and support.

Sincerely,
Elizabeth Esquivel-Hofstedt

Teacher Description of Self

1. Which of the following best describes your role at your school?
   - Classroom Teacher
   - Instructional Coach/Specialist
   - Instructional Support Staff (e.g., instructional aide, teaching assistant)
   - Other (please specify):_____

2. What grade levels do you currently teach? Please select all that apply.
   - Grade 6
   - Grade 7
   - Grade 8
   - Grade 9
   - Grade 10
   - Grade 11
   - Grade 12

3. Where do you work (2022-2023 school year)? If you work across multiple school sites, please respond to the school-level questions in this survey for the site where you spend the majority of your time.*

- Monte Vista Middle School
- North Mountain Middle School
- **********High School
- District Office
- None of the above (Disqualify)

4. What are your total years of experience in the field of education?

- Less than 1 year
- 1 to 3 years
- 4 to 6 years
- 7 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years
- Prefer not to respond

5. How long have you been employed by **********?

- Less than 1 year
- 1 to 3 years
- 4 to 6 years
- 7 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years
- Prefer not to respond

6. What do you teach? Please select all that apply. Please select all that apply.

- English Language Arts
- English Language Development
- None of the above Exclusion answer

7. Do you teach or directly work with any of the following student populations? Please select all that apply.*

- General Education
- English Language Learner
- Special Education
- None of the above (Exclusion answer)

8. PROFESSIONAL DEVELOPMENT PARTICIPATION
In which of the following types of professional development (PD) programs or workshops did you participate during the 2021-2022 school year that was offered by your school or district? Please select all that apply.

- Technology-related (e.g., integration, skill development)
- Differentiated instruction
- Promoting equitable education (e.g., cultural competency, equity practices)
- Data collection and analysis (e.g., analyzing or tracking student assessment or progress)
- Safety (e.g., bullying, mandatory reporting OSHA)
- Subject-specific programs (e.g., math, literacy, foreign language)
- Supporting special student populations (e.g., ELD, Special Education, At-Risk)
- Social and Emotional Learning (SEL)
- Classroom management
- Lesson planning/curriculum development
- Parent communication and engagement
- Professional responsibility (e.g., legal and ethical responsibilities)
- Developing and using formative/summative assessments
- Other (please specify):_____
- Other (please specify):_____
- Other (please specify):_____
- I did not participate in any PD during the 2018-2019 school year. (Exclusion answer)

Professional Development Satisfaction

9. Overall, how satisfied are you with the PD programs offered by…
…your school district?

- Very unsatisfied
- Unsatisfied
- Neither Satisfied nor Unsatisfied
- Satisfied
- Very Satisfied
- Don't Know/NA

10. Please indicate how much you disagree or agree with the following statements about professional development at your school:

In general, the professional development opportunities offered by my school…

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't Know/NA
…meet my needs as an educator.	●	●	●	●	●	●
…are relevant to my work.	●	●	●	●	●	●
…positively impact my instructional practice.	●	●	●	●	●	●
…include offerings for participants of different skill/experience levels.	●	●	●	●	●	●
…offer practical information or skills for me to implement.	●	●	●	●	●	●

PROFESSIONAL DEVELOPMENT INTERESTS

11. In which of the following areas would you be most interested in receiving additional PD?

Please select up to 5 options.

- Technology-related (e.g., integration, skill development)
- Differentiated instruction
- Promoting equitable education (e.g., cultural proficiency, differentiated instruction)
- Data collection and analysis (e.g., analyzing or tracking student assessment or progress)
- Subject-specific programs English Language Arts
- Subject-specific programs English Language Development
- Supporting special student populations
- Social and Emotional Learning (SEL)
- Classroom management
- Lesson planning/curriculum development
- Parent communication and engagement
- Developing and using formative/summative assessments
- None of the above (Exclusive Answer)

12. How important is it to you that teacher professional development designers include your input in the TPD design process through outreach prior to training to take into consideration, utilize, and incorporate your prior knowledge and level of expertise into the professional development design?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

13. How important is it to you that teacher professional development designers demonstrate consideration of your time by creating programming that is targeted to your needs through prior outreach to you and in consultation with you before any TPD sessions take place?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

14. How important is it to you that professional development uses authentic artifacts, interactive activities, and other strategies that provide you with space for you and other participating teachers to share ideas, design or practice new strategies, collaborate in your learning and use highly contextualized professional learning?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

15. How important is it to you that professional development strategies model and facilitate collaborative working methodologies to help teachers create communities that positively change the culture and instruction of their entire grade level, department, school, and/or district?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

16. How important is it to you that professional development instructors utilize demonstrations of effective curricula practices and modeling of instruction with a clear vision of what best practices look like?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

17. How important is it to you that lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching are utilized during your professional development?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

18. How important is it to you that professional development instructors provide coaching and expert support that involves one-on-one sharing of expertise about content and evidence-based practices, focused directly on teachers' individual needs?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

19. How important is it to you that professional development instructors provide built-in time for teachers to intentionally think about, receive input on, and make changes to their practice by facilitating reflection and soliciting risk-free (nonevaluative) reflection and feedback?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

20. How important do you believe feedback and reflection are to help teachers thoughtfully move toward the expert visions of practice?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

21. How important is it to you that professional development is sustained over a duration?

- Not a priority
- Low priority

- Priority
- High priority
- Essential

23. How important is it to you that professional development provides teachers with adequate time to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

24. Volunteer opportunity: We are conducting individual follow-up Zoom interviews to this survey using open-ended questions to clarify respondents' perceptions.

Your name:

Your phone number:

Your email:

The best time to reach you:

Best time for the interview (30 minutes):

APPENDIX C

INTERVIEW OPEN-ENDED QUESTIONS

TEACHER INFORMED CONSENT

Interview Open-ended Questions

Teacher Informed Consent

Thank you for volunteering to join me today for this recorded Zoom meeting.

My name is Elizabeth Esquivel-Hofstedt. I am an Ed.D. candidate at CSUSB conducting this study under the supervision of Professor Dr. Sharon Brown-Welty of CSUSB-College of Education in cooperation with ********** to identify, understand, and utilize the components of professional development design and methods that teachers perceive as the most valuable.

This study addressed what educators perceive as the strengths and areas for improvement in their existing school/district professional development programming as well as their desired elements for future professional development programs. Findings will help inform the district's professional development priorities.

The goal is to design an effective transformational teacher professional development program that utilized teachers' self-awareness, and knowledge, as well as demonstrates the district's respect for teachers' time.

Your responses will remain confidential. All data will be reported in the aggregate.

The risks of this study are minimal due to the confidentiality precautions taken. The nature of the study was to ascertain a true understanding of teachers' perceptions and needs in order to design effective transformational teacher professional development. This study was not evaluative of the participants and will in no way be used to evaluate their professional performance by their employer.

The interview should no more than 30 minutes to complete.

Please state the following if you consent to participate in this interview.

I consent to my participation in this interview on _____(day, month, year, time). I consent to this interview being recorded and transcribed.

Please state your name?

Please state your position, the grade level, and the subject areas you teach?

How many years have you been teaching?

1) Please describe the best three professional development sessions you ever attended. These sessions may differ in content, format, or subject matter. Think as to why these sessions were so beneficial to you. What made these sessions so effective, memorable, and supportive of your teaching practice?

2) In reflecting upon these three favorable professional development sessions what program methods and activities were personalized to meet your existing needs?

3) In reflecting upon these three favorable professional development sessions what program methods and activities most engaged you? Please describe any activities utilized before, during, and after the session that facilitated or solidified your investment in the training process? (example: outreach prior to the PD session, interactive and collaborative activities during the session; follow-up surveys or coaching sessions after the session, support materials)

4) In reflecting upon these three favorable professional development sessions what program methods and activities specifically addressed school culture and demographics best?

5) When looking back on your professional development experiences, can you describe the professional development system that best suited you? (example: single seminars district prescribed, seminar surveys- single seminar, single seminar with coaching supports, multiple seminars- no coaching support, multiple seminars with long-term coaching support)

6) Upon reflection of your most valued training sessions, what was most important in those PD sessions? (example: outreach prior to training, teacher input, PD designer/teacher co-design, content-focused, instructor expertise, bespoke objectives, active learning strategies, collaboration time, time management, coaching & expert support, feedback and reflection, duration, testability)

7) Using your valuable experience, please describe how you believe districts can improve professional development programming design? (example: outreach prior to the PD sessions, bespoke departmental design, increased collaboration between facilitators & teachers, increased collaboration time amongst teaching

teams, interactive events and materials, post-surveys, follow-up coaching, and support materials)

8) Being a professional educator please reflect on how your most valued professional development session's instructional system has impacted your teaching methods and academic career? (example: outreach prior to training, teacher input, PD designer/teacher co-design, content-focused, instructor expertise, bespoke objectives, active learning strategies, collaboration time, time management, coaching & expert support, feedback and reflection, duration, testability)

9) Now think about your three least favorable professional development experiences. Please explain why those sessions were ineffective in meeting your needs or that of your colleagues?

10) In your opinion, what are the structural strengths of effective professional development? (example: outreach prior to training, teacher input, PD designer/teacher co-design, content-focused, instructor expertise, bespoke objectives, active learning strategies, collaboration time, time management, coaching & expert support, feedback and reflection, duration, testability)

11) How should professional development programming be improved? (example: outreach prior to training, teacher input, PD designer/teacher co-design, content-focused, instructor expertise, bespoke objectives, active learning strategies, collaboration time, time management, coaching & expert support, feedback and reflection, duration, testability)

12) Using the survey data and the responses from this interview, we are designing a professional development program to meet the expressed needs of the respondents. Would you be interested in participating in a professional development session and follow-up survey to determine if this co-designed system based on teacher input is effective?

APPENDIX D

POST PROFESSIONAL DEVELOPMENT SURVEY

TEACHER INFORMED CONSENT

Welcome to the Post Professional Development Survey!

Teacher Informed Consent

My name is Elizabeth Esquivel-Hofstedt. I am an Ed.D. candidate at CSUSB conducting this study under the supervision of Professor Dr. Sharon Brown-Welty of CSUSB-College of Education in cooperation with ********** to identify, understand, and utilize the components of professional development design and methods that teachers perceive as the most valuable.

Specifically, this survey addresses what educators perceive as the strengths and areas for improvement in their existing school/district professional development programming as well as their desired elements for future professional development programs. Findings will help inform the district's professional development priorities. The goal is to design effective transformational teacher professional development programming that utilizes teachers' self-awareness and knowledge, as well as demonstrates the district's respect for teachers' time.

Your responses will remain confidential unless you volunteer your contact information at the end of this survey to be contacted to participate in a follow-up interview to help clarify your ideas. Volunteer interviewees' information will remain confidential. All data will be reported in the aggregate. The survey should take you no more than 15 minutes to complete.

Elizabeth Esquivel-Hofstedt the researcher from CSUSB declares is a colleague of the respondents from ********** in particular **********.

This being the case the researcher understands and will neutralize any confirmation bias that presents itself to retain the fidelity of the study's purpose. The researcher is a doctoral student at CSUSB. The researcher is not employed or paid by CSUSB or ********** to conduct this study.

The risks of this study are minimal due to the anonymity measures and confidentiality precautions taken. The nature of the study is to ascertain a true understanding of teachers' perceptions and needs in order to design effective transformational teacher professional development. This study is not evaluative

of the participants and will in no way be used to evaluate their professional performance by their employer.

Your participation in this research is voluntary. You have the right to withdraw at any point during the study. The Principal Investigator of this study, Elizabeth Esquivel-Hofstedt, can be contacted at 007445588@coyote.csusb.edu.

By clicking the button below, you acknowledge:

- Your participation in the study is voluntary.
- You are 18 years of age.
- You are aware that you may choose to terminate your participation at any time for any reason.

Thank you for your valuable time, attention, wisdom, and support.

Sincerely,
Elizabeth Esquivel-Hofstedt

Teacher Description of Self

1. Which of the following best describes your role at your school?
   - Classroom Teacher
   - Instructional Coach/Specialist
   - Instructional Support Staff (e.g., instructional aide, teaching assistant)
   - Other (please specify):_____

2. What grade levels do you currently teach? Please select all that apply.
   - Grade 6
   - Grade 7
   - Grade 8
   - Grade 9
   - Grade 10
   - Grade 11
   - Grade 12

3. Where do you work (2022-2023 school year)? If you work across multiple school sites, please respond to the school-level questions in this survey for the site where you spend the majority of your time.*

- Monte Vista Middle School
- North Mountain Middle School
- **********High School
- District Office
- None of the above (Disqualify)

4. What are your total years of experience in the field of education?

- Less than 1 year
- 1 to 3 years
- 4 to 6 years
- 7 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years
- Prefer not to respond

5. How long have you been employed by **********?

- Less than 1 year
- 1 to 3 years
- 4 to 6 years
- 7 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years
- Prefer not to respond

6. What do you teach? Please select all that apply. Please select all that apply.

- English Language Arts
- English Language Development
- None of the above Exclusion answer

7. Do you teach or directly work with any of the following student populations? Please select all that apply.*

- General Education
- English Language Learner
- Special Education
- None of the above (Exclusion answer)

8. PROFESSIONAL DEVELOPMENT PARTICIPATION
In which of the following types of professional development (PD) programs or workshops did you participate during this research study? Please select all that apply.

- Technology-related (e.g., integration, skill development)
- Differentiated instruction
- Promoting equitable education (e.g., cultural competency, equity practices)
- Data collection and analysis (e.g., analyzing or tracking student assessment or progress)
- Safety (e.g., bullying, mandatory reporting OSHA)
- Subject-specific programs (e.g., math, literacy, foreign language)
- Supporting special student populations (e.g., ELD, Special Education, At-Risk)
- Social and Emotional Learning (SEL)
- Classroom management
- Lesson planning/curriculum development
- Parent communication and engagement
- Professional responsibility (e.g., legal and ethical responsibilities)
- Developing and using formative/summative assessments
- Other (please specify):_____
- Other (please specify):_____
- Other (please specify):_____
- I did not participate in any PD during the 2018-2019 school year. (Exclusion answer)

Professional Development Satisfaction

9. Overall, how satisfied are you with the PD programs offered by this professional development study.

- Very unsatisfied
- Unsatisfied
- Neither Satisfied nor Unsatisfied
- Satisfied
- Very Satisfied
- Don't Know/NA

10. Please indicate how much you disagree or agree with the following statements about professional development you received as part of this study.

In general, the professional development opportunities offered by teacher professional development study…

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	Don't Know/NA
…meet my needs as an educator.	•	•	•	•	•	•
…are relevant to my work.	•	•	•	•	•	•
…positively impact my instructional practice.	•	•	•	•	•	•
…include offerings for participants of different skill/experience levels.	•	•	•	•	•	•
…offer practical information or skills for me to implement.	•	•	•	•	•	•

PROFESSIONAL DEVELOPMENT INTERESTS

11. In which of the following areas would you be most interested in receiving additional PD as part of this study?

Please select up to 5 options.

- Technology-related (e.g., integration, skill development)
- Differentiated instruction
- Promoting equitable education (e.g., cultural proficiency, differentiated instruction)
- Data collection and analysis (e.g., analyzing or tracking student assessment or progress)
- Subject-specific programs English Language Arts
- Subject-specific programs English Language Development
- Supporting special student populations
- Social and Emotional Learning (SEL)
- Classroom management
- Lesson planning/curriculum development
- Parent communication and engagement
- Developing and using formative/summative assessments
- None of the above (Exclusive Answer)

12. How important was it to your experience in this study that teacher professional development designers included your input in the TPD design process through outreach prior to training to take into consideration, utilize, and incorporate your prior knowledge and level of expertise into the professional development design?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

13. How important was it to your experience in this study that teacher professional development designers demonstrate consideration of your time by creating programming that is targeted to your needs through prior outreach to you and in consultation with you before any TPD sessions take place?

- Not a priority
- Low priority

- Priority
- High priority
- Essential

14. How important was it to your experience in this study that professional development used authentic artifacts, interactive activities, and other strategies that provide you with space for you and other participating teachers to share ideas, design or practice new strategies, collaborate in your learning, and use highly contextualized professional learning?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

15. How important was it to your experience in this study that professional development strategies modeled and facilitated collaborative working methodologies to help teachers create communities that positively change the culture and instruction of their entire grade level, department, school, and/or district?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

16. How important was it to your experience in this study that professional development instructors utilized demonstrations of effective curricula practices and modeling of instruction with a clear vision of what best practices look like?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

17. How important is it to your experience in this study that lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching are utilized during your professional development?

- Not a priority

- Low priority
- Priority
- High priority
- Essential

18. How important was it to your experience in this study that professional development instructors provided coaching and expert support that involves one-on-one sharing of expertise about content and evidence-based practices, focused directly on teachers' individual needs?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

19. How important was it to your experience in this study that professional development instructors provided built-in time for teachers to intentionally think about, receive input on, and make changes to their practice by facilitating reflection and soliciting risk-free (nonevaluative) reflection and feedback?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

20. How important do you believe feedback and reflection were to your experience in this study to help teachers thoughtfully move toward the expert visions of practice?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

21. How important was it to your experience in this study that professional development was not sustained over a duration?

- Not a priority
- Low priority

- Priority
- High priority
- Essential

23. How important was it to your experience in this study that professional development provided teachers with adequate time to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice?

- Not a priority
- Low priority
- Priority
- High priority
- Essential

24. Volunteer opportunity: We are conducting individual follow-up Zoom interviews to this survey using open-ended questions to clarify respondents' perceptions.

Your name:
Your phone number:
Your email:
The best time to reach you:
Best time for the interview (30 minutes):

APPENDIX E

IRB APPROVAL LETTER

Date: 11-29-2022

IRB #: IRB-FY2023-14
Title: The Components of Professional Development Design and Methods that Teachers Perceive as the Most Valuable.
Creation Date: 7-26-2022
End Date:
Status: Approved
Principal Investigator: Sharon Brown-Welty
Review Board: CSUSB Main IRB
Sponsor:

Study History

Submission Type	Review Type	Decision
Initial	Expedited	Approved

Key Study Contacts

Member	Role	Contact
Sharon Brown-Welty	Principal Investigator	sharonb@csusb.edu
Sharon Brown-Welty	Primary Contact	sharonb@csusb.edu
Elizabeth Esquivel-Hofstedt	Co-Principal Investigator	elizabeth.esquivelhofstedt5588@coyot

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