

Teacher as Architect®

The Role of Professional Development in Blended Learning

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Abstract/Summary

Modern Teacher works with school districts to build teacher and administrator capacity to develop successful blended learning models. This work consists of a comprehensive Professional Development Plan and leverages Teacher as Architect® (TAA) professional learning content. The plans span up to two or more years. These plans contain core concepts and materials, yet are also customized to some degree to meet the specific needs of each district. Plans include Modern Teacher-led workshops coordinated in partnership with digital learning platform providers, district-led study sessions, and a full range of resource materials made available to partner districts through the Modern Teacher ONE™ Platform, a digital resource repository that manages and stores the Teacher as Architect collection of materials.

Based on the results of two independent studies, the processes and techniques developed and implemented by Modern Teacher have been shown to be effective in the development of Blended Learning. Using the comprehensive professional development approach described above, participants overwhelmingly reported that the frameworks and concepts presented by TAA were helpful in lesson planning, and the content, pacing and sequencing were effective, engaging, logically scaffolded, and relevant to their teaching practice. In addition, respondents appreciated the opportunity to collaborate and work in small groups, and felt like they were in a safe learning environment where they could ask questions and bring up concerns freely and openly.

Perhaps most importantly, the concepts and ideas presented throughout the implementation of the Professional Development Plan enabled teachers and administrators to develop the curricular content that is so critical to implementing a successful blended learning model.



Introductory Material

Schools and districts today are being tasked with taking learning into the 21st century by expanding on existing emphases on standardized tests and student achievement to ascertain the higher-level thinking, reasoning, analyzing, and creative skills that students are acquiring as part of the learning process. As teachers adjust from teaching focused on standardized testing to teaching focused on providing content-rich, customizable approaches that incorporate the wide variety of technology available in today's classrooms, redefining rigor, relevance, and relationships becomes increasingly critical to student success. That is, teachers are being asked to embrace pedagogy that enables students to understand and work with the vast array of information readily available to them as they learn to navigate in a society that has entered the Conceptual Age.

Blended learning models provide new frameworks for teachers that facilitate the use of the technology in a way that expands our current focus from mere test scores to the entire learning process. Using blended learning models successfully requires understanding the shift in our society from the Information Age to the Conceptual Age, understanding what the tools of technology can provide for learning and learners, and rethinking lesson designing.

Schools and districts must build educator capacity for blended learning through meaningful, purposeful, and ongoing professional development to ensure that all staff are working with common concepts and vocabularies to build rich curriculum for blended learning models that maximize student success. Professional development is only as good as it is received and used in practice by participants. As such, the perceptions and actions of the participants in the professional development matters a great deal. This white paper focuses on participants' perceived benefits of the professional development in their work designing and creating lessons for use in a blended learning context.



In this white paper, you will:

- Learn about society's new "ask" and the shift to blended classroom models
- Learn about Teacher As Architect's approach to capacity-building using four Core Principles
- Read about two case stories involving two school districts and the implementation of a comprehensive professional development program designed to build staff capacity
- Discover the perceptions of staff participating in the professional development program regarding several aspects of the professional development delivery and instruction

Issue: Society's New "Ask"

Society's new "ask" has shifted from the "ask" of the early 21st century, ushered in by new requirements for accountability from federal and state governments toward expanded concepts focused on the need to develop global citizenship and the skills, knowledge, and dispositions that students need for success in a 21st century world.

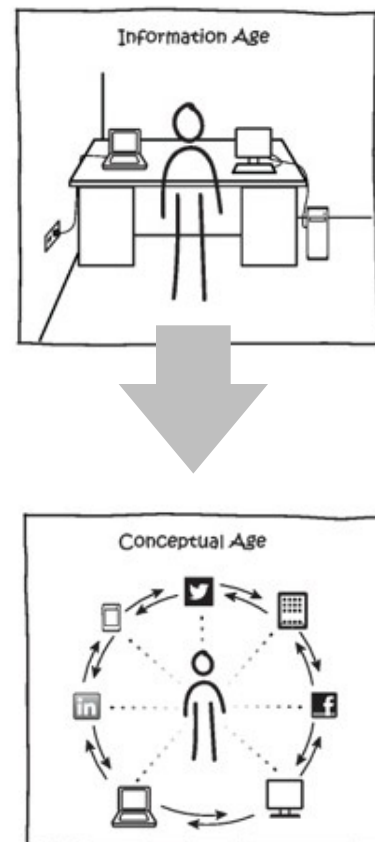
These expanded concepts include the need to develop students' capacity to think creatively, solve problems, analyze, synthesize, and navigate information. These concepts are not new and are largely based on the work of Benjamin Bloom (1956), David Krathwohl (1964), Carl Rogers (1969), and Abraham Maslow (1954). They stem largely from the movement of humanism, which was popular in the 1960s and was based on the belief that "learners should be given choices and that they should have a active role in decision-making processes regarding their own learning" (Ely & Rashkin, 2005, p. 203).



Although these concepts are not new, they have been expanded upon and refined by the work of Robert Marzano and John Kendall (2007), Ritchhard, Church, and Morrison (2011), and others. This new work helps educators gain deeper understanding about thinking and learning using revised models that acknowledge the complexity and “messiness” inherent in thinking and learning.

Twenty-first century learning requires that schools and teachers “explicitly teach students to have executive control over their own thinking – to know what they know and what they *don’t* know. In an educational landscape still dominated by standards-based state-mandated knowledge tests and a focus on data and accountability, these new “asks” seem like a tall order indeed.

Twenty-first century learning requires a shift away from traditional learning models that focused on *information* to models that focus on *concepts*. This shift requires students to continually scaffold new knowledge to current knowledge using higher thinking skills in order to not only increase their knowledge base, but their conceptual frameworks, creative thinking skills, and self-awareness about their own thinking processes (metacognition). As society moves from the Information Age to the Conceptual Age, where information is readily available, educational techniques focused on higher-order thinking skills are essential to contextualize, categorize, sort, and otherwise manipulate this information. These skills can be purposefully cultivated by careful lesson designs appropriately scaffolded to facilitate content knowledge, content and concepts, and ultimately, increased awareness of one’s own thinking, values, and relationship to self, others, and the world.





Solution: An Intentional Shift Toward Blended Learning Models

Blended learning is described by the Clayton Christensen Institute as “any time a student learns in part at a supervised brick and mortar location away from home at least in part through online delivery with some element of student control over time, place, path, and/or pace” (p. 3). Common blended learning models, include the Face-to-Face Driver, Rotation, Flex, Online Lab, Self-Blend, and Online Driver models. These models will be discussed in detail in the Literature Review.

Blended learning enables teachers and students to “leverage a range of advanced technology tools. . . [to] provide learning pathways that customize and enrich the learning experience” (Smith, et al, p. 157). Current blended learning models are focused on the ways that technology can be incorporated into teaching practice in ways that often change the look, feel, and function of traditional classrooms.



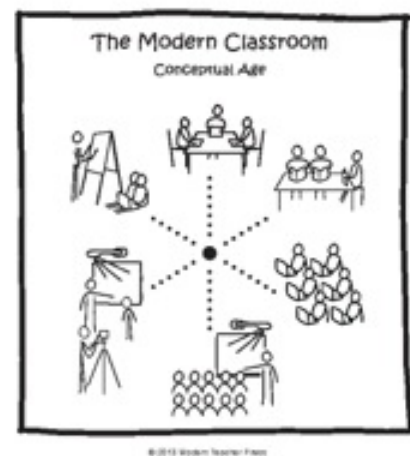
While these blended learning models provide direction for incorporating technology in instruction, good teaching practices and lesson designs structured with clear and intentional outcomes are still at the heart of instruction. As the tools of teaching become more diverse and as students have more control over their own learning, designing effective lessons and purposeful instructional practices and impactful teacher behaviors become more important than ever before.

Incorporating quality blended learning models into traditional instructional frameworks, such as public schools, requires rethinking and expanding concepts of instructional delivery while retaining and more effectively incorporating what we already know about quality instruction. That is, quality instruction should include engaging and relevant content choices, purposeful scaffolding that builds on existing knowledge, skills to develop new knowledge and skills, and directed questions that promote both lower-order and higher-order thinking skills.



Moving a school or district toward blended learning does not happen simply by introducing a new program or initiative, or by merely changing the physical layout of one or more classrooms to facilitate the inclusion of technology and independent learning into the instructional delivery model. Blended learning requires that educators develop multiple pathways to learning for students using a common language and common principles.

This curriculum development requires a high level of collaboration and professional development as educators learn to incorporate these multiple pathways to learning in their lesson designs. That is, successful blended learning models require a commitment to creating rich, diverse content across a variety of platforms so that students can take control and customize their learning experiences while ensuring that each individual's pathway to learning is rigorous and relevant, developmentally appropriate, and meets national, state, and local standards for student achievement.



Arguably, the greatest challenges in implementing blended learning models are twofold. First, a true blended learning model requires an element of student choice regarding content. This fact sheds new light on education's concepts of differentiation. No longer is differentiation about creating one lesson plan for a class and adjusting it to meet the needs of different learners. In blended learning, differentiation is focused on creating options for students that enable them to master competency of state and district standards using material that specifically targets their abilities and interests.

Second, in order to meet the first challenge, the second challenge lies in the fact that good blended learning models require a great deal of work on the "front end", developing content-rich learning units that are both rigorous and engaging while providing the student choice that underlies the blended learning model.

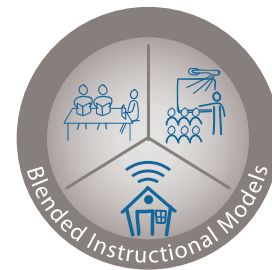


We know that a successful blended learning program requires significant work up front; however, it is an investment that pays off over time. Developing and designing curriculum specifically for blended learning models is a challenging and exciting task, especially in an environment where teachers are inherently overwhelmed with current state and federal accountability requirements. How do we build educator capacity to deliver instruction that maximizes the possibilities of blended learning models?

Solution Defined: Blended Learning Models

Our definition of blended learning comes from the Clayton Christensen Institute's 2013 update to its publication, *The Rise of K-12 Blended Learning*. This updated framework defines blended learning as:

... a formal education program in which a student learns: (1) at least in part through online learning, with some element of student control over time, place, path, and/or pace; (2) at least in part in a supervised brick-and-mortar location away from home; and (3) the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience. (*Blended Learning Model Definitions*, retrieved from <http://www.christenseninstitute.org/blended-learning-definitions-and-models/>)



Four models comprise this updated definition and include Rotation, Flex, A La Carte, and Enriched Virtual. The Rotation model incorporates four sub-models, which include Station Rotation, Lab Rotation, Flipped Classroom, and Individual Rotation models.

Rotation Model. This model is delivered mostly at a brick-and-mortar campus (except for homework), and students rotate between two or more learning modalities in which at least one of them is online learning. These rotations may occur on a fixed schedule or at the teacher's discretion, and can include small-group or full-class instruction, group projects, individual tutoring, and traditional assignments. The Rotation model can include any of the four following sub-models:



Station Rotation. The Station Rotation model occurs within a contained classroom or group of classrooms. Students in Station Rotation rotate through all of the stations, and do not rotate on a customized schedule, as they do in Individual Rotation.

Lab Rotation. In this model, students rotate to a computer lab for the online instructional delivery for a given course or subject.

Flipped Classroom. The online learning takes place off-site in the place of traditional homework and then students attend the brick-and-mortar school for face-to-face instruction, practice, or projects in a given course or subject. The Flipped Classroom is defined by the fact that the primary delivery of content and instruction takes place online versus traditional homework, which is intended for practice and reinforcement of concepts and materials learned in class.

Individual Rotation. In this model, each student has an individualized playlist and may or may not rotate to each available station or modality. Either the teacher or an algorithm sets individual student schedules.

Flex Model. In this model the online learning is the primary driver of student learning, whether the student is online or offline at any given time. Students have individual, customized, fluid schedules, and move among modalities with varying levels of teacher face-to-face support. Teacher support is adaptive and provided on an “as needed” basis, and can include different staffing combinations, from high levels of certified teacher support to little fact-to-face enrichment. Flex models can include small-group instruction, group projects, and individual tutoring.

A La Carte Model. This model is offered entirely online and supplements other courses or subjects offered by a brick-and-mortar school or learning center. The teacher of record is an online teacher, and the course or subject may be taken on campus or off-site. This model is a supplemental online learning model, often used to offer courses and subjects that a school or district would not otherwise be able to offer.



Enriched Virtual Model. In this model, students are required to have regular (usually each weekday) face-to-face sessions with a teacher and then may complete the remaining coursework online. Often, the same person is both the online and face-to-face teacher. Online learning is the primary vehicle for instructional delivery when the students are learning remotely. This model evolved from a full-time online model to provide students with some of the support offered by a brick-and-mortar learning experience.

Moving Toward the Future. As technological capacity increases and schools increase bandwidth, and acquire more computers and tablets to facilitate blended learning, the ability to customize blended learning within the four basic frameworks defined above becomes a viable option for many school districts. More and more classrooms are incorporating “one-to-one” technology, often enabling students to take the technology home so that learning can truly occur anytime and anywhere.

This new technological capacity and the evolving work with blended learning models are challenging schools to rethink how they think about student achievement. In New Hampshire, “13 schools . . . are transitioning away from time-based practices to embrace the flexible pacing, multiple pathways, and performance assessments of competency-based approaches” (Freeland, 2014). That is, blended learning provides unique and varied opportunities for students to demonstrate learning at much deeper levels than a traditional standardized test ever could, and more schools and districts are recognizing this reality and acting on it.

It is an exciting time for education and technology, with new ideas, modifications, and tools becoming available to facilitate blended learning. As blended learning evolves in the coming years, it will be more important than ever for educators to have a deep understanding of cognitive and affective development, brain functioning, memory, critical thinking skills, and higher-order thinking, so that blended learning can be implemented in a way that yields the best results for learners and teachers.



Building Capacity: Teachers As Architects

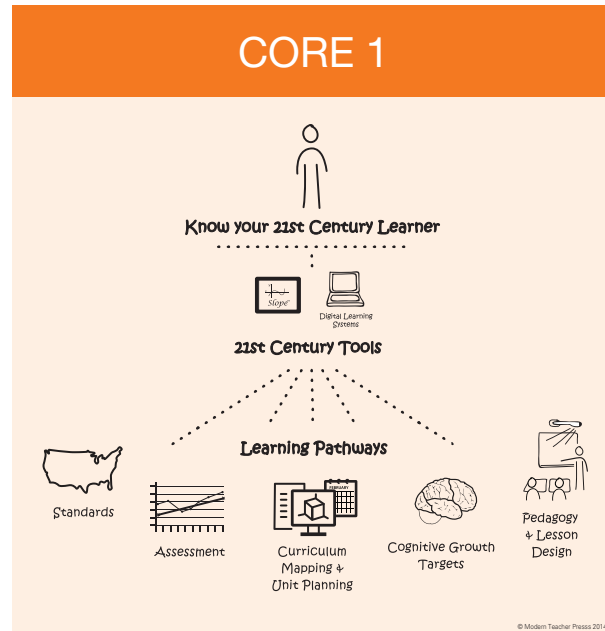
Building capacity within a school or district to effectively deliver instruction using blended learning models must be as intentionally planned and executed as the blended learning models themselves. Such capacity building does not occur in one or two sessions or over a period of days or weeks. Rather, it occurs with purposeful scaffolding of ideas, concepts, tools, and a common language learned over time so that educators can absorb and internalize concepts and processes and can practice building the content and curriculum that make blended learning possible.

The Teacher As Architect philosophy embodies four Core Principles that constitute effective instructional delivery using blended learning: (a) designing a blueprint for classroom instruction and strategically considering a range of choices to motivate student success; (b) knowing the 21st century learner and leveraging a range of advanced technology tools that will provide multiple learning pathways that customize and enrich the learning experience; (c) teaching the blueprint by using a series of high-impact behaviors associated with student learning; and (d) collecting and analyzing evidence of student learning from multiple sources to understand each student's mastery of specific content and readiness for new content.



Core Principle 1 involves creating and designing classroom instruction. In *Teacher As Architect*, the authors analogize designing lessons and instruction to the work of an architect:

Architects are responsible for creating customized spaces. They design a plan that is later carried out and combines specific standards that meet the needs of their clients. In the design process, architects start by being purposeful in their blueprint planning. Our observations over the years have led us to believe that our most successful teachers are very intentional in their planning. Their plans, or blueprints, have similar fundamentals (Smith et al. 2012, p. 8).

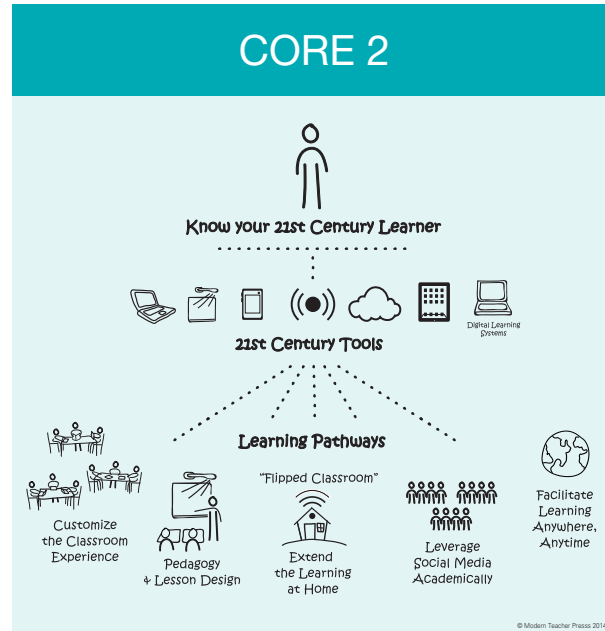


Core Principal 1 requires that teachers be able to use their knowledge of learning theory, cognitive development, scaffolding, information processing, and pedagogy to design and create lessons that motivate and engage students. The blended classroom provides new challenges and new possibilities for lesson designing and classroom instruction over traditional classrooms. The ability to provide student choice and accommodate a high level of differentiation and customization is one highly desirable benefit that blended instruction offers. However, each learning pathway requires attention and detail to ensure that all students have opportunities to reach the same ends, though by different means.

Rigor, pedagogy, and performance tasks are woven into instructional design in Core Principle 1. Focusing on these elements of instructional design ensures that expectations are created, process and content are considered, and outcomes (“deliverables”) are identified as evidence of content mastery at the required level. These elements form the “building blocks” of instructional design.



Core Principle 2 requires that teachers understand “[t]oday’s students are mobile, adaptive, and digital, which means we have even greater opportunity to facilitate learning anytime, anywhere” (Smith, et al. 2012, p. 167). Teachers use this understanding to push the boundaries of differentiated teaching to provide students with opportunities for anywhere/anytime learning with customized lesson plans based on individualized student learning profiles. These learning opportunities involve creating multiple learning pathways using a variety of technological options that take into consideration students’ interests, learning style, and readiness level.



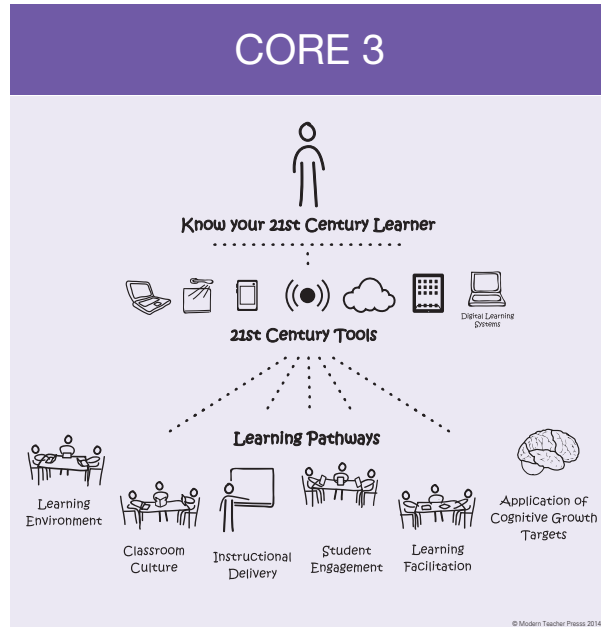
Core Principle 2 is where lesson designs meet students and technology to provide diverse, rich, and accessible instructional delivery that meet the needs of each student through multiple, customizable learning pathways while ensuring that students are acquiring the knowledge, skills, and disposition to meet or exceed state and local standards, benchmarks, and expectations for learning.



Core Principle 3 focuses on the execution of the blueprint. A beautiful blueprint only results in a beautiful structure when it is well executed and implemented. Wise and Sundstrom (2009) identified 44 teaching behaviors that have a profound impact on student achievement that formed that basis of the 25 behaviors identified in this Core Principle. These behaviors are the key to successfully realizing the blueprint for instruction.

High-impact behaviors in Core Principle 3 focus on creating a positive classroom environment where students are encouraged

to share their thinking with each other and the teacher. Questions that stretch students to explain their reasoning, analysis, and thought processes are abundant. Students do most of the talking and thinking and the dialogue engages all students involved. Feedback, whether praise or correction, is specific and connected to the academic content, and multiple opportunities for informal assessment are embedded into the lesson.

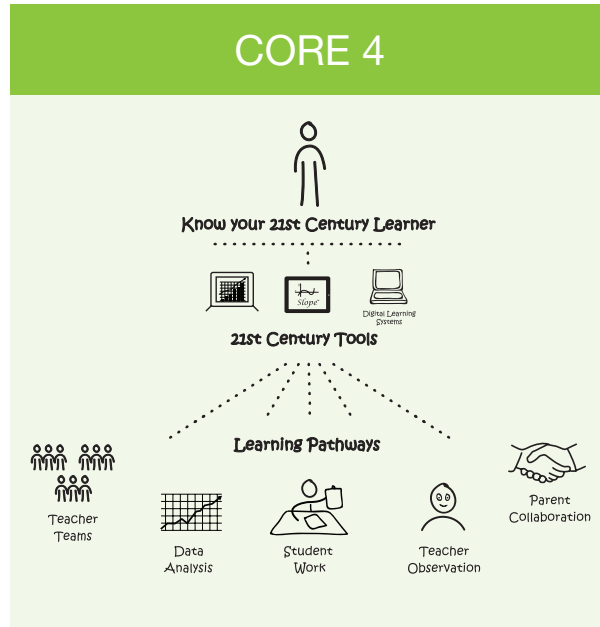




Core Principle 4 involves assessment and using evidence to demonstrate students' mastery of content and readiness for new content. In order for teachers to collaborate effectively, teachers need to develop a common language around assessment, evidence, mastery, and readiness. With this common language, teachers can establish routines around collaboration and performance to assess student achievement and improve their own practice.

A central theme of Core Principle 4 is teamwork among teachers. Team time should be focused on instruction and assessing what is working in practice and what is not. It is the mechanism for continuous improvement in practice that can help teachers identify weaknesses relative to learning outcomes for student groups as well as for individual students.

Using these four Core Principles, teachers have a framework that provides cohesiveness in instructional approach and builds a common language around instructional design and delivery, yet maintains the ability for a high degree of creativity and customization. Teachers are in a unique position of also being in the role of those that they serve in that they are not only teachers, but *students of learning*. Ultimately, schools should be learning communities for all – adults and students alike.





Implementation 1: Building Capacity Through Professional Development

We know that professional development is necessary to build educator capacity for most new initiatives or programs. In the case of blended learning, the undertaking is large enough that in order to move an entire school or district successfully to a blended learning model requires more than an occasional in-service or workshop; it requires a purposeful, ongoing, sustained effort over time while educators learn how to develop online learning content that is rigorous, meets federal, state, and local standards, and can be assessed both formally and informally to ensure that students gain both content mastery and competency.



Teacher As Architect (TAA) paired well with an industry-leading digital learning platform to offer a comprehensive series of professional development over a period of approximately two years in a medium-sized Midwestern school district. The district is a suburb of a large metropolitan city consisting of approximately 5,000 students in grades PK – 12. Located in a working-class community, the district consists of one early learning center, six elementary schools, one middle school and one high school.

Using a model consisting of two cohorts staggered over time was designed to ease the implementation of blended learning in the district and to ensure a solid foundation in the principles, skills, and common language of blended learning. Teacher leaders, department chairs, and specialists were included in Cohort #1, which began work in January, 2014. Cohort #2 will consist of teacher volunteers and is scheduled to begin work in earnest in June, 2014.



Professional Development for the period from January 2014 to June 2014 included workshops conducted by Modern Teacher as well as formal “book study” sessions, professional development activities, and access to a variety of materials in a digital resource library that enabled teachers to read, watch, listen, and discuss the material among themselves in addition to interacting with TAA and digital learning platform coaches.

ModernTeacher™

WORKSHOP

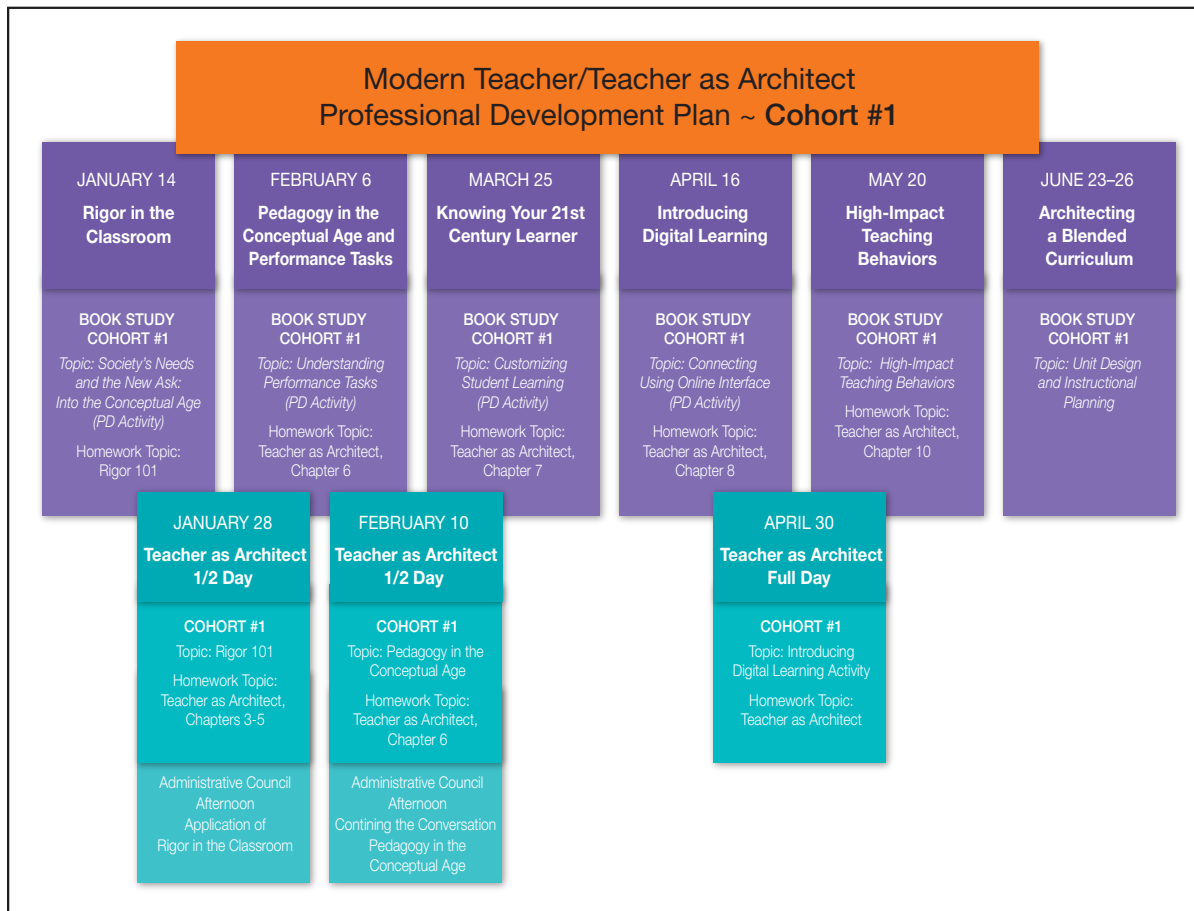
This approach kept the learning about blended learning at the forefront of educators’ minds by having regularly scheduled sessions, and maximized the time and resources of both the district and the TAA/digital learning platform coaches.

The professional development series was designed to teach concepts and approaches as well to provide specific examples and suggestions for processes to help teachers create Blended Learning curriculum. The professional development content and delivery plan was comprehensive and complex, and included a balance between concepts and ideas and practical “how to” implementations. A variety of organizational tools, as well as tools for planning and creating blended learning, were made available to all participants.



The figure below illustrates the professional development plan outlined for Cohort #1 during the period from January, 2014 to June, 2014.

Figure 1: *Teacher as Architect Professional Development Plan, Cohort #1*



The Book Study/Professional Development Activity Sessions occurred each month at regular intervals and were designed to prepare teachers for the TAA workshops held on January 28, February 10, and April 30. Throughout the time that the professional development sessions were being held, teachers in Cohort #1 were working on a blended learning unit in their grade level or subject area to begin building a library of blended learning units for the district.



Results of Implementation 1: Educator Feedback on Professional Development

In order to be effective, professional development must be meaningful and worthwhile to participants. While ultimately, teachers' blended model units will evidence the effectiveness of the overall professional development plan and follow up in the district, we understand that teachers' perceptions and attitudes about the professional development they receive matters.



Implementing significant changes in teachers' approaches to lesson designing and incorporating technology into instructional delivery in new and different ways than many had done previously required a willingness to change, and the conviction that the change is achievable, and most of all, beneficial for student learning.

To ascertain participants' perceptions about the professional development they were receiving, two surveys were distributed among Cohort #1. The first survey was distributed after the second workshop on February 10 and the second survey was distributed after the third workshop on April 30. The first survey asked respondents to provide in depth feedback specifically on aspects of the February 10 workshop. The second survey asked respondents to give an overall impression of the professional development content, sessions, and instructors.

Surveys were distributed electronically. The first was distributed within a week after the second workshop on February 10, 2014, and the second survey was distributed within a week after the final workshop on April 30, 2014. Respondents were asked to provide their names and information about the grade level at which they taught and the number of years of teaching experience they had.

Survey 1: After February 10 Workshop. Twenty-six teachers, teacher leaders, support staff, and administrators ($N = 26$) completed the first survey distributed after the second TAA workshop on February 10, 2014. 10 worked at the elementary level, seven worked at the middle school level, and nine worked at the high school level. More than half of the educators ($n = 14$) had 16 or more years of experience in education, seven had 11 – 15 years



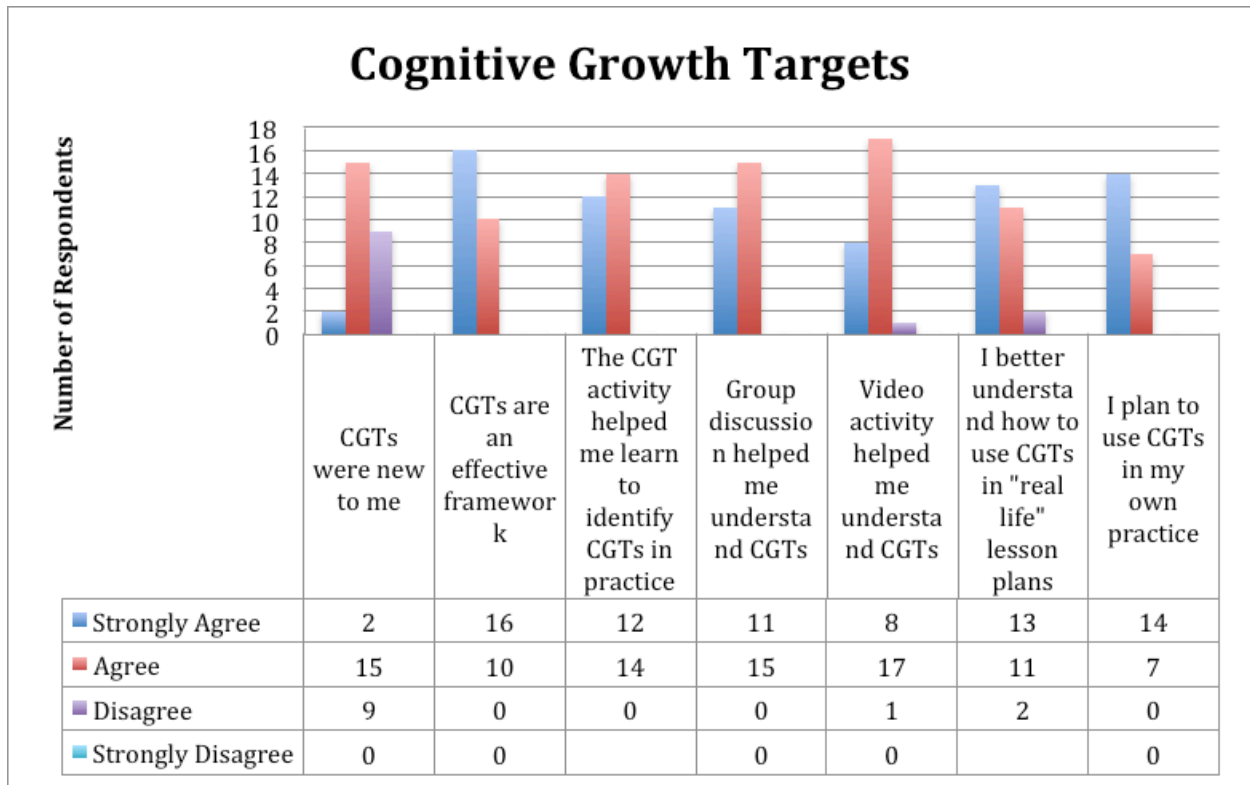
of experience, four had between six and 10 years of experience, and one ($n = 1$) had five years or less experience.

Respondents were asked specific questions in the following areas: (a) Cognitive Growth Targets (targets based on Bloom's Taxonomy, the inclusion of ideas from Roger and Maslow, and new insights from the field of cognitive neuroscience); (b) engagement, collaboration, colleague interaction, safe learning environment; (c) pacing, sequencing, and content; (d) use of digital resources; and (d) level of anxiety about using the learning in lesson designs. Respondents were also given the opportunity to give any additional feedback that they had through an open-ended item.

Cognitive Growth Targets (CGTs). The focus of the February 10 workshop was Pedagogy in the Conceptual Age. A key component of this pedagogy was learning about Cognitive Growth Targets (CGTs) as a framework for creating and purposefully scaffolding questions and performance tasks within lessons. Workshop participants engaged in three group activities to deepen their understandings about CGTs. Figure 2 below illustrates respondents' answers to survey questions about their understanding and activities focused on Cognitive Growth Targets and their plans to use them in their teaching.



Figure 2: *Cognitive Growth Targets (CGTs)*



Interestingly, more participants than not indicated that CGTs were new to them, although many recognized the focus on higher-order thinking skills. One respondent noted insightfully, “We were . . . dealing with higher-order thinking skills six years ago or more. Our school’s focus changed to more data driven testing and teaching. . . I have already begun to focus on cognitive growth targets in my planning.”



Participants overall agreed that CGTs are an effective framework for scaffolding questions and performance tasks in lesson designing, and most found the activities helpful in understanding how to put CGTs into practice. The open-ended responses at the end of the surveys supported the results in Figure 2 above. Comments included (a) “The format of the workshop helped me to visualize how to begin using Cognitive Growth Targets in my own practice;” (b) “Application

Activity 3 . . . had our entire table understanding that good lesson design starts with asking good questions. I was able to reflect and think back on how I have taught in the past, and I must admit that I could have been asking questions with more rigor;” (c) “I am changing the way that I am approaching lessons. . . . I am thinking about questions that I ask during lessons, and I am redesigning assessments.”

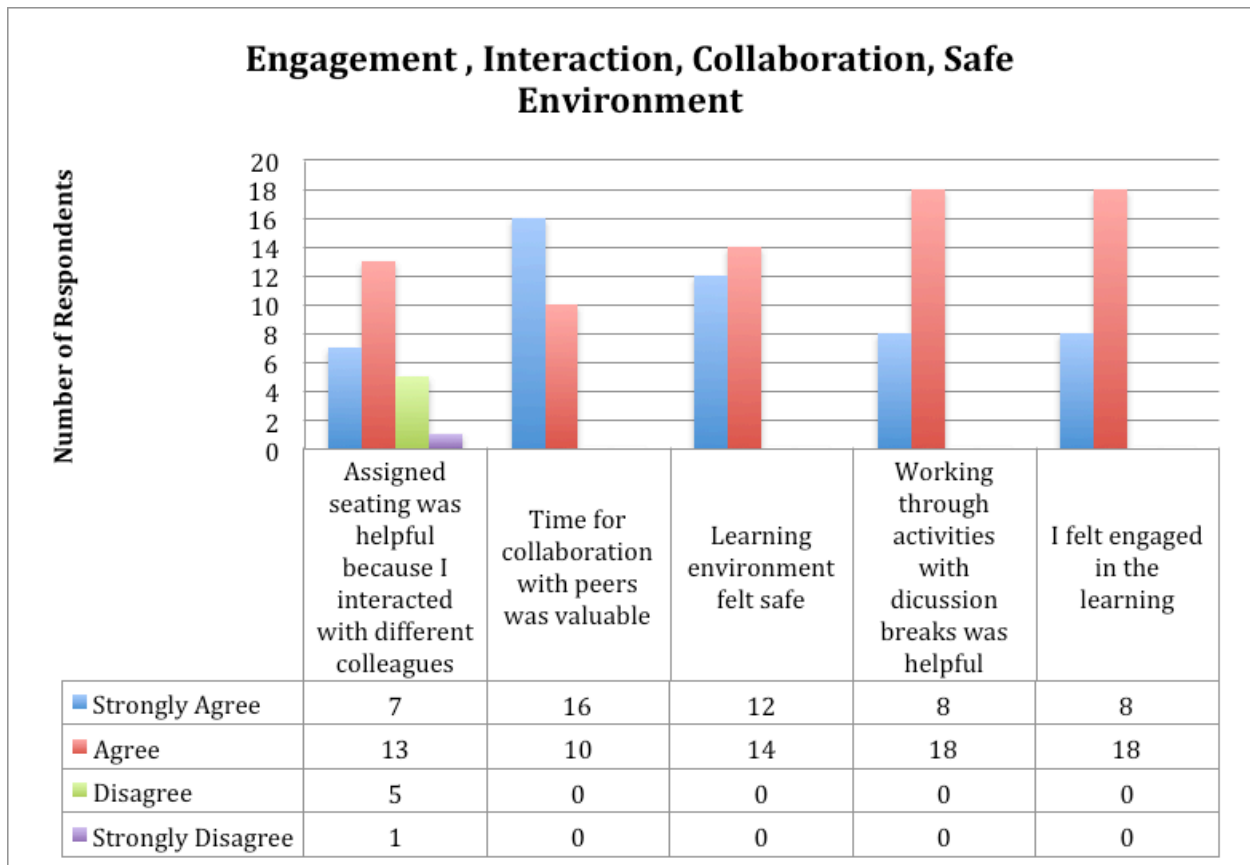
Participants largely agreed or strongly agreed that the activities designed to facilitate understanding of CGTs were helpful in facilitating understanding and use of CGTs in practice. Interestingly, in each of the three activities using CGTs more participants agreed than strongly agreed that the activities were helpful. However, the collective result of these activities was that more participants strongly agreed ($n = 13$) than agreed ($n = 11$) that they better understood how to use CGTs in “real life” teaching contexts, and two-thirds of teachers strongly agreed ($n = 14$) that they planned to use CGTs in their own practice. One third of teachers agreed ($n = 7$) that they planned to use CGTs in their own practice, while the others who participated in the workshop were not directly responsible for lesson designs (administrators, specialists).

Engagement Factors. Workshop participants were asked several questions about their levels of engagement, the helpfulness of the interaction and collaboration with colleagues, and how safe they felt to speak freely in the learning environment. We believe that these aspects of engagement and comfort are critical to getting the most out of any professional development experience.



Figure 3 below illustrates respondents' answers to survey questions about their levels of engagement, interaction, collaboration, and the perceived safety of the learning environment.

Figure 3: *Engagement, Interaction, Collaboration, Safe Environment*



For this particular workshop, participants were assigned seating at tables. We tried this technique to facilitate participant interactions with different colleagues at different grade levels and subject areas. Interestingly, most respondents ($n = 20$) either agreed or strongly agreed that the assigned seating was helpful, even though the initial responses in the room at the time seemed to indicate otherwise.



Participants clearly valued the time for collaboration with peers with most ($n = 16$) strongly agreeing that such time was valuable. The collaboration used in the workshop was guided and structured with timelines and a mix of small-group and large-group interaction. That is, each table would work collaboratively as a small group and then come together at regular intervals to “check in” as a large group to help everyone norm their understanding. All respondents ($N = 26$) either strongly agreed or agreed that working through activities using the small-group to large-group approach was helpful.

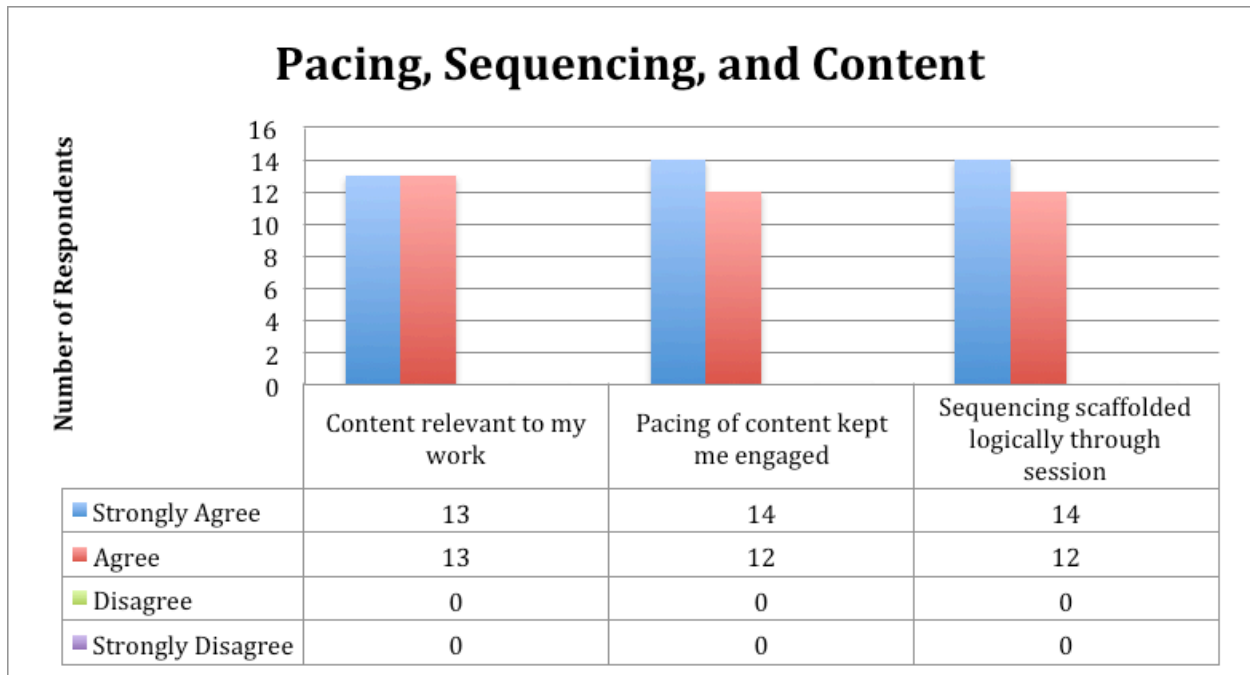
All respondents ($N = 26$) either strongly agreed or agreed that they felt like they were “in a safe learning environment where it was okay to discuss conflicting ideas” (survey question). All respondents also felt engaged in the learning. Participant comments reflected the value placed on collaboration, engagement, and a safe environment. Comments included (a) “I . . . felt that [the workshop] was organized in a way that actively engaged the learners. It also allowed time for people to engage in a dialogue that forced them to reflect on current practices;” (b) “Each activity was meaningful and allowed us (the students) to gain a deeper understanding of rigor in the classroom;” and (c) “I like this approach because I want my students to be fully engaged, have opportunities for self-reflection, and learn from their mistakes.”

Pacing, Sequencing, and Content. Workshop participants were asked about the pacing, sequencing, amount, and relevance of the workshop content. Too often, professional development is perceived as not beneficial if there is too little substantive content that participants cannot use, or conversely, if there is too much content that leaves them overwhelmed and unable to apply the content successfully to practice. In addition, the pacing and sequencing of the material must be logical and delivered at a tempo that keeps participants in the “zone of engagement” without becoming either overwhelmed or bored.



Figure 4 below illustrates respondents' answers to survey questions about their perceptions of the pacing, sequencing, and content of the material in the workshop.

Figure 4: *Pacing, Sequencing, and Content*



All participants either strongly agreed or agreed ($N = 26$) that the content was relevant to their work. In addition, when asked whether there was too much content, the right amount of content, or not enough content. Twenty-four respondents indicated the content was the right amount, and two responded that was not enough. All participants either agreed or strongly agreed that the pacing and sequencing kept them engaged and that material was logically scaffolded throughout the session.



Use of Digital Resources. As part of the overall professional development plan, a digital resource library was provided for all participants. A playlist of materials was made available as part of the preparation for the workshop. Participants were asked several questions about the playlist in the survey.

Most respondents ($n = 14$) viewed all of the playlist in the digital resource library before the workshop. Six more viewed at least some of the playlist before the workshop. Most reviewed at least some of the other material (other than the playlist) before the workshop ($n = 21$). Thus, most of the respondents came to the workshop having prepared by reviewing the materials in the digital resource library. These respondents also agreed ($n = 20$) that the material in the digital resource library was scaffolded into the workshop.

Participants indicated overwhelmingly that the materials in the digital resource library would be useful to their practice. Twenty-four respondents indicated that they planned to use the materials in their practice and 15 indicated that they would be doing so within a month after the workshop. These materials provided important preparation and follow up to the professional development session helped make the session meaningful to participants.

Survey 2: After April 30 Workshop. After the final formal workshop for Cohort #1 during the 2013-2014 academic year on April 30, participants were sent a very brief survey to get their overall impressions of the usefulness of the entire professional development series as outlines in Figure 1 (17). Respondents were asked the same demographic questions as they were asked in the previous survey, and were asked about the professional development series in four key areas: (a) Content, (b) Instructors, (c) Pacing and Sequencing, and (d) Process. It is important to note that the deliverable for all professional development participants at the end of the series was to create a Blended Learning Unit.



Twenty-four participants responded to the survey. Ten worked at the elementary level, five at the middle school level, and nine at the high school level. Most ($n = 11$) had 16 or more years of experience in education, six had 11 – 15 years of experience, five had 6 – 10 years of experience, and two had five years or less experience in education. Most ($n = 19$) were teachers and/or department heads, three were support staff, and two were administrators.

Content. Respondents were asked “How much has the Professional Learning Content offered by Teacher As Architect (TAA) helped you in creating your Blended Learning Unit? Eight ($n = 8$) found the content very helpful, 12 found it somewhat helpful, and four found it not very helpful. The comments suggested that the workshops with TAA were especially helpful (e.g., “I found the ½ day and full-day workshops most helpful;” “my favorite session was April 30. That’s when things clicked.”). However, several participants commented that they needed more time for teamwork, and even more focus on the specific process of creating Blended Learning Units (e.g., “We need much more time to work with our own teams. This training was an introduction;” “. . . focus a bit more on process;” “Have teachers work together in similar PLC groups to create a lesson and then critique it or have individuals bring in sample lessons and go over them.”

Instructors. Twenty-two ($n = 22$) of the 24 participants either agreed or strongly agreed that the instructors who delivered the professional development workshops from TAA were effective. These comments were especially positive (e.g., “[The Instructor’s] visits were most beneficial;” “I loved the days when [the Instructor] came. He really helped me work through the questions I ask my students on a daily basis, and I felt that we received a solid understanding as a group of what different models of technology in our classrooms are like.”

Pacing and Sequencing. Respondents were asked whether the pacing and sequencing of the Professional Learning Sessions offered by TAA helped as they worked on their Blended Learning Units. Twenty ($n = 20$) respondents either strongly agreed or agreed with this statement, four either disagreed or strongly disagreed with the statement.



Process. Ultimately, the professional development series was focused on the process of learning to create effective Blended Learning Units. Respondents were asked whether the process learned in the professional development series would enable them to continue to create curriculum for Blended Learning in the future. Twenty-two ($n = 22$) either agreed or strongly agreed that it would, while two either disagreed or strongly disagreed that it would not.

The professional development series, as stated earlier, included a complex combination of conceptual learning as participants built a common vocabulary around commonly understood (and “co-created” concepts) and practical “how-to” implementation, all incorporating a wide variety of technological possibilities and multiple Blended Learning models. It was not a “one-size-fits-all” proposition, and this fact may account for the fact that some respondents did not find the professional development series beneficial to their work in developing Blended Learning Units. That being said, an overwhelming number of participants did find the professional development series helpful in understanding the pedagogy and development of Blended Learning Units.

Implementation 2: Professional Development in a Different District.

Teacher As Architect (TAA) paired well with a different industry-leading digital learning platform to offer a comprehensive series of professional development over a period of approximately two years in a consortium of four school districts on the east coast. This consortium serves approximately 19,000 students in grades PK – 12. The consortium consists of 11 middle schools, nine high schools, three K-12 alternative schools, three ILC programs and one magnet school.



The consortium used a similar professional development schedule that was used for the Midwestern district. Similar, though not identical surveys were given to participants in the consortium professional development. The results obtained from consortium participants were similar to the results obtained in the Midwestern district.

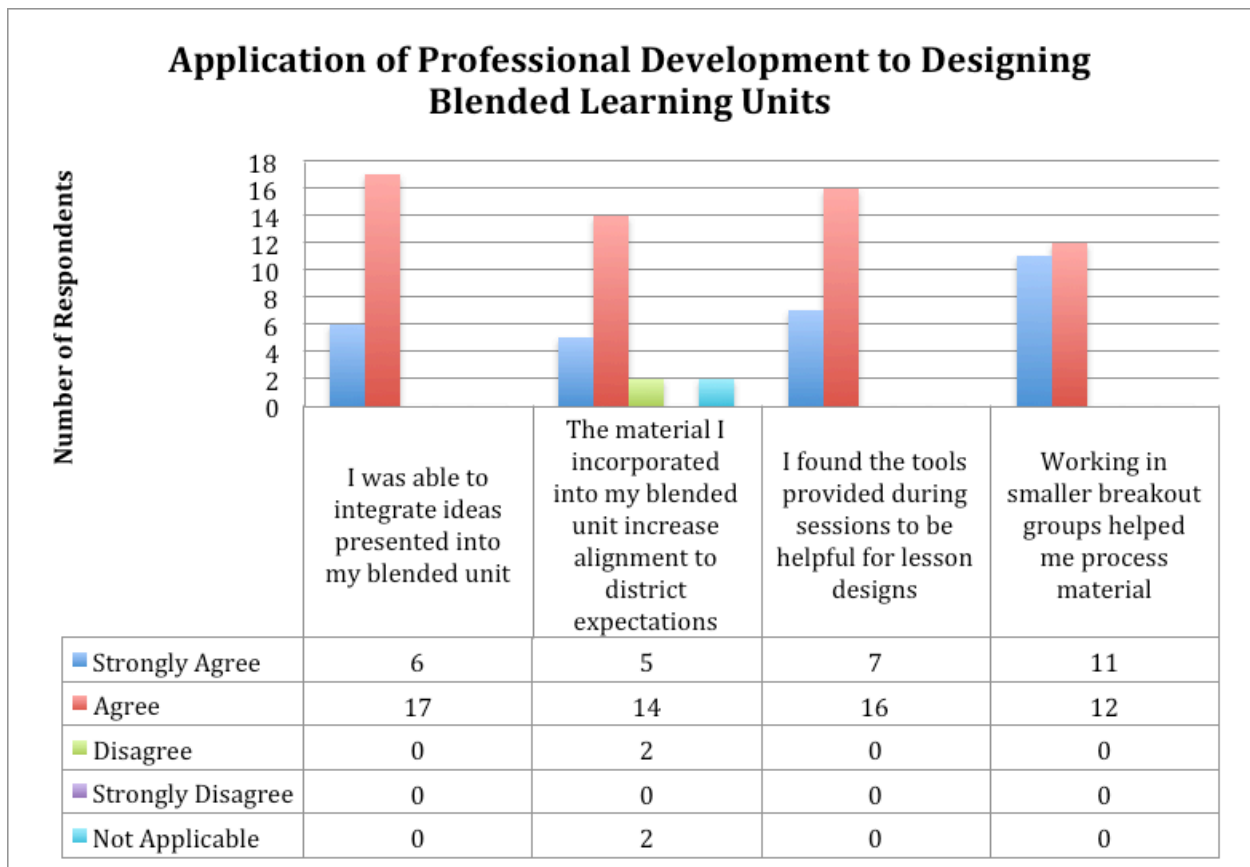
Results of Implementation 2: Educator Feedback on Professional Development

Twenty-three teachers, teacher leaders, support staff, and administrators ($N = 23$) completed a survey distributed after the 2nd TAA workshop February, 2014. The consortium consists of schools that serve students in grades 9-12. Teachers that participated represented content areas of Science ($n = 7$), English Language Acquisition ($n = 7$), Math ($n = 5$), Social Studies ($n = 2$) and other ($n = 2$). Teaching experience was distributed evenly within this group, representing more than 15 years experience ($n = 6$), 10 – 15 years of experience ($n = 5$), 5 – 10 years of experience ($n = 6$), and less than five years of experience ($n = 6$).



Figure 5 below illustrates respondents' answers to general questions about the degree to which they found the material in the professional development sessions helpful in developing Blending Learning Unit.

Figure 5: *Application of Professional Development to Designing Blended Learning Units*



All respondents ($N = 23$) were able to use the ideas from the professional development in their development of Blended Learning Units. In addition, most ($n = 19$) agreed that the ideas presented helped participants increase their level of alignment in the Blended Learning Units to district expectations. All participants found that the structure of the professional development (working in smaller breakout groups) helped them process materials and all found the tools and supplemental materials helpful in their work designing Blended Learning Units.



While the professional development programs in both school organizations (district and consortium) were very similar in core content, each was customized to some degree to maximize the relevance and outcomes for populations comprised of different grade level, content, and experience subgroups. The consistency of results in terms of the benefits gained by each group is further evidence that the core content is beneficial to a variety of educators as it was delivered to each population.

Summary

Building capacity through professional development is a well-established technique for developing the skills, knowledge, and dispositions necessary to incorporate new teaching approaches into existing educational systems and structures. We know that not all professional development is successful in achieving that end; that is, merely providing professional development does not in any way guarantee the desired outcomes in the short or long term.



TAA has monitored participant perceptions and use of ideas and materials presented in professional development to determine whether the content and delivery of the professional development is achieving the desired outcomes and capacity for which it was intended. This study provided initial evidence that participants found the material and delivery beneficial and effective in the work of creating curriculum for use in a blended learning environment.

These results are particularly important now and for future professional development offerings as education moves toward a model that requires teachers to differentiate by creating a rich variety of lesson options that address each desired standard or outcome to provide students with the ability to explore topics and content that appeal to individual interests and talents, while developing core, standardized set of skills, knowledge, and dispositions. This approach to learning and education facilitates student development of critical thinking and creative skills that will give them the tools they need to thrive in a 21st century global society.



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