1

ROAD MAP TO SUCCESS

Initiatives such as Common Core and computer adaptive tests for K–12 mark the dawn of a new era in education. Schools are progressively shifting their assessment practices from those that measure students' short-term recall of information to higher-level thinking. To compete locally and globally, students need skills that support an information-driven and technologically powered society. The 21st Century Skills movement is transforming teaching and learning practices in today's classrooms. In an effort to challenge educators to redefine what is meant by a rigorous curriculum and schooling experience, Wagner (2010) outlines seven survival skills needed for learning, literacy, and life.

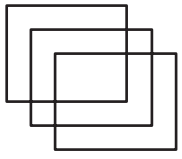
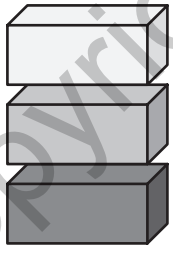
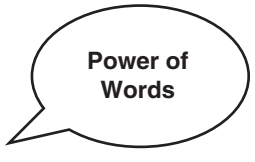
1. **Critical Thinking and Problem Solving**—Students think critically when they engage in real-world problems, question ideas or issues within their environment, and refine their understanding after new learning. To develop problem-solving skills, students must grapple with academic challenges and real-world problems.
2. **Collaboration Across Networks and Leading by Influence**—Social interaction and networking, whether digitally or face-to-face, develop a student's capacity to collaborate and lead by influence. This process of networking enables students to learn from each other and build confidence as they acquire their own voice.

3. **Agility and Adaptability**—Students who are agile, flexible, and adaptable are more adept at handling change. These students learn to apply different strategies and techniques to diverse learning situations. Because change is inevitable, it is better for students to master these skills *before* they go to college, enter the workforce, or go into business for themselves.
4. **Initiative and Entrepreneurialism**—An entrepreneurial mind-set involves taking initiative to make things happen instead of waiting on others to make things happen. Students with this mind-set are self-directed learners, proactive, innovative, and not afraid to take responsible risks. In addition to preparing students to compete locally and globally, these skills increase a student's chances of being successful and reaching his or her full potential.
5. **Effective Oral and Written Communication**—College and career readiness, along with global competitiveness, demands that students master skills in communication. Effective communication is predicated on verbal, written, technological, and presentation skills. Students must develop efficacy in articulating their thoughts, intentions, and rationale for any given situation.
6. **Accessing and Analyzing Information**—Information is power when it is accessed *and* processed. While there are multiple ways to access information through printed text and digital media, students need additional skills in how to analyze and interpret the information. Once students have accessed information, they must know what it says, what it means, and why it matters.
7. **Curiosity and Imagination**—It is imperative to honor the inquisitive nature of students. Educators can use awe and wonderment to foster inquiry and active engagement in the classroom. Students are more inclined to use their imagination when they are given opportunities to explore and be creative, which may also increase student motivation.

Figure 1.1 includes a representative symbol and questions for each skill, making it easier for students to recall and apply the skills throughout their learning.

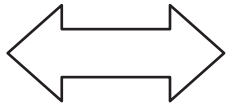
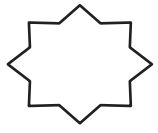
The symbols in Figure 1.1 are visual reminders that students can easily draw, replicate, or refer to as they engage in the +1 Pedagogy™ (+1P) process. The questions in the checklist are designed to foster

Figure 1.1 21st Century Skills Checklist for Students

Critical Thinking and Problem Solving 	1. How am I thinking outside the box? 2. How do I consider multiple perspectives? 3. Do my questions generate more questions? 4. How do I find answers to my questions? 5. Can I go about solving this in a different way? 6. What more can I say, find, or do? 7. What methods am I using to problem solve?
Collaboration Across Networks and Leading by Influence 	1. How am I collaborating across networks? 2. How does teamwork help me collaborate? 3. How do I use technology to interact with my peers? 4. In what ways am I showing leadership? 5. How do I lead by influence?
Agility and Adaptability 	1. How do I show that I am alert and ready? 2. Am I being responsive and is it quick enough? 3. How do I show that I am flexible? 4. What does being adaptable mean to me? 5. Why should my team and I be adaptable?
Initiative and Entrepreneurialism 	1. How do I show that I am self-directed? 2. How do I show that I am taking initiative? 3. How do I achieve success? 4. How do I show that I am learning from others? 5. In what ways am I being proactive and innovative?
Effective Oral and Written Communication 	1. How often do I engage in dialogue? 2. Are my conversations intellectually stimulating? 3. How do I present information effectively? 4. In what ways do I express my thoughts in writing? 5. What does it mean to communicate effectively? 6. How do I use technology to communicate?

(Continued)

Figure 1.1 (Continued)

Accessing and Analyzing Information 	1. What tools and strategies am I using to access information? 2. How does technology help me gain access? 3. What tools and strategies am I using to analyze and interpret data/information?
Curiosity and Imagination 	1. What am I curious about and why? 2. What am I interested in studying and why? 3. How am I using my imagination? 4. In what ways am I being creative? 5. What does it mean to be original and unique?

metacognition and adherence to the skills. By answering the questions, students are better able to process and transfer the 21st Century Skills to their projects. Wagner's (2010) model, also referred to as 21st Century Skills, captures the essence of teaching and learning for this generation of students. Educators can leverage learning by integrating these essential skills into their instructional practices. The ubiquitous nature of these skills makes them applicable to any school, curriculum, and discipline. 21st Century Skills translate across disciplines and can help students achieve success in life and in the workplace. There are numerous variations of 21st Century Skills, but for the purposes of +1P, Wagner's model will be emphasized.

Think about an educational or life experience related to one or more of the seven survival skills. How did this experience shape who you are today? How might you utilize the 21st Century Skills Checklist in your district, school, or classroom?

+1 PEDAGOGY

The paradigm shift toward 21st Century Skills has become an international phenomenon. But how do we prepare students to consistently

apply these skills inside and outside the classroom? The answer is +1 Pedagogy. +1P is an interdisciplinary framework for elevating consciousness, accelerating achievement through 21st Century Skills, and building the capacity of our nation's youth to compete in a global economy. The framework includes a cycle of inquiry and investigation where students manage their own acquisition of learning through projects that incorporate rigor, technology, and real-world application.

Grounded in research, +1P is a turnkey model that blends theory and practice for a comprehensive project-based learning experience that is cost-effective. Schools worldwide can use +1P to transform teaching and learning in the classroom. The +1P framework supports *learning* (critical thinking, collaborating, and communicating), *literacy* (reading, writing, speaking and listening, and digital), and *life* (goal setting, problem solving, and self-directedness). The structure and design of +1P prepares students for college, career, and life. If we (educators) are serious about maximizing student potential and capacity, we must focus on instructional practices that meet these outcomes. +1P is one avenue for accomplishing these goals. The remainder of the chapter explores the historical context, purpose, and rationale for +1 Pedagogy.

PROJECT LEARNING

William Heard Kilpatrick, an esteemed professor at Columbia Teachers College, invented the concept of project learning in the early 20th century. Kilpatrick (1918) advocated the use of projects that engender purposeful activity and student interest. He believed in learning environments that cultivate meaning-making and student engagement. The latter is indicative of a constructivist approach to learning, where learners engage in authentic tasks and create meaning through active learning (Jimenez-Eliaeson, 2010). Bonwell and Eison (1991) popularized project learning in the early '90s and coined a new term—project-based learning (PBL). PBL is an instructional model that focuses the responsibility of learning on the learner. PBL has since become an innovative approach to fostering student-directed inquiry of topics or problems in a real-world setting (Barak & Dori, 2005). PBL supplements the regular course of instruction with projects that promote inquiry, collaboration, critical thinking, and problem-solving skills. Overall, PBL is designed to enhance existing instruction by providing more flexibility, responsibility, and accountability to students as they engage in research and inquiry (Wolk, 1994).

The "learning by doing" approach to learning is understood as a reform effort that challenges traditional components of instruction—namely, confinement to a single classroom, limited face-to-face interactions, textbook dependency, and teacher-initiated tasks—all of which may inhibit creativity and access to enhanced communication with the outside world (Wolk, 1994). Due to its interactive communicative function, PBL presents more opportunities to transform the way students communicate and problem solve. PBL also involves a public audience that goes beyond the teacher and the classroom, most of which is orchestrated on the Internet. The Internet allows students to simultaneously interact with their peers through blogs, e-mails, chats, and/or video conferencing while completing their project (ChanLin, 2008). Because PBL creates independent thinkers and learners, the outcome is greater conceptual understanding of a topic by self-directed learners.

TRANSFORMATION OF PBL

Over the years, research on PBL has expanded from a specific kind of problem-based learning in schools to a wider variety of practices, subjects, and grade levels (Walker & Leary, 2009). Taken as a whole, PBL has proven to be effective because it adds a dimension of learning that influences *what* students learn and *how* they learn it. Statistically, the number of schools receiving PBL training and materials has more than tripled since 2001 (Ravitz & Blazevski, 2010). Evidence of heightened interest is provided by the growth of websites that highlight PBL as a sound pedagogical practice and the inclusion of PBL in policy documents from the National Middle School Association (Yetkiner, Anderoglu, & Capraro, 2008) and the National High School Center (Harris, Cohen, & Flaherty, 2008).

To a large extent, PBL has been embraced as a reform model that is a central component of instruction (Pearlman, 2002; Newell, 2003). In a sense, PBL demands that we rethink power relations between students and teachers. By design, PBL is more collaborative and less hierarchical (Stommel, 2013). Teachers are encouraged to facilitate learning, while students are encouraged to take more ownership of their learning. Instead of teachers dispensing all the knowledge, students play an active role in studying, researching, and presenting content.

PBL organizes learning around projects. These projects include tasks primarily based on inquiry, investigation, and problem solving.

Inquiries for PBL projects can originate from societal problems, economic/political/social/media concerns, or curiosity about a topic of interest. PBL projects generally culminate in realistic products or presentations. Through these presentations, students utilize communication skills, collaborative skills, and creativity skills. Ultimately, students gain a deeper understanding of the concepts and standards at the heart of the project, build vital workplace skills, and adopt lifelong habits of learning (Boaler, 1997).

According to Thomas (2000), five criteria are necessary for determining the authenticity of projects:

1. **Centrality**—Projects are central, not peripheral to the curriculum.
2. **Essential Question**—Projects are focused on essential questions that prompt students to go deeper with the concepts and principles of a discipline.
3. **Constructive Investigation**—Projects involve students in aggressive research.
4. **Autonomy**—Projects are student driven to a significant degree.
5. **Realism**—Projects address real-world problems and concerns in society.

Exemplary projects are predicated on these five criteria. PBL projects are also the "main course" in learning (Larmer & Mergendoller, 2010). They serve as vehicles to encourage student motivation and to provide a means for demonstrating and explaining what students have learned (Ravitz & Blazevski, 2010). The rigor and depth of a PBL project goes beyond simply applying what students have learned from traditional instruction. PBL projects relate to students' lives and are connected to inquiry that is organized around a phenomenon. Students discover ideas and relationships that enhance understanding and critical thinking. They learn to relate activities to everyday experiences and dispel previous misconceptions about their topic of study. Most importantly, when students are asked to explain the results of their study outside of school, they can easily recall and retain information about their topic of study. This style of constructivist learning, where students make meaning through projects that stimulate conceptual understanding, is relative to +1 Pedagogy. Grounded in research, +1P equips teachers with tools for *how* to plan,

manage, and assess learning that blends theory, practice, standards, technology, and 21st Century Skills. This comprehensive framework heightens teaching and accelerates achievement through constructivist learning. More about +1P is explained in the next section.

Think about a topic that you would like students to explore. How would project-based learning deepen student understanding of that topic? How might you transfer knowledge about the five criteria for determining authenticity of a project back to your district, school, or classroom?

PROJECTS

The term "project" has become the standard activity in many instructional units. The question is, "Are students constructing knowledge as they construct projects?" There is more to developing a meaningful project than simply choosing a topic and writing a paper or completing an activity for that topic (Lamb, Johnson, & Smith, 1997). Students need to engage in tasks that require them to think deeply about important concepts, as opposed to only carrying out procedures. There is a long-standing tradition in schools for doing projects, incorporating hands-on activities, developing interdisciplinary themes, conducting field trips, and implementing laboratory investigations (Thomas, 2000). However, Tobin, Tippins, and Gallard (1994) assert that activities characterized as "hands-on" may not necessarily be "minds-on." In other words, achievement gained from a hands-on activity does not guarantee the use of critical thinking and problem-solving skills. +1P projects are "minds-on" because they are inquiry based, research based, technology based, and literacy based, and they incorporate 21st Century Skills. The relevant learning experiences gained from +1P encourage the transfer of knowledge to real-world situations while preparing students for college and a career.

+1P projects require a level of cognitive demand that goes beyond "hands-on." At minimum, students practice verbal, written, and digital communication; engage in inquiry; conduct research; present their recommendations and findings; and reflect on the process.

Figure 1.2 Characteristics of General Projects and +1P Projects

General Projects	+1P Projects
• Standards based • Task driven • Hands-on and Minds-on • Does not require in-depth inquiry and investigation/research • Students acquire factual and procedural knowledge of the topic • Does not require Internet/technology • Collaboration is not required • Does not require a presentation • Does not require reflection and commitment • Does not require a writing assessment • Does not require use of 21st Century Skills • Learning is specific to the project	• Standards based *and* interdisciplinary • Goal driven • Hands-on and Minds-on • Requires an in-depth cycle of inquiry and investigation/research • Students acquire factual, procedural, *and* conceptual knowledge of the topic • Internet/technology is required • Collaboration is required • Presentation is required • Reflection and a commitment are required • Writing assessment is required • Use of 21st Century Skills is required • Learning is applicable and transferrable to other situations

These skills and competencies not only prepare students to compete locally and globally, but they are prerequisites for success. For clarity, it is necessary to highlight the difference between projects in general and +1P projects. Figure 1.2 indicates characteristics of both. It is important to note that there is a place for both types of projects in schools. General projects are completed in a shorter amount of time, while +1P projects may take longer because students are intentionally going deeper for conceptual knowledge.

CONTEXTUALIZING THE LEARNING EXPERIENCE

Context matters. According to Teemant, Smith, Pinnegar, and Egan (2005), responding to the needs of students who are diverse in culture, language, and/or learning is paramount if schools are to equitably serve all students. High-quality instruction that responds to the needs of students considers the context of its recipients (learners). Without a context of the learner, enhancing student success may be misguided and disjointed. Bottom line—*know* your students so you can *know* how to teach them. Students bring funds of knowledge and cultural capital that are essential to the learning process.

As schools experience unparalleled cultural, linguistic, and ethnic diversity, teachers are tasked with contextualizing learning for students of diverse backgrounds. +1 Pedagogy is one model for

contextualizing learning through authentic experiences. Students are given opportunities to "travel" through time with research and the Internet, allowing them to "travel" beyond the walls of their classroom and learn about diverse perspectives. Throughout the process, students are making meaning, relating their own experiences, deepening understanding, and learning new information. This type of exposure helps level the playing field in education, especially for those students who encounter more limitations to their schooling experiences. By limitations, I mean less access to resources, digital devices, field trips, programs that require additional funding, and parent involvement. Despite these limitations, cognitively, students are capable of achieving and making progress. Limited exposure and access to resources does not constitute or justify limited instruction. Because teachers control the discourse in their classrooms, it is incumbent upon them (and the school) to provide learning opportunities that accelerate achievement, integrate 21st Century Skills, and prepare students to compete in a global economy. These opportunities and skills require an interdisciplinary approach to teaching and learning. Students can learn whatever is taught, but it is hard to learn what is not taught. This does not mean that students must receive all knowledge from their teacher or school, but few experts achieve their status without some form of education and schooling experience. Through interdisciplinary projects, students are taught to make connections across content, explore multiple resources, and apply learning in diverse situations. Because +1P is predicated on interdisciplinary projects, learning is purposeful, meaningful, and applicable.

At its root, the purpose of learning deals with the central question of what is worth knowing, experiencing, doing, and being (Schubert, 2010). In other words, learning should be strategically situated to engage students in authentic experiences. McTighe, Seif, and Wiggins (2010) attribute positive changes in behavior/student perceptions to authentic learning experiences that enhance student engagement and understanding of important facts. The question remains, "How do educators stimulate the highest level of achievement in students?" We can start by promoting instructional models that embed inquiry, research, critical thinking, going deeper for conceptual knowledge, and 21st Century Skills. +1P ensures that these skills and practices are executed in the classroom. In summary, the stated research is necessary and appropriate for contextualizing the +1P framework and learning in general.

Think about the quote, "Contextualize if you want me to internalize." Why does context matter? How might contextualized learning benefit our students? How might you transfer knowledge about contextualized learning back to your district, school, or classroom?

FREQUENTLY ASKED QUESTIONS

Now that you have some background knowledge about the +1P framework, you may still have questions about implementation. This next section addresses six common questions/concerns that may surface in regards to +1P implementation.

1. **Does my school need a budget to implement +1P?**
   No. +1P is specifically designed to enhance teaching and learning, with or without additional funding. A hallmark of the framework is its cost-effectiveness. With this book and the resources at your disposal, you can fully implement +1P and transform instructional practices.

2. **Can my students still engage in +1P if our school does not have a computer lab and/or digital devices for every student?**
   Yes. Although it is ideal, students do not need their own digital device to engage in the process. If there are fewer than two or three computers/laptops/digital devices in the classroom, students can take turns or the teacher can set up a rotation chart for different days. Teachers may also consider assigning one digital device per group of students or encourage students to conduct research outside of school. The school library is another place where students can access the Internet. Pending approval by the teacher or school, smart phones can also be used to conduct research. Lastly, teachers can use their school-issued computer/LCD/laptop/digital device to assist students in their research. While the teacher uses his or her digital device to help one group, other groups can work on a different task related to their project.

3. **Does +1P require that I collaborate with other teachers, or can I just plan and implement the framework by myself?**

   Collaboration with colleagues is highly encouraged and always best, but some teachers may not have that luxury. In that case, pace yourself. Implementation is positively intense and can be challenging to organize alone. Do not overwhelm yourself to the point of frustration and giving up. Use the templates, strategies, and techniques offered in this book to mitigate anxiety and boost enthusiasm around planning, managing, and assessing +1P.

4. **Since research is an essential part of the +1P process, what do I do about students who struggle with reading or cannot read altogether?**

   All students deserve a high-quality education and exposure to rigorous instructional methods, regardless of a disability or gaps in their reading development. Students who struggle with reading can be grouped with stronger readers. Teachers can also use scaffolds, visual media, technology, and other supports to enhance reading comprehension. If you teach primary grades, especially kindergarten and first grade, consider using videos, pictures, and technology to supplement reading a lot of text.

5. **How do I ensure mastery of the material and concepts that students are studying?**

   Student mastery cannot be measured in one snapshot. For that reason, +1P includes a diverse range of learning activities and student outcomes. Teachers would determine mastery through the use of rubrics, observations, student journals, and learning activities. The culminating tasks (presentation, writing assessment, and reflection) will assess student mastery as well.

6. **How do I find time to implement +1P, especially if my schedule is already impacted?**

   +1P is designed to supplement the curriculum already in place. Teachers can explore ways to connect concepts and themes currently being taught in the classroom. There is flexibility regarding how and when you choose to implement the framework. For instance, you could introduce +1P at the beginning of the year, towards the middle or end of a semester,

or during the last few weeks of the school year. Elementary teachers could also dedicate the last hour of the day for +1P. Secondary teachers could implement +1P during an extended advisory/homeroom period, seventh period (if applicable), elective period, or any other period. The most time-consuming elements, such as learning activities, research, and preparation for the presentation, can be extended through homework. More importantly, teachers of any discipline need to ask, "If I do not teach +1P, what other framework(s) do I use to engage students in a cycle of inquiry and investigation, practical use of 21st Century Skills, writing assessment, presentation, reflection, and commitment around a topic of study?"

A PLAN OF ACTION

Highly effective teachers are strategic about their planning. Without a plan of action, desired goals are less attainable. This applies to +1P as well. There are numerous considerations and strategies to guide planning. Tyler (1949), an originating author of the basic principles of curriculum and instruction, presents three absolutes for student learning:

1. Students acquire an understanding of the subject at hand.
2. Students can apply what they have learned to new situations.
3. Students have a desire to continue learning.

Students benefit when they are engaged in sophisticated learning opportunities that are rooted in conceptual knowledge, application, and a compelling desire for more. Tyler's (1949) recommendations for student learning capture the essence of education and the mission of +1P.

Tyler (1949) also recommends four objectives when planning a comprehensive unit. Following is a discussion about each objective.

1. **Forgetting vs. Retaining**

   According to Tyler (1949), acquisition of knowledge is increased with real-world application. Students are less likely to forget subject matter that pertains to their daily lives. Consequently, students experience an increase in their retention of knowledge. +1P is similar in that students deeply engage

with subject matter through authentic learning experiences, making it easier to retain what is studied.

2. **Time**

   Tyler (1949) contends that it takes time to bring about certain changes in young people. As a result, we need to honor the time it takes for students to grasp critical concepts and content knowledge. It is better to spend quality time going deeper for conceptual knowledge through an extended unit than a cursory review of knowledge and facts in one or two lessons. +1P is intentionally designed to support a cycle of inquiry and investigation around a specific topic. At minimum, a completed cycle should take four to six weeks.

3. **Multiple Outcomes**

   Tyler (1949) asserts that enhanced learning experiences include multiple outcomes. Students need multiple opportunities to demonstrate mastery, because learning is multifaceted and dynamic. +1P is a multifaceted instructional model that includes conducting research, responding to inquiry, interpreting data, drawing conclusions, presenting, and most importantly, a change in behavior resulting from a deeper understanding about the topic of study.

4. **Consistency**

   Tyler (1949) indicates that learning requires consistency and reinforcement. Learning activities that share these characteristics result in sustainable outcomes. The +1P cycle follows a consistent pattern that enables students to retain core concepts, make meaning about them, and apply what they know in new situations. Learning is also reinforced through repeated checks for understanding and real-world application.

PLANNING WITH THE END IN MIND

Steven R. Covey, author of *The 7 Habits of Highly Effective People* (1989), presents a framework for personal efficacy through seven habits. The following habits contribute to one's success:

1. Be proactive
2. Begin with the end in mind

3. Put first things first
4. Think win-win
5. Seek first to understand, then to be understood
6. Synergize
7. Sharpen the saw

While all seven habits are valuable, the first two habits are directly applicable to +1 Pedagogy. First and foremost, implementation requires educators to be proactive. These educators are driven by an innate passion to do what is best for students and to use their resourcefulness to maximize learning. Proactive educators do not make excuses; instead, they find solutions and develop a plan of action. The second highly effective habit relates to planning—*Begin with the end in mind*. Planning necessitates knowledge of where we are going before we start our journey. Just as we would never plan a trip without knowing our final destination, the same applies to teaching. Educational planning requires knowledge of long-term goals to reach intended outcomes. When teachers plan backward from the desired outcomes within a lesson or unit, clarity is established and everyone benefits. Planning ahead allows teachers and students to anticipate challenges because they are cognizant of where they are going. The key is purposefully planning for desired results. In terms of +1P, it is highly recommended to plan around project outcomes *before* starting a project. Implementation is less challenging when a clear vision of desired outcomes is expressed and understood by teachers and students.

Think about a successful experience that was directly related to your thoughtful planning. How might the outcomes be different if you had not planned accordingly? Why does planning "with the end in mind" matter? How might you transfer knowledge about this type of planning back to your district, school, or classroom?

PHILOSOPHICAL AND PSYCHOLOGICAL RATIONALE

Our job as educators is to carefully foster environments that stimulate growth in students as they construct meaning for themselves. First, we must substantiate our curriculum and instruction with a philosophical and psychological rationale. This requires intentional planning around values and human development. A philosophical rationale speaks to basic values aimed at enhancing the educational program of a school, while a psychological rationale enables educators to distinguish a change in human behavior as a result of the learning process (Tyler, 1949). Philosophically, students are encouraged to value what they learn. Psychologically, students experience a change in perception toward a topic of study because they are interested, engaged in authentic tasks, and involved in the learning process. Through +1P, learning is rooted in a philosophical and psychological rationale, where students experience a better understanding about the world around them.

Spector (2008) is another researcher who presented the psychology of learning as a critical foundation area. He argues that behavior and development of knowledge and skills are the "bedrock" on which education rests. Educators can use this knowledge to facilitate the learning process and accelerate achievement. +1P provides opportunities for students to engage socially and cognitively. Students prepare for global competence by finding creative ways to study a phenomenon. Teachers and students can then use these learning experiences to achieve anticipated outcomes of learning.

FIDELITY TO +1P

Teaching and learning should be grounded in frameworks that are applicable and transferable. Students need to apply what they know and learn in a variety of contexts. It is imperative for students to understand the purpose of learning, along with the application of concepts. +1 Pedagogy provides a practical framework for contextualizing learning and enhancing overall teaching practices. Frameworks that contextualize learning must also be applied with consistency and fidelity. Given that +1P is interdisciplinary, comprehensible, global, coherent, concise, and relative, fidelity to the framework is warranted. It pays to invest in a framework that prepares students for college, career, and life.

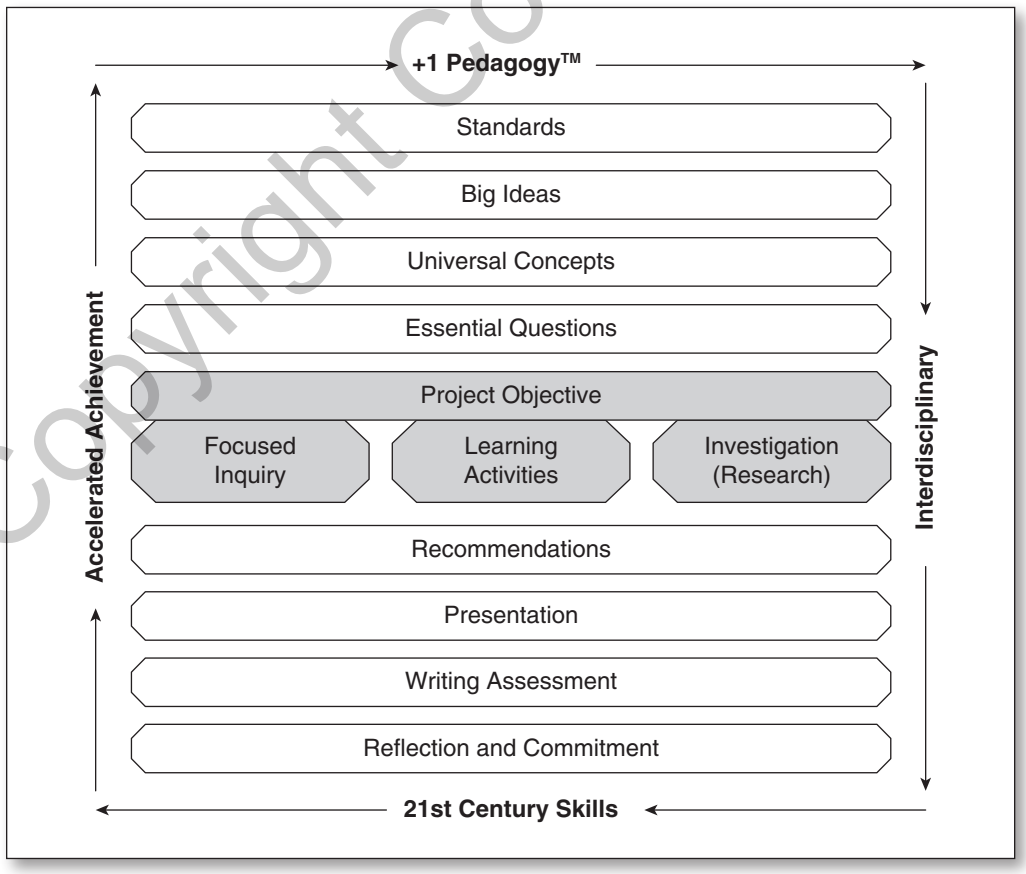
As educators, we take more ownership of enduring frameworks that increase application and transfer, which is enhanced with practical tools for support. Figure 1.3 is one of many tools that

support +1P implementation. The border of the diagram features outcomes and expectations of +1P, while the inside of the diagram includes twelve essential components. These essential components are needed to complete a full cycle of +1P for any discipline or topic. Successful implementation is dependent on utilization of all components and fidelity.

The twelve essential components of +1P are highlighted and defined below:

1. **Standards:** Projects are grounded in standards that clarify what students should know and be able to do. Standards provide a common language and compass for student understanding.
2. **Big Ideas:** Large in scope, big ideas are interdisciplinary concepts related to the +1P project. Students can use big ideas as focal points for their investigative study.

Figure 1.3 +1P Diagram



3. **Universal Concepts:** Projects include broad statements that are thematic in nature and designed to deepen conceptual understanding of a topic. Universal concepts are applicable within and across disciplines, include big ideas, and are purposefully intended to stimulate and stretch student thinking.

4. **Essential Questions:** Projects are framed by overarching questions that are transferable, debatable, and generate more inquiry. Essential questions include big ideas and can be discipline specific or interdisciplinary.

5. **Project Objective:** The project is a call to action related to the topic of study and defined by an objective that encompasses *think*, *know*, *source*, and *do*.

6. **Focused Inquiry:** Students engage in a cycle of inquiry related to big ideas. Focused inquiry includes *general*, *specific*, *elaborate*, and *sourcing* questions.

7. **Learning Activities:** Students experience multifaceted tasks that are designed to contextualize learning for students. Learning activities range in complexity and rigor.

8. **Investigation (Research):** Projects include a cycle of investigation/research. Students analyze primary and secondary sources of information as they conduct their research, while attending to Look Fours (*trends over time*, *multiple perspectives*, *technological advances*, and *forecasting*), Credibility 4, and questions from the focused inquiry component.

9. **Recommendations:** Students make recommendations for improving and/or changing a situation related to their project, based on evidence from their research. Students also explain the benefits of their recommendations.

10. **Presentation:** Students present their project to their peers or an audience beyond their classroom. Presentation options include *oral*, *kinesthetic*, *visual*, and/or *written* products. When students present, they will use techniques for persuasion (ethos, pathos, logos—EPL) and presentation (projection, eye contact, attire, confidence, engagement, and succinctness—PEACES).

11. **Writing Assessment:** As a culminating task, each student writes a short essay that addresses the following: importance

of topic of study, major findings from the research, and significance of each finding supported by evidence from the research.

12. **Reflection and Commitment:** Students reflect on how the project experience deepened their knowledge, and they consider what could be done differently the next time. Students also commit to extending and sharing the project with others.

Teachers do not have to follow the exact order stated above when planning for +1P implementation. For example, teachers may choose to brainstorm big ideas and universal concepts related to the topic of study before choosing standards. What matters most is that teachers plan for and execute all twelve components with fidelity.

Think about the instructional implications of +1 Pedagogy (+1P). What purpose does fidelity serve in implementing frameworks? How might you transfer knowledge about the +1P framework and diagram back to your district, school, or classroom?

PROFESSIONAL DEVELOPMENT

Professional development can assist educators with understanding the true purpose and rationale for +1P and fostering implementation. Once teachers are equipped with tools for planning, they are ready to implement the framework. Guskey (2000) defines professional development as those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they, in return, improve student learning. In other words, professional development facilitates learning in a way that enhances instructional practice, professional growth, and student achievement. Professional development also serves the purpose of building a collaborative school culture. Oftentimes, teachers are confined to their classroom throughout the school day. Professional development

(via staff meetings, grade level meetings, department meetings, Personal Learning Community [PLC] meetings, etc.) allows educators to collaborate and plan around a common purpose or goal. This book is strategically designed as a professional development resource for +1P implementation. Educators are encouraged to collaborate with each other as they engage in the +1P process.

According to Guskey (2000), there are three defining characteristics of professional development—*intentional, ongoing,* and *systematic.* Figure 1.4 illustrates these defining characteristics.

In addition to the three characteristics of professional development, Guskey (2000) lists seven major types of professional development.

Figure 1.4 Characteristics of Professional Development

Three Characteristics of Professional Development

An *Intentional* Process

- Should be purposeful and intentional
- Consciously designed to bring about change and improvement
- NOT a random or haphazard process
- Professional development is a deliberate process, guided by a clear vision
- Includes planned goals
- Recommended steps:

1. Begin with a clear statement of purposes and goals
2. Ensure that the goals are worthwhile
3. Relate professional development purposes and goals to the mission of the school
4. Determine how the goals can be assessed
5. Evidence needed to determine if the goals are attained; multiple indicators may be necessary

An *Ongoing* Process

- Education is a field with a continually expanding knowledge base.
- To keep abreast of the expanding knowledge base, educators must be continuous learners throughout the span of their professional career.

A *Systematic* Process

- Without a systematic approach to professional development, organizational variables can hinder or prevent the success of improvement efforts, even when the individual aspects of professional development are executed appropriately.
- When viewed systematically, professional development is seen not in terms of individual improvement but also in terms of improving the capacity of the organization to solve problems and renew itself.

1. Training
2. Observation/Assessment
3. Involvement in a Development/Improvement Process
4. Study Groups
5. Inquiry/Action Research
6. Individually Guided Activities
7. Mentoring

The specified professional development types present a wide variety of options and opportunities to enhance professional knowledge. Schools/teachers can choose a professional development type from the above list (or use all seven!) to guide +1P implementation. Once a structure for professional development has been chosen, it is imperative to evaluate its effectiveness. A precise process of evaluation is needed after professional development to highlight what is effective and what needs improvement. Guskey (2000) outlines five critical levels of professional development evaluation.

1. Participants' reactions
2. Participants' learning
3. Organization support and change
4. Participants' use of new knowledge and skills
5. Student learning outcomes

Schools need to establish professional development environments that foster this kind of trust and constructive feedback. If teachers are not provided with constructive outlets to plan, revise, and reflect, successful implementation of any framework can be diverted. The more prepared educators are at delivering, revising, and reflecting about the +1P process, the better they will become at reaching intended outcomes, which are acceleration of student achievement, application of 21st Century Skills, and global competence. Overall, the discourse on professional development exists to promote professional growth that is meaningful, purposeful, and applicable. Professional development is paramount to transferring best practices into the classroom and building capacity and efficacy around teaching and learning. The remaining chapters focus on building teacher capacity to implement +1P.

Think about a professional development session (inside or outside of school) that benefited your instructional practice. What about the professional development was applicable and transferable? How might you transfer Guskey's (2000) model of professional development back to your district, school, or classroom?

SUMMARY

+1 Pedagogy stimulates learning through 21st Century Skills and creates multiple pathways to inquiry and research, making it a powerful instructional model for teaching and learning. Even as global competiveness and college and career readiness is fostered in schools across the nation, schools still need a framework that brings these ideals to fruition. This chapter extends conversations about theory and practice and their application to teaching and learning. As educators, we regularly encounter shifting paradigms. For this reason, we need frameworks and books grounded in the latest theories and practices. Chapter 1 uses research to contextualize and rationalize +1P implementation, thus maximizing the transfer of +1P to the classroom. +1P blends past and current research with Common Core State Standards and 21st Century Skills that accelerate achievement for students. The next chapter explores these concepts in further detail and examines four of the twelve essential components of +1P.

MICs

MOST IMPORTANT CONCEPTS

- 21st Century Skills
  - Checklist for Students
- +1 Pedagogy (+1P)

- Transformation of Project-Based Learning
- Tyler's (1949) Three Principles of Learning
- Plan of Action
- Planning With the End in Mind
- Frequently Asked Questions
- Philosophical and Psychological Rationale
- Fidelity to +1P
    - +1P Diagram—12 Essential Components
- Professional Development