TeachME PROFESSIONAL DEVELOPMENT
CEUs for Teachers and Educators

Power Skills in Education and Beyond

Introduction

In recent years, the concept of power skills has gained increasing attention in education and the workforce. Power skills, also known as soft skills, employability skills, or 21st-century skills, encompass a broad range of non-technical abilities that are essential for success in both personal and professional settings (National Academies of Sciences, Engineering, and Medicine, 2018a). These skills include communication, collaboration, problem-solving, critical thinking, creativity, adaptability, leadership, and social-emotional competencies such as self-awareness, empathy, and resilience (National Academies of Sciences, Engineering, and Medicine).

The importance of power skills in education and beyond cannot be overstated. In the 21st century, employers increasingly prioritize power skills over technical skills when hiring and promoting employees (Coelho & Martins, 2022). A recent study by the World Economic Forum [WEF] (2020) identified complex problem solving, critical thinking, creativity, and emotional intelligence as the top four skills required for success in the workplace. In addition, power skills have been linked to academic achievement, career readiness, and overall well-being (National Academies of Sciences, Engineering, and Medicine, 2018a).

Given the importance of power skills, it is crucial that educators prioritize their development in students. This course will provide teachers with the knowledge and tools necessary to effectively teach power skills in their classrooms. The course will be divided into three sections. The first section will provide an overview of power skills, including their definition, types, and importance in the education system and the 21st-century workplace. The second section will focus on the changing world of work, the skills that will be necessary to succeed, and the role of teachers in providing power skill instruction. The third section will

cover strategies for teaching and assessing power skills, including specific classroom strategies, techniques and ideas to implement in the classroom.

Section 1: Introduction to Power Skills

The world is changing rapidly, and students need a set of essential skills that go beyond just academic knowledge to succeed in the 21st century. These essential skills, commonly referred to as power skills, enable individuals to think critically, communicate effectively, collaborate with others, and adapt to change. The term "power skills" is a relatively new concept, and is used to describe a set of essential attributes that are considered crucial for success in education, the workplace, and beyond.

Power Skills Defined

Power skills are a combination of cognitive, interpersonal, and intrapersonal skills that prepare individuals to succeed in the 21st century. The WEF defines power skills as "a set of transversal, higher-order skills that enable individuals to adapt to changing environments, work effectively with others, and learn new skills and technologies." (WEF, 2018) These skills include, but are not limited to, problem-solving, critical thinking, creativity, communication, collaboration, and social-emotional competencies like resilience, empathy, and self-regulation.

Types of Power Skills

Communication

Communication skills are the ability to convey information clearly and effectively to others through various mediums, such as speaking, writing, and nonverbal cues (WEF, 2018). Effective communication is critical for building relationships, resolving conflicts, and achieving organizational goals (Australian Institute of

Business, 2023). Communication skills are important for students to succeed throughout their academic careers and beyond.

Firstly, communication skills are essential for students to learn in school as they help them to express their thoughts and ideas to their peers and teachers. It enables them to participate in class discussions, articulate their viewpoints, and present their ideas effectively. Effective communication also fosters collaboration among students, which is essential in the modern workforce. Secondly, communication skills are essential for students to succeed in their future careers. The modern workplace requires employees to communicate effectively with their colleagues, clients, and stakeholders. Northstar Leadership Training (2022) emphasized the importance of communication in the workplace, citing its positive impact on individuals' well-being and performance. Employees who can communicate effectively can build better relationships with their colleagues, resolve conflicts more efficiently, and achieve their organizational goals more effectively.

Collaboration

Collaboration is the ability to work effectively with others towards a common goal. Effective collaboration requires strong interpersonal skills and the ability to share ideas. Collaboration skills are a critical component of success in both education and the workplace. In school, collaborative learning has been shown to promote deeper learning, greater retention of knowledge, and higher student engagement (Evans, 2020). Collaborative learning activities provide students with the opportunity to learn from one another, share ideas, and gain new perspectives, which can lead to more creative problem-solving and innovation (Evans). Additionally, collaboration helps students develop important social skills such as communication, active listening, and conflict resolution (Evans).

In the workplace, collaboration skills are highly valued by employers and are often essential for success in many roles. According to Northstar Leadership Training (2022), 86% of employees and managers cite a lack of effective collaboration and poor communication as the two main failures in the workplace. In today's complex and rapidly changing work environments, collaboration enables employees to work more efficiently and effectively with colleagues, to learn from one another, and to solve problems that may be beyond the scope of any one individual (Kozlowski, 2018). Collaboration can create a culture of innovation and creativity, which is crucial for organizations to remain competitive and adjust to ever-changing circumstances (Siddiqui, 2023). In a collaborative environment, individuals can bring their unique skills and perspectives to the table, generating a wealth of ideas and solutions that may not have been possible through individual efforts alone (Siddiqui). This increased creativity and innovation can lead to improved problem-solving, faster decision-making, and a greater sense of ownership and commitment to the work being done (Siddiqui).

Problem-Solving, Critical Thinking, and Creativity

Problem-solving involves the ability to analyze and evaluate information to identify and implement adequate solutions to problems. Effective problem-solving requires critical thinking skills, creativity, and the ability to work collaboratively with others to identify and implement solutions. Critical thinking is the ability to analyze and appraise information to make informed decisions. Effective critical thinking requires the ability to gather and evaluate information from multiple sources, to identify underlying assumptions and biases, and to weigh evidence objectively (Facione, 2018). Creativity is the ability to generate new ideas and approaches to problem-solving. Effective creativity requires the ability to think outside the box, to generate new ideas, and to take risks (Indeed Editorial Team, 2023).

Facione (2018) notes that these skills are not only important for the workplace but are also essential for success in school. Developing these skills enables students to think critically, engage creatively, and solve problems effectively, which can translate into success in various areas of life. Furthermore, the article suggests that critical thinking, creativity, and problem-solving skills are not innate, but can be taught and developed through various educational and training programs. This underscores the importance of incorporating these skills into the curriculum in schools and universities and providing opportunities for employees to develop these attributes in the workplace.

According to Facione (2018), problem-solving, critical thinking, and creativity skills are in high demand in today's job market as they are essential for success in a rapidly changing economy. Employers need workers who can analyze data, identify trends, and make decisions based on facts and evidence. Moreover, Facione asserts that creativity is essential for innovation and growth in today's businesses. Finally, problem-solving skills are necessary for finding solutions to complex problems that arise in the workplace.

Social-Emotional Learning (SEL) & Competencies

In today's society, education is more than just acquiring knowledge in academic subjects. Students need to be equipped with social-emotional learning (SEL) and competence to thrive in both school and the future. SEL is the “process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (CASEL, 2023).

Importance of SEL in the Education System

OECD (2021) highlights the importance of SEL in the education system. The organization notes that there is a growing recognition among educators and policymakers of the importance of SEL in improving academic outcomes, reducing negative behaviors such as bullying and dropout rates, and improving students' overall well-being.

Studies have shown that SEL programs have a positive impact on academic achievement. For example, a study conducted by Durlak et al. found that students who participated in SEL programs had an 11 percentile point increase in academic achievement compared to students who did not participate in SEL programs (OECD, 2021). Additionally, students who participated in SEL programs had better attitudes toward school, improved behavior, and less emotional distress (OECD).

The benefits of gaining SE skills in school go beyond academic achievement. A report by the National Collaborative on Adversity and Resilience in 2017 found that students who received SEL instruction had improved mental health and emotional well-being, including increased self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (OECD, 2021). As a result of obtaining these skills, academic performance and overall school experience also improve. Additionally, when students have better social-emotional skills, they are better able to manage stress and regulate their emotions, which can improve their ability to focus and learn in the classroom (OECD).

Furthermore, SEL has been shown to reduce negative behaviors such as bullying and dropout rates. A study conducted by the Collaborative for Academic, Social, and Emotional Learning (CASEL) found that students who participated in SEL programs had a 10 to 25 percent reduction in negative behaviors such as aggression, noncompliance, and misconduct (OECD, 2021).

Benefits of SEL for Overall Well-being

In addition to improving academic achievement and reducing negative behaviors, SEL has a positive impact on overall well-being. A report by the Robert Wood Johnson Foundation found that SEL has a positive impact on children's social and emotional development, which is a key component of overall well-being (OECD, 2021). The report notes that children who receive SEL instruction have better mental health outcomes, including reduced symptoms of depression and anxiety, improved self-esteem, and better coping skills.

Furthermore, SEL can help children develop positive relationships with their peers, family members, and other adults. A study conducted by the University of Illinois at Chicago found that children who participated in SEL programs had improved social skills, including better communication, cooperation, and problem-solving skills, all of which are power skills necessary for success in the workforce as well (OECD, 2021).

Benefits of SEL for Future Careers

SEL is not only important for academic success and overall well-being, but it is also essential for future careers. The expertise and competencies developed through SEL are highly valued in the workforce. According to the WEF (2018), emotional intelligence, which is a key component of SEL, is one of the top 10 skills needed for future jobs. Research has shown that employees with strong emotional intelligence are more productive, have better job satisfaction, and are more likely to be promoted (OECD, 2021). Furthermore, a report by the National Skills Coalition in 2017 found that 92 percent of executives and hiring managers agreed that employees with strong soft skills, such as communication, problem-solving, and teamwork, are essential for success (OECD).

The Importance of Power Skills in Education and the Workplace

The importance of power skills in education and the workplace cannot be overstated. According to a 2016 report by the WEF, 65% of children entering primary school today will ultimately work in job types that do not currently exist (Newton, 2018). In such a rapidly changing environment, individuals who possess power skills have a distinct advantage over those who do not. Power skills enable individuals to adapt to new technologies, collaborate effectively with others, and learn new skills quickly (Michail, 2022). In the workplace, power skills are increasingly valued by employers. In fact, a survey by LinkedIn found that 57% of leaders say soft skills are more important than hard skills (LinkedIn Learning, 2018). Soft skills, or power skills, enable employees to communicate effectively, work well in teams, and adapt to change, all of which are crucial for success in today's workplace.

Academic Outcomes

Research in recent years has shown that power skills have a positive impact on academic outcomes. According to a study conducted by the National Center for Education Statistics (NCES) in 2021, students who develop power skills, such as collaboration and communication, have higher GPAs and test scores compared to those who do not (U.S. Department of Education [ED], 2021). Another study conducted by the WEF (2018) found that students who developed qualities such as critical thinking and problem-solving had a positive impact on their academic performance.

Power skills, such as collaboration, communication, and critical thinking, have been shown to increase student engagement in school. The importance of student engagement in school cannot be overstated. Engaged students are more likely to stay in school, succeed academically, and develop the skills they need to succeed in their future careers (Hall, 2022). A study conducted by the Education

Advisory Board [EAB] found that students who engage in activities that develop power skills, such as project-based learning (PBL), are more likely to be engaged in school (EAB, 2020). These students are more likely to participate in class discussions, ask questions, and take an active role in their own learning.

The study also found that students who engage in power skill development activities have lower rates of absenteeism and higher graduation rates (EAB, 2020). This is because these activities are designed to be hands-on and relevant to real-world situations, which can help students see the relevance of what they are learning and become more invested in their education. When students are engaged in their learning, they are more likely to attend school regularly and graduate on time.

Importance of Power Skills in Workplace

Power skills are essential for success in the 21st century workplace. They are not specific to a particular job or industry but are applicable across various roles and industries. In today's rapidly changing and complex business environment, employers are looking for employees who possess a wide range of power skills, in addition to technical expertise (World Economic Forum, 2020). A study by LinkedIn found that the top five competencies that employers are looking for in 2021 are creativity, persuasion, collaboration, adaptability, and emotional intelligence (LinkedIn Learning, 2021). A study conducted by the Pew Research Center in 2020 found that employers prioritize power skills when hiring new employees, and those who possess these skills are more likely to be successful in their careers (Kocchar, 2020). The study also found that employees who possess power skills, such as adaptability and problem-solving, are more likely to receive promotions and salary increases. In addition to the study by Pew Research Center, there have been other studies that have shown the importance of power skills in the workplace. For instance, a study conducted by the WEF (2020) found that the

demand for critical thinking, creativity, and problem-solving is expected to increase in the coming years, as employers seek to remain competitive in the global market. This highlights the importance of power skills in the future job market.

Power skills are also important because they contribute to employee and organizational success. A study by the National Soft Skills Association found that employees with strong power skills are more productive, have higher job satisfaction, and are more likely to be promoted (Corporate Learning Solutions, 2018). In addition, organizations that prioritize power skills in their hiring and training processes tend to have higher employee retention rates and better overall performance (Westfall, 2019). Williams (2023) contends that soft skills such as adaptability and resilience are essential in today's fast-paced work environment, where employees are frequently required to learn new attributes and adapt to changing circumstances. This is especially true as the COVID-19 pandemic has brought about significant changes in the workplace, and has highlighted the importance of these power skills. A study conducted by the Society for Human Resource Management found that employers are placing greater emphasis on these skills in response to the pandemic, as they seek to navigate the challenges posed by the pandemic (Janove, 2020).

New Jobs = New Skill Sets

The nature of work is changing due to automation and technological advancements, which is resulting in a shift in the qualifications required in the workforce. While technical skills are still important, Bughin et al. (2019) emphasizes the need for power skills, such as communication, collaboration, critical thinking, and adaptability, to succeed in the future workforce. One reason for the increased importance of power skills is the changing nature of work. Many jobs that were once considered “secure” are now being automated, outsourced,

or eliminated altogether (Bughin et al.). As a result, workers need to be able to adapt to changing circumstances, learn new skills quickly, and work collaboratively with others.

While automation and AI will replace some jobs, they will also create new ones that require a combination of technical skills and power skills (Bughin et al., 2019). Machines can perform many technical tasks more efficiently than humans, but they are not yet capable of replicating the kind of soft skills that are crucial for building strong relationships with customers and colleagues. Therefore, Williams (2023) argues that the ability to communicate, collaborate, and solve problems will be even more valuable in the future as organizations continue to rely on human expertise to build and maintain successful businesses. Furthermore, Bughin et al. emphasizes the importance of power skills for leadership positions. It states that "as automation and AI create new forms of work and organizations flatten, demand for social and emotional skills such as leadership and managing others will grow" (Bughin et al.). This highlights the fact that power skills will be critical not only for individual workers but also for organizations as a whole.

Another reason for the increased importance of power skills is the rise of the gig economy and remote work. Many workers are now working as freelancers or independent contractors, and they need to be able to market themselves effectively, manage their time and resources, and communicate with clients and colleagues online (World Economic Forum, 2020). Qualities such as self-management, communication, and digital literacy are essential for success in this type of work environment.

Section 1 Key Terms

Collaboration - The ability to work effectively with others toward a common goal.

Communication skills - The ability to convey information clearly and effectively through various mediums.

Problem-solving - The ability to analyze and evaluate information to identify and implement effective solutions to problems.

Power skills - A set of essential skills, that go beyond academics, that enable individuals to adapt to changing environments, work effectively with others, and learn new skills and technologies

Social-emotional learning (SEL) - The process through which individuals acquire and apply knowledge, skills, and attitudes to develop healthy identities, manage emotions, establish and maintain relationships, and make responsible decisions.

Section 1 Discussion Questions

1. How do power skills differ from traditional academic skills, and why are they important for students to succeed in the 21st century?
2. In what ways can effective communication skills benefit students in their academic careers and future professions? Provide examples to support your answer.
3. How are social-emotional skills developed through SEL beneficial for students' future careers? Explain the connection between emotional intelligence and success in the workplace.
4. Explain why you think power skills are increasingly valued by employers in today's workforce. Provide examples of power skills that employers prioritize and their impact on employee productivity, job satisfaction, and career progression.

Section 1 Activities

1. **Power Skills Self-Assessment:** Using a Google search, find a Power Skills self-assessment and complete it. Based on the results as well as your own reflection, identify areas for growth and develop a plan to enhance your weaker skills.

    a. Reflect on what you think your strongest power skills are, and where you think you can develop more.

    b. Create an action plan for yourself to further develop such attributes.

2. **Power Skills Classroom Observation:** Either with a colleague, or observing a video recording of one of your own lessons, conduct a power skills classroom observation.

    a. Generate a simple guide or rubric that highlights different power skills and indicators of their presence in the classroom.

        Guide/Rubric examples:

        <u>Indicators of Collaboration</u>: Students actively engage in group discussions and activities, demonstrating effective teamwork.

        <u>Indicators of Critical Thinking</u>: Students ask thoughtful questions to clarify information and deepen their understanding.

        <u>Indicators of Communication and Presentation:</u> Students express their ideas clearly and concisely, using appropriate language for their audience.

    b. After the observation, reflect on what you observed and discuss effective strategies that you can adapt for their own teaching.

Section 2: Preparing Students for the Future & the Changing World of Work

In today's rapidly evolving world, the future of jobs is a subject of great interest and concern. Technological advancements, including artificial intelligence (AI), robotics, and automation, are transforming the nature of work, presenting both opportunities and challenges for workers. It is crucial for educators to understand these shifts and adapt their teaching strategies to ensure that students are well-prepared for the future job market. The "WEF Future of Jobs 2023" report provides a comprehensive analysis of these changes and offers valuable insights for educators (WEF, 2023).

Technological Advancements and Automation

The integration of emerging technologies is poised to have a profound impact on the job market. According to the WEF (2023), automation and AI technologies are expected to displace around 85 million jobs globally by 2025. However, these technologies will also create approximately 97 million new jobs (WEF). It is essential to recognize that while certain jobs may become obsolete, new opportunities will emerge. Educators must guide students in understanding this shift and help them develop the necessary skills to thrive in this changing landscape.

Skills for the Future

The future job market will place a premium on specific skills that are crucial for success. The WEF (2023) emphasizes the importance of upskilling and reskilling to adapt to the changing demands of the workforce. Students must also develop power skills such as critical thinking, problem-solving, creativity, and adaptability (WEF). These skills will enable individuals to navigate the complexities of the

future workplace. As educators, we need to incorporate these skills into our teaching methodologies and curriculum, fostering a mindset of lifelong learning.

Human Skills and Emotional Intelligence

While technological advancements reshape the labor market, there is an increasing recognition of the value of human skills. The WEF (2023) emphasizes that certain skills, such as emotional intelligence, social interaction, and creativity, cannot be easily replicated by machines. These skills are uniquely human and will be highly sought-after in the future workplace. Educators must emphasize the development of emotional intelligence, interpersonal skills, and the ability to collaborate effectively. By nurturing these skills, we empower students to differentiate themselves in an increasingly automated world (WEF).

The Role of Educators

Teachers play a pivotal role in shaping the future workforce. As the job market evolves, educators must adapt their teaching methodologies to meet the changing needs of students. Collaboration between educators, policymakers, and industry experts is crucial to ensure that education systems align with the demands of the future job market. By working together, we can design curriculum frameworks that integrate future skills, incorporate emerging technologies, and provide experiential learning opportunities (WEF).

Lifelong Learning and Continuous Upskilling

In the future job market, the pace of technological advancements and evolving job requirements will necessitate a culture of lifelong learning (WEF, 2023). Educators must instill in students the importance of continuous upskilling and reskilling throughout their careers. Upskilling refers to the process of acquiring additional skills or improving existing skills to enhance one's proficiency in a particular field or job role. It involves developing a deeper understanding of specific knowledge

areas, acquiring advanced technical skills, or gaining expertise in emerging technologies (WEF). Upskilling allows individuals to remain relevant and competitive in their current occupations, enabling them to take on more challenging roles or tasks within their organizations. For example, a marketing professional may upskill by learning digital marketing strategies and techniques to keep up with the growing importance of online marketing channels.

Reskilling, on the other hand, involves acquiring new skills or undergoing training in a different field or occupation (WEF, 2023). It is often necessary when individuals face job displacement due to technological advancements or changes in industry demands. Reskilling enables individuals to transition into new career paths and pursue opportunities in emerging sectors (WEF). For instance, a factory worker whose job is automated may undergo reskilling to learn programming or data analysis skills, allowing that individual to pursue a career in the field of artificial intelligence or robotics.

Both upskilling and reskilling are driven by the need to adapt to evolving job requirements and the continuous advancement of technology (WEF, 2023). They enable individuals to expand their knowledge base, acquire in-demand skills, and increase their employability in a rapidly changing job market (WEF). Upskilling and reskilling are crucial for professionals to remain agile and adaptable, as they empower individuals to embrace new opportunities, overcome job displacement, and thrive in the future world of work (WEF). The WEF emphasizes the need for individuals to embrace a growth mindset and seek opportunities for self-improvement. As educators, we can facilitate this process by encouraging curiosity, promoting self-directed learning, and providing access to resources and tools that support lifelong learning.

Ethical Considerations and Digital Literacy

The WEF (2023) stresses the importance of understanding ethical guidelines and ensuring responsible use of technology in the workplace. As emerging technologies continue to reshape industries, ethical considerations become increasingly relevant. Individuals need to be equipped with the knowledge and skills to assess the social and ethical implications of technology-driven decisions (WEF). This includes understanding privacy concerns, data protection, bias in algorithms, and the potential impact on societal values and human rights (WEF).

Ethical Considerations

As technology becomes increasingly intertwined with work, educators must address the ethical implications and promote digital literacy among students. The WEF (2023) highlights the importance of understanding ethical guidelines and ensuring responsible use of technology in school and the workplace. Educators should foster critical thinking skills to enable students to assess the social and ethical implications of emerging technologies (WEF). Additionally, digital literacy, including information literacy and cybersecurity awareness, is crucial for students to navigate the digital landscape effectively.

Educators can address ethical considerations by integrating discussions and activities into the curriculum. They can explore real-life case studies that raise ethical dilemmas related to technology use. By fostering critical thinking skills, educators can guide students in analyzing the consequences of technological advancements and making ethical decisions in their personal and professional lives (WEF, 2023). This approach empowers individuals to become responsible digital citizens and contribute to ethical and sustainable practices in the workplace and society.

Digital Literacy

Digital literacy is another key focus area in the report, acknowledging its importance in the future job market. Digital literacy encompasses a range of skills, including information literacy, media literacy, online communication, and cybersecurity awareness. Individuals need to develop these competencies to effectively navigate the digital landscape, critically evaluate information, protect their digital identities, and communicate and collaborate in online environments (WEF, 2023).

Educators play a critical role in fostering digital literacy among students. They can integrate digital literacy skills into the curriculum through activities such as evaluating online sources for credibility, understanding the impact of misinformation, and practicing responsible online behavior (WEF, 2023). By providing guidance on cybersecurity measures, educators can teach students to protect their personal information, identify phishing attempts, and practice safe online habits (WEF).

Promoting digital literacy also involves bridging the digital divide and ensuring equitable access to digital resources and technologies (WEF, 2023). Educators can collaborate with policymakers and stakeholders to advocate for digital inclusion initiatives, such as providing internet access and technology devices to underserved communities (WEF). By addressing digital literacy comprehensively, educators equip students with the skills and knowledge necessary to participate meaningfully in the digital age and succeed in future careers.

Collaboration and Partnerships

Preparing students for the future of work requires collaboration among educators, policymakers, businesses, and other stakeholders. The WEF (2023) emphasizes the importance of partnerships to bridge the gap between education and industry needs. Collaboration with employers can help educators stay updated on industry

trends, align curriculum with workplace requirements, and provide valuable opportunities for internships and mentorship (WEF). Government support and investment in education and skill development programs are also vital for ensuring a smooth transition to the future job market.

Section 2 Key Terms

Automation - The use of technology and machines to perform tasks or processes with minimal human intervention.

Cross-disciplinary learning - An educational approach that integrates knowledge and perspectives from multiple disciplines or subject areas.

Digital Literacy - The ability to effectively and critically navigate, evaluate, and utilize digital technologies. It involves the skills necessary to access, understand, and participate in the digital world.

Emotional intelligence - The ability to recognize, understand, and manage one's own emotions and the emotions of others. It involves skills such as empathy, self-awareness, social awareness, and effective communication.

Experiential learning - A hands-on learning approach that emphasizes practical experience and active engagement with real-world situations. It involves activities such as internships, apprenticeships, and project-based assignments.

Reskilling - The process of acquiring new skills or undergoing training in a different field or occupation.

Upskilling - The process of acquiring additional skills or improving existing skills to enhance one's proficiency in a particular field or job role. It involves developing a deeper understanding of specific knowledge areas, acquiring advanced technical skills, or gaining expertise in emerging technologies.

Section 2 Discussion Questions

1. What are some power skills you believe will be crucial for students to succeed in the future workplace? How can we incorporate these skills into our teaching methodologies and curriculum?
2. In what ways can educators collaborate with policymakers, industry experts, and businesses to align education with the demands of the future job market? What are some practical steps we can take in this regard?
3. How can we foster digital literacy among students, including information literacy, media literacy, online communication, and cybersecurity awareness? What specific activities or lessons can be implemented to enhance these skills?
4. In your opinion, what additional steps can we take as educators to ensure that all students have equitable access to the skills, resources, and opportunities necessary for future success in the job market?

Section 2 Activities

1. Research: Explore the *WEF Future of Jobs 2023* report and other relevant resources to gain a deeper understanding of the evolving job market and technological advancements.
2. Digital Literacy Activities: Develop a lesson or activity that enhances students' digital literacy skills, such as evaluating online sources for credibility, understanding the impact of misinformation, and practicing responsible online behavior. (You can generate the lesson ideas you came up with for discussion question 3).
3. Ethical Discussions: Generate a list of discussion questions that you can use with your students to explore ethical considerations related to technology.

Use case studies or specific scenarios to raise ethical dilemmas and encourage critical thinking about the social and ethical implications of emerging technologies.

4. Partnerships: Reach out to local businesses, industry experts, and professionals to establish partnerships that provide students with valuable opportunities for internships, mentorship, or guest lectures.

Section 3: Teaching and Assessing Power Skills

As the importance of soft skills continues to grow in the workforce and in everyday life, educators are recognizing the need to explicitly teach these skills to students. This section will explore strategies for teaching and assessing power skills. By equipping students with these skills, educators can help them succeed not only academically but also in their future careers and personal lives.

Strategies for Teaching Power Skills

Teaching power skills is essential for preparing students for success in their future careers and personal lives. There are various strategies that teachers can employ to help students develop and refine these skills. Some of these strategies include explicit instruction, integrated instruction, project-based learning, peer collaboration, and feedback and reflection. Each of these strategies has its unique benefits and challenges, and they can be used in combination to create a comprehensive and effective approach to teaching power skills.

Explicit Instruction

Explicit, or direct instruction, a research-based teaching method, provides a structured approach to teaching complex skills, including power skills. Teachers can provide direct instruction on specific skills and model their use in real-world contexts (OECD, 2021). This approach can be particularly effective for teaching

social-emotional skills, such as empathy or self-regulation, which may be more difficult to teach implicitly (OECD). Greene (2023) outlines specific strategies and insight into how educators can use explicit instruction to teach power skills effectively:

1. **Provide Clear Learning Objectives:** Explicit instruction begins with establishing clear learning objectives for the power skills being taught. Educators should articulate specific and measurable goals that align with the desired social-emotional outcomes. For example, a learning objective could be for students to demonstrate active listening skills by maintaining eye contact, nodding, and paraphrasing to show understanding (Greene).

2. **Direct Explanation and Modeling:** During explicit instruction, educators provide direct explanations and modeling of the target power skills. They break down the skills into manageable components and clearly demonstrate the desired behaviors and strategies (Greene). By explaining the rationale behind each skill and showing examples of appropriate responses, educators provide students with a solid foundation for understanding and practicing the power skills (Greene).

3. **Guided Practice:** In guided practice, educators provide structured opportunities for students to apply the power skills in a supportive environment. Educators can use role-playing, group discussions, or problem-solving scenarios to engage students in practicing the targeted skills. They provide feedback, correction, and reinforcement to help students refine their understanding and application of the power skills (Greene).

4. **Scaffolded Instruction:** Scaffolded instruction involves gradually reducing support as students gain proficiency in the power skills (Greene). Educators begin by providing extensive support and gradually shift to less explicit

guidance as students demonstrate competence. This approach allows students to develop independence and transfer the learned soft skills to various contexts.

5. **Differentiated Instruction:** To address the diverse needs of students, explicit instruction incorporates differentiated instruction. Educators modify the instruction based on students' abilities, prior knowledge, and learning styles. They may provide additional support for struggling students or offer extension activities for those who have already mastered the power skills. Differentiated instruction ensures that all students have access to and can benefit from explicit instruction in power skills (Greene).

6. **Ongoing Assessment and Feedback:** Explicit instruction emphasizes ongoing assessment and feedback to monitor students' progress and provide targeted support (Greene). Educators use formative assessments, such as observation checklists or self-assessments, to gather data on students' power skill development. They provide timely and specific feedback to guide students' growth and encourage reflection on their strengths and areas for improvement.

7. **Integration Across the Curriculum:** Explicit instruction for power skills should not be limited to isolated lessons but integrated across the curriculum (which will be discussed in greater detail below). Educators can identify opportunities within subject areas to reinforce and apply power skills. For example, a science teacher might incorporate problem-solving and critical thinking skills into a lesson on the scientific method, while an English teacher might emphasize communication and collaboration skills in a group project.

Integrated Learning

Integrating power skill instruction across the curriculum is an essential approach to ensure that students have ample opportunities to develop and apply these skills in various contexts. The following information highlights the importance of integrating power skills across the curriculum:

1. **Enhancing Transferability and Application:** Integrating power skill instruction across the curriculum allows students to develop a deep understanding of how these skills apply in different subject areas and real-world scenarios (Warrner, 2021). When students can see the relevance of soft skills in multiple contexts, they are more likely to transfer and apply them effectively in their personal and professional lives (Warrner). Warrner discusses how Ball State University does this at the college level by integrating power skills instruction into multiple courses within their programs. For example, the construction management program includes a course called CM 222: Technical Presentation for Construction Managers, which covers "various topics that pertain to communication in the construction industry, such as presentation skills, business writing, phone skills, meeting minutes, and interviewing skills . . . [T]he course [also] includes lectures and activities to teach several other soft skills including organization, time management, and problem solving" (Warner). In addition, prerequisites for this course include Rhetoric and Writing and Fundamentals of Public Speaking, which provide students with the basics for such skills.

2. **Holistic Skill Development:** Power skills are interconnected and often rely on each other for successful application. By integrating power skill instruction across the curriculum, educators can provide students with a holistic approach to skill development (OECD, 2020). For instance, problem-

solving skills can be integrated with critical thinking in science or mathematics classes, allowing students to apply their analytical and creative thinking abilities to solve complex problems.

3. **Reinforcing and Deepening Learning:** Integrating soft skill instruction across the curriculum provides opportunities for continuous reinforcement and deepening of learning (OECD, 2020). When students encounter consistent expectations and opportunities to practice soft skills in different subjects, they develop a more comprehensive understanding of these skills and can refine their application over time (OECD). For instance, integrating teamwork and collaboration skills in project-based assignments across various subjects allows students to practice and improve their collaborative abilities consistently.

4. **Addressing Interdisciplinary Challenges:** The challenges faced by individuals and societies often require interdisciplinary approaches. Integrating soft skill instruction across the curriculum equips students with the necessary skills to tackle complex, real-world problems (OECD, 2020). By incorporating critical thinking, creativity, and collaboration in interdisciplinary projects or simulations, students learn to approach challenges from multiple perspectives and develop innovative solutions.

5. **Promoting Lifelong Learning and Adaptability:** In today's rapidly changing world, soft skills such as adaptability and continuous learning are crucial for success. Integrating soft skill instruction across the curriculum fosters a culture of lifelong learning and adaptability (OECD, 2020). By exposing students to various subjects and incorporating soft skills within them, educators prepare students to navigate diverse learning environments, acquire new knowledge, and adapt to evolving professional landscapes (OECD).

Integrated Learning in K-12 Classrooms

Integrating power skill instruction into content area classes in K-12 education is essential for developing students' holistic competencies. It's important for schools to develop a cohesive plan for integrating power skills instruction, including professional development for teachers, assessment strategies, and ongoing support. By intentionally infusing power skills instruction throughout the curriculum, K-12 schools can nurture well-rounded students who are equipped with the essential skills for success in various domains of their lives. The following are specific ways teachers can incorporate soft skill instruction into different subject areas:

1. **English Language Arts**

    - Classroom discussions and debates that encourage active listening, respectful communication, and critical thinking.
    - Assigning group projects that require collaboration, effective teamwork, and division of tasks.
    - Providing opportunities for public speaking, such as book presentations or persuasive speeches, to enhance communication and presentation skills.
    - Writing assignments that focus on self-reflection, expressing emotions, or solving interpersonal conflicts through narratives or journaling.

    Example: In a literature class, students can engage in a Socratic seminar to discuss a novel's themes, fostering communication, collaboration, and critical thinking as they share and analyze their perspectives.

2. **Mathematics**

- Cooperative problem-solving activities that emphasize teamwork, communication, and peer collaboration.
- Real-world application of math skills through projects or simulations that involve budgeting, data analysis, critical thinking, decision-making, or statistical interpretation in relevant contexts such as personal finance or social issues.
- Providing opportunities for students to explain their problem-solving strategies and justify their solutions, enhancing communication and reasoning abilities.

Example: In a math class, students can work in pairs or small groups to solve real-world problems, such as calculating the cost of groceries or designing a budget for a class event. They must communicate effectively, collaborate, and justify their mathematical reasoning.

3. **Science**

- Collaborative laboratory experiments that foster teamwork, communication, and data analysis skills.
- Incorporating scientific debates or discussions that encourage critical thinking, respectful communication, and evidence-based reasoning.
- Assigning projects that require students to present their findings, encouraging effective communication and presentation skills.
- Exploring ethical considerations in scientific research, fostering critical thinking, decision-making, and responsible conduct.

Example: In a science class, students can work in teams to design and conduct an experiment, analyze the data together, and present their

findings to the class. This activity promotes collaboration, communication, and scientific reasoning.

4. **Social Studies/History**

   - Role-playing or simulations that encourage perspective-taking, empathy, and understanding of diverse viewpoints.
   - Analyzing primary and secondary sources to develop critical thinking, empathy, and perspective-taking skills.
   - Debates or discussions that encourage respectful dialogue and understanding of different viewpoints on historical events, societal issues, or global challenges.
   - Assigning projects that involve research, analysis, and presentation of information to enhance communication and presentation skills.

   Example: In a social studies class, students can engage in a mock trial to explore the viewpoints and arguments surrounding a historical event or controversial issue. This activity promotes research, critical thinking, and respectful communication skills.

5. **Foreign Languages**

   - Engaging in authentic conversations and role-plays that foster active listening, cultural awareness, and intercultural communication.
   - Assigning collaborative projects that require students to work together in the target language, fostering teamwork and effective communication.
   - Using authentic materials, such as news articles or videos, to promote discussion, critical thinking, and intercultural awareness.

- Exploring literature, music, or films in the target language that address social-emotional themes and promote understanding of diverse cultures.

Example: In a foreign language class, students can engage in a role-play activity where they simulate real-life situations, such as ordering food at a restaurant or booking a hotel room. This activity enhances communication skills, cultural understanding, and cooperation.

6. **Physical Education**

- Cooperative games and team sports that promote teamwork, communication, leadership, and sportsmanship.
- Fitness activities that emphasize goal-setting, perseverance, self-discipline, and self-care

Example: In a physical education class, teachers can provide students with leadership roles, such as team captains or group leaders. These positions encourage students to take responsibility, make decisions, and effectively communicate instructions to their teammates.

7. **Arts**

- Visual arts projects that explore emotions, self-expression, and social issues.
- Drama and role-playing activities that develop empathy, communication, and problem-solving skills through exploring different perspectives.

Example: In a visual arts class, teachers can incorporate activities that encourage students to use art as a means of visual storytelling. Students can create artworks that convey emotions, experiences, or social issues, fostering empathy and the ability to communicate ideas through visual representation.

By integrating soft skill instruction into content area classes, K-12 teachers can create rich learning experiences that not only address academic goals but also nurture students' social-emotional competencies, preparing them for success in various aspects of their lives.

Project-Based Learning (PBL)

Project-based learning (PBL) is “a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge” (Buck Institute for Education, 2023). The Buck Institute for Education explains that the difference between a project and PBL is that a project is the dessert, while PBL is the main course. In other words, a “dessert project” comes “after the teacher covers the content of a unit in the usual way,” while a main course project, or PBL, “the project is the unit . . . [T]he project is the vehicle for teaching the important knowledge and skills students need to learn. The project contains and frames curriculum and instruction” (Buck Institute). Project-based learning is also an effective approach for teaching power skills, as it allows students to apply abilities in authentic, real-world contexts, but still in the classroom setting (Terada, 2021). Projects can be designed to emphasize specific skills, such as collaboration or creativity, and can be interdisciplinary in nature. Spencer (2019) explains, “When students engage in PBL, they experience the sheer joy of learning. They are able to hit a state of creative flow and learn that there’s something deeply profound about creativity. They become self-directed, independent thinkers.” PBL is not only engaging for students, but it also encompasses a wide range of benefits, including the development of key power skills. Spencer discusses the following benefits of engaging in PBL:

1. **Meaningful Collaboration:** PBL provides opportunities for students to work collaboratively on projects, improving their collaborative skills and fostering

meaningful communication (Spencer). Students learn how to engage in collaborative problem-solving, communicate effectively, ask incisive questions, contribute to the team, and provide and receive critical feedback (Spencer).

2. **Multiple Perspectives:** Through PBL, students are exposed to various perspectives and learn to consider nuance and multiple viewpoints (Spencer). Teachers can facilitate this by encouraging students to explore different outlooks, ask diverse questions, and engage in research from various viewpoints (Spencer).

3. **Divergent Thinking:** PBL promotes divergent thinking, allowing students to approach problems from unique perspectives and think innovatively (Spencer). Teachers can foster divergent thinking by providing creative constraints and encouraging students to explore different angles and use materials in unconventional ways (Spencer).

4. **Project Management:** Engaging in PBL helps students develop project management skills, including goal-setting, progress monitoring, adjustment-making, and reflection (Spencer). Students take ownership of the project process, learn to set meaningful goals, and break them down into manageable tasks (Spencer).

5. **Maker Mindset:** PBL encourages a "maker mindset" where students think like designers, artists, and engineers, and value the creative contributions of others (Spencer). Students engage in interdisciplinary creative work, develop empathy, and find new solutions to complex problems (Spencer).

6. **Problem-Solving and Critical Thinking:** Through inquiry, research, and ideation, PBL encourages students to become problem-solvers and critical

thinkers (Spencer). Students learn to view problems from multiple angles, navigate complex systems, and create real-world solutions (Spencer).

7. **Iterative Thinking:** PBL includes a phase for revision, allowing students to test, revise, and iterate their work (Spencer). This fosters a shift toward mastery-based grading and gives students the freedom to make mistakes and improve their work (Spencer).
8. **Growth Mindset:** Engaging in PBL promotes a growth mindset, where students view failure as part of the learning process and embrace opportunities to improve (Spencer). They understand that failing is temporary and focus on continuous growth and improvement (Spencer).
9. **Empathy:** PBL approaches, such as design thinking, help students develop empathy by designing products and solutions that address real-world problems (Spencer). This fosters empathy-driven design thinking and contributes to building a more empathetic society (Spencer).
10. **Metacognition:** PBL encourages metacognition by involving students in planning, monitoring, and reflecting on their learning throughout the entire process (Spencer). Students develop a deeper understanding of their own thinking and learning strategies (Spencer).

PBL in K-12 Classrooms

Implementing PBL in the K-12 classroom can be a transformative experience for both teachers and students. PBL engages and motivates students by connecting their learning to real-world problems and interests, fostering deeper understanding and critical thinking skills. It allows for interdisciplinary connections, promoting a holistic understanding of concepts. PBL is doable with the flexibility in curriculum design, availability of resources and support, integration of technology, and potential for community partnerships. By

embracing PBL, teachers can create a dynamic learning environment that cultivates creativity, collaboration, and problem-solving skills, preparing students for success in the 21st century. De Vivo (2022) explains the key traits of successful PBL opportunities in the classroom.

Purposeful and authentic experiences. PBL lessons should be rooted in purposeful and authentic experiences that are generated by students asking relevant questions. The unit of study should be anchored by driving questions that are feasible to explore and meaningful to students, allowing them to engage with issues beyond the classroom (De Vivo, 2022). PBL emphasizes real-world application, and can help to make the skills learned more meaningful and relevant to students. For example, a business teacher might have students work on a project where they have to use critical thinking and problem-solving skills to develop a marketing campaign for a real company. By providing opportunities for real-world application, students are able to see the value and importance of power skills in their future careers and personal lives.

Alignment with content standards. Well-designed PBL units should be built from content standards, and the projects themselves should deepen student knowledge of core subjects and disciplinary practices. Students should engage with the specific methods and practices of the discipline they are studying, such as using scientific methods in science or analyzing primary sources in history (De Vivo, 2022).

Interdisciplinary learning. PBL lends itself to interdisciplinary learning, allowing students to simultaneously build knowledge and develop skills related to a range of content areas. Students can make connections and integrate knowledge from different subjects during their project-based investigations (De Vivo, 2022).

School culture of collaboration and innovation. Schools that have a culture of collaboration and innovation tend to be the best candidates for implementing PBL

successfully. Trusting relationships and a healthy school climate contribute to the success of both students and teachers in PBL environments (De Vivo, 2022).

High-quality professional learning opportunities. Educators need to be supported with high-quality professional learning opportunities to effectively implement PBL. These opportunities should enable teachers to ground their PBL lessons in evidence-based teaching and learning practices. Examples of such practices include providing strategic and timely feedback to students, creating opportunities for student reflection and revision, and empowering students to share their learning through presentations and public performances (De Vivo, 2022).

PBL Ideas and Examples for Content Areas

Project-based learning opportunities can be adapted and expanded based on specific curriculum and students' interests, which is what makes it an authentic learning experience for students. The key is to provide students with genuine, meaningful tasks that allow them to explore, collaborate, and apply their knowledge and skills in real-world contexts. The following are examples of potential PBL opportunities across the content areas.

1. **English Language Arts**

    - Board Game Design: Based on a novel or short story, design and develop a board game, including creating the game rules, storyline, and artwork (Solomon, 2023).
    - Human Rights: Research a specific human rights issue and create a campaign to raise awareness and advocate for change (Solomon).
    - Creative Writing: students write and revise a short story or novel and receive feedback on their work (Solomon).

2. **Mathematics**

- Student Design Teams and Tiny Houses: Design and create blueprints for custom tiny homes based on clients' needs, incorporating mathematics skills related to measurement and geometry (Solomon, 2023).
- Plan an Accessible Playground: Work with a team to create an accessible playground for the community. Research different playground designs and accessibility needs, and develop a budget for supplies and labor. Finally, choose an area for the playground, and create blueprints with scalable measurements (Solomon).

3. **Science**

- Community Garden: Design and plan a community garden, including selecting plants that can thrive in your community and budgeting (Solomon, 2023).
- Space Exploration: Research and design a mission to explore a planet or moon in our solar system (Solomon).
- Environmental Impact: Research the environmental impact of a particular industry or activity and then create a plan to reduce that impact (Solomon).

4. **Social Studies**

- Mock Trial: Students research and stage a mock trial, playing the roles of attorneys, witnesses, and jurors (Solomon, 2023).
- Cultural Exchange: Learn about different cultures and create a cultural exchange program with a school in another country (Solomon).

5. **Arts**

- Stand-up Comedy: Students learn about stand-up comedy, different styles, strategies, and famous comedians. Students can be given a theme, or they can come up with their own, and perform an original comedy routine (Solomon, 2023).
- Industrial Design: Students design and prototype a new product or piece of furniture. The focus should be on both style and functionality (Solomon).

Peer Collaboration

Collaborative learning activities "is based on the idea that learning is a naturally social act in which the participants talk among themselves. It is through the talk that learning occurs" (as cited in Crockett, 2021). Collaborative learning activities have numerous benefits for students, aiding in their development of power skills and promoting brain development. Collaborative learning involves students working together in groups to complete projects, problem-solve, or create products, and it fosters active engagement, communication, and the exchange of ideas among peers (Crockett).

Collaborative learning contributes to the development of key competencies. These skills include self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Crockett, 2021). Collaborative learning provides opportunities for students to reflect on their actions, seek assistance when needed, and remain motivated during challenges. By teaching social-emotional skills, collaborative learning activities reduce the likelihood of emotional problems and antisocial behaviors (Crockett).

Crockett (2021) highlights several specific power skills that are fostered through collaborative learning activities:

1. **Communication Skills**

Collaborative learning requires students to communicate effectively with their peers to process and synthesize new information. By engaging in discussions, articulating ideas, and actively listening to others, students develop their verbal and nonverbal communication skills (Crockett). Through collaborative projects, students learn to express themselves clearly, ask questions, provide constructive feedback, and engage in meaningful dialogue. These communication skills are vital in both personal and professional contexts, enabling individuals to convey their thoughts, collaborate with others, and build strong relationships (Crockett).

2. **Problem-Solving Skills**

In collaborative learning, students often encounter complex problems that require critical thinking and problem-solving. They must work together to analyze the situation, generate potential solutions, evaluate alternatives, and make informed decisions as a team (Crockett). Collaborative problem-solving activities enhance students' ability to think critically, consider different perspectives, and apply their knowledge and skills to real-world challenges. These problem-solving skills are highly valued in various domains, including academia, business, and innovation (Crockett).

3. **Teamwork and Collaboration**

Collaborative learning fosters teamwork and collaboration, as students work together toward a common goal. They learn to appreciate and leverage the strengths and expertise of their peers, distribute tasks, coordinate efforts, and contribute effectively as a team member (Crockett). Through collaborative projects, students develop skills such as negotiation, compromise, conflict resolution, and shared decision-making. These teamwork skills are essential for success in workplaces that increasingly rely on collaborative and interdisciplinary approaches (Crockett).

4. **Creativity and Innovation**

   Collaborative learning encourages students to explore and generate creative ideas. By engaging in group discussions, brainstorming sessions, and collective problem-solving, students can tap into their creativity and come up with innovative solutions (Crockett). Collaborative projects provide opportunities for students to think outside the box, challenge conventional thinking, and experiment with new approaches. Developing creativity and innovation skills prepares students to adapt to new challenges, embrace change, and contribute fresh perspectives in their future endeavors (Crockett).

5. **Social and Cultural Awareness**

   Collaborative learning exposes students to diverse perspectives and backgrounds. They learn to respect and value the contributions of their peers, fostering social and cultural awareness (Crockett). By working together, students gain exposure to different ideas, beliefs, and experiences, enhancing their empathy, tolerance, and understanding of others. These social and cultural awareness skills are crucial for fostering inclusive and equitable environments, promoting diversity, and collaborating effectively in multicultural settings (Crockett).

Integrating Collaborative Learning Activities in the K-12 Classroom

Collaborative learning activities serve as a catalyst for developing these power skills. By actively engaging with their peers, working on projects together, and engaging in meaningful interactions, students acquire and apply these skills in authentic contexts. These skills go beyond the acquisition of content knowledge and are transferable across various domains and future endeavors (Crockett, 2021). Riel (2022) identifies several collaborative learning strategies that teachers

can use in the classroom to promote active student engagement and meaningful interactions.

Strategy #1: Think/Write-Pair-Share. In this classic collaborative learning strategy, students first spend time individually thinking or writing about a question or problem. Afterward, they pair up with a peer and share their ideas. This process allows students to reflect on their thoughts and prepare for the exchange of ideas. Finally, pairs are asked to share their insights with the whole group, promoting discussion and collective learning.

According to the University of Maryland (2023), the think-pair-share strategy is an active learning and collaborative approach that involves minimal effort and risk. Students engage in independent thinking, share their ideas with a peer, consider their peer's responses, and begin to synthesize the discussion. Although not all pairs may have the opportunity to share their discussion with the entire class, the random selection of pairs ensures that most students are prepared. By requiring students to actively participate rather than passively listen, think-pair-share promotes engagement and active involvement in the learning process.

Strategy #2: Peer Review/Editing. Peer review and editing activities leverage the knowledge and insights of students to support their peers' learning. Peer editing is a valuable practice that involves students reviewing each other's written drafts (University of Maryland, 2023). This process benefits both the editor, who learns to read critically and provide constructive criticism, and the writer, who learns to receive and incorporate feedback.

To effectively implement peer editing, it is important to communicate clear expectations to students. Rather than simply asking them to read and evaluate the writing, specific guidelines can be given, such as identifying a thesis statement and assessing the strength of the writer's evidence. This helps to establish a structured and productive peer editing process in the classroom. Teachers can

scaffold the process by modeling effective feedback strategies and language to maintain a respectful and accountable learning environment.

Strategy #3: Jigsaw Technique. The Jigsaw Technique is a collaborative learning strategy that fosters self- and other-accountability (Riel, 2022). Students are divided into small groups and assigned different pieces of a larger puzzle or topic. Within their groups, they become experts in their assigned area and work together to find a solution. The small groups then report their findings to the whole class. Pairing this activity with a Gallery Walk, where students move around the room and engage with representatives from other groups, further enhances collaboration and understanding of the overall project or task (Riel).

Strategy #4: Group Problem-Solving. Group problem-solving activities involve analyzing case studies or scenarios to understand various elements at play and propose solutions (Riel, 2022). Through collaboration, students draw on their diverse perspectives and experiences to reach a consensus. This strategy promotes critical thinking, conflict resolution, and communication skills. There are many resources that provide case studies geared toward students, and a quick Google search will provide some based on content areas.

Strategy #5: Peer Teaching. Peer teaching is a highly effective method for both the student who takes on the role of the teacher and for the learner (University of Maryland, 2023). Tutoring is one example of peer teaching, where a more knowledgeable student guides the learning of another student. This can be a casual discussion where the student explains a concept or clarifies any misunderstandings. Supplemental instruction, on the other hand, involves receiving extended guidance from a secondary source, such as a tutor, throughout an entire course (University of Maryland). Presentations are another form of peer teaching, where students are tasked with effectively communicating course material to their peers. It is emphasized that this goes beyond simply restating

content or summarizing readings, requiring students to actively engage with the material and present it in a meaningful way (University of Maryland).

Although there may be some reluctance by teachers to implement collaborative learning activities, the University of Maryland (2023) highlights that when carefully planned, collaborative learning can fulfill various goals. It promotes active learning, recognizing that teaching is also a form of learning and encourages peer teaching. By adopting a heterogeneous approach, it supports multiple learning styles and engages students in diverse activities such as writing, discussing, editing, listening, synthesizing, and gathering findings from peers (University of Maryland). Collaborative learning challenges the traditional passive learning model and fosters metacognition, prompting students to reflect on how they learn (University of Maryland).

The University of Maryland (2023) also provides the following guidance for successfully implementing collaborative learning activities in the classroom:

- Focus discussions by posing questions or introducing topical conflicts.
- Organize groups with a purpose. "Have a learning objective in mind: Would it make more sense to assign groups randomly, to allow peers to organize themselves into groups, to place students together with those whose performance has been similar?" (University of Maryland). It's important to have a rationale for grouping decisions, rather than just arbitrary choices.
- Establish accountability by requiring a product from group work, even if it's a brief summary of discussions.
- Consider assigning roles that distribute work rather than appointing a single leader. For example, consider "roles that share work (e.g., facilitator, recording secretary, spokesperson)" (University of Maryland).
- For long-term projects, request reports at regular intervals.

- Accommodate student schedules by allowing face-to-face meetings during class time.
- Avoid overusing collaborative learning and maintain a balance with other teaching methods.
- Always provide a grading rubric for collaborative projects that will be assessed.

Feedback and Reflection

Providing feedback and opportunities for reflection is another important strategy for both teaching and assessing power skills. Teachers can give students feedback on their use of power skills in various contexts, and encourage them to reflect on their strengths and areas for improvement (OECD, 2021). By providing regular feedback and opportunities for reflection, students are able to monitor their progress and work toward improving their power skills over time (OECD).

Cross-Disciplinary and Experiential Learning

To prepare students for the future of work, education should emphasize cross-disciplinary learning and experiential approaches. Encouraging students to explore diverse subjects and engage in real-world problem-solving exercises promotes critical thinking, collaboration and adaptability (WEF, 2023). By incorporating cross-disciplinary learning experiences, students gain a holistic understanding of complex issues and develop the ability to apply knowledge and skills across different domains. Experiential learning, such as internships, apprenticeships, and project-based assignments, allows students to gain practical experience and develop problem-solving skills in real-world contexts (WEF, 2023).

Educators can collaborate with industry partners to offer these opportunities, enabling students to gain practical experience, apply classroom knowledge, and develop essential skills such as collaboration, communication, and problem-

solving. Experiential learning also nurtures students' professional networks and helps them understand workplace dynamics, enhancing their employability.

Assessing Power Skills

Assessing power skills is a complex task due to the inherent nature of these skills and the challenges associated with measuring them accurately (Schock, 2019). Power skills encompass a range of personal attributes, attitudes, and behaviors that are subjective in nature. Unlike hard skills that can be quantitatively measured, power skills require a more qualitative and nuanced approach. Assessing power skills involves evaluating individuals' abilities to effectively communicate, collaborate, problem-solve, demonstrate empathy, and exhibit leadership qualities, among others. These skills are highly context-dependent, meaning they may be expressed differently in various situations and environments. As a result, assessors need to consider the specific context in which these skills are being demonstrated and take into account individual differences and cultural factors that may influence their manifestation. Additionally, power skills are often interrelated and interconnected, making it challenging to isolate and assess them individually. The subjectivity and complexity involved in evaluating power skills necessitate the use of diverse assessment methods, such as observation, self-assessment, peer assessment, and qualitative analysis, to provide a comprehensive and accurate assessment. In addition, there have been some assessment instruments created as well. Assessing power skills requires a deep understanding of the skills themselves, the context in which they are being assessed, and the ability to make informed judgments about individuals' proficiency in these skills.

Performance Assessments

Performance assessment is an educational evaluation approach that involves students directly demonstrating their knowledge and skills through tasks that are

open-ended in nature (Maier et al., 2020). These tasks can include constructing answers, producing projects, or performing activities. The demonstration of learning can take various forms, such as generating a short written response, writing an analytical essay, conducting a science investigation, creating a curated portfolio of work, or developing an original research paper.

Performance assessments offer teachers a powerful tool for appraising students' power skills and promoting their development. By engaging in performance assessments, students have the opportunity to demonstrate deeper learning competencies, develop communication and presentation skills, enhance their college and career preparation, and cultivate social-emotional skills (Maier et al., 2020). Teachers can leverage performance tasks to create meaningful learning experiences that empower students, encourage reflection and growth, and prepare them for future success.

Performance Assessment Cases in K-12 Schools

In the Los Angeles Unified Linked Learning pathways, students assembled graduation portfolios that represented their academic preparedness, work readiness, and personal accomplishments (Maier et al., 2020). This process enabled them to tackle complex problems, connect their learning across subjects and school years, and reflect on their learning trajectory (Maier et al.). Students found the opportunity to reflect on their four years of high school meaningful and believed it provided a more accurate representation of their learning compared to standardized tests. The performance assessment allowed students to communicate their academic growth, fortify their knowledge, and showcase their understanding, unlike random guessing on a test (Maier).

In the Pasadena Unified district, students engaged in the senior defense process, which involved demonstrating research and problem-solving skills, celebrating achievements, and connecting their work to real-world contexts (Maier et al.,

2020). This process empowered students to become more aware of their individual strengths and challenges while identifying strategies to support their ongoing learning; they also developed communication and presentation skills through the defense presentations, building their public speaking confidence and the ability to ask and answer questions (Maier). English learners particularly benefited from this experience, as it provided them with opportunities to enhance their communication skills.

Oakland Unified students participated in a graduate capstone that emphasized authentic, community-based research and civic engagement (Maier et al., 2020). This experience enabled them to develop important analytic skills, including developing coherent arguments, considering multiple perspectives, citing relevant evidence, and evaluating source bias (Maier). Students selected socially and personally relevant topics and became experts on their chosen issues. Through this process, they enhanced their communication skills, teamwork, and project management abilities.

The use of performance tasks also contributes to students' college and career preparation. Students in all three districts reported feeling more ready for the future demands of college and career due to the increased academic rigor and the sharpening of skills aligned with their industry pathway themes (Maier et al., 2020). The performance assessments helped students draw connections between their high school learning and their postsecondary plans, emphasizing the acquisition of technical skills relevant to their chosen career paths (Maier).

Furthermore, performance assessments provide an opportunity for students to develop social-emotional skills. Students in all three districts found the process challenging but recognized the personal growth that resulted from perseverance, creative problem-solving, and a growth mindset (Maier, 2020). Teachers incorporated skill development into the instructional process, emphasizing

reflection and improvement. Students felt a sense of pride and accomplishment upon completing the performance tasks, which enhanced their self-confidence and belief in their capabilities.

Grading Performance Assessments

According to Maier et al. (2020), the evaluation of performance assessments involves aligning curriculum, instruction, and assessment practices across subjects and grade levels within schools. Educators who view performance assessment as a crucial element of teaching and learning adjust their instruction to develop students' skills in preparation for the culminating performance assessment. Teachers often start with the final defense presentation and then plan backward to ensure students are well-prepared to select rigorous artifacts, develop research products, and present their work (Maier et al.).

For example, in Oakland Unified, teachers modify their instruction to match the expectations outlined in district rubrics and professional learning sessions (Maier et al., 2020). Even teachers in younger grades align their instruction with the expectations of the graduate capstone project. They assign more interdisciplinary projects, research papers, and opportunities for students to present their work to peers to build the necessary skills for completing the graduate capstone. The alignment of curriculum and instruction does not occur in isolation. In some cases, team members within a Linked Learning pathway meet regularly across grade levels to support these practices, allowing students to engage in interdisciplinary projects each year leading up to the graduate capstone (Maier et al.). Additionally, certain teachers rotate from teaching seniors to teaching younger grades, leveraging their graduate capstone experience to support the vertical alignment of the curriculum (Maier et al.).

Similarly, in Los Angeles Unified, teachers develop vertically aligned interdisciplinary curricular unit maps, projects, lessons, and instructional

strategies that progress from lower grades to the portfolio and defense in 12th grade (Maier et al., 2020). They use backward mapping, considering the objectives and demands of the culminating portfolio and defense, to design lessons aligned with the end goal (Maier et al.). In Pasadena Unified, educators recognize the need for more opportunities for students to engage in oral presentations, writing and research projects, creative activities, and reflection. They reexamine Common Core standards and emphasize literacy skills in content areas, expanding the responsibility beyond English teachers (Maier et al.). This process prompts discussion and dialogue to ensure instructional practices align with the desired goals for students' four-year educational journey.

Overall, backward mapping and aligning instructional practices across grade levels and subjects, with a focus on preparing students for a culminating performance assessment, have the potential to drive instructional change and improve educational practices.

Digital Badging & Playlists

Digital badging provides a means to measure and recognize real-life skills beyond traditional academic subjects (Hamm, 2018). Unlike test scores or graduation ranks, badges are awarded only when students successfully achieve meaningful goals, providing more comprehensive information to teachers, employers, and others. Badges can acknowledge and showcase skills such as professionalism, innovation, enthusiasm, and cooperation, extending beyond the boundaries of the classroom because learning happens everywhere.

Digital badging has gained popularity, and organizations like LRNG.org are leveraging badging principles to create connected learning experiences (Hamm, 2018). For example, LRNG.org offers a badge playlist example called "Workplace Professionalism," and completing this playlist signifies that the user has been trained in strategies and skills essential for effective workplace functioning,

including teamwork, communication, professionalism, time management, and knowledge of appropriate workplace attire (Hamm). A playlist consists of "a curated group of learning experiences (XP) and resources stitched together into a compelling media-rich narrative around a common theme" (as cited in Hamm). Once the playlist is successfully completed, students can earn the badge. The badge serves as a clear indication of the achievement in whatever the theme is, in LRNG.org's case, Workplace Professionalism. Unlike intangible skills that are often assumed among professionals, the badge provides verifiable evidence of the effort put in by the individual.

Digital badging allows for the recognition of various learning experiences that have shaped an individual, whether they are school-connected or outside of the traditional academic context (Hamm, 2018). It goes beyond the typical certificates, diplomas, and licenses, providing a virtual letter jacket where areas of skill development can be stitched together to create a visible outline of professional and personal achievements. This power of digital badging lies in its ability to recognize and showcase a broader range of accomplishments and skills, empowering individuals with a comprehensive representation of their achievements (Hamm).

Research-Based Instruments

Although some educators argue that multiple choice assessments are not the way to measure student power skills, companies are still developing such instruments to do so. The Regional Education Laboratory [REL] (2019), discusses research-based measurements to assess power skills, with the hope of providing teachers with valuable tools to identify and improve their students' soft skills. REL mentions that research organizations such as the RAND Corporation and CASEL have compiled information about measures of key soft skills, and REL compiled a

list of instruments for assessing soft skills that can help educators identify students' strengths or challenges with such skills.

ACT Tessera Mental Toughness Scale for Adolescents

The ACT Tessera Mental Toughness Scale for Adolescents is an assessment that focuses on power skills, including grit/responsibility, teamwork/cooperation, composure/resilience, curiosity/ingenuity, and leadership/communication style. It is completed online by students, and sample items include statements like "I finish my homework assignments before they are due" and "After studying hard, if I don't do as well as I hoped, I am likely to look over the items I missed to learn from them" (REL, 2019). The target grade levels for this assessment are grades 6-12 (REL).

Behavioral and Emotional Rating Scale–Second Edition (BERS-2)

The BERS-2 is an assessment that focuses on interpersonal strength, family involvement, school functioning, affective strength, and career strength (REL, 2019). It is available in paper and pencil format, with self-report forms for students. The teacher rating scale includes sample items such as "Maintains positive family relationships," "Accepts responsibility for own actions," "Pays attention in class," and "Identifies own feelings" (REL). The target grade levels for this assessment are grades 5-12.

Devereux Student Strengths Assessment (DESSA)

The DESSA is an assessment that measures various focal categories of power skills, including self-awareness, social awareness, self-management, goal-directed behavior, relationship skills, personal responsibility, decision making, and optimistic thinking (REL, 2019). It can be completed in paper or online format by parents or guardians, teachers, or staff. Sample items include statements like "Try

to do her/his best?" and "Cope well with insults and mean comments?" (REL). The target grade levels for this assessment are grades K-8.

EPOCH Measure of Adolescent Well-Being

The EPOCH Measure of Adolescent Well-Being is an assessment that focuses on engagement, perseverance, optimism, connectedness, and happiness (REL, 2019). It can be completed in paper form or online, and it is self-report and self-scored. Sample items include statements like "I finish whatever I begin," "I am optimistic about my future," "I am a hard worker," "In uncertain times, I expect the best," "I get completely absorbed in what I am doing," and "I have friends that I really care about" (REL). The assessment is free after registering online, and the target grade levels are not specified (REL, 2019).

Holistic Student Assessment (HSA)

The Holistic Student Assessment (HSA) is an assessment that focuses on three main categories: resiliencies, relationships, and learning & school engagement (REL, 2019). It can be completed in either paper or online format and follows a self-report format. Sample items include statements like "I like being active and moving my body," "I stand up for things that matter to me," "I like to figure out how things work," and "When I try to accomplish something, I achieve it" (REL). The target grade levels for this assessment are grades 4-12.

Strengths and Difficulties Questionnaire (SDQ)

The Strengths and Difficulties Questionnaire (SDQ) is an assessment that measures emotional problems, conduct problems, hyperactivity, peer problems, and prosocial behavior (REL, 2019). It can be completed in either paper or online format and includes self-report, teacher report, and parent report components. Sample items include statements like "Nervous or clingy in new situations," "Constantly fidgeting or squirming," "Often fights with other children," "Shares

readily with other children," and "Kind to younger children" (REL). The target grade levels for this assessment are grades K-12 (REL).

Section 3 Key Terms

Backward Mapping/Planning - An instructional design approach that involves starting with the desired learning outcomes or goals and then working backward to determine the necessary steps, resources, and assessments needed to achieve those outcomes.

Divergent thinking - The ability to generate multiple ideas, solutions, or possibilities in response to a problem or challenge, encouraging creativity and innovative thinking.

Explicit instruction - A research-based teaching method that provides structured and direct guidance to learners, explicitly teaching specific skills or concepts and modeling their use in real-world contexts.

Integrated instruction - An approach to teaching that incorporates the instruction of power skills across different subject areas or disciplines, allowing students to develop and apply these skills in diverse contexts.

Project-based learning (PBL) - A teaching method in which students engage in an extended period of investigation and response to an authentic, complex question, problem, or challenge, allowing them to gain knowledge and skills through hands-on projects.

Scaffolded instruction - A teaching approach that provides structured support and gradually reduces guidance as students gain proficiency in the targeted skills, allowing them to develop independence and transfer the learned skills to different contexts.

Transferability - The ability to apply knowledge, skills, or concepts learned in one context or subject area to another, allowing individuals to adapt and use their skills effectively in different situations.

Vertical Alignment - Refers to the intentional coordination and coherence of curriculum and instruction across different grade levels or educational stages.

Section 3 Discussion Questions

1. How can integrating power skill instruction across the curriculum address interdisciplinary challenges and prepare students for real-world problem-solving?
2. How do you envision incorporating power skill instruction into your specific content area? What specific activities or assignments can you implement?
3. What challenges do you anticipate when implementing PBL in your K-12 classroom, and how do you plan to address them?
4. Research-based instruments have been developed to assess power skills. What are the advantages and limitations of using standardized assessments to measure students' soft skills?
5. How can teachers integrate the use of research-based instruments and digital badging with performance assessments to create a comprehensive and accurate assessment of students' power skills?

Section 3 Activities

1. **Assess Yourself:** Using CASEL's *Educator's Self-Assessment* and *SEL in the Classroom Self-Assessment*.

a. Educator's Self-Assessment: Use this self-assessment to track your use of SEL integration strategies in your practice. Make note of which strategies you wish to learn more about and use more often.

b. SEL in the Classroom Self-Assessment: Use this self-assessment to assess your strengths and areas of improvement for teaching SEL through explicit instruction, academic integration, and classroom climate.

2. **Integrate:** Using your results from 1a and 1b, take an existing lesson plan or one that you would like to use in the future, and add an SEL skill component to it. You can focus on any of the SEL competencies, as long as it is integrated into the lesson.

3. **Learning Objectives Development:** Develop clear learning objectives for teaching power skills in your subject area. You can identify specific skills you want students to acquire and articulate measurable goals aligned with desired social-emotional outcomes, as they relate to your lessons.

4. **Lesson Plan Revision:** Review some existing lesson plans and identify opportunities to integrate peer collaboration opportunities. You can modify activities, assignments, or assessments to incorporate these skills.

5. **Student Reflection Activities:** Design reflective activities for students that promote self-awareness and metacognition of their own power skill development. This can include journaling prompts, group discussions, or self-assessment exercises where students reflect on how they applied power skills in a specific lesson or project.

6. **Power Skills Resources Compilation:** With your colleagues or independently, curate a compilation of resources, such as articles, videos, or websites, that provide guidance on integrating power skills into different

subject areas. This should be a list of resources that you and your colleagues can refer to for ideas and inspiration.

Conclusion

Power skills have emerged as critical attributes for success in today's rapidly evolving world. As employers increasingly prioritize these skills over technical expertise, it is essential for educators to recognize their significance and prioritize their development in students. This course aims to equip teachers with the necessary knowledge and tools to effectively teach power skills in their classrooms. By providing an overview of power skills, exploring their importance in education and the 21st-century workplace, discussing the changing world of work and the role of teachers, and providing practical strategies for teaching and assessing these skills, this course offers a comprehensive approach to empowering students with the abilities they need to thrive academically, professionally, and personally. By embracing power skills education, teachers can play a vital role in preparing the next generation for success in an ever-changing world.

Case Study

Mrs. Lima, a high school English teacher, has assigned her students a group project to analyze a novel and present their findings to the class. The project requires students to work collaboratively in teams of four and prepare a comprehensive presentation highlighting key themes, character development, and literary devices used in the novel.

During the initial stages of the project, Mrs. Lima notices that one of the teams, consisting of Amy, Mark, Sarah, and Tom, is facing significant challenges in their collaboration efforts. They are struggling to effectively communicate, distribute

tasks, and meet project deadlines. The team members frequently clash over differing ideas and have difficulty finding common ground for their presentation. Mrs. Lima realizes that improving their power skills is essential to help them overcome these obstacles and achieve success in their project.

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