Module 8: Opportunities for Skill Building Research Review

Skill building is an individual's opportunity to cultivate certain skills by taking part in intentional learning activities (Yohalem & Wilson-Ahlstrom, 2010). Skill building is important for everyone, but it is particularly important for youth as they learn to become independent and contributing members of society. The positive experience of learning and mastering new skills benefits youth by building physical, academic, social, and emotional competencies, preparing them for the future job market and providing them with a sense of competency and self-esteem (Lee, Borden, Serido, & Perkins, 2009). Youth programs that are intentional about creating a learning environment play an important role in youth skill building because these programs provide youth with the opportunity to explore new fields, develop personal interests, and connect with the real world (Eccles & Gootman, 2002; Schwarz & Stolow, 2006). In fact, when evaluating a youth program, it is essential to consider the types and extent of opportunities for skill building that are provided to youth (Yohalem & Wilson-Ahlstrom, 2010). Integrating skill building into youth programs brings numerous benefits to participating youth, and youth's motivation and engagement with programs are enhanced if they recognize that they can develop skills that could be useful in the future (Dawes & Larson, 2011).

What is Skill?

Skills are different from knowledge. Knowledge refers to factual information and theoretical concepts that can be acquired through numerous approaches, including reading, listening, observing, and touching. Skills, on the other hand, are a person's ability to apply learned knowledge. For instance, someone may know all the rules and techniques of the game of football (i.e., knowledge) but still not be able to play well (i.e., skill) because building a skill takes not only knowledge but also practice and often trial-and-error.

Skills can traditionally be categorized into hard skills and soft skills (Laker & Powell, 2011). Hard skills (technical skills) are the specific expertise necessary to succeed in certain activities such as playing sports, cooking meals, or operating machines. Soft skills (interpersonal and intrapersonal skills), on the other hand, are the social and emotional abilities needed to interact with other people and manage oneself (e.g., leadership skills, problem solving skills). Both hard and soft skills are important for positive youth development; therefore, a high-quality youth program must foster both types of skills.

Theoretical Foundations of Youth Skill Building

The theoretical foundations of youth skill building are evident in Vygotsky's zone of proximal development theory, the theory of multiple intelligences, the framework of 21st century skills, and the theory of different learning styles. The first three theories illustrate what skills need to be integrated into youth skill-building programs, and the last explains how these skills can be delivered to youth.

Vygotsky's Zone of Proximal Development

The zone of proximal development (ZPD) refers to tasks that learners cannot complete on their own but can complete with assistance (Vygotsky, 1978). Between the tasks that learners can do unaided and the ones that are beyond their ability, tasks in the ZPD provide learners with the best opportunity to advance skills balancing challenge and a sense of achievement. The theory

states that the goal of education is to provide students with the right learning experience that is within their ZPD. The teacher's role is to provide just enough assistance so that students can complete tasks that they cannot otherwise complete and so that eventually they will learn to complete the tasks independently (Wass & Golding, 2014). The theory also emphasizes the importance of collaboration and suggests that children and adolescents may be able to achieve better learning results when they are challenged by capable peers (Goos, Galbraith, & Renshaw, 2002; Vygotsky, 1978). In addition, instructors should not teach students equally but tailor learning materials and assistance to each student's learning level (Murray & Arroyo, 2002).

The Theory of Multiple Intelligences

The theory of multiple intelligences suggests that rather than one general intelligence (i.e., general mental ability), there are nine different types of intelligence: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, naturalist, and existential (Gardner, 2013). An individual may do well in certain domains but may do poorly in other domains. United States schools and culture have a tradition of emphasizing linguistic and logical-mathematical intelligences while overlooking the others; however, the theory of multiple intelligences suggests that equal attention should be given to individuals who possess different intelligences such as athletes, musicians, dancers, and farmers (Gardner, 2013). In the context of youth skill building, the theory suggests that it is important to value the uniqueness of each individual, helping them excel in the areas for which they show talent and providing greater support in areas that are difficult for the individual. In addition, youth may be most motivated to achieve positive outcomes if they have the freedom to choose and learn the skills that most interest them (Linkins, Niemiec, Gillham, & Mayerson, 2015).

21st Century Skills

The framework of 21st century skills provides guidelines for skills and abilities that are required for students to prepare for the 21st century job market and society (Binkley et al., 2012). Besides the fundamental subjects (e.g., English, science, and economics) and basic skills (reading, writing, and mathematics) traditionally taught in schools, the following skills are identified by education experts, employers, and academics as critical for both work and life success in the 21st century: (1) learning and innovation skills, (2) information, media, and technology skills, and (3) life and career skills (Partnership for 21st Century Learning, 2015). Learning and innovation skills focus on creativity, critical thinking, problem solving, and learning new information, which are all important skills to navigate the complex work and social environments of modern society. Information, media, and technology skills are essential in the modern digital age because they make it possible to access and manage information, analyze and use media, and master new technologies efficiently. Finally, life and career skills include adaptability, self-motivation, accountability, leadership, and understanding of the society and different cultures (Partnership for 21st Century Learning, 2015). Youth programs may consider integrating aspects of the 21st century skills framework into their curriculum to help youth prepare for the future society and job market.

The Theory of Different Learning Styles

Learning styles are unique ways an individual focuses on, manages, obtains, and retains new information (Dunn, Griggs, Olson, Beasley, & Gorman, 1995). Each person learns differently and has his or her own unique learning style. For example, when learning to build a Lego castle, some people prefer to read instructions, some like to observe how other people do it, and still others learn by actively building through trial and error. The Dunn and Dunn learning style model (Dunn et al., 1995) listed five domains that may affect an individual's learning: environmental (e.g., light, seating), emotional (e.g.,

motivation, task persistence), sociological (e.g., alone, with peers), physiological (e.g., visual, auditory), and psychological (e.g., analytic, global). Among these domains, the physiological domain is most well-studied, and it includes visual, auditory, reading/writing, and kinesthetic learning styles (VARK; Fleming & Baume, 2006). Visual learners prefer learning from graphs, maps, and other visual materials. Auditory learners, on the other hand, like to listen to speeches and lectures. Reading/writing learners are best able to learn new information through printed words. Lastly, kinesthetic learners learn by actively trying out the information with various senses. Some people favor one learning style, whereas others prefer multiple learning styles (Fleming & Baume, 2006). The theory of different learning styles has important implications in terms of youth skill building. The best learning results may be achieved if instructors adapt to each youth's learning style and combine and balance different teaching techniques (Dunn et al., 1995; but see Willingham, Hughes, & Dobolyi, 2015).

Skill Building and Youth Development Outcomes

It is particularly important to integrate skill building into youth programs because skill building is related to numerous positive youth development outcomes such as good grades, good physical health, and good interpersonal relationships. Moreover, youth's motivation and engagement with youth programs are enhanced if they know that they will have the opportunity to develop skills that can benefit them now and in the future (Dawes & Larson, 2011). The following section reviews the positive effects of skill building on youth development in four domains: physical, academic, social and emotional, and future career.

Physical Outcomes

The benefits of physical activities on youth's physical health are well documented; however, most young people do not meet the minimum level of physical activities suggested by public health guidelines, which indicate that 60 minutes of moderate-to-vigorous-intensity aerobic activities are needed per day (Hallal et al., 2012). Youth programs, in addition to physical education classes offered at schools, may be the ideal settings to provide children and adolescents with additional opportunities to stay active and develop physical skills (Beighle et al., 2010). Sports programs, in particular, are designed to increase youth's physical activity level and motor skill competency (Anderson-Butcher, Riley, Iachini, Wade-Mdivanian, & Davis, 2011). Youth programs that promote physical skill building can reduce youth's body mass index, encourage healthy diet behaviors, and lead to better quality of sleep (Taverno Ross, Dowda, Colabianchi, Saunders, & Pate, 2012; Weintraub et al., 2008).

Academic Outcomes

Offering academic assistance to students after school is an important role for youth programs. Academic assistance is often offered in the forms of homework help and tutoring and generally caters to students who cannot receive enough academic help at school or home (Fredricks & Simpkins, 2012; Holstead, Hightower King, & Miller, 2015). Most research demonstrates that youth programs with an academic focus can significantly increase youth's school grades and academic achievements (Durlak, Weissberg, & Pachan, 2010; Holstead et al., 2015; but see James-Burdumy et al., 2005). In addition, high-quality youth programs that offer academic assistance are especially helpful for low-income and at-risk youth in terms of increasing reading and mathematics skills and reducing school dropout rates (Fredricks & Simpkins, 2012; Lauer et al., 2006).

Social and Emotional Outcomes

The original purpose of many youth programs was to nurture children's and adolescents' social and emotional growth through adult-guided activities (Durlak et al., 2010). Social skills that are

important for positive youth development include but are not limited to communication, relationship development, teamwork, leadership, and conflict resolution skills. Emotional skills, on the other hand, refer to self-awareness, self-management, and responsible decision-making (Greenberg et al., 2003). There is extensive evidence that youth can learn social and emotional skills by participating in youth programs (Durlak et al., 2010; Hansen, Larson, & Dworkin, 2003; Lee et al., 2009). For example, a meta-analysis summarizing 75 youth programs found that these programs significantly increased participants' self-confidence and prosocial values and reduced their conduct problems (Durlak et al., 2010). This is likely due to the fact that the organized activities of youth programs can provide young people with the opportunity to develop their identity, achieve goals, and collaborate and connect with one other (Hansen et al., 2003).

College Planning and Career Outcomes

High school students usually have different motivations for attending youth programs than children and younger adolescents, and one common motivation is the desire to develop life skills that will help them make the transition between high school and college or a career (Holstead et al., 2015). Some youth programs teach students important life skills such as goal setting, accountability, communication, collaboration, and social responsibility; other programs offer students assistance with test preparation, college applications, resume writing, and job searches (Brunelle, Danish, & Forneris, 2007; Holstead et al., 2015). Participants in such programs are more likely to pass standardized tests, graduate from high school, get into college, and find work (Barr, Birmingham, Fornal, Klein, & Piha, 2006; Holstead et al., 2015). More importantly, these programs build the connection between school and the larger world, help students to see the bigger context beyond their school and community, and teach them the much needed perspectives and life skills that will help them succeed in the future (Halpern, 2006).

Methodological Considerations

Several methodological issues need to be considered when studying the literature on opportunities for skill building in youth programs. First of all, most research and evaluation reports on skill building in youth programs only vaguely indicated that the activities of skill building had occurred (e.g., tutoring; Lauer et al., 2006). Without detailed descriptions of the methods of intervention or accurate measures of the duration and intensity of the skill-building activities, it is hard to evaluate and compare the effectiveness of different programs or to make specific recommendations on the best practice of skill building activities. In addition, youth's skill levels before participating in youth programs were not measured in most studies, so the effect of youth programs on skill building cannot be directly calculated (Durlak et al., 2010). Pre- and post-scores on youth development outcomes need to be collected in future studies. Furthermore, the retention of skills learned in youth programs is unknown because few studies collected follow-up data on skill building (Durlak et al., 2010). Therefore, caution must be taken when considering the long-term effect of skill building on youth development. Future research is needed to examine the durability of any improvements achieved through participation.

Implications for Youth Programs

In order to provide youth with the best opportunities to build skills and achieve positive development outcomes, youth programs need to incorporate findings from current research and use evidence-based practices (Durlak & Weissberg, 2007). The following implications can inform how youth programs may better help youth develop and improve their skills.

First, it is important to intentionally integrate skill building into youth programs. Youth programs need to be explicit about what skills they want students to learn, devote sufficient time and energy to implement the activities, set clear learning goals, and encourage youth to participate (Durlak & Weissberg, 2007). Youth programs should also focus on their skill-building goals throughout the process of programs.

Second, it is best to involve youth, especially older youth, in the decision-making process and to let them choose skills that are the most interesting to them. Such youth-adult partnership has been proven valuable for promoting positive youth development and skill building (Zeldin, Christens, & Powers, 2013). For example, positive associations have been found between youth's involvement in program decision-making and youth's motivation to participate in such programs (Akiva, Cortina, & Smith, 2014). Moreover, youth whose opinions are valued in the program decision-making process are more likely to develop problem-solving efficacy and expression efficacy, which are both important life skills for future success (Akiva et al., 2014).

Third, a variety of programs and skill-building opportunities need to be provided to students in multiple formats in order to meet the needs of different learners. As mentioned earlier, every youth has his or her own ZPD, unique combination of intelligences, and different learning styles (Dunn et al., 1995; Gardner, 2013; Vygotsky, 1978). For instance, some students like to listen to lectures, some like to read and write notes, and others prefer to actively try out new things. In order to cater to every youth's needs, youth programs may design skill building activities in various formats and combine traditional learning activities, such as lecturing and reading, with hands-on practice. Moreover, it is best to understand each participant's skill level and personal interest and offer them lessons accordingly.

Last but not least, it is important to train youth workers so that they can better facilitate the skill-building process. A qualified youth worker can demonstrate and model effective hard and soft skills that they want youth to learn. Moreover, youth are more likely to enjoy a program if they can learn from the youth workers in the program (Diversi & Mecham, 2005). Youth workers need to know how to build positive relationships with youth because having a good connection with youth workers and feeling secure may enhance youth's other outcomes, including skill building (Lee et al., 2009).

Conclusions

Overall, the opportunity for skill building is an important component to consider when designing and evaluating youth programs (Eccles & Gootman, 2002). Theoretically, the best skills to teach youth in youth programs are the ones within youth's ZPDs, suit youth's individual strengths and interests, and help youth to succeed in 21st century society and the job market. It is essential to integrate skill building into current youth programs because research has demonstrated its benefits on positive youth development in several domains, including good physical, academic, social and emotional, and career outcomes. In addition, offering the opportunity for skill building may also increase the engagement and motivation of youth program participants. In order to help youth gain useful skills, youth programs need to intentionally integrate skill building into their curricula, take youth's opinions into consideration by actively involving them in the decision-making process, train youth workers so that they can model the skills themselves and build good relationships with the youth, and deliver learning materials to youth in multiple formats to meet the learning styles of different people. In sum, youth programs and policy makers should attend closely to the needs of youth to develop skills, and more well-designed research is needed to determine the best practice of skill-building activities in youth programs.

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Appendix A

Glossary of Terms

Positive youth development: a strengths-based, holistic approach to studying and working with youth that focuses on promoting healthy development. Positive youth development research and practice tends to emphasize environmental rather than internal influences on development, altering systems that may foster positive and healthy youth development. In research and practice, the term “positive youth development” may refer to a developmental process, an approach to youth programming, or a specific program or organization.

Youth programs: programs that foster youth’s personal development (e.g., social, ethical, emotional, physical, and cognitive competencies), participation, and empowerment while fostering relationships between supportive adults and young people. Youth programs are diverse in their structure, goals, and the youth they serve. These programs may be referred to as after-school, out-of-school, and/or youth programs; throughout this report the term “youth program” refers to any of these programs.

Youth workers: volunteers and paid staff, including administrators and individuals engaged in direct service, who engage in youth development work in a variety of settings and programs outside the regular school day. Similar terms include youth development professionals, after-school providers, and youth leaders. For the purpose of this paper, the term "youth worker" will be used to describe all professionals who work in youth programs.

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