4-H Youth Development Professionals' Perceptions of Youth Development Core Competence

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The purpose of this descriptive study was to assess the perceived level of competence among 4-H Youth Development Agents from a Southern state in the United States. The findings will be used to identify gaps in and opportunities for professional training and development experiences in supporting the competence and growth of youth professionals. Based on the 4-H Professional Research, Knowledge, and Competency Model (Stone & Rennekamp, 2004), youth development professionals rated their youth development competence in nine youth development core competency areas. Utilizing a five-point Likert-type scale ranging from 1=no knowledge to 5=expert, youth development professionals rated their youth development competence ranging from 3.12 to 3.54. According to an interpretive scale, youth development professionals rated their competence as intermediate. Staff felt most competent in the areas of current youth issues, career opportunities for youth, and family structures/relationships. Staff felt least competent in the area of mental development of youth. No one identified themselves as an expert in the areas of psychological development, emotional development, and current youth issues.

Keywords: core competence, core competency, youth development professionals, youth development, career, mental development, psychological development

Introduction

Over the past three decades, practitioners have witnessed noteworthy elevation of professionalization within the field of youth development. The expectations and standards have advanced from the relatively passive observation of watching children to the more active approach of engaging youth in enhanced positive youth development programs. The positive youth development field is evolving from a social movement to a promising profession with all the opportunities and challenges that accompany the advancement of a new professional discipline (Borden, Craig, & Villarruel, 2004; Borden & Perkins, 2006; Hahn & Raley, 1998). As public investments continue to support positive youth development, the preparation and training of professionals who work in the field is critical. Multiple pathways must exist to

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provide youth development professionals with a comprehensive system of educational experiences to prepare them to meet the needs of young people (Borden & Perkins, 2006).

The motivation to define a profession is traced back to the taxonomic approach — encompassing the work of trait and functionalist writers — in which professions were seen as possessing unique and positive characteristics, including distinctive knowledge and expertise. In his classic article entitled "Attributes of a Profession," Greenwood (1957) utilized an indepth examination of occupational research to distinguish professions from nonprofessions. Two of his distinctive factors that differentiate professions from nonprofessions were a body of systematic theory that supports the profession and professionals who have knowledge and expertise within a field. This taxonomic approach viewed professions as having idiosyncratic, constructive traits including distinguishing knowledge and expertise. To become a recognized profession, advocates need criteria by which to determine their advancement along the pathway toward professional credibility (Sak, 2012). These criteria have become more standardized in some fields and referred to as core competencies.

To progress within a career field, professionals must be knowledgeable in the competencies associated with their position. According to McNamara (1999), competencies are general descriptions of the abilities needed to perform a role within an organization. In comparison, job descriptions typically list the tasks or functions and responsibilities for a role; whereas competencies list the abilities needed to conduct those tasks or functions. Consequently, competencies are used as a basis for training by converting them into learning objectives.

Competency models provide a valuable avenue to clarify what abilities are needed to be an effective professional (Stone, 1997). Contemporary youth development competency models provide a comprehensive overview of the types of abilities and skills needed to be a successful youth development professional. Several competency models for youth development professionals have been developed, including the 4-H Professional Research, Knowledge, and Competency (PRKC) Model (Stone & Rennekamp, 2004); Center for the Study of Child Care Employment (2008); National AfterSchool Association (2011); Next Generation Youth Work Coalition (Starr, Yohalem, & Gannett, 2009); North American Certification Project (Mattingly, Stuart, & VanderVen, 2002); and Vermont Northern Lights Career Development Center (2005). The common domains within these models are 1) child or youth development, 2) program development and assessment, 3) professionalism and organizational systems, 4) diversity, and 5) partnerships and familial relationships. The 4-H PRKC Model contains the additional domain of volunteerism.

The focus of this study is the criteria for the youth development domain. The 4-H PRKC Model's domain of youth development refers to the areas of psychological, emotional, physical, social, and mental development of youth between the ages of 5 to 19; youth issues;

and family relationships. This differs from other models by adding on career development and eight critical elements of positive youth development, which include positive relationship with a caring adult, an inclusive environment, a safe environment, opportunities for mastery, engagement in learning, opportunities to see oneself as an active participant in the future, opportunities for self-determination, and opportunities to value and practice service to others.

Through this structure, youth development professionals understand how to develop age-appropriate experiences and realistic expectations that support positive youth development. The youth development domain stresses youth development theory that informs youth development practice. The similarities within the child and youth development domain of the noted core competency models for youth development indicate the relevance of this study for youth development professionals in a wide range of organizations, agencies, and other settings as noted in Table 1 on the following page.

Critical Role in Youth Development

High quality afterschool and community-based youth development programs can have significantly positive effects on student outcomes. McLaughlin (2000) found that youth who participate in high quality afterschool youth development programs are more likely to develop high self-esteem, gain leadership abilities, and adopt a more positive outlook on learning.

Competent Youth Development Professionals

Youth development professionals who deliver afterschool and community-based programs have an important role in providing opportunities and critical support leading to the growth and development of well-adjusted, healthy youth. Numerous studies have shown a significant connection between positive youth outcomes in youth and high quality youth development professionals providing leadership and support in afterschool and community-based programs (Burchinal, Howes, & Kuntos, 2002; Curry, Qaqish, Carpenter-Williams, Eckles, Mattingly, Stuart, & Thomas, 2009; Gable & Halliburton, 2003; Knoche, Peterson, Pope-Edwards, & Jeon, 2006; Miller & Hall, 2006–2007). In a meta-analysis of almost 200 afterschool program evaluations, Honig and McDonald (2005) discovered that the presence of capable, accessible staff and mentors was linked to positive youth outcomes. Based on extensive research, Noam (2008) identified strong afterschool leaders as one of three essentials—Activities, Curricula, and Learning; Staff Capacity, Training, and Relational Care; and Programmatic Support Structures and Leadership—required to enhance the field of afterschool programs to deliver strong outcomes.

Table 1. Overview of Youth Development Core Competency Models

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Psychological Dev. Emotional Dev. Physical Dev. Social Dev. Mental Dev. Mental Dev. Today's Family Structures and Rels.	Eight Critical Elements of Positive Youth Dev.
4-H Professional, Research, Knowledge, and Competency Model X X X X X X X X X X	X
Achieve Boston Competency Framework X X X X X X X	
Colorado School Age/Youth Development Core Knowledge and X X X X X X X X X X X X X X X X X X X	
Indiana Youth Development Credential Core Competencies X X X X X X X X	
Kansas/Missouri Core Competencies for Youth Development Professionals X X X X X	
Military School-Age Assessment System and Competency Standards X X X X X	
Mott Foundation Core Competencies for Afterschool Educators X X	
National Collaboration for Youth Professional Development Competencies X	
New York City Department of Youth and Community Development X X X X X X X	
North American Certification Project Competencies for Professional Child and Youth Work Practitioners	
Palm Beach County Core Competencies for After School Practitioners $\begin{bmatrix} X & X & X & X & X & X & X & X & X & X $	
Rhode Island Core Competencies for Afterschool and Youth Development X X X X X X X X X X X X	
Washington School-Age Skill Standards X	
Washington STARS X X X X X X X X	

Professional Commitment

Youth development professionals with professional commitment have an impact on high quality afterschool programs. Youth development professionals who have a personal commitment to professionalism are linked to higher quality of youth development programs (Burchinal et al., 2002; Cole & Ferrier, 2009; Gable & Halliburton, 2003; Hartje, Evans, Killian, & Brown, 2008; Knoche et al., 2006).

Educational Levels

Researchers discovered a link between well-trained, educated staff and higher quality experiences for children and youth. In examining what made a difference in achieving academic and youth development outcomes for youth engaged in afterschool programs, Miller (2005) found that the education background of staff and director were linked to positive youth outcomes. Researchers revealed that youth development professionals with higher education levels were more engaged with the youth (Burchinal et al., 2002; Ghazvini & Mullis, 2002). Snider and Fu (1990) found that youth development professionals with higher education levels had more knowledge of developmentally appropriate practice than professionals with lower education levels. Cole and Ferrier (2009) discovered that program quality is reliant upon having a professional staff that has the knowledge and abilities to work with youth successfully. Noam (2008) identified training and technical assistance for staff as one of three elements that enhanced high quality afterschool programs.

Roadblocks to Youth Development Competence

There is broad agreement among youth development researchers, professionals, and policy makers that highly educated, committed, competent youth development professionals play a critical role in supporting youth in achieving positive youth outcomes through afterschool experiences (Greenberg et al., 2003). However, many roadblocks are present that hinder the afterschool and community-based youth development fields from building a quality, constant conduit of youth development professionals (Astroth, Garza, & Taylor, 2004). One major hurdle facing the field of positive youth development professionals is building a competent youth development professional workforce (Starr et al., 2009; Stone & Rennekamp, 2004). A number of studies have discovered that youth development professionals lack the fundamental background knowledge in youth development (Barcelona, Hurd, & Bruggeman, 2011; Curry, McCarragher, & Dellmann-Jenkins, 2005; Levine, 2005), which is not surprising when considering that few higher education academic degrees are available to prepare students for youth development careers (Curry, Richardson, & Pallock, 2011). This shortage of educated, proficient youth development professionals has created what some researchers are calling a workforce crisis (Krueger, 2007; Mattingly & Thomas, 2006).

While recent literature has yielded countless youth development competency frameworks, such as 4-H PRKC Model (Stone & Rennekamp, 2004); Center for the Study of Child Care Employment (2008); National AfterSchool Association (2011); Next Generation Youth Work Coalition (2009); North American Certification Project (2002); and Vermont Northern Lights Career Development Center (2005), very little research has focused on the perceived youth development competence of youth development professionals (Hartje et al., 2008). Utilizing the 4-H PRKC Model, this research is designed to address the issue of skilled youth development professionals by identifying the gaps that exist between the needed and desired core competencies to be a successful, competent youth development professional (Stone & Rennekamp, 2004). By understanding where gaps exist, youth development professionals can get the training needed to be a competent professional, while utilizing limited organizational resources to prioritize and address youth development core competence gaps.

Purpose and Objectives

For the purpose of this study, the youth development domain is defined as applying youth development principles in leading ongoing youth development programs where young people learn and develop in a safe, inclusive environment. The overall purpose of this study was to assess the perceived level of competence among 4-H Agents to guide professional and academic needs of youth professionals and their professional development. The research objectives of the study were to:

- 1. Describe the youth development professionals involved in the 4-H Youth Development Program;
- 2. Determine the perceived level of professional competence of youth development professionals in the area of youth development; and
- 3. Determine if a relationship exists between selected demographic variables and level of perceived youth development competence.

Research Methodology

A census was conducted on the entire targeted population of 4-H Youth Development professionals employed with a Land-Grant University located in the South. Participants were identified using an online personnel directory that included local, regional, and state youth development faculty. Following a review of the State 4-H Youth Development e-mail list by the Associate State Program Leader, faculty no longer with the program and administrators were removed from the e-mail list, resulting in a population of 127 youth development professionals. Because this was an internal organizational study, the Louisiana State University (LSU) AgCenter Institutional Review Board ruled that a review was not necessary.

The instrument was based on the Youth Development Core Competencies within the 4-H PRKC model (Stone & Rennekamp, 2004). In addition, the research team developed a new construct focusing on staffing structure and standards. Content validity for the instrument was determined by a panel of experts made up of local youth development professionals, regional administrators, a state level specialist, program administration, and an evaluation specialist who were not part of the study population. A Cronbach's alpha coefficient (reliability) score of .957 was calculated based on nine items. Reliability coefficients of .80 are considered acceptable (Gall, Gall, & Borg, 2007).

The data were collected through Zoomerang, an online survey software program. Reminders were e-mailed to nonrespondents, resulting in a final response rate of 71% (n=91). Nonresponse error was evaluated by comparing early to late respondents (Linder, Murphy, & Briers, 2001). Early respondents were defined as those who responded to the first stimulus (n=25). Late respondents participated after receiving the reminder stimulus (n=66). There was no statistical difference between early and late respondents on the evaluated items.

Descriptive statistics were utilized to describe youth development professionals and perceived level of competence in youth development. The chi-square and Wilcoxon-signed ranks tests were used, respectively, to determine if there was relationship between perceived youth development competence and demographic factors (gender, field of study, and degree level). A Pearson correlation coefficient was used to determine if there was a relationship between perceived youth development competence and years of experience.

Findings

Objective One: Description of Youth Development Professionals in the 4-H Youth Development Program

Sixty-one percent of the respondents were female, and 86% were white. Seven percent of the respondents were African American, 5% indicated other, and 1% each reported Hispanic and Native American. The respondents had been employed for a range of 1 year to 30 years, with the highest percentage of individuals being employed 30 years (11%) and average length of service being 14.8 years.

When examining the highest academic degree attained, the majority (59%) had a master's degree plus some graduate hours, while 28% had a master's degree. Two percent of professionals had a bachelor's degree, while 15% had a bachelor's degree plus some graduate hours. Only 3% of the respondents had a Ph.D. or an Ed.D.

When identifying the degree areas obtained by the professionals, the largest percentage (42%) of the respondents had a bachelor's degree in human ecology. Table 2 illustrates the degree areas of the respondents.

Table 2. Fields of Study

Field	Valid N	%
Animal Science	19	22
Human Ecology	38	42
Education	11	13
Other (Business, Criminal Justice, Natural Resources, Horticulture, Science)	21	23

Objective Two: Perceived Level of Youth Development Competence

When rating their perception of youth development competence on a five-point Likert scale, an overall mean of 3.3 was reported with a range of 3.12 to 3.54. The scale ranged from 1 (which indicated that the professional knew nothing) to 5 (which indicated that the professional felt he/she is an expert). Staff felt most competent in the areas of current youth issues, career opportunities for youth, and family structures/relationships. Staff felt less competent in areas related to the mental development of youth.

To determine the level of proficiency, a modified version of the National Institute of Health (2009) Competencies Proficiency Scale was used. The first proficiency level was *Novice*, which denoted limited experience, where experience was gained in a classroom or as an onthe-job trainee. *Intermediate*, the second level of proficiency, described individuals who used practical application and could perform the skill independently, but from time to time needed assistance from an expert. *Advanced*, the third level of proficiency, was characterized by the abilities to apply theory and to perform related tasks without assistance. An *Expert*, the highest level of proficiency, was recognized as an authority in the field. According to the interpretive scale, competence in all youth development core competencies was construed, on average, as Intermediate. No one identified themselves as an expert in the areas of psychological development of youth, emotional development of youth, and current youth issues. Additional information on perception of youth development competence in the various core competency areas is provided in Table 3.

Youth Development

Valid **Interpretive** NMin M SD **Core Competence** Max **Scale** Psychological Development of Youth 91 1 4 3.16 .76 Intermediate **Emotional Development of Youth** 91 1 4 3.24 .74 Intermediate Physical Development of Youth 90 2 5 3.49 .67 Intermediate 1 5 3.53 Social Development of Youth 90 .67 Intermediate Mental Development of Youth 91 1 5 3.12 .81 Intermediate 1 5 3.53 .75 Career Opportunities for Youth 91 Intermediate 91 2 4 3.54 Current Issues Related to Youth .56 Intermediate Today's Family Structures and Family 89 2 5 3.52 .62 Intermediate Relationships Eight Critical Elements of Positive 90 5 3.32 .85 Intermediate

Table 3. Youth Development Core Competencies

Scale: 1 - Knows Nothing; 2 - Knows a Little; 3 - Knows Some; 4 - Knows Quite a Bit; 5 - Expert. Interpretive Scale: 1.00 to 1.99 = Novice; 2.00 to 2.99 = Intermediate; 3.00 to 3.99 = Advanced; 4.00 to 5.00 = Expert.

Objective Three: Relationship between Demographic Variables and Level of Perceived Youth Development Competence

Gender. A Wilcoxon signed-rank test indicated that there was not a significant relationship between perceived youth development competence and gender, Z = .18, p < .001, r = .67.

Degree level. A chi-square test was performed to examine the relationship between level of education and perceived youth development core competence. The relationship between these variables was not significant X^2 (1, N = 87) = .34, p = .55.

Field of study. A Wilcoxon signed-rank test indicated that there was not a significant relationship between perceived youth development competence and field of study-human ecology (M = 35.3, SD = 90.02), animal science (M = 36.9, SD = 79.00), education (M = 46.5, SD = 61.91), and all other fields (M = 35.42, SD = 53.01), Z = 2.34, P < .001, r = .50.

Years of experience. A Pearson correlation coefficient test revealed a positive correlation between years of experience (M = 14.8, SD = 9.61) and perceived youth development competence (r = .68, p < .01). More years of experience indicated a higher level of perceived youth development competence.

Discussion

Areas of Most Competence

Youth development professionals perceived themselves to be competent in a number of areas including current youth issues, career opportunities for youth, and family structures and relationships. The core competency areas that were identified with the highest competence ratings were not surprising, as they are the most frequently utilized components of youth development programs.

Because youth development professionals work with and support youth who are experiencing contemporary challenges, it is understandable that youth development professionals reported competence in current youth issues. Researchers found that youth development professionals who rated themselves higher in overall competence also reported having lived through experiences similar to the youth in their program (Hartje, et al., 2008). One can speculate that the relationship is associated with a belief that their capacity to understand and serve the needs of the youth is linked to their capacity to relate to the trials that youth face on a daily basis.

Interestingly, no youth professionals considered themselves an Expert in the area of youth issues. The depth and breadth of challenges youth face today can include concerns such as bullying, dating, depression, eating disorders, gambling, gangs, gender issues, homelessness, poverty, pregnancy, school performance, stress, substance abuse, tattooing, suicide, victimization, and violence. Given the wide expanse of these matters, it is understandable that youth professionals would have an awareness of, but not thorough knowledge of, the plethora of issues that youth encounter.

It is not surprising that youth development professionals perceived themselves to have competence in the area of family structures and relationships. Forty-two percent of the youth development professionals had a degree in human ecology or home economics which would include some college coursework in the field of family development. This finding is reinforced by the idea that 4-H is a family affair, as youth development professionals take an ecological approach in working with youth through their families. In a 4-H setting, it is not unusual to have multiple generations working together to help develop youth.

The final competency area of career opportunities for youth is part of the fabric of the 4-H youth organization. Through the promotion of life skills, 4-H has afforded youth the opportunities to investigate career options and develop essential life skills that can be transferred to a workplace. In this approach, young people are learning career skills through experiences such as serving as a camp counselor, leading a service-learning project, and participating in a career related contest. Through these career exploration opportunities, youth

explore the world of work in a tangible fashion rather than finding out about a career in a theoretical sense (Cochran, Catchpole, Arnett, & Ferrari, 2010; Cochran & Ferrari, 2009; Ferrari, Arnett, & Bateson, 2010; Ferrari, Arnett, & Cochran, 2008; MacDowell, Weese, Nielsen, & Glasser, 2011).

Areas of Least Competence

The area in which youth development professionals felt least proficient was mental development. In addition, none of the respondents identified themselves as an expert in the areas of psychological development and emotional development. As one examines the educational background for youth development professionals, many of the study respondents have not taken courses in advanced fields of psychology that could provide a foundation for understanding psychological or emotional development.

Social cognitive theory could account to some degree for the level of efficacy or competence youth development professionals report (Bandura, 2001), particularly as the majority of the respondents in this study were female. Much classic and contemporary research by Bussy and Bandura (1999) on social cognition and self-efficacy indicates women tend to rate themselves lower in general than men on self-appraisals of competence. Women typically define *expert* from a more social cognitive viewpoint than men. This theory at work could affect individuals' ratings of themselves.

Implications of these results are that the field of youth development would be judicious in considering the addition of coursework in psychology in relevant degree programs beyond the requisite adolescent psychology course seen in many cases. Further, consideration may be given to job requirements moving away from the traditional subject matter degrees and looking toward those who have completed degree programs in areas such as social work, psychology, and related fields. At the very least, it may be prudent to provide support for 4-H Agents on the organizational level by giving them greater opportunities to learn more about children's psychological and emotional development in a way that is guided through opportunities to practice in a controlled situation.

Demographics and Competence

No significant relationships were found among the perceived youth development competence and the demographic variables of gender, field of study, and degree level. An explanation regarding field of study and degree level and the lack of relationship with youth development proficiency is that individuals tend to overrate their capabilities (Kruger & Dunning, 1999). However, there was a positive relationship between years of experience and perceived youth development competence.

Gender

Gender and perceived youth development competence were not linked. However, it is important that youth development professionals are aware of gender differences among the youth with whom they work. Brittle and Bird (2007) found that gender distinctions lead to variations in the ways in which youth socialized and related to one another. Fox, Cater, Nunnery Shreve, and Jones (2012) found that there were differences in decision making abilities when comparing males and females. Because of this, it is imperative that youth development professionals understand the role of culture and social norms in gender differences and expectations.

Degree Level

Surprisingly, education level did not make a significant difference within the population of this study. While not supported by this study, the importance of education on the impact on positive youth development approaches, outcomes, and quality cannot be underestimated. Snider and Fu (1990) discovered that higher levels of education were linked to youth development professionals with a greater understanding of developmentally appropriate approaches. Youth development professionals with higher education levels demonstrated elevated youth engagement, which is associated with positive youth outcomes (Burchinal et al., 2002; Ghazvini & Mullis, 2002). Miller (2005) found that education level of youth development professionals was associated with positive youth outcomes. Program quality has been linked to professionals' knowledge and capabilities (Cole & Ferrier, 2009).

Field of Study

No relationship existed between the field of study and perceived youth development competence among youth development professionals. This finding was perplexing; one would think that students majoring in fields focusing on human development and education would have increased knowledge regarding working with youth that would translate into a feeling of competence in youth development. Based on this finding, youth development organizations should be open to individuals with degrees in a wide variety of fields as having the potential to be effective youth development professionals.

The role of training cannot be underestimated in the impact it has on competence development. Training is critical to build knowledge and skills in professionals who lack a youth development background. Hartje et al. (2008) discovered that youth professionals who participated in training they deemed as helpful reported overall competence when compared to youth professionals who received training that they regarded as not helpful. This finding accentuates the significance of high quality, relevant training.

Experience

A significant relationship existed between years of experience and perceived youth development competence. While one would anticipate this discovery, it is important that youth development organization administrators capitalize on the competence of experienced youth development professionals. These youth development professionals should be sought out to be part of the design, implementation, and evaluation of professional development experiences that support the growth of less experienced professionals. Experienced professionals can serve as role models who mentor new youth development professionals. Through these mentoring experiences, new professionals can gain an understanding of promising practices within the field of youth development. It is imperative that experienced youth development professionals seek leadership within their respective organizations and professional associations, providing direction to projects that will advance the field of youth development.

Retention rates have been linked to competence (Hartje et al., 2008). This finding is noteworthy, as it supports the link between experience and competence. When youth professionals felt highly competent, retention rates among those youth professionals were higher (Hartje et al., 2008). This finding can help increase the understanding of what elements seem to impact youth professional's commitment to remain in the field of youth development.

Limitations

Several limitations to this study should be noted. First, given the self-selected nature of the sample, the youth development professionals who took time to complete the survey may be individuals who are strongly invested in the youth development field. Additionally, the findings of the study are based on self-report. Future research could include multiple data sources to observe competence rather than relying solely on self-report measures. Restricted by the small population, the study should be replicated on a broader scale in another state or region to increase the inference base from which generalizations may be drawn.

Summary

Youth development professional competence is a critical topic for future research studies as researchers examine the relationship between professionals working with youth in out-of-school settings and positive youth development. A vital focus for further research is to investigate methodologies used to build competence in youth development professionals. In recent years, leaders in child and youth care organizations have suggested a need for standards of practice to advance development of the profession. Key elements of these standards would include professional training programs, specification of educational qualifications, and the definition of professional boundaries and areas of competence (Thomas, 2002).

References

- Astroth, K., Garza, P., & Taylor, B. (2004). Getting down to business: Defining competencies for entry-level youth workers. *New Directions for Youth Development, 2004*(104), 25–37. doi:10.1002/yd.96
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. doi:10.1111/1467-839X.00024
- Barcelona, R. J., Hurd, A. R., & Bruggeman, J. A. (2011). A competency-based approach to preparing staff as recreation and youth development leaders. *New Directions for Youth Development*, 2011(130), 121–139. doi:10.1002/yd.401
- Bussy, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, *106*(4), 676–713. doi:10.1016/j.sbspro.2011.03.261
- Borden, L. M., Craig, D. L., & Villarruel, F. A. (2004). Professionalizing youth development: The role of higher education. *New Directions for Youth Development*, 2004(104), 75–85. doi:10.1002/yd.100
- Borden, L. M., & Perkins, D. F. (2006). Community youth development professions: Providing the necessary supports in the United States. *Child and Youth Care Forum*, *35*(2), 101–158. doi: 10.1007/s10566-005-9005-4
- Brittle, C., & Bird, C. E. (2007). *Literature review on effective sex- and gender-based systems/models of care*. Arlington, VA: U.S. Department of Health and Human Services.
- Burchinal, M., Howes, C., & Kontos, S. (2002). Structural predictors of child care quality in child care homes. *Early Childhood Research Quarterly*, *17*, 87–105. doi:10.1016/S0885-2006(02)00132-1
- Center for the Study of Child Care Employment. (2008, February). Early childhood educator competencies: A literature review of current best practices, and a public input process on next steps for California. Berkeley, CA: Center for the Study of Child Care Employment, Institute for Research on Labor and Employment, University of California at Berkeley. Available at http://www.irle.berkeley.edu/cscce/wp-content/uploads/2008/01/competencies_report08.pdf
- Cochran, G., Catchpole, K., Arnett, N., & Ferrari, T. M. (2010). Extension's role in preparing youth for the workforce: A challenge to Extension professionals. *Journal of Extension*, 48(4). Available at http://www.joe.org/joe/2010august/pdf/JOE_v48_4comm1.pdf
- Cochran, G., & Ferrari, T. M. (2009). Preparing youth for the 21st century knowledge economy: Youth programs and workforce preparation. *Afterschool Matters*, 8, 11–25. Available at http://www.niost.org/pdf/afterschoolmatters/asm_2009_8_spring/asm_2009_8_spring-2.pdf

- Cole, P., & Ferrier, K. (2009). Federal programs and youth workers: Opportunities to strengthen our workforce. Available at http://forumfyi.org/files/Federal_Programs_And_Youth_Workers.pdf
- Curry, D., McCarragher, T., & Dellmann-Jenkins, M. (2005). Training, transfer and turnover: Exploring the relationship among transfer of learning factors and staff retention in child welfare. *Children and Youth Services Review*, 27(8), 931–948. doi:10.1016/j.childyouth.2004.12.008
- Curry, D., Qaqish, B., Carpenter-Williams, J., Eckles, F., Mattingly, M., Stuart, C., & Thomas, D. (2009). A national certification exam for child and youth care workers: Preliminary results of a validation study. *Journal of Child and Youth Care Work*, 22, 152–170.
- Curry, D., Richardson, R., & Pallock, L. (2011). Aligning educational program content with U.S. youth work standards and competencies. *Relational Child and Youth Care Practice*, 24(4), 24–32.
- Ferrari, T. M., Arnett, N., & Bateson, L. (2010, October). Work-based learning goes to camp: Results of a pilot study in Ohio. Research & Evaluation Seminar presented at the National Association of Extension 4-H Agents Annual Conference, Phoenix, AZ.
- Ferrari, T. M., Arnett, N., & Cochran, G. (2008). Preparing teens for success: Building 21st century skills through a 4-H work-based learning program. *Journal of Youth Development*, *3*(1), Article 080301FA001.
- Fox, J. E., Cater, M., Nunnery Shreve, J., & Jones, K. Y. (Fall 2012). An examination of demographic differences in decision making among adolescents participating in a community-based service-learning project. *The Forum for Family and Consumer Issues, 17*(2). Available at http://ncsu.edu/ffci/publications/2012/v17-n2-2012-summer-fall/fox-cater-shreve-jones.php
- Gable, S., & Halliburton, A. (2003). Barriers to child care providers' professional development. *Child and Youth Care Forum*, *32*, 175–193. doi:10.1023/A:1023300609394
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson Education, Inc.
- Ghazvini, A., & Mullis, R. (2002). Center-based care for young children: Examining predictors of quality. *The Journal of Genetic Psychology*, *163(1)*, 122–125. doi:10.1080/00221320209597972
- Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, 58(6-7), 466–474. doi:10.1037/0003-066X.58.6-7.466
- Greenwood, E. (1957). Attributes of a profession. *Social Work*, 2(3), 44–55. doi:10.1093/sw/2.3.45

- Hahn, A. B., & Raley, G. A. (1998). Youth development: On the path toward professionalization. *Nonprofit Management and Leadership*, 8(4), 387–401. doi:10.1002/nml.8406
- Hartje, J. A., Evans, W. P., Killian, E. S., & Brown, R. (2008). Youth worker characteristics and self-reported competency as predictors of intent to continue working with youth. *Child Youth Care Forum*, *37*, 27–41. doi:10.1007/s10566-007-9048-9.
- Honig, M., & McDonald, M. (2005). From promise to participation: Afterschool programs through the lens of socio-cultural learning theory. *Afterschool Matters*, Occasional Paper Series, No. 5, Fall. Available at http://niost.wcwonline.org/pdf/afterschoolmatters/asm_2005_op5_fall/asm_2005_op5_fall-1.pdf
- Knoche, L., Peterson, C. A., Pope-Edwards, C., & Jeon, H-J. (2006). Child care for children with and without disabilities: The provider, observer, and parent perspectives. *Early Childhood Research Quarterly*, *21*(1), 93-109. doi:10.1016/j.ecresq.2006.01.001
- Krueger, M. (2007). Four areas of child and youth care staff development. *Families in Society*, 88, 233–241. doi:10.1606/1044-3894-.3621
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77(6), 1121–1134. doi:10.1.1.64.2655
- Levine, L. (2005). *The child welfare workforce: An overview* (Report RL 32690). Washington, DC: U.S. Congressional Research Service.
- Linder, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education*, 42(A), 43–53. doi:10.5032/jae.2001.04043
- MacDowell, M., Weese, M., Nielsen, K., & Glasser, M. (2011, April/June). Illinois 4-H Health Jam for healthy lifestyles and rural pipeline awareness. *Family & Community Health*. *34*(2), 141–153. doi:10.1097/FCH.0b013e31820e0db3
- Mattingly, M. A., Stuart, C., & VanderVen, K. (2002). North American Certification Project. *Journal of Child and Youth Care Work*, 17, 16–49.
- Mattingly, M. A., & Thomas, D. C. (2006). The promise of professionalism arrives in practice: Progress on the North American Certification Project. *Residential Group Care Quarterly*, 7(1), 8–10, 16.
- McLaughlin, M. W. (2000). *Community counts: How youth organizations matter for youth development*. Washington, DC: Public Education Fund Network. Available at http://www.eric.ed.gov/PDFS/ED442900.pdf
- McNamara, C. (1999). *Specifying job and role competencies*. Available at http://208.42.83.77/staffing/specify/cmptncys/cmptncys.htm
- Miller, B. (2005). *Pathways to success for youth: What counts in after-school?* Arlington, MA: Intercultural Center for Research in Education.
- Miller, B., & Hall, G., (2006-2007). What counts in after school? Findings from the Massachusetts afterschool research study (MARS). *Journal of Youth Development*, *1*(3), Article No.603RS001.

- National AfterSchool Association. (2011). Core knowledge and competencies for afterschool and youth development professionals. Available at http://www.naaweb.org/downloads/NAA%20Final%20Print%20version.pdf
- National Institutes of Health. (2009). *Competencies Proficiency Scale*. Available at http://hr.od.nih.gov/workingatnih/competencies/proficiencyscale.htm
- Noam, G. (2008). *A new day for youth: Creating sustainable quality in out-of-school time*. Available at http://www.wallacefoundation.org/knowledge-center/after-school/financial-management-for-nonprofits/Documents/whitepaper_noam.pdf
- Sak, M. (2012). Defining a profession: The role of knowledge and expertise. *Professions and Professionalism*, 2(1). Available at https://journals.hioa.no/index.php/pp/article/view/151
- Snider, M. H.,& Fu, V. R. (1990). The effects of specialized education and job experience on early childhood teachers' knowledge of developmentally appropriate practice. *Early Childhood Research Quarterly*, *5*, 69–78. doi:10.1016/0885-2006(90)90007-N
- Starr, E., Yohalem, N., & Gannett, E. (2009). *Youth worker core competencies: A review of existing frameworks and purposes*. Washington, DC: Next Generation Youth Work Coalition. Available at http://www.niost.org/pdf/Core Competencies Review October 2009.pdf
- Stone, B. B. (1997). A system's approach to professional development. *Journal of Extension*, *35*(2). Available at http://www.joe.org/joe/1997april/tt2.php
- Stone, B., & Rennekamp, R. (2004). New foundations for the 4-H youth development profession: 4-H Professional Research, Knowledge and Competencies Study.

 Conducted in cooperation with the National 4-H Professional Development Task Force. Washington, DC: National 4-H Headquarters, Cooperative State Research Education and Extension Service, United States Department of Agriculture. Available at http://extension.missouri.edu/hr/documents/PRKCStudy.pdf
- Thomas, D. C. (2002). The North American Certification Project in historical perspective. *Journal of Child and Youth Care Work*, 17, 7–15.
- Vermont Northern Lights Career Development Center. (2005). *Core competencies for early childhood professionals*. Montpelier, VT: Vermont Northern Lights Career Development Center.

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