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### Feature Articles

#### **Examining 4-H Robotics in the Learning of Science, Engineering and Technology Topics and the Related Student Attitudes [Article 080203FA001]**

*Barker, Bradley S.; Nugent, Gwen; Grandgenett, Neal; Hampton, Amy*

Youths' natural fascination and identification with robots make them an ideal teaching and learning platform. Robots would seem to be excellent hands-on tools to teach science, engineering and technology (SET) concepts. However, while research supports their use to increase interest and motivation, the effectiveness of robots to directly teach science, engineering, and technology concepts is less clear. The purpose of this study was to measure the effectiveness of a 4-H robotics program to support the learning of specific SET concepts and to examine related student attitudes towards science. This study compared the pretest and posttest scores on an assessment of basic SET concepts and attitudes of youth who participated in the 4-H robotics intervention with the scores of youth in a control group.

Analysis of covariance (ANCOVA) results revealed that youth in the robotics intervention scored better on a SET concepts posttest. Student attitudes toward science were also investigated. The results suggested that educational robotics can engage youth in activities that support their learning of SET topics, but that it may have more limited impact on general student attitudes towards science, as measured by the study's attitudinal instrument.

#### **Community-Based After-School Inclusive Programs for Low-Income Minority Youth and Their Families: the Disability Specialist Approach [Article 080203FA002]**

*Unger, Donald G.; Woolfolk, Tara; Harper, Vanessa; Cuevas, Tersita*

Intervention for helping community based after-school programs become more responsive to youth with disabilities and their families is presented in this manuscript. The Disability Specialist intervention utilized a variety of approaches, including: a) increasing awareness of disabilities and services by providing learning opportunity sessions for families and staff, and outreach activities to youth through interactive theater; b) developing in house "disability specialists" to offer ongoing leadership and technical expertise for after-school programs and their community centers; c) developing a network of technical consultants in order to connect families and after-school programs to specialized community resources; d) providing financial assistance to enable community center staff to allocate time to outreach activities; and e) providing families with support in educational advocacy efforts by partnering with a local parent mentoring program. The success of the project depended upon building partnerships with families, community centers, human service agencies, schools, and local funding sources.

### **Lessons from the Front Lines: Factors that Contribute to Turnover among Youth Development Workers [Article 080203FA003]**

*Laroche, Helena; Klein, Jonathan D.*

Motivated, competent Youth Development Workers (YDW's ) are essential to effective youth outreach programs. This study explores factors affecting job turnover among Youth Development Workers (YDW's) through detailed direct observation and interviews of six YDW's in four organizations and a group interview with eight different YDW's. YDW stressors included few resources, high need among youth, paperwork, excessive responsibilities, burnout/cynicism, miscommunication with supervisors, personal financial strain and lack of job security. Workers identified needs for appreciation, support from superiors, opportunities to advance, experienced mentors, resources and role definition. For programs to be effective and minimize turnover, YDW's require resources, mentorship, role definition and appreciation.

### **Collaboration in a Competitive Environment; Evaluation of and Reflections on an Integrated "Youth at Risk" Project [Article 080203FA004]**

*Cuthill, Michael; Wilson, Erica; Nielsen Noah*

This paper reports on the activities, processes and outputs in the first 18 months of a 3 year collaborative project, the *Gold Coast Integrated Response for Youth at Risk*. Survey, focus group and interview data were collected from project participants as part of a formative evaluation. Results identify both success and ongoing challenges within the project. Five key findings from the project are presented and discussed. These relate to issues such as the need for well designed project evaluation, and negotiating and clearly defining governance processes during the initial project planning stages. In addition, stakeholder communication and engagement processes are identified as an area of concern. The inherent tension of working collaboratively in a competitive (funding) culture and finding an operational balance between developmental processes and more tangible project outputs are discussed.

### **The After School Activity Initiative: Youth Helping Youth in a Community in Crisis [Article 080203FA005]**

*Robertson, Brenda*

Youth experience considerable free time, the use of which can foster active healthy lifestyles or facilitate engagement in activities that are detrimental to self and or to society. In order for the former to occur, specific knowledge, attitudes, and skills must be acquired. This research explores an initiative in which older youth served as leaders in an after school initiative in an economically challenged community where little attention was being paid to the provision of free time opportunities for youth. Not only were positive developmental outcomes experienced by the participants (the ability to find ways to spend free time; an appreciation for the outcomes that can accrue from engagement in positive activities; and the ability to communicate effectively), but the same was true for the older youth who served as leaders (understanding the meaning of success, appreciating the power of interpersonal relationships, and becoming a role model).

### **Youth in Community Decision-Making: A Study of Youth-Adult Partnerships [Article 080203FA006]**

*Murdock, Shelley; Paterson, Carole; Gatmaitan, Mary Claire L.*

Involving youth in community and organizational decision-making is widely believed to lead to stronger communities. A promising strategy to foster decision-making is youth-adult partnerships in which youth and adults work collaboratively, sharing their strengths, collective

knowledge, and decision-making power. A qualitative study of eight youth organizations showed that those organizations employing youth-adult partnership strategies were most effective in increasing youth's contributions to their communities. This article explores the elements of youth-adult partnership that were evident among successful organizations including: mutual respect, meaningful roles for youth, unique contributions of adults and youth, and shared decision-making and implications for youth development programs.

### **Program Articles**

#### **Taking Congress Home: Effects of NC 4-H Congress on Youth Behaviors and Intentions [Article 080203PA001]**

*Silliman, Benjamin*

This evaluation report describes the outcomes and quality of the 2006 North Carolina 4-H Congress, an annual five-day teen conference focused on citizenship, leadership, and service. A majority of returning youth cited Congress experiences as significant in their continued learning and practice in citizenship, leadership, and service learning. Likewise, most youth participants in the 2006 conference indicated that they planned to participate in more citizenship, community leadership, and service activities in their home communities. A Youth Program Climate survey revealed that youth viewed NC 4-H Congress as a setting where service was important, where they learned to accept differences, teamwork was emphasized, and where they were able to make a difference in the lives of others. Three implications of the evaluation report are discussed: 1) value of a youth leadership conference for educating and inspiring youth in citizenship, leadership, and service; 2) evaluation methodology, including engaging youth leaders in design and use of conference data; and 3) marketing and accountability opportunities resulting from program evaluations.

#### **Youth Competitors Gain Benefits from Horse Show Judges' Training Program [Article 080203PA002]**

*Evans, Patricia A.; McKendrick, Scott; Wesley, John; Smith, Justen*

This article details how youth benefit from a horse show judges' training program. While judging is subjective, with training, judges can be more consistent in their placings, with the better horses and/or riders being placed at the top of the class. With qualified judges, youth can be more confident that they will be evaluated in a fair and consistent manner during each show all season long.

#### **How ScienceQuest Ensures Success for All [Article 080203PA003]**

*Zorfass, Judith; Dorsen, Jennifer; Feeley, Caitlin*

Informal educational programs that reach out to minority youth in low-income urban areas need to anticipate diversity. Not only will participants exhibit a range of abilities and needs, but some, just like in any population, are likely to have learning disabilities. ScienceQuest, an informal science education program funded by the National Science Foundation, was designed to ensure that youth aged 10 to 14 with diverse abilities and needs, including learning disabilities, can successfully participate and succeed in inquiry-based learning. The program uses the I-Search curriculum as the basis of its inquiry process. Embedded in this curriculum are the following inclusive practices: youth are motivated to explore their topic; they use varied media that supports their learning styles; they are guided to process information through multiple means; and they have access to technology tools. These ongoing inclusive practices ensure that everyone successfully explores the world around them.

## **Research and Evaluation Strategies**

### **Capturing Youth Voice to Assess Learning in Urban Youth Development Programs**

**[Article 080203RS001]**

*Skuza, Jennifer A.; Russo, Jessica P.*

This article describes a two-part evaluation method that was designed to assess the nature of the learning experiences and the learning environments in urban youth programs by capturing the often absent voice of youth. It also presents evaluation results after delivering educational youth programs in an urban setting for one year. While youth across five program sites indicated their programs had strong program planning and delivery that provided intentional learning environments, the most common challenge across programs was a need for improved participation of both youth and adults. The evaluation findings convey the perspectives of young people on their experience as learners in youth programs. Practitioners may use such data in future planning as they employ strategies to improve the overall quality of their programs.

### **Development of the OSTRC Conference Evaluation Toolkit**

**[Article 080203RS002]**

*Buher-Kane, Jennifer; Peter, Nancy; Gabel, Stefanie*

Research demonstrates that staff quality directly impacts student achievement in out-of-school time (OST) settings, and that effective staff development contributes to a skilled workforce. Evaluating OST professional development is therefore attracting increased attention from researchers, practitioners, and funding agencies.

In the spring of 2004, the Out-of-School Time Resource Center (OSTRC) began searching for professional development evaluation instruments designed specifically for the OST field. Since the OSTRC could not locate research-based surveys for this genre, it implemented a pilot study to create and test such instruments. These surveys were designed to evaluate professional conferences, which are critical (but not exclusive) components of OST professional development opportunities. The overarching goal of this study was to operationalize the pathway between professional development conferences and increased student learning.

### **Proven Effectiveness of Missouri 4-H Camps in Developing Life Skills in Youth**

**[Article 080203RS003]** *Klem, Michelle D.; Nicholson, Donald J.*

Camping is generally believed to be a context for positive youth development. The 4-H Camp environments presumably focus on the development of life skills including managing and thinking; relating and caring; giving and working and; living and being. However, the effectiveness of the Missouri 4-H Camp environments in developing life skills among campers had never been evaluated in a consistent manner across the multiple camping programs.

In order to evaluate the efficacy of these camp programs, resident campers within the 10-13 year age range were surveyed about their camping experience during the summer of 2005 and a similar group was surveyed in 2006. Parents of campers were also surveyed both years to gather their perceptions of 4-H Camp's impact on their children in developing the life skill areas identified above. Parents and youth agreed strongly that the 4-H Camp experience was substantially valuable in developing the life skills identified in the Targeting Life Skills Model (Hendricks, 1998).

## **Resource Review**

### **Common Courtesies: Teaching Young People American Etiquette Through 4-H**

**[Article 080203RR001]**

*McCord, Kelley A.; Jan Scholl*

The new youth resource guide, "*Common Courtesies and First Impressions: A 4-H Life Skills Activity Guide to Modern American Etiquette*," is designed to help teenagers understand the significance and positive impact of using proper etiquette in today's society. Though designed with 4-H members in mind, the guide employs the social theory of learning by emphasizing learning in a social setting with a group of one's peers. It could be employed easily in any youth group setting, including Campfire, Boy & Girl Scouts, or Parks & Rec. It will help to build positive social skills by providing answers to such questions as how to behave and react in social situations.