**Award Period:** Spring 2013  
**Principle Investigator:** Karen C. Williams, Ph.D.  
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**Title:** Young Children, Culture & Technology  
**Amount Spent:** $3500

**Non-Technical Summary:** This project took place at the International School of the Hannover Region in Germany. The focus was to determine how technology was used in a first grade classroom by having the researcher take notes every day during instruction, interview parents, and interview teachers in the school. Results will be used to design a survey for 4-H youth, parents, volunteers and leaders to see how much technology should be incorporated into the 4-H programming. The researcher and classroom teacher will continue to work together on infusing technology into online courses for Family and Consumer Sciences and will publish the results of the research together.

**Main Results of Activities Planned in the Proposal:**

1. 3 ½ weeks was spent at the International School of the Hannover Region in Germany. The daily activities of the children and the curriculum were recorded, particularly those related to how technology was being used. This provided insights into how the curriculum compared to recommendations by the National Association for the Education of Young Children and the International Society for Technology in Education.

2. Eight teachers and five parents were interviewed at the International School. Their responses are currently being added to those obtained through interviews on the Wind River Reservation and Hollomon Air Force Base.

3. In the first two sites technology was not being used to support second language learning or culture of origin. In the second site families were using technology to communicate with each other and with their families during deployment. In the third site, it was being used for teaching English and was being used by the families to stay in contact with relatives in other countries to maintain language of origin and relationships.

4. Results confirm that technology is everywhere in children’s lives. All children interviewed were able to identify various pieces of equipment from photographs and talk about their uses, even when those were not present in their classroom environments.

5. Major gaps in teacher preparation were uncovered. Almost none of the teachers had coursework or training on the use of technology in the classroom or how to support children’s learning and technology skills; only a few had training in how to communicate with parents using technology.
Future Plans:
1. Data analysis from the International School is underway. The parent and teacher responses and information related to technology and curriculum are being coded. Preliminary results show that parents and teachers feel that technology is an important part of their children’s future, but have concerns about how much children should be exposed to during the ages of 3-7.
2. Information will be used to develop a survey in fall that will be piloted in three 4-H programs in Wyoming. 4-H members, parents, leaders and volunteers will be surveyed on their understandings and uses of technology. In 2014 it will be expanded and used statewide with results being used to improve the use of technology in 4-H record keeping, projects, and communication.
3. Two articles for publication will be written and submitted, and at least one national meeting presentation will occur.
4. Karen Williams and Sarah Lee will continue to work together to infuse technology into the Family & Consumer Sciences’ distance course curriculum, and will also work to help other instructors in our program to understand and utilize technology in their course content and curricular approaches. They will also jointly publish an article.

Potential Impacts:
1. University Plan 3, Action Item 95: Expertise in multicultural and culturally sensitive education. This research will add to the understanding of cultural and language transmission in young children and how technology may be impeding or enhancing this process. As such it will strengthen the focus on internationalization (“enhance UW students’ international awareness through the curriculum,” p. 12) while also continuing to strengthen UW’s relationship with the program. (One of our former master’s students is a lead teacher there and already contributes to the course as a distance guest instructor; this would enable potential other guest speakers and collaborators to be identified and cultivated.)
2. College of Agriculture and Natural Resources Academic Plan III, Action Item 7: Support Internationalization. This research plan will help establish international partners in Germany yielding the opportunities for future research, student and faculty exchanges, and student international internships. As stated in the preface to the action item, “The College of Agriculture, being an externally focused and engaged part of the land grant university, has a mandate to ensure that those who desire higher learning have access to UW programs. Part of access is being attentive to diversity issues such as improving international opportunities for faculty and students, within and outside the college.”
3. Department of Family & Consumer Sciences Academic Plan 2009-2014, Action Item 12: Increase grant submissions, juried creative submissions and refereed journal publications. Completion of this sabbatical project will result in several publications, presentations, and will provide data to lay the foundation for future grants.
The students use the computers daily for reading activities.

The daily menu, like other labeling, includes both German and English.
Characteristics the school fosters in its students.

Smart Board used for language learning, spelling, and unit concepts.
Calendar the children use each day to track events, weather, etc.

Aigediortroplaz: tram stop to get to the school.
The first graders have a “squiggle” drawn as an idea starter for their journal writing. They first draw the picture and then write about it.
Architecture in Hannover, Germany.