

# Agricultural Perceptions of Participants of the Summer Agricultural Institute

Heather Jepsen, University of Arizona  
 Monica Pastor, University of Arizona Cooperative Extension, Maricopa County  
 Jack Elliot, University of Arizona

## Introduction

The purpose of this research study was to determine the influence of the Summer Agricultural Institute (SAI) on agricultural perceptions of the participants (educators). This study included the personal drawings of the participants in order to analyze and describe the perceptions. The scope of the study used data from the past six years, which was approximately 160 participants. Findings were obtained through a unique image analysis software program entitled Atlas.ti, which analyzed before and after agricultural drawings from participants. This program assisted in finding that there is an increase in awareness of agricultural technology. Most drawings illustrate that after the Summer Agricultural Institute participants are more aware of the different advanced technologies used throughout the agricultural industry.

## Purpose and Objectives and Need for the Study

The purpose of this research study was to determine the influence of the Summer Agricultural Institute on agricultural perceptions of the participants and ultimately the level of agriculture literacy within the group. In order to determine the perceptions of the participants the following objective for this study was created: To compare and contrast the difference between pre-SAI drawings and post-SAI drawings of participants from 1999-2004.

## Methods and Procedures

Six years worth of data (drawings) were obtained from the extension agent that implements SAI experience. There were approximately 320 pictures that were divided into year and named (yy initials 1 or 2). Categories were then created by what was observed in the drawings. This being a common technique called flat coding where drawings were placed in to categories based on observation (Muhr, & Friese, 2003). The software then analyzes the categories and a web like structure is created showing the associations and detail in each picture. First the pictures are analyzed for their content. Then further analysis is conducted with comparisons of the content.

<b><i>Environmental</i></b>							
<i>Outside</i>				<i>Inside</i>			
Barn	Field	Garden	Pasture	Barn	House	Greenhouse	
<b><i>Technology</i></b>							
<i>Farming</i>		<i>Aquaculture</i>		<i>Livestock</i>		<i>Computer technology</i>	
Cotton	vegetable	Canal raising	Tanks	Cattle	Horses	Operational	Recording keeping
<i>Dairy</i>		<i>Nursery</i>		<i>Horticulture</i>		<i>Ranching</i>	
Milking cows		Greenhouse		Greenhouse	Gardening	Mending Fence	Herding cattle
<b><i>Agriculturalist</i></b>							
Farmer	Families	Gardener		Rancher	Cowboy	Misc	

Figure 1 Flat Coding Key

## Results

The results have shown that the initial drawing illustrated that the participant is aware of certain aspects of the agriculture industry, but after participating in SAI they are educated about the history of that certain field, and how that area agriculture affects their lives. Overall their level of agricultural literacy was increased.

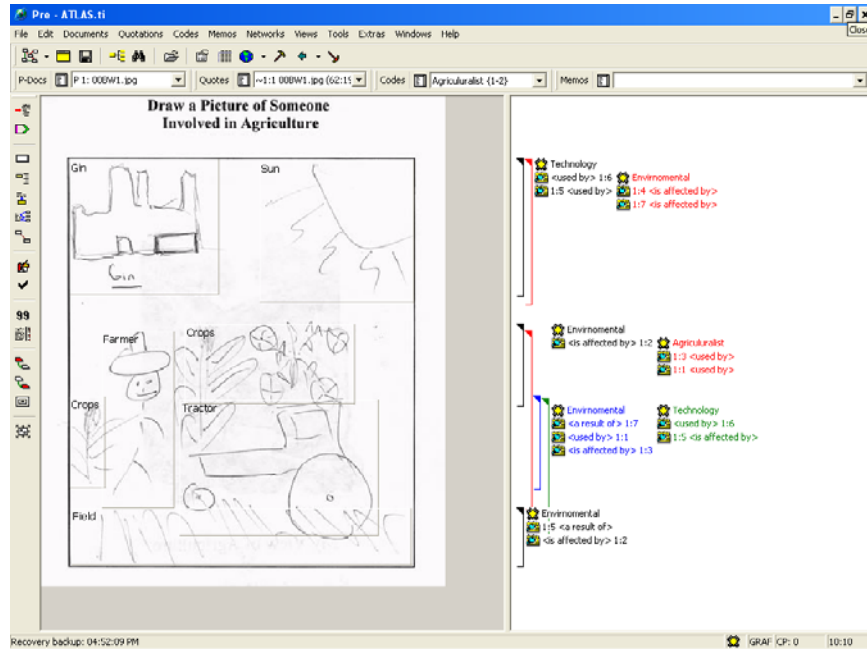


Figure 11 participant #4 before SAI

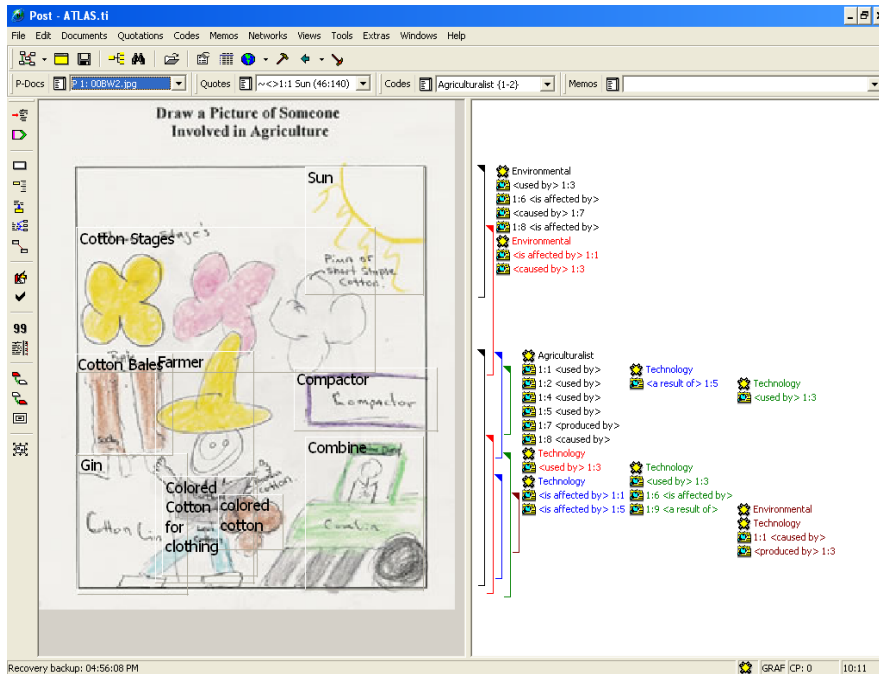


Figure 12 participant #4 after SAI

## **Summary, Conclusion, Recommendations, and Implications**

SAI participants' views and perceptions of agriculture were enhanced and broadened as illustrated by the analyses of their pre- and post-drawings. Therefore, the authors recommend that SAI experiences be implemented for all public school educators. The implications of this recommendation are two-fold. First, if implemented the population will have a better understanding of agriculture, and second, it will become a paradigm shift in teacher in-service opportunities.

## References

- Elliot, J. (1999). *Food and agricultural awareness of Arizona public school teachers. Proceedings of the Seventeenth Annual Western Regional Agricultural Education Research Meeting, 17*. Corpus Christi, TX.
- Food, Land, and People.(2000). *Project Food, Land, and People*. San Francisco: Presidio.
- Muhr, Thomas, Friese, Susanne. (2003). Atlas.ti (Version 5.0 2<sup>nd</sup>) [Computer Software and manual]. Berlin, Germany: Scientific Software.
- Littlefield, Joanne S. (2004). *The Community Newspaper and Visual Journal*. Unpublished master's thesis, Arizona State University, Tempe, Arizona.
- National Agriculture in the Classroom.(n.d.).*History about AITC*.Retrieved October 19, 2004, from [www.agclassroom.org](http://www.agclassroom.org)
- National Agriculture in the Classroom.(n.d.).*History of Agricultural Education and Extension*.Retrieved October 19, 2004, from [www.agclassroom.org](http://www.agclassroom.org)
- Tufte, Edward. (1990). *Envisioning Information*. Cheshire Connecticut: Graphics Press LLC.
- Tufte, Edward. (2001). *Visual Display of Quantitative Information*. Cheshire Connecticut: Graphics Press LLC.
- Tufte, Edward. (1997). *Visual Explanations*. Cheshire Connecticut: Graphics Press LLC.
- United States Department of Agriculture.(n.d.).*Research, Education, and Economics*. Retrieved October 19, 2004, from <http://www.usda.gov/news/pubs/htgi/CooperativeStateResearch,Education,andExtntionService-June21,2004.html>  
<http://csrees.usda.gov/about/background.html>
- University Cooperative Extension.(n.d.).*Agricultural Literacy Program*.Retrieved October 19, 2004, from <http://cals.edu/agliteracy/>
- University Cooperative Extension.(n.d.).*Summer Agricultural Institute*.Retrieved October 19, 2004, from <http://cals.edu/agliteracy/summer-institute.html>
- VanLeeuwen, T., Jewitt, C., (Eds.) (2001) *Handbook of Visual Analysis*, Sage Press, London.