

## **Attitudes of Agri-science Teachers in Trinidad towards Information Communication Technologies**

### **Marcus Ramdwar**

Instructor  
University of Trinidad and Tobago  
Centre for Biosciences, Agriculture and Food Technology  
Caroni North Bank Road, Centeno.  
Trinidad, West Indies.  
Email [marcusramdwar@yahoo.com](mailto:marcusramdwar@yahoo.com)  
Tele : 1-868-784-8599

### **Christopher T. Stripling**

University of Tennessee-Knoxville

### **T. Grady Roberts**

University of Florida

### **Wayne Ganpat**

University of the West Indies

### **Introduction**

Trinidad and Tobago is an island nation located in the Caribbean Region working to reach developed nation status by 2020 (UNESCO, n.d.). One component of this goal is agricultural development, which includes developing sufficient human capacity to meet current and future needs (Rivera & Alex, 2008). In Trinidad and Tobago, Ramdwar and Ganpat (2010) purported that secondary agri-science education is essential for developing skilled agriculturists. One skillset likely needed by future agriculturists involves information communication technologies (ICT). ICTs are a wide variety of technologies that allow for communicating, creating, storing, and sharing of information (Gulbahar & Guven, 2008).

Secondary agri-science education programs offer an excellent platform for developing ICT skills. However, teachers must have favorable attitudes towards these technologies (Roberts & Kitchel, 2010). Since 2010, all students entering secondary schools are given a laptop computer and schools are being prepared to facilitate ICT use. Will the use of ICTs be embraced by teachers? The current attitudes of agri-science teachers towards ICTs are not known. Such knowledge could guide teacher education programming.

### **Purpose/Objectives**

The purpose of this study was to describe the attitudes of agri-science teachers in Trinidad towards ICTs.

## Methods

This study used survey methodology to collect the data. The population was all secondary agri-science teachers in Trinidad ( $N = 90$ ). A census of the population was attempted. Data were collected in September 2012 and 60 teachers responded, representing 50 schools. The instrument used in the current study was adapted from the work of Gulbahar and Guven (2008). It collected personal data and 18 attitudinal statements with four agreement/disagreement options.

## Results and Conclusions

As depicted in Table 1, agri-science teachers have positive attitudes related to using ICTs in developing and finding educational materials. Teachers had the least positive attitudes towards connecting with students using ICTs.

Table 1  
*Attitudes of Agri-Science Teachers Towards ICTs*

Statements	SA	A	D	SD	Mean (SD)
I think that using computer-based instructional technologies makes it easier to prepare course materials (assignments, handouts etc.).	45	50	5	0	3.4 (.6)
I think that using technology makes it easier to reach instructional resources.	41	56	3	0	3.4 (.6)
I am aware of the opportunities that computers offer to my profession	37	55	7	1	3.3 (.7)
I think that technology supported teaching makes learning more effective.	37	56	7	0	3.3 (.6)
I think the use of computer based instructional technologies increases the interest of students toward courses.	38	55	7	0	3.3 (.6)
I think the use of computer based instructional technologies increases the quality of my teaching	30	55	15	0	3.2 (.7)
I think I prepare materials for class faster with the use of computers.	42	40	16	2	3.2 (.7)
I am sufficiently computer-literate to use computers effectively in my classes	25	60	13	2	3.1 (.7)
Instructional technologies allow me to handle different learning preferences of my students who have different learning styles	25	56	19	0	3.1 (.7)
I think using instructional technologies makes me more productive as a teacher.	27	56	15	2	3.1 (.7)
I think technology makes effective use of class time.	27	59	14	0	3.1 (.6)
I am quite able to use computers in instructional environments	17	66	15	2	3 (.6)
I can use instructional technologies in class activities more effectively day by day.	15	58	25	2	2.9 (.7)
I would welcome assessments about my instructional technology use by any other professionals.	22	53	20	5	2.9 (.7)
I use computers as much as other resources (books,	25	41	32	2	2.9 (.8)

overhead projectors etc.) for instructional purposes					
I believe that tools like e-mail, discussion forums, and online chats will make communication with my students easier.	15	61	24	0	2.9 (.6)
Computers are my first-use choice over the other resources	18	30	48	4	2.6 (.8)
I can answer any question my students ask about computers	3	37	51	9	2.4 (.7)

### Recommendations and Implications

The positive attitudes are a good entry point for further teacher development related to ICTs. Professional Development programs should focus on how ICTs could be used to increase interaction with students and how to develop content that is more acceptable for younger persons. Teachers must be prepared immediately to fully embrace ICTs and to lead students in the effective use of these technologies. Positive attitudes are not sufficient, good practices must follow. Additional research should examine the actual behaviors of teachers.

### References

- Food and Agriculture Organization of the United Nations, FAO Research, Extension and Training Division, Extension, Education and Communication Service, Agricultural Education Group. (1997). *Agricultural education and training: Issues and opportunities*. Retrieved from <http://www.fao.org/sd/EXdirect/EXre0003.htm>
- Gulbahar, Y., & Guven, I. (2008). A survey on ICT usage and the perceptions of social studies teachers in Turkey. *Educational Technology & Society, 11*(3), 37-51.
- Ramdwar, M. N. A., & Ganpat, W. G. (2010). Likelihood of students in the formal education system in Trinidad to pursue agriculture as a profession and the implications for development. *Journal of Agricultural Education, 51*(4), 28-37. doi: 10.5032/jae.2010.04028
- Rivera, W. M., & Alex, G. E. (2008). Human resource development for modernizing the agricultural workforce. *Human Resource Development Review, 7*(4), 374-386. doi: 10.1177/1534484308324633.
- Roberts, T. G., & Kitchel, T. (2010). Designing professional knowledge curriculum and instruction. In R. Torres, T. Kitchel, & A. L. Ball (Eds.), *Preparing and advancing teachers in agricultural education* (pp. 100-111). Columbus, OH: Curriculum Materials Service.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (n.d.). *The republic of Trinidad and Tobago*. Retrieved from [http://portal.unesco.org/education/es/files/55575/11998954195Trinidad\\_y\\_Tobago.pdf/Trinidad%2By%2BTobago.pdf](http://portal.unesco.org/education/es/files/55575/11998954195Trinidad_y_Tobago.pdf/Trinidad%2By%2BTobago.pdf)