Articles

How Taiwanese and Americans Think About Technology

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The Motives

Technological changes play a key factor in social and economic development. People's knowledge, attitudes, and abilities about technology influence the choices and national development (Zhang, 1999). According to a 2005 report of the International Institute for Management Development (IMD), Taiwan ranks second in world technology competitiveness. This ranking represents the Taiwanese people's positive outlook on living in a technological world. If Taiwan wants to remain technologically competitive, it needs technology education. A quality program of education for technological literacy is expected to be beneficial to Taiwan for a variety of reasons, including the developing technological talents, upgrading economic development, solving technological problems, and facilitating social adaptation (Lee, 2004). Lee (2004) also stated that technology has not been well understood by the public. Technology educators in Taiwan realize that the more people understand about technology education, the more support they will offer to the programs. Thus, it is valuable to technology educators to understand how Taiwanese people think about technology.

The International Technology Education Association (ITEA) published two surveys completed by the Gallup Organization about how American people think about technology, one in 2002 and another in 2004. The ITEA/Gallup Polls inspired a comparison study of the Taiwan people about how they think about technology, which was accomplished in cooperation between Taiwan and

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the U.S.A. To facilitate making comparisons, the Taiwanese study used the same questionnaires (translated into Chinese) used in the ITEA/Gallup Poll.

The Context

Since 2001, Taiwan has been engaged in curriculum reform. The Ministry of Education divided all subjects into seven major fields of study. The new curriculum requires technology education in the elementary and junior high schools that is merged with the science curriculum and is entitled "Science and Technology." This program articulates textbook content and extends across nine years of study. The technology program in junior and senior high schools has been an independent subject long before the recent reforms and was titled Living Technology as was technology education at all levels. The structure of this program is based on four main technological systems-- Energy and Transportation, Technology and Life, Construction and Manufacturing and Information and Communication. Before the grade 1-9 curriculum reform, technology education in grades1-6 was integrated into the "Arts and Crafts" and was typically taught by art teachers. Even with the latest reform, the program lacks competent teachers to teach it.

Since 2001, the credit hours of the technology education program have been almost cut in half. For example, currently there is only one class period of 45 minutes per week in junior high school. Technology teachers are finding it more and more difficult to allocate time to technology education because the "Science and Technology" is often dominated by science educators.

Purpose

This study obtained data on how the Taiwanese people think about technology and compared selected findings to the ITEA studies of 2001 and 2004. It is hoped that this research will offer recommendations for government officials and developers when revising educational programs and curriculum, especially those related to technology education.

This study relied upon an annual report of registered household demographics in Taiwan. (Ministry of the Interior, Department of Population, 2004) The Taiwanese study targeted households with individuals reaching 18 years of age by the end of 2004. These data did not include Penghu County, Kinmen County and Lienchiang County).

Methodology

Survey Instrument

ITEA published their survey data on "How American Think about Technology" in 2002 and 2004 (Rose & Dugger, 2002; Rose, Gallup, Dugger, & Starkweather, 2004), it explored the similarities and differences between these two iterations of the survey. The American survey was conducted using a telephone poll. This study could not use the same telephone method due to many telephone-based swindles in Taiwan at the time of the research. In

addition, the researcher's time and money are limited. As a result, the Taiwanese study was conducted via mail. Through this processes, it can avoid some of the pitfalls of telephone polling, particularly the fact that not all potential respondents are listed in the telephone directory, either because the number is unlisted or because they do not have a telephone. A stratified random sampling was used to assure representation.

The 2004 ITEA/Gallup Poll questions were translated into Chinese. Two professors of technology education and one English teacher were consulted to keep the revision as close as the original meaning as possible. The English teacher has served as the translator for the Kaohsiung Municipal Educational Bureau and has significant experience with educational documents and questionnaire translation.

To better understand what people think about the integration of technology into other subjects, researchers added two questions (numbers 14 and 15), which originally appeared in the ITEA 2002 questionnaire. The questionnaires were mailed on February 15, 2005 and due six weeks later.

Sampling

This study used stratified random sampling. The target population was Taiwanese people 18 years of age or older and included about 17,290,000 people at the beginning of 2005. The selected samples were divided according to population ratio with consideration given to (a) geographic location (counties vs. cities) (b) gender (c) level of education, and (d) age ranges. The sampling strategy was based upon the Taiwan government's Ministry of Internal demographical data for December 2004 (Ministry of the Interior, Department of Population, 2004) and the educational data from the national census report that is conducted every ten years (Direct-General of Budget, Accounting and Statistics, Executive Yuan, 2000). The researchers calculated the percentage required in each of the strata mentioned above.

A list of junior high schools provided by the Ministry of Education was used to randomly choose two schools from each of the 22 counties and cities in Taiwan. The study group then contacted technology teachers in these junior high schools to ask them for help. The researchers sent the sampling specifications and instructions to them. The teachers were able to distribute questionnaires to the potential respondents in the sample through their students and thus their parents, relatives, neighbors, and so forth. There were 1,500 elements in the sample and usable questionnaires were received from 1121, for a response of 74.7%. The sampling procedures are described graphically in Figure 1.

Data Analysis

All data were analyzed using the Statistical Package for the Social Sciences, version 12.0. This included frequency tables (see Tables 1-18) and thus enabled direct comparison to the survey findings from ITEA (Rose & Dugger, 2002; Rose, Gallup, Dugger, & Starkweather, 2004).
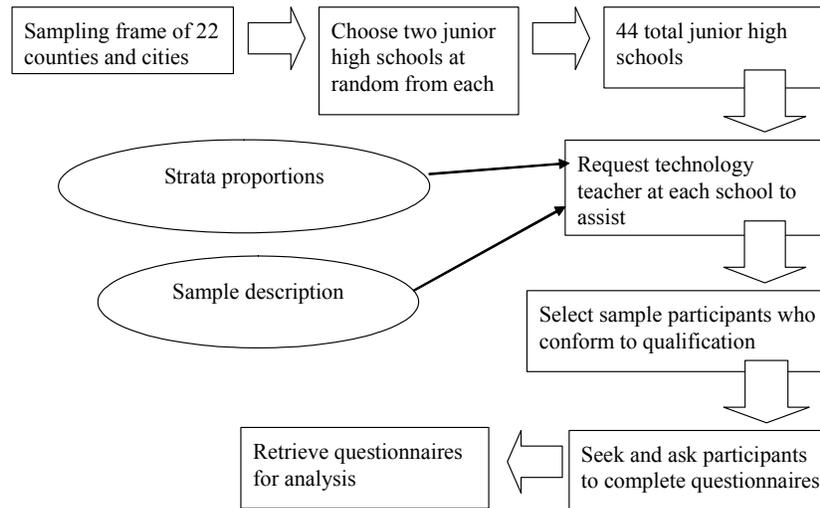
Figure 1. Sampling and data collection method.

Findings and Discussion

The findings are presented in the same order as the items on the questionnaire. The ITEA/Gallup Poll in 2001and 2004 data are compared with the current study. Some questions appeared only on the questionnaires of either the 2001 or the 2004 study, while others appeared on both. This is indicated appropriately in the tables. The questions are cross-referenced to the numbering system used in the original ITEA polls for the convenience of the reader.

Question 1 asked what people think when they hear the word "technology." In the ITEA/Gallup Poll survey, this was an open-ended question and respondents could give whatever definition they desired. In the Taiwanese survey, this question could be completely open-ended or the participants could agree with one of eight selections based on the top eight answers from respondents to the ITEA/Gallup Poll (2004).

In the ITEA/Gallup Poll findings, when the word "technology" was heard, most Americans closely associated it with "computers" and the percentages reported were 67% and 68% respectively in 2001 and 2004. It appears that Taiwanese have a broader view of technology, with less than half indicating "computers". Nineteen percent of Taiwanese chose "science," constituting the second ranking. "Internet" was third, showing that Taiwanese did not distinguish technology and science clearly and associate technology with things correlated with the computer, just as Americans did.

Table 1
Question 1: When you hear the word "technology," what first comes to mind?

	US (ITEA)		Taiwan
	2004 %	**2001 %**	**2005 %**
Computers	68	67	42.3
Electronics	5	4	7.2
Education	1	2	6.5
New Inventions	1	2	9.9
Internet	2	1	11.6
Science	1	1	19.0
Space	1	1	1.8
Job/work	1	1	0.9
Others			0.8

Question 2 asked, "Just your opinion, how important is it for people at all levels to develop some ability to understand and use technology?" In the American survey, 99 % (2001) and 98% (2004) of Americans think knowledge about technology is important compared to 92% of Taiwanese. Most of the remainder responded that they "Don't know/ refused" which implied some misunderstanding about the concept of technology.

Table 2 indicates that 86% of Americans (2004) and 89.3% of Taiwanese think that it is important to know how various technologies work while 14% of Americans and 5.5% Taiwanese feel it's unimportant.

Table 2
Question 3: How important is it to you to know how various technologies work? Is it very important, somewhat important, not very important, or not important at all?

Importance	ITEA 2004 %			Taiwan 2005 %		
	Overall	**Ages 18-29**	**Ages 50 +**	**Overall**	**Ages 18-29**	**Ages 50 +**
Very important	38	52	32	49.2	64.1	41.4
Somewhat Important	48	43	48	40.1	30.3	38.7
Not very important	11	5	15	5.2	0.4	10.2
Not at all important	3		5	0.3	0.9	0.3
Don't know/refused				5.2	4.3	9.7

In the items in Table 3, most Americans and Taiwanese responded similarly regarding technological abilities with one exception. On this item, 89% of

Americans versus 73.5% of Taiwanese feel it is important or somewhat important to use VCRs and other "thinking "products. The researchers found some evidence that this difference could have been caused by unclear wording of this item and consequence misinterpretation.

Table 3
Question 4: How important is it to you, personally, to know each of the following?

Questions 4.1~4.6	Very or somewhat important		Not very or not at all important	
	ITEA 2004	**Taiwan 2005**	**ITEA 2004**	**Taiwan 2005**
4.1 Knowing whether it's better to repair products or better to throw them away	93	92.7	7	3.2
4.2 Diagnosing why something doesn't work so it can be fixed	92	92.7	8	4.7
4.3 How to program a VCR or use other "thinking" products	89	73.5	11	15.8
4.4 Being able to develop solutions to a practical technological problem	89	83.7	11	9.7
4.5 How to fix a light switch or other household product that stops working	86	86.2	14	10.0
4.6 Knowing how products such as a paper stapler work	64	63.4	36	25.8

Item 5.1 stated, "Technology is a small factor in your everyday life." The majority of Americans disagreed with this while the majority of Taiwanese agreed. On the question of whether "The results of the use of technology can be good or bad" in item 5.3, the vast majority of both the Taiwanese (92.4%) and Americans (94%) agreed with this statement. On items 5.2, "Engineering and technology are basically one and the same thing" and 5.4 "Science and technology are basically one and the same thing", a significantly higher proportion of Taiwanese (11.8% and 7.8% respectively) selected "Don't know/ Refused" than the Americans (1% and 1% respectively). This showed that fewer Taiwanese were clear about the difference between engineering, science, and technology compared to Americans.

Table 4 indicates that Taiwanese and Americans have similar attitudes toward selected general statements about technology. In item 6.1, ninety-seven

percent of Americans and 93% of Taiwanese agree that humans often develop new technologies to improve upon previous technologies. In item 6.2, two-thirds of Americans and three-fourths of Taiwanese agree that most environmental problems can be solved using technology, showing more confidence in technology among Taiwanese. In item 6.3, more than half of the respondents from both countries understand a fundamental concept about the design process (86.3% and 97% respectively).

Table 4
Question 6: Please tell me to what extent you agree or disagree with the following statements about technology.

	Strongly agree or mostly agree		Mostly disagree or strongly disagree		Don't know or refused to answer	
	ITEA 2004 %	Taiwan 2005 %	ITEA 2004 %	Taiwan 2005 %	ITEA 2004 %	Taiwan 2005 %
6.1 Humans often develop new techno-logies to improve upon previous technologies	97	93.0	3	5.6		1.4
6.2 Most environmental problems can be solved using technology	66	74.7	33	22.8	1	2.5
6.3 Design is a process that can be used to turn ideas into products	97	86.3	3	9.1		4.6

Table 5
Question 7: Based on your understanding, tell me if each of the following statements is true or false.

	ITEA 2001 %		Taiwan 2005 %	
Questions 7.1-7.4	True	False	True	False
7.1 Using a portable phone while in the bathtub creates the possibility of being electrocuted	46	51	49.3	48.6
7.2 FM radios operate free of static	26	72	55.1	43.4
7.3 A car operates through a series of explosions	82	15	64.5	33.2
7.4 A microwave heats food from the outside to the inside	37	62	68.2	31.4

Question 7 required true-false responses regarding selected technological products. The questions were based on the 2001 ITEA study. About half the respondents from both countries were not sure if using a portable phone in the bathtub could cause electrocution. Americans appear to know more about, FM

radio characteristics, how an internal combustion engine works, and how heating occurs with a microwave oven. These data are reported in Table 6.

Question 8 was based on the ITEA 2004 study and intended to determine whether selected statements were true or false. Unlike the ITEA 2001 which elicited a dichotomous true or false response, a four point scale was used. One of the items was very similar to the phone item in the previous question, except that "cordless" was substituted for "portable." The results for this item were very similar to the earlier ITEA study, showing that roughly half of the respondents believed that a cordless phone could deliver a lethal shock if used in a bathtub. About half of the Americans believed correctly that antibiotics were not effective with both bacteria and viruses whereas this was true for only about one-third of Taiwanese. Nearly three-fourths of Americans believed that the World Wide Web and the Internet as the same while the percentage for Taiwanese was about 10 percent less that this. The majority of respondents in both countries believed that fuel cells were being used with gasoline and diesel engines in automobiles, though this was true of slightly fewer Taiwanese.

Table 6
Question 8: Please tell me if you think the following statements are absolutely true, probably true, probably false, or absolutely false.

	Absolutely true or probably true		Absolutely false or probably false		Don't know or refused to answer	
	ITEA 2004 %	Taiwan 2005 %	ITEA 2004 %	Taiwan 2005 %	ITEA 2004 %	Taiwan 2005 %
8.1 Antibiotics kill viruses as well as bacteria	48	68.8	51	28.4	1	2.8
8.2 Using a cordless phone while in the bathtub creates the possibility of being electrocuted	49	49.6	49	45.7	2	4.7
8.3 The Internet and World Wide Web are the same thing	72	62.3	24	29.0	4	8.7
8.4 Fuel cells are now being used with gasoline or diesel engines to power cars	77	68.2	16	21.7	7	10.1

The next four questions related to contemporary topics and issues in technology, including biotechnology, robotics, construction, and space exploration. Table 7 indicates that Taiwanese and Americans have a strong

interest in the four topics. The interest levels were very comparable with the exception that Americans have greater interest in the biotechnology area involving the modification of plants and animals relative to the food supply.

Table 7
Question 9: How much of an interest do you, yourself, have in the following topics?

	Very or somwhat interested		Not very or not at all interested		Don't know or refused to answer	
	ITEA 2004 %	**Taiwan 2005 %**	**ITEA 2004 %**	**Taiwan 2005 %**	**ITEA 2004 %**	**Taiwan 2005 %**
9.1 Modification of plants and animals to supply food	69	55.8	31	42.4		1.8
9.2 Robotics and other technologies in manufacturing	60	66.6	40	29.5		3.9
9.3 New construction methods or homes and buildings	74	71.9	26	25.3		2.8
9.4 Space exploration	64	63.7	36	33.8		2.5

Question 11 was a follow-up to one in 2001 in which respondents were asked how much influence that they thought they had on technological decision making in their country (ITEA, 2001 and 2004). In 2004 only 41% of Americans believed that they did have influence. On the other hand, a significantly higher proportion of Taiwanese people, 61.6%, felt that they had such influence. Taiwanese who were 50 and older felt that they more influence than their younger counterparts.

Although two-thirds of Americans reported in 2001 that they wanted a voice in making decisions about technology, two-thirds of American respondents in 2004 seem comfortable with leaving these decisions to the experts (ITEA, 2004); The 2005 Taiwanese data showed that more than 60 percent of the respondents have confidence into leaving decision making (related to fuel efficiency of cars, the construction of roads, and genetically modified foods) to experts in the field.

Questions 13 through 18 in this study asked the Taiwanese people about their opinions related to technology education in the schools. In Table 9, Americans strongly believed that technology should be included in the school curriculum (97%), while only 71.8% of Taiwanese responded this way. When those who supported its inclusion were asked if it should be a separate subject or combined with other subjects, the majority of both the Americans and

Taiwanese said it should be integrated with other subjects. However, the proportion of

Table 8
Question 11: How much influence do you think people like yourself have on decisions about such things as the fuel efficiency of cars, the construction of roads in your community, and genetically modified foods?

Importance	ITEA 2004 %			Taiwan 2005 %		
	Overall	**Ages 18-29**	**Ages 50 +**	**Overall**	**Ages 18-29**	**Ages 50 +**
A great deal	9	12	9	20.4	18.8	26.9
Some	32	37	29	41.2	39.8	40.8
A great deal or some	**41**	**49**	**38**	**61.6**	**58.6**	**67.7**
Very little	40	39	40	25.3	29.3	19.9
No influence	19	12	22	9.0	5.7	8.2
Very little or no influence	**59**	**51**	**62**	**34.3**	**35.0**	**28.1**
Don't know or no response				4.1	6.4	4.2

Table 9
Question 13-15: Using a broad definition of technology as "modifying our natural world to meet human needs," do you believe the study of technology should or should not be included in the school curriculum?

	ITEA 2001 %	Taiwan 2005 %
Yes, should be included	97	71.8
No, should not be included	3	14.9
Those who believed that the study of technology should be included in the curriculum were asked if it should be made a part of other subjects like science, math, and social studies or taught as a separate subject?		
As a separate subject	36	45.5
Integrated into other subjects	63	52.9
Those who responded that it should be taught as a separate subject were asked if it should be required or optional		
Required	51	55.3
Optional	49	42.6

Taiwanese feeling this way was just over half, considerably less than among Americans. Roughly half of the respondents in both countries believed that, if technology were taught as a separate subject, it should be required.

In Question 16, both Taiwanese and Americans agreed that high school students should know, understand, and be able to do things related to technology. Question 17 revealed that a vast majority of Americans (94%) believe that the American schools can prepare the technologically literate people through education in their own schools rather than bringing in experts from other countries, while only about three-fourths (74.4%) of Taiwanese believed that this is true. In question 18, Taiwanese (72.6%) and Americans (88%) agreed that technology should be included in the national testing programs of science, mathematics, and reading. This shows that Taiwanese and Americans believe that knowing and understanding technology is a basic literacy every person should possess.

Age as well as gender influenced the results of this study. Table 10 reports a comparison of responses regarding the importance of technology. A higher proportion of American women (75%) than Taiwanese women (57%) felt that it

Table 10

Extent of agreement with technology-related statements by gender

Statement	ITEA %		Taiwan %	
	Men	**Women**	**Men**	**Women**
1. It is very important to develop abilities to understand and use technology.	73	75	70	57
2. It is very important to know how various technologies work.	41	35	59	54
3. Strongly agree that technology is a small factor in their everyday lives.	20	20	17	19
4. Feel they have very little influence in decisions relating to construction of roads, new construction, and genetically-modified foods.	37	42	18	19
5. Have either a great deal or some confidence in the ability of experts to make the decisions.	67	64	66	65
6. Believe the study of technology should be part of the school curriculum.	97	99	69	68
7. Believe questions designed to determine how much students are able to understand and use technology should be included in government-mandated tests.	88	88	72	68

was important to understand and use technology. Though there were differences overall between the responses of Americans to Taiwanese as reported earlier,

the differences between men and women for the remainder of the items were relatively minimal.

Table 11 breaks down by gender the responses to four sub-questions reported earlier regarding technological abilities (Question 4). Though there were significant differences between American men and women, these gender-based response differences were virtually nonexistent among Taiwanese.

Table 11
Importance of technological knowledge and abilities by gender

Statement	ITEA %		Taiwan %	
	Men	Women	Men	Women
1. It is very important to know whether it is better to repair products or better to throw them away.	62	67	58	61
2. It is important to be able to diagnose why something doesn't work so that it can be fixed.	67	58	56	55
3. It is very important to be able to program a VCR or use other "thinking" products	47	61	36	32
4. It is very important to be able to fix a light switch or other household product	61	45	54	52

Table 12
Importance of technology in everyday life by gender

Statement	ITEA %		Taiwan %	
	Men	Women	Men	Women
1.Say that antibiotics kill both viruses and bacteria is absolutely false	32	38	11	14
2.Say that a cordless phone in a bathtub creates the possibility of being electrocuted is absolutely false	37	18	33	17
3.Say that the Internet and the World Wide Web are the same thing is absolutely true	37	24	31	24
4. Say that fuel cells are used with gasoline and diesel engines to power cars are absolutely true.	36	19	45	31

Table 12 reports responses by gender about technology in everyday life. (Question 8). In general, the differences between the responses of men and women are similar between the two countries.

Table 13 reports the level of interest in technological topics by gender. Women in both countries are less interested than men in robotics and related technologies and in new construction. More American women than men are interested in plant and animal modification relative to the food supply, whereas Taiwanese men are more interested in this topic than women. More American women are interested in space exploration than men whereas the opposite is true for Taiwanese.

Table 13
Difference of the gender response in the question 9

Statement	ITEA %		Taiwan %	
	Men	**Women**	**Men**	**Women**
1. Very interested in knowing about the modification of plants and animals to supply food.	24	29	24	16
2. Very interested in the use of robotics and other technologies in engineering.	27	11	35	17
3. Very interested in new construction of homes and buildings.	40	30	39	24
4. Very interested in knowing about space exploration.	35	39	32	20

Summary of Similarities and Differences

Importance of Technological Literacy
Similarities: Most people in both countries think that it is important to develop technological literacy and understand the importance of technology in everyday life. Technology and computers are mistakenly thought of as the same thing.

The Impact of Technology on Daily Life and on the World
Similarities: Most people in both countries think that technology, engineering, and science are the same thing. Men tend to have more understanding than women about the technological knowledge related to daily life.
Differences: More Americans feel that technology is important in their everyday lives than do Taiwanese. Taiwanese men give more importance to developing the ability to understand and use technology

What People Want to Know and What They Know About Technology
Differences: The level of understanding of technological devices such as FM
                 radios and microwave ovens is not consistent between citizens of
                 the two countries: Taiwanese understand some devices better than
                 Americans while for others the opposite was true.
Similarities: Most people have a strong interest in the modification of plants to
                 supply food, the use of robotics in manufacturing, construction of
                 homes, and space exploration. Taiwanese men indicated a higher
                 level of interest in these topics than women, whereas the gender
                 differences among Americans varied by topic.

Decision Making Regarding Technology and Technological Literacy
Differences: Americans report being better informed about space exploration
                 than Taiwanese. More Taiwanese than Americans feel that they
                 have influence over national decisions made about technology
                 and older Taiwanese citizens feel more strongly about this than
                 younger ones.

Technology and Education
Similarities: Among those who believed it should be taught as a separate
                 subject, about half the respondents in both countries felt that it
                 should be required. When a national shortage of qualified people
                 occurs in a particular area of technology in a country, most
                 people agree that the preferable option is to educate their own
                 citizens in their own schools to fill the deficit. Most people agree
                 that nationally mandated tests should include questions to help
                 determine how much students understand and know about
                 technology.
Differences: Fewer Taiwanese than Americans believe that technology should
                 be included in the school curriculum. More Americans favored
                 technology being integrated into other subjects. Though the
                 citizens of both countries believe in educating their own citizens
                 to fill needs for expertise, as mentioned above, a higher
                 proportion of Americans felt this way.

International Comparisons

Volk & Dugger (2005) published a report that compared the first and
second ITEA/Gallup poll with a similar poll conducted in Hong Kong.
Regarding the importance of being able to understand and use technology,
Americans were slightly more adamant (98%) than Taiwanese (92%) and Hong
Kong people (93.1%). Far more Americans than Hong Kong or Taiwanese
citizens equate technology with computers.

Volk & Dugger (2005) stated, "Overwhelmingly, both samples strongly
supported the inclusion of technology in schools" (p. 64), while far fewer
(71.8%) Taiwanese supported the inclusion. The majority of Americans and

Taiwanese indicated that it should be integrated in other subjects, however, less than half of Hong Kong people felt this way. Volk & Dugger (2005) pointed that this outcome may have been the reflected the feelings of Hong Kong citizens regarding national examinations. However, a national testing program has been ongoing in Taiwan as well and it did not seem to influence the responses. It may prove worthwhile to compare the two countries in more detail.

Conclusions and Suggestions

1. *The reduction of technological course content and teaching time in Taiwan through the latest curriculum reform is contrary to what the citizens believe and expect in developing technological literacy.*

   According to the findings of this research, most Taiwanese think it is important to develop technological literacy and they believe that technology should be included in the school curriculum. Most technology educators in Taiwan believe that it is necessary to help all citizens become technological literate through technology courses in the secondary and primary schools (Lee, 2004). Though the latest curriculum reform integrated technology with science into a single course at the high school level, the two subjects are still taught separately in most schools; the two subjects are really not integrated. At the same time, the technological course content at the junior high school level is gradually being reduced. Typically there are only one or two chapters in the textbook that address technology content and the remainder are science. Most of the new "Science and Technology" courses are taught by science teachers. Technology teachers rarely have the opportunity to teach the technological content (Lee, 2004).

2. *Taiwanese are not clear about the similarities and differences between engineering, science and technology*

   Most Taiwanese think that technology, engineering, and science are essentially the same. In addition, they equate technology with computers to a large extent. This deficiency in technological literacy needs immediate attention by the Taiwan government.

3. *Taiwan must assure that students know about the technology they encounter in daily life through the school curriculum.*

   Taiwanese have less understanding than Americans about some of the technology they encounter in their everyday lives. The heating principle of microwaves and knowledge of antibiotics are two examples revealed by this study. Although, Taiwanese support technological literacy and agree that it is important, the educational system has not yet included technology in its national examinations. In agreement with Lee (2004), this study reaffirmed that Taiwan should provide leadership and reestablish the importance of technology

education in its educational system. In addition, to better assure that Taiwanese have accurate knowledge about technology, the mass media and the Taiwanese technology education professionals should both play a significant role.

4. *There is little gender differences regarding interest in technological knowledge and the application of technology around the home.*

Taiwanese men and women responded very similarly about their interests in specific areas of technology and the use of technology within the home. This is in contrast to American men and women. A possible explanation for this is the rising level of gender equity in Taiwan. Taiwanese women are now better educated, more represented in the workplace, and enjoy a higher level of income. They are increasingly more knowledgeable about technological products such as home appliances, computers, automobiles, and so forth. Moreover, the government of Taiwan considers boys and girls to have equal needs in understanding and adapting to the rapidly changing world in which they live, resulting in some needed reforms in education. Up until about ten years ago, Taiwanese junior high school boys studied industrial arts and the girls studied home economics. Now, boys and girls study both technology and home economics. Nonetheless, more men than women felt that it is important to study technology in the schools.

Final Thoughts

This study highlights some interesting similarities and differences between Americans and Taiwanese. Certainly many of the differences may be explained by the wide variation in the two cultures, especially in societal values, historical precedents, economic bases, and educational systems. It is interesting to note, at the same time, how similar some of the results are despite the cultural disparities.

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