East Meets West: What Americans and Hong Kong People Think About Technology

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A few years ago, Rose and Dugger (2002) published the results of a public opinion poll on *What Americans Think about Technology*. Sponsored by the International Technology Education Association (ITEA) and conducted by the Gallup Organization, this ITEA/Gallup poll revealed many things about the public's understanding and attitudes about technology, as well their ideas about technology in the school curriculum. Referencing the comprehensive *Standards for Technological Literacy* (ITEA, 2000), a project that used experts to identify the content for technology education, an objective of the ITEA/Gallup poll was to determine if the public's perception of technology is congruent with that of the experts. Clearly, given the thoroughness and credibility of the *Standards* along with its expected potential to influence technology education policy, direction and, content, an examination of public opinion was seen as being vital in determining the degree to which expert rhetoric matched public reality and expectations.

Similarly, Hong Kong is now going through dialogue and critical self-examination about technology education. In a departure from practice at the time, Hong Kong's Curriculum Development Council (2000) in their document *Learning to Learn*, recognized the importance of technology and specifically identified Technology Education as one of the eight necessary Key Learning Areas (KLA) for all Hong Kong students to acquire from the six primary grades through the lower three secondary grades. The CDC also applied a broad definition of technology as being "the purposeful application of knowledge, skills, and experiences in using resources to create products or systems to meet human needs." The impact of ITEA's work and perspective was evident in references made to it in the *TEKLA Curriculum Guide* (CDC, 2002) that subsequently followed. Similar to ITEA's *Standards*, the *Guide* was developed by academics, professionals from related fields, and other experts in order to help realize the recommendations made in the *Learning to Learn* document. The *Guide* included the framework, learning objectives, assessment practices, as well as exemplars for technology education.

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Considering that technology transcends international borders, many socio-economic parallels exist between the US and Hong Kong, and both societies recognize the imperative of having a technically literate citizenry, a study was conducted on what Americans and Hong Kong people think about technology. Given the commonalities between the US and Hong Kong, this study would seek to ascertain if there is a similar understanding and knowledge of technology, as well similar concepts and priorities about technology education. In so doing, this study would add to the body of knowledge about cross-cultural, cross-country comparisons relating to technology, as well as the appropriateness of generalizing technology education curriculum in a global context. To facilitate making comparisons, the study conducted in Hong Kong used a similar instrument to that used in the ITEA/Gallup poll. This invitation to conduct additional research using the ITEA/Gallup poll was encouraged by ITEA (Rose and Dugger, 2002). In this manner, corresponding data between the US and Hong Kong could be analyzed for significance and conclusions drawn.

The US and Hong Kong Context

Before making any comparisons between the results of the study done in Hong Kong with the one done in the US by ITEA/Gallup, caution needs to be raised about the appropriateness of using data from two studies for comparisons, especially between cultures. Noah's (1984) critique of the comparative education research cited ethnocentrism among the most notable misuse of such comparisons. This relates to looking at the world primarily from a point of view of the observer's own culture and values. In this regard, using a survey designed for a US study may influence and limit comparisons, as not only are the respective cultures and values obviously different, so are facets of the economies, education systems, and politics.

Given the increased sophistication of technology and increasing human interaction with technological products throughout the world, examining such issues as they relate to the public's perception of technology and education may be appropriate. Noah recognized the importance of technology on all cultures many years earlier, when writing with Eckstein in their classic *Toward a Science of Comparative Education* (1969), they described the modernization of developing countries such as India. They stated: "the most important means of modernization may be the increasing availability of automobiles, bicycles, water pumps, and so forth" (p. 116). According to the authors, counting schools and the number of students was not enough, for the "informal effects" of Western technology also needed investigation.

Given this caution, there are examples where cross-cultural comparisons have been successfully undertaken, some with the US serving as a benchmark. For instance, the Trends in International Mathematics and Science Studies (TIMSS) "resulted from the American education community's need for reliable and timely data on the mathematics and science achievement of our students compared to that of students in other countries" (National Center for Education Statistics, 2004). The Program for International Student Assessment (PISA),

sponsored by the Organization for Economic Co-operation and Development (OECD), followed the TIMSS study and was an international assessment designed to help understand how the performance of students in subjects such as science compares to that of peers in OECD and non-OECD countries. Another example of cross-cultural comparisons that specifically related to technology education was the Pupils' Attitudes Toward Technology (PATT) studies conducted over the past 20 years. Led by Dr. Marc DeVries at Eindhoven University of Technology, thirteen PATT Conferences have been held. Although many PATT conference papers examined cross-national comparisons, such comparisons were not without problems and limitations (Volk and Yip, 1999).

Despite the obvious differences in culture, history, language, government structure, and population density, there are many similarities that make the United States and Hong Kong interesting and appropriate to compare. Some of these similarities relate to the use of technology, employment rates, annual income, and educational attainment. Even their respective Gini Coefficient ratings reflect the growing unequal income distribution facing both populations, with both greater than most developed European nations (United Nations, 2004). Table 1 shows selected demographic indicators obtained from sources such as the Asia Development Bank, the Hong Kong Census and Statistic Department, the United Nations, US Department of Labor, and the World Bank.

The table of demographics also points out several differences between the US and Hong Kong. For example, given the expense of living in Hong Kong and the current difficult economic times and atypical high level of unemployment, the birth rate has dropped precipitously and is considerably lower than in the US. Hong Kong's past manufacturing base is now much smaller, with industry having moved across the border into China. Hong Kong's spending per student is also considered low, especially since the government is not obligated with other expenditures such as military defense.

As far as the use and impact of technology in Hong Kong and United States, many parallels can be drawn. One obvious area is the confusion over technology education (TE) and educational technology (ET) - the latter going under names of information technology (IT), information communication technology (ICT), computer studies (CS) and others. Petrina (2003) addressed this confusion and pointed out the attempts by organizations such as the International Technology Education Association (ITEA) and the International Society for Technology in Education (ISTE) to maintain differences despite the great overlaps in content, ideology, and standards. Dugger and Naik (2001) also raised similar concerns and tried to explain the differences between technology education and educational technology. However, in acknowledging the problem in misconceptions that exist even for educators, the authors challenged that technology education teachers must be the ones to educate others.

Table 1
US and Hong Kong Demographics

	US	HK
Literacy (percent ages 15+)	97.2	94.0
Unemployment rate (percent)	5.3	6.8
GDP per person (US$1,000)	32.8	25.6
GDP - Composition by sector (percent)		
Agriculture	2.0	0.1
Industry	18.0	14.7
Services	80.0	85.2
Current spending per student (% of GDP)	4.9	2.9
Starting teacher salary (per month, US$1,000)	2.5	2.1
Gini Coefficient*	0.4	0.4
Cellular telephone subscribers (percent of adult population)	62.0	87.2
Internet users (percent of population)	54.0	48.4
Median age of first marriage (female)	25.0	28.0
Life expectancy at birth (years)	80.5	81.5
Births per 1,000 population	14.0	6.8
Crime rate (per 100,000)	730.0	207.0

* The Gini Coefficient, also known as the index of income distribution, is used to measure income inequality. A Gini coefficient of 0 means that income is equally distributed among the population, while a value of 1 means essentially one person has all the income while everyone else has none.

Confusion also exists in Hong Kong about what constitutes technology, with different public groups offering different emphases and/or meanings. For example, the Hong Kong Education Commission's (1999) *Education Blueprint for the 21st Century* report was rife with references to technology, but they were almost totally related to information technology. This was in contrast to statements from other public bodies such as the Curriculum Development Council (2002) and Commission on Strategic Development (2000) that regarded technology in a broad sense. In this regard, comparing US and Hong Kong general public opinion about technology education is warranted, especially given that both have publicly stressed the need for technology education.

One last aspect which ties the two studies and cultures together is the expected change by 2010 in the Hong Kong school structure from a "British system" to one that more closely resembles an "American system" (Education Commission, 2000). This restructuring will have students finishing secondary school after grade 12, instead of grade 13. University bachelor degrees will then correspondingly increase in time from three years to four. With this expected common education structure, perhaps both cultures can learn from each other's concepts about technology and technology education.

Methodology

Both the US and Hong Kong studies used telephone interviews to obtain survey results. The Hong Kong poll was completed in early 2004 and used questions from the first ITEA/Gallup Poll (Rose & Dugger, 2002). The second US ITEA/Gallup Poll (Rose, Gallup, Dugger & Starkweather, 2004) was conducted after the Hong Kong poll, with some additions and deletions made to the original questions. Since the Hong Kong Poll was conducted between the two ITEA/Gallup Polls, the comparisons made between Hong Kong and the US use data that were compatible and/or most current.

Obvious concerns arise about the appropriateness of using an existing questionnaire from one culture and translating it into another. As noted by Behling and Law (2000), the lack of semantic equivalence across languages, lack of conceptual equivalence across cultures, and the lack of normative equivalence across societies may be problematic. They point out measures that will help ensure reliability, validity, and contextual use of words in the source language. Based on their recommendations, a modified direct translation was used for this study, whereby a panel of experts made independent checks on the work of the original translator. In this procedure, the panel (a) reviews the items and reacts in writing, (b) shares their comments with one another, and (c) meets to consider the points made and make recommendations. For translating and preparing instructions, recommendations from Behling and Law were also taken into consideration to ensure proper words, grammatical forms, and sentence structure follow cultural contexts.

The first step for using the ITEA/Gallup instrument in Hong Kong was to examine each item for appropriateness and relevance. An initial independent review by three lecturers in Design & Technology (D&T) at The Hong Kong Institute of Education determined two items required modification. One question included a specific definition for technology, so the exact definition used in the TEKLA, rather than ITEA's was considered more appropriate. Another question asked if the individual interviewed could explain how a home heating system works. To match the Hong Kong context, this item was changed to ask how an air conditioner works. After this initial review, the D&T lecturers then translated the instrument into the Cantonese dialect of Chinese used in Hong Kong. Careful attention was given to words such as "Technology", with the Chinese version of the *TEKLA Curriculum Guide* used as reference. From this translation by D&T lecturers, three lecturers in the Chinese Language Department were sent the original and Chinese versions for further comment and refinement.

Based on an estimated adult population of 5,008,886 (HK Census & Statistics Dept, 2003), the sample size required for the Hong Kong study would be approximately 750 (Gall, Gall, and Borg, 2003). This number would be sufficient for a margin of error of plus or minus four percentage points and at the 95% confidence level. This sample size was similar to both the first and second ITEA/Gallup Polls, with sizes of 1,000 and 800 used respectively. The

ITEA/Gallup poll also maintained a 95% confidence level with a margin of error set at plus or minus four percentage points.

Datacap Computer Solutions Ltd, a data capturing firm experienced in telephone interviews for many Hong Kong government projects, was used to conduct a two-stage telephone interview of 750 adults age 18 and older. Stage One involved households selected in accordance with the 2003 white page database issued by PCCW, the largest telephone provider in Hong Kong, with the telephone number randomly selected by CATI telephone survey system. Stage Two involved the random selection of household members with a base on the nearest birthday. The ITEA/Gallup Polls also used a random selection of households and a multiple stage approach to select one person in the household.

Table 2 provides details of the sample composition for the Hong Kong and second ITEA/Gallup poll. Differences in sample composition were noted for age and education, with the Hong Kong sample being younger and with less education. As far as the Hong Kong population's level of education, it was only in 1978 that Primary 6 school leavers were guaranteed a place in secondary school. Combined with the examination-driven system of progression and the limited number of places in university programs, the Hong Kong sample matched the education level reflected in the general population (Hong Kong Census and Statistics, 2004). It appears the age of the US ITEA/Gallup sample quite closely reflected that in the US (US Census Bureau, 2004), while the sample for Hong Kong had a higher proportion of young adults (32.4%) than in the general population (27%).

Table 2
Hong Kong and US Sample Comparison

	HK(%)	**US(%)**
Gender		
Male	45.9	48.6
Female	54.1	51.4
Age		
18-29	32.4	17.7
30-49	49.0	41.7
50+	17.3	39.7
Missing	1.3	0.9
Education		
Less than high school	25.6	9.3
High school graduate	33.4	27.9
Trade/Two-Years College	4.8	33.1
College Graduate or more	26.2	29.6
Missing Data	0.0	0.1

As the information gained from the telephone interview was opinion-based, and since such surveys are about what people think and what it prepared to support or not support, percentages were used to analyze the data. Chi-square was also used to examine whether there was some relationship between US and Hong Kong poll results. Babbie (1999) and Baker (1999) noted the use of chi-square as being one of the most widely used tests for statistical significance in the social sciences when the variables are nominal or ordinal in measurement. Bernard (2000) even explained how chi-square can be used to make comparisons across complex tables with several sub-variables. All authors cautioned that chi-square does not measure the strength of the relationship.

Findings and Discussion

Data from the first and second ITEA/Gallup poll were compared with the Hong Kong poll about what adults think about technology. With the large number of questions included in each poll, only selected items were presented in detail for this discussion. The public's responses to some of the questions were described in more general terms. In the following discussion, when 2004 ITEA/Gallup data were available, they superseded the 2002 ITEA/Gallup data.

Understanding Technology

The first series of questions related to the public's understanding of technology. The response to the first question indicated Americans placed a significantly greater importance on being able to use and understand technology [$\chi^2(2, N=2036)$ 394.087, $p<0.01$]. Table 3 shows that while over two-thirds of Americans had this opinion, less than one-third of Hong Kong people viewed this item as being "very important." It was also surprising that over six percent of Hong Kong people identified using or understanding technology as being "not very important."

Table 3

Just your opinion, how important is it for people at all levels to develop some ability to understand and use technology? Would you say it is:

	HK %	**US '04 %**
Very important	28.9	73.8
Somewhat important	64.2	23.6
Not very important	6.3	0.4
Not at all important	0.4	1.5
Don't know/refused	0.2	0.7

The next question was open-ended, asking people what comes to mind when they hear the word "technology." The Hong Kong responses were entered into a database, then grouped under categories similar to those used in the US study. Table 4 compares the responses to this open-ended question.

Table 4
When you hear the word "technology, what first comes to mind?

	HK %	**US '04 %**
Computers	47	68
Advancement	7	2
New Inventions	7	1
Electronics	5	5
Information	4	0
Science	3	1
Space	3	1
Things That Make Life Easier	3	0
Machinery	2	1
Internet	1	2
Education	1	1
Others	19	18

Rose et. al. (2004) noted that for Americans, "computers have no rival in the public's mind as emblematic of 'technology'" (p.2). With over two-thirds of the US sample saying "computers," this claim is easily substantiated. In contrast, it appears Hong Kong people have a much broader view of "technology," with less than half providing "computers" as their definition. Compared to the US polls, respondents in the Hong Kong study were more likely to use descriptors that transcend the physical hardware of technology, with terms such as "advancement," "new inventions," and "information" used. Although the ITEA/Gallup data did not distinguish between urban and rural participants, it is possible the fast-paced and technologically stimulating environment that is ever-present in a compact and quickly-changing metropolitan area such as Hong Kong would produce a wider perception of technology.

After the open-ended response, people were then asked to choose between either a specific broad definition of technology or one that narrowly-defined technology as computers and the Internet. For both studies, the broad definition provided was the one used by their respective professions. For example, the Hong Kong poll used the TEKLA definition of technology, "the application of knowledge, skills, and experiences in using materials to create products to meet human needs," while the US poll used an ITEA definition of "changing the natural world to satisfy our needs." As indicated in Table 5, two thirds of Hong Kong people agreed with the broad definition, which was in stark contrast to the US response, where a majority had a narrow definition of technology [$\chi^2(2, N=2376)$ 183.177, $p<0.01$].

Table 5
Which more closely fits what you think of when you hear the word "technology"?

	HK %	US '01 %
Computers and the Internet	34	63
The application of knowledge..... Changing the natural world	66	36
Don't know/refused	-	1

The results from this question echo the responses given earlier in Table 4, with Hong Kong people applying wider definitions for technology. Even with limited efforts to educate the public about the elements of technology education through Key Learning Area promotional material, Hong Kong people appear to be naturally more accepting of the profession's definition. Given the challenges in both the US and Hong Kong to convince the public about the need for technology education, it appears Hong Kong may potentially be more successful, as many of the citizens can already "talk the talk."

Table 6 shows the results of the public's capability to understand and use technology. It appears US citizens have a higher perception of their ability to understand and use technology [$\chi^2(2, N=2397)$ 579.239, $p<0.01$]. When asked to respond to one of four qualifiers provided, 75 percent of Americans indicated "to a great extent" or "to some extent", while only 24 percent of Hong Kong people indicated these characteristics. Caution needs to be made about the response to this question, as a specific definition of technology was not included. It is possible, based on the results seen in Table 5, that the US public was responding to a narrow "computer" definition, while Hong Kong people were responding to their wider definition. For example, in the US study, 90 percent of 18-29 year olds responded "to a great extent" or "to some extent", while 57 percent of those 50 and older had this perception. For Hong Kong, the difference was much smaller, being 31 percent and 26 percent respectively.

Table 6
To what extent do you consider yourself to be able to understand and use technology?

	HK %	US '01 %
A great extent	2	28
To some extent	22	47
To a limited extent	66	20
Not at all	10	5
Don't know/refused`	-	-

Knowledge and Attitudes of Technology

Several questions asked respondents about their knowledge of and attitudes about technology. The first question asked participants about their attitude toward technology in their everyday life. Hong Kong people seemed somewhat more ambivalent than Americans about the value of knowing more about technology, with one third (37%) responding they do not care about how things work. For those in the US, only one quarter (24%) had this lack of interest. There were significant differences between the US and Hong Kong answers to this question [χ^2(2, N=1401) 61.908, p<0.01]

Another series of questions asked about the effect of technology and how much input the public desired into the decisions being made about technology. Americans identified "the society" (67.4%) as the most important effect of technology, while Hong Kong people said "the environment" (62.4%) [χ^2(2, N=2367) 610.417, p<0.01]. Hong Kong's response might be reflecting the growing concern about worsening air and water pollution due to the rapid industrial expansion and lack of stringent environmental controls across the border into China (Civic Exchange, 2004). For decisions about items such as the designation of neighborhood community centers, where to locate roads in the community, the development of fuel-efficient cars, and genetically-modified foods, Americans expected to have significantly more input into the decisions. Hong Kong's relatively passive response may be an influence of its limited democratically elected government and Confucian heritage (Tsang, 2004) which encourages an acceptance of hierarchical authority.

The next two series of questions showed significant differences in the US and Hong Kong's understanding and knowledge of technology. Table 7 shows the significant differences of whether individuals could explain different technologies to a friend. With all items, Americans were much more confident about explaining technology, perhaps being less-humble than Hong Kong people. Considering the relatively simple operation of a flashlight, it was somewhat surprising that only 30 percent of Hong Kong people were confident

Table 7

Let me ask you if you could explain each of the following to a friend, just answer "yes" or "no". (% yes answers provided)

	HK	US '01	χ^2 (df=2) p<0.01
How a flashlight works	29.9	89.5	(N=2358) 887.910
How to use a credit card to get money out of an ATM	63.4	89.0	(N=2276) 220.331
How a telephone call gets from point A to point B	48.0	64.5	(N=2173) 57.757
How an air conditioner (home heating system) works	53.1	70.0	(N=2329) 82.838

enough to explain how one works. The findings from this item suggest limits to this type of survey question, in that the depth of explanation was not ascertained, nor was the actual need for individuals to know the theory and operation of these particular technologies established.

The public was then asked questions about how specific technologies worked and to answer "true" or "false." Table 8 compares the US and Hong Kong responses, with the percentage of those providing the correct answer provided.

Table 8
Tell me if each of the following statements is true or false (% correct answers provided)

	HK %	US '01 %	X^2 (df=2), p<0.01
Using a portable phone in the bathtub creates the possibility of being electrocuted	57.8	53.0	(N=2306) 4.467
FM radios operate free of static	46.0	26.5	(N=2156) 72.303
A car operates through a series of explosions	61.8	84.4	(N=2218) 134.046
A microwave heats food from the outside to the inside	45.1	62.9	(N=2311) 63.495

The results for this section of questions were split, with each group having more correct for two items. However, none of the answers seemed convincing for either the US or Hong Kong population. This finding seems to concur with those noted by Pearson and Young (2002) in their review of the 2001 ITEA/Gallup poll, that even though many replied earlier in their self-assessment that they were able to understand and use technology (see Table 6), the lack of knowledge made such self-ratings "superficial" (p. 65).

Technology and Education

The last series of questions concerned the study of technology, and how it should be included in the school curriculum. Those polled were asked about a potential shortage of qualified technical people and what their respective governments should do. Hong Kong people had a much more open immigration position than those from the US. With the established and historical practice of expatriates coming to work in Hong Kong, this significant difference [χ^2(1, N=2003) 66.503, p<0.01] was not that unexpected.

Table 9
When a shortage of qualified people occurs in a particular area of technology, which of the following solutions would you feel is the most appropriate course of action for the government to take?

	HK %	**US '04 %**
Bring in technologically literate people from outside Hong Kong (US)	15.8	5.0
Take steps through our schools to increase the number of technologically literate people in Hong Kong (US)	84.2	95.0

When provided with the broad definition of technology (… to meet human needs), those polled were asked if a study of technology should be included in the school curriculum (see Table 10). Overwhelmingly, both samples strongly supported the inclusion of technology in schools. However, when those who said it should be included were asked if it should be a separate subject or combined with other subjects, there were significant differences [$\chi^2(1, N=2002)$ 209.119, $p<0.01$]. Hong Kong people preferred it as a separate subject by a two to one margin, possibly reflecting the culture of public examinations (Kwong, 1997; Sweeting, 2004).

Table 10
Using a broad definition of technology as "the purposeful application of knowledge, skills and experiences to create products to meet human needs", do you believe the study of technology should be included in the school curriculum or not?

	HK %	US '01 %
Yes	97.6	97.4
No	2.4	2.6
Asked of those saying it "should be included in the curriculum" Should the study of technology be made a part of other subjects like science, math and social studies, or should it be taught as a separate subject?		
Part of other subjects	31.6	63.7
As a separate subject	68.4	36.3
Asked of those saying "separate subjects" Should the subject be required or optional?		
Required	38.3	50.7
Optional	61.7	49.3

The responses from the US and Hong Kong were also different when respondents were asked if a study of technology should be required or optional [$\chi^2(1, N=21073)$ 16.630, $p<0.01$]. The US response was equally divided on this question, but Hong Kong people suggested technology education should not be a required subject.

Implications

The findings from this study suggest that given the universals of technology, the many socio-economic parallels, and common education imperatives stated on the need for technology education, there exists many differences in US and Hong Kong people's understanding and attitudes about technology. Their response to how technology education should be included in the school curriculum was also dissimilar.

In general terms, Hong Kong people had a concept of technology that included more than "computers" and tended to accept the broad definition of technology presented by their technology educators and government position papers. This could suggest that the technology education profession in the US will have a more difficult time in trying to educate the public about the subject, given the lack of common definition and understanding about what actually constitutes "technology". This is not to imply that it will be easy in Hong Kong, for impediments also exist. However, if nearly two-thirds of Americans do not equate technology as being more than computers and the Internet, it will be very difficult to convince them about the need for a subject that is more encompassing.

Regarding each population's knowledge and attitudes, Hong Kong people seemed less interested in knowing more about technology as well as being part of the decision-making process. Americans perhaps are more accustomed to participatory stances, such as their historical input into educational matters, i.e., local boards of education, and their participation in a democratic government is established and expected (Westheimer and Kahne, 2004). This might suggest that if the technology education profession in the US could be more successful in convincing the general population about what is meant in a broader concept of "technology" and correspondingly that technology education should be a part of the curriculum, change may occur easier. This is because top down education mandates and initiatives are rarely successful without the understanding and support of the local community, both of which are necessary in order to accomplish reform (Fullan, 2001).

The US and Hong Kong's perceived knowledge about technology and their less than convincing answers to specific questions about technology also indicates potential problems. The higher confidence in their ability suggests that what they already know or have learned about technology may be sufficient, at least in their minds. For educators trying to convince a somewhat contented public that they need to know more, or that their knowledge about technology is lacking, may prove a daunting task.

Extrapolating from the data on the public perception about technology and education, it would be difficult to claim that either the US or Hong Kong population would support a required separate subject of technology. Although both samples supported the study of technology education, as suggested in a broad definition (see Table 10), their desire to have it as a separate subject and/or as a required subject was tepid. With 68 percent of Hong Kong people indicating technology should be a separate subject, but only 38 of them saying it should be required, it could be inferred only 26 percent of the total population would support it as a separate required subject, while the number would be less than 20 percent for the US. For Hong Kong, a lack of support currently exists in schools, with only 61 percent of secondary schools offering the broad technology subject of Design & Technology, while 100 percent offer narrow technology subjects in computers (Hong Kong Curriculum Development Institute, personal communication September 3, 2004). Pearson and Young (2002) also acknowledge this problem for the US and that the widespread adoption of dedicated courses in technology education is most likely "an unlikely scenario" (p. 104). Perhaps this reality of limited technology education in schools is a true reflection of public perception, as opposed to the rhetoric of the technology education profession. If this is the case, a lot of work is required by the technology education profession in both the US and Hong Kong to change the status quo.

Final Thoughts

Using a similar public opinion poll to compare what Americans and Hong Kong people think about technology provided interesting contrasts and similarities. Obvious differences in cultural influences such as history, language, and political systems play a part in the formation of education policy and public perceptions. However, the universality of technology can serve as a common basis for better understanding each other. In this regard, this study attempted to add to the body of knowledge about what different cultures think about technology. Perhaps the common issues and threats identified in trying to convince a public about the need for technology education will serve as a basis for future international collaborative efforts and discussions. In this regard, it is recommended the US study initiated by Rose and Dugger (2002) and replicated in Hong Kong be expanded to other countries and cultures.

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