

The Influence of School and Home Cultural Factors on the Educational Use of Information and Communication Technology: A Case Study in Hong Kong

Miaoting CHENG

Faculty of Education, The University of Hong Kong, Hong Kong, China <u>chengmiaoting@gmail.com</u>

Jae PARK

International Education and Lifelong Learning (IELL), The Hong Kong Institute of Education, Hong Kong, China jpark@ied.edu.hk

Allan H. K. YUEN

Division of Information and Technology Studies, Faculty of Education, The University of Hong Kong, Hong Kong, China hkyuen@hku.hk

Abstract: The influence of school or family on students' development is widely recognized as essential. Cultural factors which affect students' use of information and communication technology (ICT) need to be further explored. This research on digital divide analyzed the interview data from principals, teachers, and students from two Hong Kong junior secondary schools. The main findings suggest that cultural divide at school and home can significantly affect the phenomenon of digital divide in education. The cultural factors in school most associated with high ICT usage were the school principals' culture and values regarding ICT. Parental values, such as demanding but harmonious parent-child relationship, were the most influential home cultural factors. The results of the study suggest that the phenomenon of digital divide could be eased by previously overlooked gaps in school and family culture. Some suggestions and limitations were also provided in the conclusion.

Keywords: Parental culture, School culture, ICT use, Digital divide, Hong Kong

1. Introduction

The efforts to integrate information and communication technology (ICT) are a common place across nations and industries. Hong Kong has invested abundant resources to integrate ICT in education with three Five-Year Strategies (EMB, 1998). A cross-sectional research from 1998 to 2003 on 413 secondary schools evaluated the progress of the Five-Years-Strategies (The Hong Kong Polytechnic

Note. This paper was earlier presented at and published in the proceedings of the HKAECT International Conference 2014 held in Hong Kong, in December 2014.

University Project Team, 2005). The study demonstrated that the traditional gaps in students' access to hardware and equipment were practically closed. Comparable results were supported by other reports, which show a dramatically decreased student-computer ratio from 35.7:1 in 1998 to 6.09:1 in 2006 in Hong Kong secondary schools (Yuen et al., 2010).

Earlier conceptualization of digital inequality took into account material access to resources (Bucy & Newhagen, 2004; Compaine, 2001), socio-economic status (Ono & Zavodny, 2007; Volman & van Eck, 2001) and other forms of social exclusion (Warschauer, 2004). However, the focus of digital divide research has shifted from possession and access to usage, quality in particular (Dijk & Hacker, 2003; Dijk & Jan, 2005). If the latter is valid, the digital divide in Hong Kong education needs to be look at with a different paradigm. For example, according to a large-scale study involving 976 Hong Kong students, more than 60% senior primary school students, over 35% of secondary students, were identified as highly at risk of Internet addiction (Tsuen Wan Centre, 2004). Chu (2012) carried out large-scale research and proved that while students have generally equipped with a basic knowledge in operating computer, their higher skills still have much room to improve.

Such phenomena suggest that we cannot simply equate the abundance of ICT-related resources and access with high order ICT competence. A widening competence divide can coexist with plethora of access and use of ICT. Echoing this issue, a score of related research from sociology, physical, or political perspectives has been conducted (e.g. Shek, Tang, & Lo, 2009; Shek & Yu, 2012; Yu, Yuen, & Park, 2012; Yuen, 2003; Yuen, Law, &Wong, 2003)

It has been argued that ICT-mediated education should be explored from a holistic view by encompassing cultural contexts where education takes place (Hohlfeld, Ritzhaupt, & Barron, 2010). Values, on the other hand, could be regarded as a major connection of culture and action (Swidler, 1986).

It is broadly accepted that Confucian values are strongly embedded in Hong Kong culture (Hofstede & Hofstede, 2005; Park, 2011), where education is regarded as a channel for full development of an individual (Bond & Hwang, 1986). Confucian heritage culture has further been characterized as more masculine than feminine (Hofstede, 1996; Hofstede & Hofstede, 2005), as preferring collectivist to individualism (Hofstede & Hofstede, 2005), as stressing conformity and deference to elder demands (Ho, 1986), and as emphasizing restraint and diligent to achieve greater academic attainments (Chen & Stevenson, 1989; Stevenson et al., 1990). Values are mostly acquired from family since birth, and undergo a receptive period from ten to twelve years, and tend to stop changing at early 20s, as shown in Figure 1 (Hofstede & Hofstede, 2005). Therefore, secondary students are arguably in a critical period of value formation where the school and family are strongly influencing their interests and actions related to ICT usage.

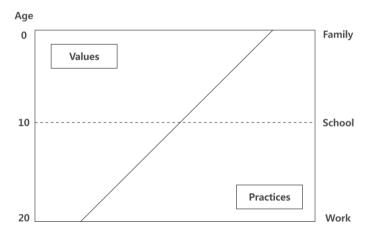


Figure 1. The learning of values and practices

Existing literature on factors affecting ICT use suggest that students' ICT usage is strongly related to their school and family that are in turn mediated by the distinctive culture of Hong Kong. The present study attempts to contribute to a better understanding of how cultures of school and parents influence on Hong Kong secondary students' digital divide. Research questions are:

- What cultural factors influence students' ICT use in school and home?
- What values do students assign to ICT use?
- What are the possible impacts of cultural factors on students' values?

2. Method

This research adopts the case study method. It is an empirical and holistic inquiry to investigate participants' experience from multiple sources of evidence using multiple research methods in a real-life context (Yin, 2009). Such approach does not only help to explore experience from the participants' own perspective but also allow researchers to understand and comprehend the meanings (Hennink, Hutter, & Bailey, 2010).

This study was conducted in two secondary schools (School A and School B) located in neighboring suburban districts of Hong Kong. Although in similar geographic location, their school contexts are different as shown in Table 1. As far as ICT facilities are concerned, both schools are well established with fully functional ICT equipment with the School B being significantly higher. To represent a full range of junior secondary students, the participants in this study were selected from first to third year of their studies. In addition, principals, teachers and parents were selected to provide a broader picture on students' usage of ICT.

	Table 1.	The context of the schools
--	----------	----------------------------

School	Total no.	Total no. of teachers	Instruction	School	School	Annual sch.
No	of students	(No. of IT coordinators)	language	history	grade	fees (HKD)
А	~ 990	63 (2- part time)	English	Since 1949	Band 1	290
В	~ 700	64 (2- full time)	Cantonese	Since 1996	Band 3	290

Informal network and gatekeeper strategies were adopted for participant recruitment (Hennink et al., 2010). By using the researchers' informal network, we sought to get endorsement from the school principals. After obtaining it, the school principals and authorized teachers by principals helped us with the participant recruitment. These principals and teachers served as gatekeepers, were critical to facilitate our research by giving approval to conduct research in their schools, helping recruit participants with required criteria, providing related information, and getting participants' trust for data collection (Hennink et al., 2010; Yin, 2009).

Table 2. Information of individual interview participants

School	Participants'	Participant	Participants' Code	
А	1	Student	A_SI_1	
А	2	Student	A_SI_2	
А	3	Student	A_SI_3	
В	4	Student	B_SI_1	
В	5	Student	B_SI_2	
В	6	Student	B_SI_3	
А	7	Parent	A_Par_1	
А	8	Parent	A_Par_2	
А	9	Parent	A_Par_3	
В	10	Parent	B_Par_1	
В	11	Parent	B_Par_2	
В	12	Parent	B_Par_3	
А	13	Principal	A_Pri	
В	14	Principal	B_Pri	

Table 5. Information of focus group interview participants				
School	Group No.	Participant	Participants' Code	
А	1	Teacher	A_Tea_1, A_Tea_2, A_Tea_3	
А	2	Student	A_SG_1, A_SG_2, A_SG_3	
В	1	Teacher	B_Tea_1, B_Tea_2	

Table 3. Information of focus group interview participants

The data in this study were collected mainly through interviews. Individual interviews were conducted as shown in Table 2. In addition, focus group interviews were organized with a total of eight participants separated into the following groups, as shown in Table 3. The interviews were all carried on in Cantonese and recorded by audio device. Daily oral reports, on-site questionnaires, and school documents were also collected to supplement detailed information on students' daily used and attitudes related to ICT.

All the audio recordings from interviews were transcribed verbatim. Content analysis was performed to identify descriptive codes, interpretive codes, and pattern codes iteratively (Miles & Huberman, 1994). Final codes were classified into three constructs: school factors (value on ICT, source of IT expertise, and style of professional development), home factors (parental skills and a demanding but harmonious family relationship), and shared value (conformity, masculine, deference and restraint).

3. Results and Discussion

This section offers an overview of students' ICT usage levels followed by a discussion on the identified school and home cultural factors that affected students' values and how these values hinder or promote their ICT competence. Some representative excerpts from the transcriptions are selected and presented.

3.1 Students' ICT Usage Level

Due to the fact that access divide in Hong Kong has been markedly decreased, the discourse on digital divide in this study highlighted the gap on usage to distinguish information divide from hardware divide (Dijk & Hacker, 2003). In the present study, the usage gap of ICT among students is apparent and it is classified into three levels: high usage level (systematically use ICT for work and education), middle usage level (better skills for entertainment whereas more difficult for learning), and low usage level (a relatively large part for entertainment with only basic ICT skills) as shown in Table 4.

Tuble in brauents fer	usuge miormation	
Participant's code	Usage level	Major purposes
A_SI_1	High	Study and work
A_SI_2	Middle	Entertainment (online games), social needs
A_SI_3	Low	Entertainment (online videos)
B_SI_1	Middle	Entertainment (online games), social needs
B_SI_2	Middle	Study and work, social needs
B_SI_3	Low	Entertainment (online video), social needs

Table 4. Students' ICT usage information

3.2 School factors and Students' ICT Use

A significant difference exists in the values of principals, source of IT expertise, and style of professional development. The traditional hierarchy in organizational culture still exists in both schools while School B is relatively more decentralized. In general, the values presented in the majority of the members in schools were consistent with their principals. Therefore, students' conformity and deference to their teachers remained, and students with better academic performance were believed and proved to be more restraint to use ICT mainly for learning.

3.2.1 Principals' values on ICT

The results indicate that principal in School A (A_Pri) has a lower expectation on the role of ICT whilst principal in School B (B_Pri) clearly emphasize the importance of ICT in leveraging teaching and learning. It is interesting to note that the practices of teachers and students followed similar pattern of their respective principals. This is consistent with reported understanding of cultural context of Hong Kong, for example, the deeply rooted values of conformity and deference toward rulers and elderly (G Hofstede & Hofstede, 2005). Thus, principals' values on ICT would directly affect teachers' ICT competence, pedagogically and technically, and meanwhile, indirectly influenced students' ICT usage in school.

3.2.2 Source of IT Expertise

The obstacles associated with human factors showed remarkable different between the two schools. In this study, insufficiency of qualified technical support was strongly perceived by the principal in School A whilst its existence was not evident in School B. While comparing the practices of principals and teachers in both schools, the reasons led to this differentiation appeared to depend significantly on the source of IT expertise.

While successful ICT implementation and integration depends to a great extent on teachers' pedagogical and technical competences (Yuen et al., 2010), the sustainability of ICT-related innovations are generally confined to the practices of specific teachers with great enthusiasm (Kozma, 2005). IT teacher as experts had the most profound influence on ICT integration at all levels by providing timely technical support and professional development. The value held by the IT teacher in School B is that all IT teachers should keep pace with the time and pursue continuous professional development in order to provide the best for students. In contrast, the IT teacher in School A expected much less and only hoped for basic skills for themselves as well as their students. His value and low expectation proved to affect students' usage of ICT in school:

ICT is dispensable and can be replaced by many other approaches. (A_SG_1)

I can learn more through computer, (such as) more software, more skills to design websites, and more knowledge. (B_SI_1)

Though the school principals are not the source of IT expertise in both schools, their values and attitudes towards ICT-mediated teaching and learning directly influenced teachers' practice. It is found that the principal in School B regarded ICT as a powerful lever in education and should dedicate to developing teacher and students' ICT competence. As for the principal in School A, he depicted his attitude as:

I was a student of liberty art, I do not have much passion to explore IT issues, and enough is ok... Students learn basic IT skills and cultivate correct attitude on its usage is also enough. (A_Pri)

3.2.3 Location of ICT Infrastructure

Location of ICT infrastructure in school is a critical factor that reflects how ICT are used within schools (Cuban, Kirkpatrick, & Peck, 2001). The personal computers are all located in the labs and library in the School A, which also has regulations with corresponding punishments if students use ICT outside stipulated premises. ICT infrastructures in School B are more advanced, more accessible, and more integrated into instructional and learning activities, indicating a higher usage level among students in school. The IT teacher in School B exerted profound influence with the support and trust from the school principal. For example, he has implemented mobile learning in classes and library with free access to iPad.

3.3 Home Factors and Students' ICT Use

This study focuses on the parental ICT-related skills and family environment. The traditional patriarchal family culture (Ho, 1986) is apparent in this study, where parents are generally authoritative on their children. Fathers are responsible for outside work and play a dominant role in family while mothers are chiefly responsible for home activities (G Hofstede & Hofstede, 2005).

The results of the present study are consistent with other research findings that Chinese parents are more supportive in assisting their children to achieve academic success and educational needs (Stevenson et al., 1990), while they are less involved or could even be punitive towards their children's poor academic performance (Rosenthal & Feldman, 1991). Therefore, in theory, the values of deference and conformity to parents, particularly the father, could affect students' practices on ICT, and the degree of restraint to regulate ICT usage in terms of amount of time and purpose.

3.3.1 Parental Skills

The findings show that the effectiveness of parental monitoring and guidance are closely related to parents' ICT skills. Students showed more deference and conformity to parents with higher ICT competence. This claim is derived from two findings. First, when timely support and effective suggestions are provided, students are more likely to ask for help to and trust on their parents. Secondly, with the involvement of father with greater ICT-related skills, hence viewed as 'hero' or role model, children are more restraint to avoid misuse of technologies, perhaps in order to gain parental recognition.

3.3.2 A Demanding but Harmonious Family

It has been argued that conflict is a remarkable feature in Chinese family (Rosenthal & Feldman, 1991), which is consistent with the overall goal of Confucian values to maintain harmony in family through self-restraint of children to overcome individualism (G Hofstede & Hofstede, 2005). Existing literature concerning this phenomenon generally adopt a dual-concern model (Sorenson, 1999; Sorenson, Morse, & Savage, 1999), which assumes individuals' preferred method to deal with conflict is simply driven by personal concern for self or for others in decision-making. However, this explanation cannot be comprehensive without including a concern for the cultural norms existing in one's family or groups (Whiteside & Brown, 1991). Based on the Confucian heritage culture of our participants, the factors of family relationship, family norms and collective interests are also considered (Park, 2011; Yan & Sorenson, 2004).

The results of this study indicate that students in a harmonious but demanding family environment would have higher degree of deference, conformity and restraint in terms of purposeful use of ICT. Within this specific family environment, students' usage level of ICT was more associated with family norms and collective interest. For a year 1 student from School A, who systematically used and benefited from advanced technology, his father is a big 'tech fan' and family gatherings held regularly are the reification of cultural influence in their ICT usage. Family gathering outdoors as interaction norms in family is not evident in the present study except the A_SI_1. As his mother revealed:

Digital technologies must have influenced our family relationship more or less, however, with appropriate control, its benefits are absolutely outweighed harms. We communicate a lot and always have family gatherings on holidays. Therefore, I always know what they are doing with computers (A_Par_1)

From this description, we can also see that parents can maintain a harmonious family relationship, which help to prevent or alleviate conflicts, through collective activities such as family gathering.

4. Conclusion

In this study, we attempted to provide a novel perspective for better understanding and explaining the digital divide phenomenon. Our main claim is that digital divide is not only a divide in access to and expertise or mastery in ICT but also a divide in culture. Drawing from the case of Confucian heritage school students and their respective families, we argue that various elements of culture such as school culture (i.e., principal's values, source of expertise and location of ICT infrastructure) and home culture (i.e., parental skills, demanding but harmonious family relationship) play a significant role in mediating students' values that lead to qualitatively and quantitatively different levels of ICT integration. Their shared values of conformity, deference, and restraint derive from the Confucian heritage culture (Park, 2011) and they are indeed cultural capitals conducive for academic attainments and social mobility (Bourdieu, 1986).

The findings of this study suggest ways to ease digital divide generated by a 'cultural divide'. First, school principals could establish a positive and shared vision in school and lead teachers, technical staffs, and out-of-school communities to sustain ICT integration and innovation within school. Second, teachers and parents invest more time and efforts in enhancing their own ICT-related skills, while understanding better the ICT practices of student and avoiding negative and non-constructive reactions to their personal need and lower academic performance. Only with fluent communication, can they understand students' values, generate appropriate strategies, and guide them to better practices. In this respect, join-activities such as workshops, lectures, and gathering could be effective ways to facilitate communication, which in turn can lead to better practices in ICT usage. Finally, parents should step in to mediate students' use of ICT by instilling positive environment at home through daily life. In our view, parents' effort to strengthen their own ICT skills is compatible with cultivating a harmonious yet demanding parent-child relationship in Confucian heritage culture.

Due to the limited scale of interviews, the findings may not render a robust generalization about the influential factors of students' ICT use. However, the findings suggest that students' educational use of ICT must take into account the cultural dimension of digital divide. Therefore, further and larger research, using both qualitative and quantitative measures, is needed to look more closely at the relationship between the digital divide and culture.

Acknowledgements

This study is a part of the public policy research project entitled 'Digital Divide in Education: An Experiential Understanding' (HKU7032-PPR-12) funded by the Research Grants Council (RGC) of the Hong Kong SAR Government. The research team would like to thank the participating students, teachers, school principals, and parents for their valuable contribution.

References

- Bond, M. H., & Hwang, K.-k. (1986). *The social psychology of Chinese people*. New York: Oxford University Press.
- Bourdieu, P. (1986). The forms of capital. . New York: Greenwood Press.
- Bucy, E. P., & Newhagen, J. E. (2004). *Media access: Social and psychological dimensions of new technology use*. the United States of America: Lawrence Erlbaum Associates.
- Chen, C., & Stevenson, H. W. (1989). Homework: A cross-cultural examination. *Child Development*, 60(3), 551-561.
- Chu, S. K. W. (2012). Assessing information literacy: A case study of Ppimary 5 students in Hong Kong. *School Library Research*, 15.
- Compaine, B. M. (2001). *The digital divide: Facing a crisis or creating a myth?* United States of America: Mit Press.
- Cuban, L., Kirkpatrick, H., & Peck, C. (2001). High access and low use of technologies in high school classrooms: Explaining an apparent paradox. *American Educational Research Journal*, *38*(4), 813-834.

EMB. (1998). *Information Technology for Learning in a New Era Five-Year Strategy* Hong Kong: Education and Manpower Bureau. Retrieved from

http://www.edb.gov.hk/en/about-edb/publications-stat/major-reports/consultancy-reports/it-learning-1998-20 03/index.html.

Hennink, M., Hutter, I., & Bailey, A. (2011). Qualitative research methods. Great Britain: Sage Publications.

Ho, D. Y. (1986). Chinese patterns of socialization: A critical review. New York: Oxford University Press.

- Hofstede, G. (1996). Gender stereotypes and partner preferences of Asian women in masculine and feminine cultures. *Journal of Cross-Cultural Psychology*, 27(5), 533-546.
- Hofstede, G., & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind*. the United States of America: McGraw-Hill.
- Hohlfeld, T. N., Ritzhaupt, A. D., & Barron, A. E. (2010). Connecting schools, community, and family with ICT: Four-year trends related to school level and SES of public schools in Florida. *Computers & Education*, 55(1), 391-405.
- Kozma, R. B. (2005). ICT, education reform, and economic growth: A white paper. Retrieved from ftp://download.intel.co.jp/education/wsis/ICT_Education_Reform_Economic_Growth.pdf.
- Miles, M. B., & Huberman, A. M. (2002). *Qualitative data analysis: An expanded sourcebook.* the United States of America: Sage Publications.
- Ono, H., & Zavodny, M. (2007). Digital inequality: A five country comparison using microdata. Social Science Research, 36(3), 1135-1155.
- Park, J. (2011). Metamorphosis of Confucian heritage culture and the possibility of an Asian education research methodology. *Comparative Education*, 47(3), 381-393.
- Rosenthal, D. A., & Feldman, S. S. (1991). The influence of perceived family and personal factors on self-reported school performance of Chinese and Western high school students. *Journal of Research on Adolescence*, 1(2), 135-154.
- Shek, D. T., Tang, V. M., & Lo, C. (2009). Evaluation of an Internet addiction treatment program for Chinese adolescents in Hong Kong. Adolescence, 44(174), 359-373.
- Shek, D. T., & Yu, L. (2012). Internet addiction phenomenon in early adolescents in Hong Kong. The Scientific World Journal, 2012. doi: 10.1100/2012/104304
- Sorenson, R. L. (1999). Conflict management strategies used by successful family businesses. *Family business review*, 12(4), 325-339.
- Sorenson, R. L., Morse, E. A., & Savage, G. T. (1999). A test of the motivations underlying choice of conflict strategies in the dual-concern model. *International Journal of Conflict Management*, 10(1), 25-44.
- Stevenson, H. W., Lee, S.-Y., Chen, C., Stigler, J. W., Hsu, C.-C., Kitamura, S., & Hatano, G. (1990). Contexts of achievement: A study of American, Chinese, and Japanese children. *Monographs of the society for research in child development*, i-119.
- Swidler, A. (1986). Culture in action: Symbols and strategies. American sociological review, 273-286.
- The Hong Kong Polytechnic University Project Team. (2005). Overall Study on Reviewing the Progress and Evaluating The Information Technology in Education (ITEd) Projects (Vol. 2014). Hong Kong: Education and Manpower Bureau.
- Tsuen Wan Centre. (2004). Chinese YMCA of Hong Kong Study on Adolescents' Internet Using Behaviors: Tsuen Wan Centre, Chinese YMCA of Hong Kong.
- Van Dijk, J., & Hacker, K. (2003). The digital divide as a complex and dynamic phenomenon. *The information society*, 19(4), 315-326.
- Van Dijk, J. A., & Jan, A. (2005). *The deepening divide: Inequality in the information society.* the United States of America: Sage Publications.
- Volman, M., & van Eck, E. (2001). Gender equity and information technology in education: The second decade. *Review of educational research*, *71*(4), 613-634.
- Warschauer, M. (2004). *Technology and social inclusion: Rethinking the digital divide*. the United States of America MIT press.
- Whiteside, M. F., & Brown, F. H. (1991). Drawbacks of a dual systems approach to family firms: Can we expand our thinking? *Family Business Review*, 4(4), 383-395.
- Yan, J., & Sorenson, R. L. (2004). The influence of Confucian ideology on conflict in Chinese family business. *International Journal of Cross Cultural Management*, 4(1), 5-17.
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). the United States of America: Sage Publications.
- Yu, M., Yuen, A. H., & Park, J. (2012). Using Web 2.0 technologies: Exploring perspectives of students, teachers and parents. *Interactive Technology and Smart Education*, 9(4), 204-216.
- Yuen, A. (2003). Fostering learning communities in classrooms: A case study of Hong Kong schools. *Educational Media International*, 40(1-2), 153-162.

- Yuen, A., Law, N., Lee, M. W., Lee, Y., Pelgrum, W. J., & Plomp, T. (2010). The changing face of education in Hong Kong: Transition into the 21st century: Centre for Information Technology in Education (CITE), Faculty of Education, University of Hong Kong.
- Yuen, A. H., Law, N., & Wong, K. (2003). ICT implementation and school leadership: Case studies of ICT integration in teaching and learning. *Journal of Educational Administration*, 41(2), 158-170.

About the Authors

Miaoting CHENG. Ms Cheng is a research assistant in the Information and Technology Studies in the Faculty of Education, the University of Hong Kong. Her primary research interests are digital literacies, social practices, social media, social network, and digital divide in education. She is rewarded distinction in her master degree and gaining momentum to pursue further study in information and technology in education.

Jae PARK. Dr. Park is an Assistant Professor of International Education and Lifelong Learning at the Hong Kong Institute of Education. He holds the degree of Doctor of Education from the University of Hong Kong, where he continues as a research associate and a visiting lecturer. His research interests are in sociology and philosophy of education. He recently published in International Studies in Sociology of Education, Comparative Education, and Ethics & Behavior. He serves as the President of the Comparative Education Society of Hong Kong.

Allan H. K. YUEN. Dr. Yuen is Associate Professor in Information and Technology Studies and Director of the Centre for Information Technology in Education in the Faculty of Education, the University of Hong Kong. His primary research interests focus on technology adoption and change in education, ICT in higher education, pedagogical innovations, social and cultural aspects of ICT use, digital divide in education, and teacher education. He published widely in books, book chapters, journal articles, and conference papers.

Journal of Communication and Education © 2015

Please cite as: Cheng, M., Park, J., & Yuen, A. H. K. (2015). The Influence of School and Home Cultural Factors on the Educational Use of Information and Communication Technology: A Case Study in Hong Kong. *Journal of Communication and Education*, 2(1), 12-20.