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Educational Technology and Instructional Design in East Asia: Program Curricula and Career Opportunities

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Introduction

It is important for educators to explore the relationship between a program curriculum and career opportunities to best prepare students for future careers. Facilitated by Dr. Robert Reiser, three experienced and well-established professors – Dr. Meifeng Liu from China, Dr. Katsuaki Suzuki from Japan, and Dr. Innwoo Park from Korea offered their insights through a panel discussion at the AECT Convention 2015. Their discussion, "Educational Technology and Instructional Design in East Asia: New Academic Programs and New Career Opportunities" attracted a wide audience including students, professors, and educational technology professionals. The panel discussion inspired many students like us. The four authors, who are graduate students of Educational Technology, followed up on their discussions by interviewing and exploring their topic with the panelists. This paper is a reflection and synthesis of these three experts' thoughts and perspectives on the Educational Technology program design, its future development, and job opportunities in East Asia. The three professors will be introduced, then their thoughts and perspectives on the topic in discussion will be provided.

Dr. Meifeng Liu is a professor in the School of Education from Beijing Normal University, China. Dr. Liu received her Ph.D. degree in International and Comparative Education from the same university. Her research interests are on Theoretical Research of Educational Technology, Instructional Design and Human Performance Technology. Dr. Liu has been recognized by her research and publications with many awards in the field including the AECT Foundation Award by Robert deKieffer International Fellowship (Liu, 2012). She also serves as academic advisor for doctoral students and chairs their dissertations.

Dr. Katsuaki Suzuki is the Chair of the Online School Programs for the Graduate School of Instructional Systems at Kumamoto University in Japan. Dr. Suzuki received his Ph. D. in Instructional Systems from Florida State University. After graduation, he returned to Japan and lectured at several universities. In 2006, he started the Online Graduate School of Instructional Systems at Kumamoto University, which offers the first master's program in Instructional Technology in Japan. His research focuses on instructional design and application of motivation theories. Dr. Suzuki has numerous publications including a chapter in *Instructional-Design Theories and Models* edited by Dr. Reigeluth (2009).

Dr. Innwoo Park is a professor at Korea University, and he received his Ph.D. in Educational Technology from Florida State University. Dr. Park has a wide variety of research interests, including technology integration in K-12 settings, design and development of e-learning contents and learning management system, exploration of new technologies, and corporate training and consulting. Dr. Park has published three books in the field of educational technology and has translated seven

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books of educational technology in Korean by himself and with other professors.

Curricula and Career Opportunities

Dr. Liu and her associates studied the current status of Educational Technology Programs in China. Their study examined the types of Educational Technology (ET) jobs and key competencies that Instructional Technology students were expected to have in those positions. According to their findings, many ET students with a master's degree worked as coordinators at ET centers. Different from students with a master's degree, Ph.D. graduates mostly chose to work as faculty members for ET programs in universities. In the past decade, there has been an increase of job opportunities emerging in business and industry. This change in jobs among ET graduates redefines the competencies needed to be successful in their careers. According to their findings, ET graduates in business and industry would 1) design training programs for large corporations; 2) design and organize training programs in corporate universities; 3) design e-learning courses for schools, universities, and training corporates; 4) design learning products and materials; and 5) work on external projects for consulting firms. Their study indicated that a percentage of undergraduate students choose to further their study but not specifically to get masters degrees. Quite a proportion of graduates choose to work in educational settings. However, more and more graduates with master's degrees and some undergraduates choose to work in corporate settings.

They also reviewed a list of key courses that universities offered to their students to find an effective way to prepare students. At Beijing Normal University, Dr. Liu and other professors are working to re-design the graduate programs so that ET programs provide graduates with necessary knowledge, skills and attitudes needed to succeed as ET professionals in the field.

At Kumamoto University in Japan, Dr. Suzuki pointed out that after 10 years development, the Graduate School of Instructional Systems has made a great and positive impact in the field. The Master of Science in Instructional Systems is a 100 % online program started in April, 2006 with four concentrations: Instructional Design, Informational Technology, Instructional Management, and Intellectual Property. One unique feature of this online program is the Story-Centered Curriculum (SCC). Each student would create their own story of how they have developed and will develop the expertise related to the instructional systems and how they will use their skills and knowledge for their future careers. SCC facilitates students' application skills and knowledge through virtual experiences in post-graduate working environments. However, they will stop offering SCC and archive it for reference for a new course "Integrated Curriculum Design". Dr. Suzuki mentioned that they would allocate the resource to initiate new required courses: "Portfolio I/II" using Mahara ePortfolio System; "Instructional Design II" using a new textbook, "Training Design Manual"; "Instructional Design III" using a translation copy of "Trends and Issues in Instructional Design Technology" edited by Dr. Reiser and Dr. Dempsey.

In Korea, many universities offer both undergraduate and graduate ET programs. Traditional types of jobs for ET graduates include 1) faculty members who teach educational technology in colleges; 2) researchers at national education institutes; and 3) training administrators in the corporate education domain. In recent years, their newly emerged jobs include 1) designer of online courses for universities and companies; 2) instructional support specialist at university Center for Teaching and Learning (CTL); 3) designers of training programs for large corporations; and 4) consultants for external projects. To better prepare students for their job tasks, Dr. Park used *ibstpi* competencies to collect data from the experts at corporations and universities. He also analyzed the curriculums of four undergraduate programs and nine graduate programs in ET to determine how many courses were offered for each competency on *ibstpi*. They analyzed 27 competencies, including 23 *ibstpi ID* competencies and four e-learning competencies. Dr. Park used them as reference for future program improvement. Thus, they decided to continue teaching the competencies they offer now and also revising those courses. They also decided to offer more courses and add courses to teach new technologies such as smart learning, flipped classroom, and MOOCs.

Reflection

According to Drs. Liu, Suzuki, and Park, ET Programs need to reassess core competencies to prepare our future instructional designers based on *ibstpi*. The purpose of the reassessment is to meet needs from new working environments. Although many graduates still prefer working in the educational settings, according to Dr. Liu, more and more graduates with a master's degree and some undergraduates choose to work in corporate settings. Three professors also reminded all educators that they should not ignore the high demands of instructional designers outside universities and educational institutions, and more practical knowledge and skills are needed for future instructional designers. They all agreed that the programs and courses of instructional design should always be updated according to the demands of the society. Their thoughts are well aligned with and supported by many scholars in the field of educational technology. In their paper "Competencies for the New-Age Instructional Designer", Sims and Koszalka (2008) clearly stated that "it is essential to consistently reflect on best practices to meet contemporary learning environments and expectations" (p. 570).

Competency was defined by Richey and colleagues (2001) as "a knowledge, skill, or attitude that enables one to effectively perform the activities of a given occupation or function to the standards expected in employment" (p. 108). This definition reflects that competencies should be updated regularly based on the changing environments. In the instructional design field, instructors and educators need to revise the programs and courses constantly so that their graduates can meet the four roles (analysts, evaluator, e-learning specialist, and project manager) as qualified instructional designers (Sims & Koszalka, 2008). According to Sims and Koszalka (2008), the analyst specializes in performance analysis and training needs assessment; the evaluator specializes in various forms of evaluation and assessment; the e-learning specialist specializes in development of multimedia and electronic learning products; and the project manager specializes in managing internal or external designers on one or several projects (p. 570).

According to Drs. Liu, Suzuki and Park, the first competency that is important to instructional designers is having communication skills in visual, oral and written form. No one can ignore the importance of communication, and efficient communication among content experts, stakeholders, and instructional designers can ensure the success of the final project. The rapid development of e-learning and online learning today also requires instructional designers maintain communication skills in both asynchronous and synchronous interactions.

Other competencies agreed by all three professors include the ability to conduct needs assessments and select proper media, content and learning materials for their projects. Determining what and who to involve in the need assessment is also a critical competency that is required for instructional designers today. This ability is essential for helping instructional designers revise courses and programs.

Another competency mentioned by Sims and Koszalka that instructional designers should be able to do is to "update and improve knowledge, skills, and attitudes pertaining to instructional design and related fields" (2008, p. 572). Dr. Suzuki also emphasized the importance of instructional designers applying the latest advancements in the instructional systems field. The authors of this paper are of the opinion that every instructional designer should stay sharp at latest technologies and use them in course content to help students prepare for the changing society.

The competencies such as identifying and describing target population especially in online environments; designing and developing learning environments; and contributing to the implementation and management of current programs and courses were also mentioned. Additionally, good instructional designers should have quick learning skills to always keep up with the latest development of the society. Drs. Liu, Suzuki and Park all pointed out that reassessment and redesign of instructional design programs and courses should strongly connect with the market to ensure instructional design students have the knowledge and skills to meet the market needs.

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References

Liu, M.F. (2012). AECT Foundation Award by Robert deKieffer International Fellowship at the Association for Educational Communication and Technology (AECT) 2012.

Liu, M. F. (2015). *Educational technology program in China: preparing students for new career opportunities*. Indianapolis: Presidential Session at the Association for Educational Communication and Technology (AECT) 2015 International Convention.

Park, I. (2015). *Educational technology and instructional design in Korea: preparing students for new career opportunities*. Indianapolis: Presidential Session at the Association for Educational Communication and Technology (AECT) 2015 International Convention.

Richey, R. C., Fields, D. C., & Foxon, M. (2001). *Instructional design competencies: the standards* (3rd ed.). Syracuse, NY: ERIC Clearinghouse.

Sims, R., & Koszalka, T. A. (2008). Competencies for the new-age instructional designer. In J. M. Spector, M. D. Merrill, J. J. G. van Merriënboer, & M. P. Driscoll (Eds.), *Handbook of research on educational communications and technology* (3rd ed., pp. 569–575). New York: Taylor & Francis.

Suzuki, K. (2015). *Educational technology and instructional design in Japan: preparing students for new career opportunities*. Indianapolis: Presidential Session at the Association for Educational Communication and Technology (AECT) 2015 International Convention.