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How Students Learn in East Asian Cultures and How That Learning May Evolve in the Future

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Abstract: This workshop focuses on how East Asian cultures furnish unique contexts for education and learning in the region. We share and discuss ongoing research, observations, and theory buildings with regard to the interdisciplinary research on the learning sciences, with the unique context of the interplay of sociocultural, language, and political and historical factors in East Asia. The guiding question is: How learning experiences are shaped by the cultural contexts? In elaborating the uniqueness of the Eastern Asian cultural context, existing studies show that the cultural beliefs, the native languages and bilingual contexts, virtual adolescent social lives, have impacts on the teaching and learning. These studies and the observations of those impacts initiate the introduction to the general theoretical synthesis of Interest-Driven Creator (IDC) theory.

This half day workshop aims at reaching a consensus on the benefits of exploring wisdom from East Asian cultures in transforming learning towards the cultivation of interest-driven creativity. Our knowledge synthesis effort will entail a) a consolidation of relevant research findings to date; b) a negotiation of understanding on the East Asian cultural factors by invoking the broader perspectives of researchers from other cultural contexts; and c) new research questions, methodologies and theoretical inputs to inform forthcoming studies and practices on the topic. In particular, we aim at developing a conceptual paper beyond the workshop to be submitted to a suitable journal, with the aim of triggering more cross-cultural dialogues among international scholars on the captioned topic.

Keywords: East Asian cultures, interdisciplinary studies, sociocultural lens, research and practice

Organizers' background

The organizers represent learning scientists from culturally unique contexts in Eastern Asia, including Mainland China, Singapore, Hong Kong, Japan, South Korea and Taiwan, as well as expertise from the Western academic community. All of us are experienced in research from multi-disciplines with the cultural factors as a highlighted concern.

Introduction

Learning and teaching are culturally dependent. Much sociocultural research shows that cultural factors are related to motivation and cognitive process (Millar et al., 2013; Han, 2010) and thinking styles (Lun, Fischer, & Ward, 2010). Likewise, Eastern culture has produced unique contexts for shaping learning and teaching: contexts which are very diverse, as manifested in the learning activities, thinking styles, class traditions, teacher development as well as in the outcome results of learning assessments (OECD, 2010). Different language structures can also play a role in orchestrating the learning experience.

This workshop brings together learning scientists from East Asian culture contexts to share research findings from culturally unique contexts in this region, with the specific objectives of a) to present research on the specificity of students learning in East Asian sociocultural contexts; b) to examine how sociocultural factors have shaped the education systems and practices in the region, discussing which factors may inform 21st century learning ; and c) to explicate the Interest-Driven Creators (IDC) theory and bring forward cross-cultural dialogue around the interplay of sociocultural, semiotic and individual factors.

Themes

Cultural uniqueness must be highlighted in the multi-disciplinary investigations of learning sciences. Thus in this workshop, preliminary findings obtained in the research teams will share their undergoing research projects,

with the uniqueness of East Asian cultural factors as one of the highlighted points.

The direction of cultural influences, along with consideration of future evolution, has been developed in a sociocultural lens into the main themes of workshop, in particular: (1) how students learn; (2) how cultures, values and biases have shaped education in East Asia and; (3) theoretical frameworks to guide the transformation of East Asian education.

How students learn in East Asian sociocultural context. We shall solicit contributions on the theoretical foundations of the learning sciences, particularly from the perspectives of of cognitive psychology, neurophysiological and big-data, among others. The invited presentations are pertaining to ongoing studies conducted in the East Asian context, including (but not restricted to): (1) the distinct performance of students in mathematics and native language learning, addressing the impact of the inter-operability of culture, language, and creativity thinking; (2) early childhood brain development and approaches to learning, addressing the impact of exposure to native languages, bilingual contexts, and the interplay of these; (3) the development of core competence and creativity of children in relation to native language, the interplay of culture, language, cognitive mechanisms and neural mechanisms; (4) the uniqueness of learning, given the impact of learning culture, peer pressure, and virtual adolescent social lives.

How have sociocultural factors shaped education in East Asian regions and what kinds of learning interventions are appropriate in positively transforming education in the East Asian context, and what are the challenges? What are the enabling traditional, cultural beliefs (e.g., the Confucian teaching) that we should leverage to design effective interventions? What are the hindering traditional beliefs that we could adapt or change for the better? Intervention includes policy imperatives (e.g. the pervasiveness of examinations).

The theoretical framework IDC. The stress on academic outcomes across East Asia has resulted in severe drawbacks: many students do not enjoy learning; it is difficult for students to develop 21st century competencies. To address this issue, a group of scholars from East Asia and Southeast Asia has launched the Interest-Driven Creator (IDC) Initiative as a theoretical synthesis (Looi et al., 2015). The intention is to co-construct a holistic developmental framework in which students foster their learning interests, capabilities in creation, and learning habits.

Workshop format (half day)

The workshop comprises three stages. Stage one features presentations on various learning sciences studies and their findings within salient East Asian cultures. In stage two, group discussions on the presentations ensue with the aim of understanding, contrasting and rising above local cultural factors by invoking the broader perspectives of researchers from other cultural contexts. The third stage is to seek consensus on what we have known about the East Asian system, what we need to discover and research further, and what the East Asian systems can learn from the rest of the world, and vice versa.

Stage One: Presentations

Invited presentations

(1) Learning sciences studies in East China Normal University: The research team under a five-year interdisciplinary research program of the stated university will present their studies with a focus on deep learning. Special emphasis will be placed on the uniqueness of cognitive, language, executive function development, and the learning paths/strategies of students located in the Chinese sociocultural context.

(2) Studies in East Asian countries/regions from sociocultural perspectives: For instance, researchers along with educational policy makers from Japan will reflect on the Japanese project of public education reform towards building on cultural capacity from the sociocultural lens.

(3) The macro design theory of IDC: Researchers from East Asia will present a synthesis of their vision of teaching and learning reforms in East Asia to overcome the cultural hindrances.

Papers written by these researchers will be solicited prior to the workshop. At the same time, researchers from the other parts of the world with interests in East Asian education systems may also participate by submitting position papers and make their presentations in this stage.

Stage Two: Group discussions

We will facilitate group discussions pertaining to the presentations. Participants may choose one presentation topic that they are most interested in and then form into groups. During these group discussions, all participants

will have the opportunity to: (1) attribute their perspectives on the cultural factors in learning sciences based on their own cultural contexts, (2) discuss related research findings/plans/methods as well as educational practices, (3) address other questions/concerns that related to the presentation.

Stage Three: Open discussions

In this final stage, an open discussion will be conducted with the aim of seeking synthesizing the views arisen from the group discussions. The discussion topics will include but not be limited to:

(1) What are the salient influential cultural factors in the East Asian context?

(2) What do we learn from other cultures for promoting deep learning and improving the East Asian education system?

(3) What are possible future research directions arisen from the discussions of this workshop?

We will also strive towards developing a conceptual paper beyond the workshop and submit it to a suitable journal, with the aim of triggering more cross-cultural dialogues among international scholars on the captioned topic.

Outcomes, contributions, dissemination

The expected workshop outcomes are a) new understanding on how students learn in East Asian sociocultural context, and how it has been shaped by the sociocultural factors; b) elicitation of wider interest and participation in the IDC initiative within the learning sciences community; and c) a joint conceptual paper to be published, in order to trigger more cross-cultural dialogues among international scholars on this topic.

The organizers and participants are promoting the workshop in various Social Media formats, including Twitter, Facebook (https://www.facebook.com/groups/TMCL2015/), personal contacts and our workshop website https://sites.google.com/site/iclsworkshop/. Resources from the workshop, including accepted abstracts and presentations have been made available online on the website in order to guide further discussion in the community.

Program Committee includes the seven organizers and

- Pierre Dillenbourg, Professor of Learning Technologies in the School of Computer & Communication Sciences, and head of the CHILI Lab of Computer-Human Interaction for Learning & Instruction.
- Hyo-Jeong So, Professor of HDT Lab, Department of Creative IT Engineering at Pohang University of Science and Technology, South Korea.
- Nancy Law, Professor and Founding Director of the Centre for Information Technology in Education (CITE), University of Hong Kong.
- Rachel Lam, Research Scientist of the Learning Sciences Lab., National Institute of Education, Nanyang Technological University, Singapore.

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