**IOE – NIE**

**Summer Term Seminar (Mini) Series**

**Dates:**

Wed 17 May 10-11am UK time Dr Jie Gao, IOE *and* Dr Yann Shiou ONG, NIE

Wed 31 May 10-11am UK time Dr Lauren Clark, UCL IOE *and* Dr Amelia YEO, NIE

Wed 7 June 10-11 UK time Dr Alina Pelikh, IOE *and* Dr Farhan Ali, NIE

Location: Zoom

<https://ucl.zoom.us/j/91970486554?pwd=b3QvQzZsSkJWT05FdlhYaENXaGVaUT09>

Meeting ID: 919 7048 6554

Passcode: 082995

**Wed 17 May 10-11am UK time**

Please register at: Eventbrite:[**https://www.eventbrite.co.uk/e/619741111347**](https://www.eventbrite.co.uk/e/619741111347)

**Speaker 1:** Dr Jie Gao – IOE, UCL’s Faculty of Education and Society

***Using participatory research methods to explore young children’s perspectives on school readiness***

School readiness is a contestable concept (Dockett & Perry, 2002), on which the current dominant discourses are mainly underpinned by research of adult stakeholders' perspectives (O’Farrelly et al., 2020). The paucity of research foregrounding children's perspectives has rendered the conceptualisation and operationalisation of school readiness more representative of adults' agenda rather than children's needs (Bingham & Whitebread, 2012).

This longitudinal study aimed to foreground young children’s voices in reconstructing school readiness to support transition from preschool to primary education in Chinese contexts. To 'track' children's transition experiences, we collected data at two time points: during the last month of preschool and towards the end of first semester of Year 1 in primary school. Informed by the Mosaic Approach (Clark, 2017), during each round of fieldwork, we conducted a) participatory and playful activities with young children to explore their experiences and perceptions on school readiness; b) semi-structured interviews with their parents, preschool and primary school teachers to contextualise children's perspectives and meaning-making. The reconceptualisation of school readiness from children’s perspectives can inform the corresponding operationalisation (e.g., assessment and interventions) and contribute to the ongoing reforms in curriculum and pedagogy to promote continuity from preschool to primary school education in China and beyond.

**Biography**

Dr Jie Gao is a Senior Research Fellow and Lecturer (Teaching) in IOE, UCL’s Faculty of Education and Society. Her research background lies in psychology of education, with research interests mainly including parenting, children's play, agency, well-being and motivation theories. She is also interested in research on innovative methodologies, particularly those of mixed-method approaches, such as Q-methodology. Her current research projects mainly focus on children's voices in early childhood education and care; children’s transition from preschool to primary education; development and evaluation of parenting programmes; and teacher continuing professional development.

**Speaker 2:** Dr Yann Shiou – NIE, Singapore

**Fostering Productive (Inter)disciplinary Engagement in STEM/Science**

In the recent science curriculum update in Singapore, science teachers are urged to: 1) provide STEM learning experiences as application of science learning and 2) develop students’ “ways of thinking and doing science” i.e. scientific practices as part of the goals of science education. In this short talk, I will outline my current research efforts aimed at supporting science teachers in these two aspects. Firstly, the development of an integrated STEM classroom observation protocol, based on the productive disciplinary engagement framework by Engle and Conant (2002), that foregrounds principles for designing integrated STEM activities that engage students in a productive and interdisciplinary way as they work towards their solution to a STEM problem. Secondly, the development of a scientific practices survey instrument for evaluating lower secondary students’ grasp of practices in the investigating, explaining, and evaluating spheres of scientific activity as well as and the “I think…because” question format for evaluating primary and secondary students’ scientific reasoning.

**Biography**

Dr Yann Shiou ONG is an Assistant Professor at the Natural Sciences and Science Education (NSSE) Academic Group, National Institute of Education (NIE), Nanyang Technological University (NTU), Singapore. Yann Shiou received her PhD in Curriculum and Instruction at the Pennsylvania State University, USA (2018) and her MSc in Science Education (Distinction) at the University of Bristol, UK (2011), and has a certification in physics teaching in Singapore. She is a science educator and researcher with an interest in epistemic practices in science/STEM. Her current research projects involve developing an integrated STEM classroom observation protocol for primary and secondary classrooms as well as developing a scientific practices survey instrument for lower secondary students.

**Wed 31 May 10-11am UK time**

Please register at: Eventbrite: <https://www.eventbrite.co.uk/e/summer-seminar-series-dr-lauren-clark-dr-amelia-yeo-tickets-627063713447>

**Speaker 1:** Dr Lauren Clark, IOE, UCL’s Faculty of Education and Society

**The University as a Transformative Space**

In recent years the idea of the university as a safe space has been quite controversial, with some identifying the university as a space to be exposed to new ideas and others seeing it as a space where controversial ideas should be kept out of the ‘safe space’. Indeed, some might argue that the university should be a space where students and staff are encouraged to challenge knowledge and the status quo by engaging with different perspectives. This presentation will explore the idea of the university as a transformative space, one that can provide a safe space to explore new ideas through freedom within a structure (Woods, 2005). As well as drawing on research on learning spaces (Savin-Baden, 2008; Cousin, 2010), this presentation will use primary data from interviews and observations with nine critical educators in higher education to consider how educators can create a transformative space in the university.

**Biography**

Lauren is a Lecturer in Education at the IOE and is also Chair of the IOE Early Career Network. Her research interests include student-staff partnership, higher education pedagogy, critical pedagogy, and academic identity. Lauren completed her PhD in Curriculum & Pedagogy at the IOE in 2020, which focused on exploring the relationship between critical pedagogical beliefs and practice in English universities. Lauren currently teaches on the MA Education programme and leads one of the core modules, What is Education.

**Speaker 2:** Dr Amelia YEO, NIE, Singapore

**The Psychology of Hand Gestures in Teaching and Learning**

When people speak, they sometimes move their hands. These hand movements are referred to as gestures. Do these gestures convey any meaningful information? In a classroom, teachers might gesture in different ways. For example, they might point to graphs on the whiteboard or trace a shape with their hands. Can these fleeting hand movements affect student learning outcomes? In this presentation, I discuss how gestures that co-occur with speech are meaningful and influence student learning from a psychological perspective. I will describe research on the usefulness of these gestures across a variety of student levels and discuss the attitudes of teachers towards using gestures in teaching and learning. I will also discuss the emerging finding that not all hand gestures could be helpful for learning and directions for future work.

**Biography**

Amelia is an Assistant Professor with the Psychology and Child & Human Development Academic Group at the National Institute of Education in Singapore and the Early Career Network representative of the Educational Research Association of Singapore (ERAS). Amelia obtained her PhD in Psychology from the University of Wisconsin-Madison examining how a speaker’s hand gestures influenced people’s thoughts about narrated events. Her current work examines how multimodal cues such as hand gestures affect the processes of learning and communication. Her work is highly interdisciplinary, crossing the fields of cognitive science, embodied cognition, psycholinguistics, and education.

**Wed 7 June 10-11 UK time**

Please register at: Eventbrite: <https://www.eventbrite.co.uk/e/summer-seminar-series-dr-alina-pelikh-dr-farhan-ali-tickets-627074626087>

**Speaker 1:** Dr Alina Pelikh, IOE, UCL’s Faculty of Education and Society

**Childbearing, experiences of medically assisted reproduction, unintended childlessness and partnership stability**

Despite the increasing use of Medically Assisted Reproduction (MAR) to realise fertility intentions in modern societies, it is rarely integrated into family demography work. For example, there is limited evidence showing whether MAR treatments are associated with partnership stability. While older age and more advantaged socio-economic position of women undergoing MAR treatments, together with their strong fertility intentions, could lead to higher partnership stability, the experience of infertility and stress related to MAR treatments may have an opposite effect, especially if couples remain childless. We use data on Finnish nulliparous couples from years 1996-2016 (N=149,884) to investigate whether partnership stability differs between couples who conceived naturally with (1.2%) or without (89.1%) a history of MAR, through MAR (7.7%), or remained childless after MAR (2.0%). Using event history analysis, we find no differences in partnership stability between couples who had a child after MAR or after conceiving naturally, once accounting for selection by sociodemographic, partnership and mental health characteristics. In contrast, we observed a significantly higher risk of separation among couples who remained childless after MAR. Although the excess separation risk decreases after two years since discontinuation of treatments, it remains substantially higher compared to couples who had a child after conceiving naturally or through MAR, which suggests there could be partial adaptation to unintended childlessness among couples who overcame the initial distress of failing to conceive.

**Biography**

Alina is a Senior Research Fellow in Demography at the UCL [Centre for Longitudinal Studies](http://https/cls.ucl.ac.uk/) and was awarded an [Understanding Society Fellowship](http://https/www.understandingsociety.ac.uk/research/fellowships) to investigate the role of early adolescent experiences in explaining differences in school-to-work trajectories between siblings. Her research interests include a range of topics across social demography and reproductive epidemiology, including life course, families and fertility, transition to adulthood. Alina was awarded with ESRC and Advanced Quantitative Methods Scholarship for her PhD research which she completed at the University of Liverpool in 2019. In her [PhD](http://https/discovery.ucl.ac.uk/id/eprint/10138179/1/Pelikh_PhD_2019.pdf), Alina investigated how various life course trajectories ([partnerships](http://https/www.sciencedirect.com/science/article/pii/S1040260822000156), [education and employment](http://https/papers.ssrn.com/sol3/papers.cfm?abstract_id=4159464), [residential mobility](http://https/onlinelibrary.wiley.com/doi/full/10.1002/psp.2125)) of young people in the UK have changed across cohorts born 1974-1990 using Understanding Society data.

**Speaker 1:** Dr Farhan Ali, NIE, Singapore

**A Discovery Science for Educational Research**

Educational and psychological research has strong theoretical orientations influencing how we design research, analyze data, write manuscripts and pass on knowledge to graduate students. In my talk, I argue for a complementary discovery science that can build and/or modify theories using data-driven approaches supported by machine learning. In one project, we show how using nonlinear machine learning classifiers uncovered a plethora of complex relationships that can predict student social functioning missed by theory-driven classical analysis (Ali & Ang, 2022). In another project, we use recent advances in unsupervised machine learning to learn and discover complex structural relationships among a wide variety of psychosocial variables, challenging prominent theories of motivation and academic achievement (Ali et al., under review). These efforts are part of an increasingly visible movement in social sciences that eschew simple explanatory theories in favor of discovering the complexities of human functioning.

**Biography**

Farhan Ali is an Assistant Professor in the Learning Sciences and Assessment Academic Group, National Institute of Education, Singapore. His current research interests are in social-emotional functioning and links to learning. He addresses the topic using approaches and methods from neuroscience, machine learning, and data mining. His group’s work has been published in journals such as Journal of Youth and Adolescence, International Journal of STEM Education and Asia Pacific Journal of Education. He is also a Program Leader for an interdisciplinary Master of Science (Science of Learning) degree program in collaboration with LKC School of Medicine, Nanyang Technological University. More information about Farhan Ali is found here.