## 2022 Faculty of Education Postgraduate Research Symposium "New Trends in Educational Research"

Program Booklet 23 April 2022

**Faculty of Education** 

**University of Macau** 





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#### **Symposium Introduction**

This symposium provides opportunities for Faculty of Education (FED) postgraduate students at the master's and doctorate levels to: use English to practice giving conference papers and poster presentations in a friendly environment; present research to peers and experienced supervisors in a collegial and helpful environment; meet other postgraduate researchers in the faculty working on similar areas of research; receive constructive feedback from the audience; and get a sense of the wide range of postgraduate research being undertaken in FED.

The 2022 symposium theme is "New Trends in Educational Research." The FED at the University of Macau invited proposals by FED postgraduate students in all fields of education exploring trending educational practices in varied educational contexts. This resulted in the acceptance of four paper and seven poster presentations on different aspects of education. Presentations this year cover state of the art research in first language reading, second language vocabulary, teacher autonomy, online instruction, problem-solving competence, romantic relationship quality, among others. In addition, we have the honor of having *Jun Liu*, Rector of City University of Macau, deliver a keynote speech on "10 Things Graduate Students Should Avoid in Doing Research."

Organizing this symposium has been a labor of love. However, making the symposium a reality would not have been possible without the kind support of FED Dean Chuang Wang, my fellow symposium organizers, the abstract, poster, and paper reviewers, the FED administrative staff, and the student helpers. I hope everyone finds the presentations intellectually inspiring and rich in opportunities for learning.

Barry Lee Reynolds Symposium Chairperson 20 March 2022

### **Symposium Organizers**

Chuang Wang  Barry Lee Reynolds	Distinguished Professor Faculty of Education University of Macau Assistant Professor Faculty of Education University of Macau	Symposium Chair, Website Content Creator, Symposium Program Book Coordinator, and Budgeting
Shulin (Colin) Yu	Associate Professor Faculty of Education University of Macau	Paper Presentation Coordinator
Elizabeth Tien Ping Hsiang	Assistant Professor Faculty of Education University of Macau	Poster Presentation Coordinator
Peggy Keang-ieng Vong	Associate Professor Faculty of Education University of Macau	Food, Beverage, and Transportation
Fu Chen	Assistant Professor Faculty of Education University of Macau	Proposal/Presentation Evaluation Coordinator and E-mail Monitoring
Jin-Jy Shieh	Assistant Professor Faculty of Education University of Macau	Venue Arrangements and Keynote Speaker Logistics

#### **Review Board**

### Paper Presentation and Poster Presentation Abstract Submission Review Board

Alice Si Man Lei Rui (Eric) Yuan Audrey Min-Chuan Sung Shing On Leung

Boby Ho-Hong Ching Shulin Yu
Chester Chun Seng Kam Tat Ming Sze
Chunlian Jiang Xiaowei Tang
Dennis Ping-Cheng Wang Yang (Frank) Gong

Fu Chen Yisu Zhou
Jin-Jy Shieh Zhaowei Kong

Jin-Jy Shieh Zhaowei Kong Matilda Ming Wai Wong

Mei Jiun Wu Mingming Zhou Pou Seong Sit

#### Poster Presentation Review Board

Audrey Min-Chuan Sung Elizabeth Tien Ping Hsiang Kan Kan Chan Mei Jiun Wu Shing On Leung Wei Wen Chen

### Full Paper and Paper Presentation Review Board

Elizabeth Tien Ping Hsiang Fu Chen

Shulin (Colin) Yu

### **Schedule of Events**

Saturday 23 April 2022						
Time	Event	Presenter	Location	Topic		
9:00-	Registration		E33-G021 I	Entrance		
9:30						
9:30-	Preamble	Barry Lee	E33-G021			
9:40		Reynolds				
9:40-	Opening remarks	Chuang Wang	E33-G021			
10:00						
10:00-	Keynote Speech	Jun Liu	E33-G021	10 Things Graduate Students Should		
11:00				Avoid in Doing Research		
11:00-	Presentation #1	Xiangyu Li	E33-G021	The Effect of Graphic Organisers and		
11:40				Self-monitoring on Expository Text		
				Reading Comprehension of Chinese		
				Students with Reading Difficulties		
11:40-	Presentation #2	Lihua Tan	E33-G021	Correlations among Perception of		
12:20				Teacher Autonomy Support,		
				Achievement Motivations,		
				Intellectual Risk-Taking, and Science		
				Academic Performance: A Serial		
				Mediation Model		
12:20-	Lunch		E33 GF Lea	rning Commons		
14:00						
14:00-	Presentation #3	Jiaqi Zheng	E33-G021	Perceptions towards interpersonal		
14:40				relationships on collaborative		
				problem-solving competence:		
				Comparing Hong Kong, Macao,		
				Chinese Taipei and B-S-J-G (China) in PISA 2015		
14:40-	Presentation #4	Lu Ran Zhang	E33-G021	It is Harmful to Me, not Us: A Dyadic		
15:20	riesentation #4	Lu Itali Zilalig	133-0021	Analysis on the Relation Between		
13.20				Insecure Attachment and Romantic		
				Relationship Quality		
15:20-	Tea Break /		F33 GF Lea	rning Commons		
16:30	Poster Session		200 0, 200			
16:30-	Best	Barry Lee	E33-G021			
17:00	Presentation	Reynolds	-55 5021			
	Awards and	,				
	Closing Remarks					
18:00	Courtesy Dinner		Restaurant	e D'Ouro, The Macau Roosevelt Hotel		
	for Keynote			,		
	Speaker,					
	Conference					
	Committee, and					
	Best					
	Paper/Poster					
	Presenters					

### **Keynote Speech**

#### Keynote Speaker

Professor Jun Liu has been appointed as the Rector of City University of Macau since March 1, 2021. Prior to this position, Professor Jun Liu served as Vice President and Vice Provost for Global Affairs, Dean of International Academic Programs and Services, Founding Director of China Center, and Professor of Linguistics at Stony Brook University (2016-2021). He also served as Associate Provost for International Initiatives and Professor of Applied Linguistics at Georgia State University (2011-2016); Assistant Vice President and Professor and Head of the Department of English at University of Arizona (1998-2011). Professor Liu has distinguished himself by establishing a track record of success in the field of Applied Linguistics, Intercultural Communication and Second Language Acquisition and Teaching. As an international leader in the field of language education, Dr. Liu became the first Asian and nonnative English-speaking President of TESOL International (Teachers of English to Speakers of Other Languages, Inc. 2005-2007) and is the recipient of the James E Alatis Award of Outstanding Service to TESOL (2016). He has served as Vice President of TIRF (The International Research Foundation of English Language Education) since 2015; Vice President of TCSOL (Teachers of Chinese to Speakers of Other Languages) (2013-2019), and Board Member of AIEA (Association of International Education Administrators) (2015-2018).

#### 10 Things Graduate Students Should Avoid in Doing Research

Jun Liu
Rector, City University of Macau

One of the key skills for graduate students in any discipline to hone is whether they can do quality research that will set them up for a great career trajectory. Too often, graduate students tend to jump into research without giving sufficient thought to the design of research. However, an outstanding researcher starts with careful planning for the entire process from its design to its product. In this keynote speech, Professor Liu will use many examples to highlight 10 things that graduate students should avoid in doing research. Namely, 1. Taking it lightly in deciding a research topic; 2. Asking too big a research question; 3. Designing research without a pilot; 4. Lacking a theoretical framework; 5. Skewing samples; 6. Conducting factual literature review; 7. Providing superficial analysis; 8. Ignoring data interpretation; 9. Offering general recommendations; and 10. Lacking voices. Professor Liu will end his talk by offering some candid advice for graduate students to excel in doing educational research.

### **Paper Presentations**

### The Effect of Graphic Organizers and Self-monitoring on Expository Text Reading Comprehension of Chinese Students with Reading Difficulties

Xiangyu Li xiangyu.li@connect.umac.mo

Reading comprehension of expository texts is a critical skill for secondary school students, but students with reading difficulties face obvious challenges in this task. This study used the single-subject experimental research design to investigate the effects of using graphic organizers and self-monitoring strategies to improve the reading comprehension of expository texts for three seventh-grade students with reading difficulties in a public school in Changsha, China. The study also examined the participants' proficiency in both strategies. This study measured reading comprehension in terms of access and retrieval skills, integration and interpretation skills, and reflective and evaluative skills using self-administered reading comprehension test sheets based on the PISA 2018 reading test. Results of visual analysis and effect size (Tau-U) indicated a functional relation between the intervention strategies and reading comprehension performance, with better instant and maintenance effectiveness but limited generalization effect. The strategies were particularly effective in improving access and retrieval skills but had limited effectiveness in improving reflective and evaluative skills. Participants were able to master the strategies, and the level of proficiency varied with the difficulty of text structure and graphic organizer. Implications for teaching expository texts to students with reading difficulties and for future research were discussed.

## Correlations among Perception of Teacher Autonomy Support, Achievement Motivations, Intellectual Risk-Taking, and Science Academic Performance: A Serial Mediation Model

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Many studies demonstrated that the teacher autonomy supports would relate to students' learning engagement and academic performance, but the effect mechanisms in science learning context have not been sufficiently revealed. Based on selfdetermination theory and achievement goal theory, this study aimed to provide a serial multiple mediation model which examined how students' perceptions of teacher autonomy supports (PTAS) relate to different achievement motivations (mastery and performance-approach goals), and further associate with student's intellectual risktaking (IRT) engagement and academic performance (AP). A self-report questionnaire and a standardized science academic test were completed by 520 primary school students from South China. The structural equation model revealed that the positive association between perceptions of teacher autonomy support and students' academic achievement was serially mediated by achievement motivations and then intellectual risk-taking engagement. Though the unexpected negative direct effects of PTAS on AP suggested the need to optimize autonomous instructional practices, the positive indirect and total effects highlighted the contributions of PTAS to students' achievement motivation and IRT engagement. The findings instantiated how external social support may promote the internalization of achievement motivations and further influence learning engagement and science academic performance. Such evidence is of value to educational researchers and teachers as it has extended our understanding of influential factors for promoting students' learning outcomes and how these factors correlated in science learning processes.

## Perceptions towards interpersonal relationships on collaborative problem-solving competence: Comparing Hong Kong, Macao, Chinese Taipei and B-S-J-G (China) in PISA 2015

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Collaborative problem-solving competence (CPSC) is increasingly becoming a core skill in the 21st century. As an innovative literacy that involves two vital components, CPSC was assessed in the Program for International Student Assessment (PISA) 2015 for the first time. The critical domain to be measured in CPSC tends to focus on the social component rather than the cognitive one. Therefore, students' dispositions towards interpersonal relationships need further investigation. The purpose of this study is to identify the effects of internal and external perceptions towards interpersonal relationships on CPSC in the PISA 2015 Study. Multiple linear regression was used to examine these effects across Hong Kong, Macao, Chinese Taipei, and B-S-J-G (China). After controlling for students' gender and Economic, Social and Cultural Status (ESCS), the results indicated that a) perceptions such as teacher unfairness, disciplinary climate, valuing relationships, and valuing teamwork significantly predicted CPSC; b) disciplinary climate was the strongest predictor among the external perceptions across four regions; c) regarding the internal perceptions, the effects of valuing relationships nearly doubled that of valuing teamwork in Macao and B-S-J-G (China); d) there was no significant relationship between teacher support and CPSC across four regions. These findings enlighten educational practitioners, parents, and government to help students develop their CPSC from the perspective of perceptions towards interpersonal relationships. Future studies could extend beyond the sample sizes of four regions, as well as determine other latent factors related to social skills which may affect CPSC.

### It is Harmful to Me, not Us: A Dyadic Analysis on the Relation Between Insecure Attachment and Romantic Relationship Quality

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The present study aimed to examine how romantically involved emerging adults' insecure attachment—anxiety and avoidance—associated with their and their partners' perceptions of romantic relationship quality, indicated by relationship intimacy and global satisfaction. We recruited 172 dyads of couples currently in heterosexual romantic relationships in the university. The couples completed self-reported measures of attachment anxiety and avoidance, perceptions of romantic relationship intimacy, and global satisfaction of their relationships. Structural equation modeling results showed that: (a) Individuals' attachment avoidance was negatively associated with their perceptions of romantic relationship quality (intimacy and satisfaction) for both genders; (b) Attachment anxiety was negatively associated with perceptions of relationship intimacy for both genders, but only with women's perceptions of relationship satisfaction; (c) For partners' effect, the association between attachment avoidance and relationship intimacy was found in both genders. We further discussed the mutual developmental process of intimacy in avoidant attachment, and implications of biased perceptions in anxious attachment regarding relationship quality.

### **Poster Presentations**

Teaching Chinese characters in Primary Grades: An Example of "Air Classroom" in Xiangzhou District, Zhuhai City during the "Postponement of School without Suspension of Learning"

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This study examined how Chinese characters were taught in grades 1 to 2 during the "postponement of school without suspension of learning" in 2020 (i.e., the period between the announcement of the Ministry of Education of the People's Republic of China to postpone the start of the spring semester of 2020 and the resumption of faceto-face teaching in the fall semester of 2020). The study focused on 144 online Chinese lessons (72 lessons for each grade) taught by 61 outstanding teachers from "Air Classroom" in Xiangzhou District, Zhuhai City, using the method of classroom observation to explore the time spent, specific instructional practices, and classroom interactions of Chinese characters instruction, to compare grade-level differences in the above variables, and to analyze the instructional process. It was found that: (1) The total time spent on Chinese characters instruction was 170702seconds (2845minutes 02seconds), accounting for 57.77% of the Chinese lessons. Teachers devoted more time to teaching character orthography, but the time spent on writing practice in class did not meet the curriculum standards, which is 10 minutes per day. (2) The teachers used a total of 80 specific instructional practices to teach Chinese characters. (3) The types of classroom interactions were relatively homogeneous. More than 80% of the time was spent on teacher-student interactions, while student-student interactions and group interactions were lacking. (4) The time spent on teaching Chinese characters, the number of instructional practices used in each lesson, and the time spent on teacher-class interactions and teacher-individual interactions were all significantly more in Grade 1 than in Grade 2. Grade 1 spent significantly more time than Grade 2 (p < .01) on the following three specific instructional practices: "teacher evaluated the students' writing", "instructed on writing posture", and "used the Six Principles Theory of Chinese Script (六書) to introduce the orthography". (5) The teachers instructed

students to write characters generally according to the procedure of "analysis - demonstration - practice - evaluation". And the teachers consciously imparted the rationale of Chinese character construction, stimulated students' interest, and developed students' independent learning skills. However, the classroom interactions in Chinese characters instruction were entirely teacher-led, and teachers were unable to attend to all home-learning students in front of the screen. Recommendations are provided for Chinese characters instruction and emergency distance teaching.

### The Effect of Reading Purpose on the Incidental Acquisition and Retention of Vocabulary from Reading

Xiaoyan Ma mc04876@um.edu.mo

There is consensus that vocabulary knowledge has become a significant factor in learners' communication and comprehension. Incidental Vocabulary Acquisition (IVA) has been proved to be a critical way of enlarging the vocabulary size existing in English reading. Nowadays, some studies have investigated the influencing factors on incidental vocabulary acquisition through L2 learners' reading. However, one crucial factor usually neglected is the reading purpose, which is the reader's motivation when starting to read. Thus, the current research aims to answer the following question: How does reading purpose affect the incidental acquisition and retention of vocabulary? 140 Grade-7 students from a middle school in Mainland China participated in the current study. An updated Vocabulary Level Test (UVLT) and standardized reading comprehension test (KET) were distributed in advance to the participants, showing no significant difference. The participants read for different reading purposes, including reading for passing an exam (exam group), reading for interest (interest group), and reading for no specific purpose (control group). After reading the same material, all the participants were invited to complete an immediate vocabulary test, which helped test the different types of vocabulary knowledge. They finished another delayed vocabulary test two weeks later. One-way ANOVA was used to analyze the data to see the differences among the three reading purpose groups. The effect sizes of each experiment group compared with the control group were also calculated to see the influence of each reading purpose on students' incidental vocabulary acquisition. This study delves deeper into the theories that most previous studies have used for researching incidental vocabulary acquisition. Meanwhile, it contributes to educators who may utilize reading purposes in classroom teaching and increase students' incidental vocabulary acquisition possibilities.

### Investigating Factors Affecting Students' English Pronunciation Self-efficacy in m-Learning Context

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Pronunciation is the hallmark of communicative competence, which is essential to develop mutual understandings in oral communication. When examining factors related to academic achievement, researchers have found self-efficacy to be an important construct, with strong empirical evidence supporting the positive predictive power of self-efficacy on performance outcomes in different subjects. In the domain of English pronunciation, prior studies also showed a positive relation between English pronunciation self-efficacy and achievements. To effectively improve students' pronunciation performance, factors affecting English pronunciation self-efficacy should be explored first, especially during this COVID-19 pandemic, thus facilitating autonomous learning. This present study explored factors contributing to the development of English pronunciation self-efficacy in m-learning context, by analyzing 10 year-one college students' semi-structured interview data triangulated with monthly reflection. Three themes regarding feedback, online course and self-regulation were obtained and corresponding suggestions were presented for future m-based instruction.

## Expectancy-Value Profiles in Foreign Language Learning: Associations with Social Support, Motivational Engagement, and Academic Achievement

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Task value and competence belief are key determinants of foreign language learning achievement, yet past studies predominately focused on the average level of students' task value and competence belief by using variable-centered approaches. Studies on interindividual differences in foreign language learners' task value and competence belief are still in their infancy. Thus, a person-centered approach (i.e., latent profile analysis) was adopted to identify profiles of students' task value and competence belief with 491 Chinese English as a foreign language (EFL) learners. Four profiles were identified, including "low expectancy-value belief", "medium task value but low competence belief", "medium expectancy-value belief", and "high expectancy-value belief" EFL learners. These four profiles showed significantly different degrees of motivational engagement in learning English. Moreover, social support from parents, peers, teachers, as well as gender yielded significant predictions on the membership of profiles. Theoretical and practical implications are discussed.

# The Relationship among Work-family Conflict, Organizational Commitment and Turnover Intention: A Comparison Between Beginning Preschool Teachers and Experienced Preschool Teachers

Yuanfang Guo Yc07108@umac.mo

Work-family conflict is prevalent in preschool teachers, which has increased the risk of turnover intention. However, the effect of work-family conflict on turnover intention may be different between beginning preschool teachers and experienced preschool teachers. The present study examined the mediating role of organizational commitment in the relationship between work-family conflict and turnover intention with a sample of 726 beginning preschool teachers and 603 experienced preschool teachers coming from China. Results indicated that (1) Chinese beginning preschool teachers' organizational commitment played partial mediating role in the relationship between work-family conflict and turnover intention; (2) organizational commitment fully mediated the relationship between work-family conflict and turnover intention among Chinese experienced preschool teachers. These findings have important implications for devising interventions separately to reduce the turnover intention of beginning and experienced preschool teachers.

### Multidimensional profiles of parent involvement: Antecedents and impact on student engagement

Tianxue Cui YC07111@umac.mo

Parent involvement is a vital factor related to students' healthy development. However, research has been inconsistent in addressing how parent involvement should be defined and measured, leading to varied findings across cultural and educational backgrounds. Focusing on the multidimensionality of the construct of parental involvement, we identified two dimensions of parental involvement. This study adopted a person-centered approach to identify subpopulations of parent involvement in the study domain and daily life domain in a Chinese population. Subsequently, we also examined the profile differences of parental involvement concerning student subject well-being (SWB, life satisfaction and affect) and two antecedent variables (gender and socio-economic status [SES]). Participants were high (15-18 years old; N = 781; 478 girls and 303 boys) school students in a northern city of China. The questionnaire of parental involvement was adapted from the Program for International Student Assessment (PISA) (2012). Every five items represented parental involvement in study and daily life, respectively. We adopted the Satisfaction with Life Scale (5 items) developed by Diener et al. (1985) to measure the cognitive facet of SWB. The positive and Negative Affect Schedule (PANAS) was used to test students' affective well-being, with ten items representing positive mood and ten representing negative mood. All the scales showed satisfactory reliability and validity to the data. Latent profile analysis was conducted on student-rated questionnaires of their perceived parent involvement behaviors in study and daily life. Subsequently, the manual BCH method was employed to concurrently model covariates and outcomes on the latent profile model. Pairwise comparisons between profiles were examined for statistical significance. Three distinct profiles emerged concerning the students' response pattern of parental involvement in study and daily life. The first is moderate parent involvement in both study and daily life (profile 1). It reflected the moderate rating scores across dimensions of parental involvement. The second is low involvement in study but high involvement in daily life (profile 2). Students in this profile reported low perceived parental involvement in study but relatively high involvement in daily life. The last profile showed high involvement in study and daily life (profile 3). These profiles differed significantly in terms of their antecedent characteristics. Boys are more likely to be classified into profiles 1 and 3 when taking profile 2 as a reference. When the SES of the family increases, students are more likely to be assigned into profile 3. Pairwise comparisons between profiles showed various associations with SWB. Students in profile 2 reported significantly higher life satisfaction and positive affect than those in profiles 1 and 3. Whereas students in profile 1 and profile 3 did not show significant differences. This study clarifies associations between multi-faceted dimensions of parent involvement in the family context. Parents who paid more attention to their daily life but less in study might relate to more positive mental features for high school students.

### A mixed-methods investigation of the effectiveness and perceptions of learning English collocations using the keyword method and the rote learning method

Xiaofang Zhang yc17111@connect.um.edu.mo

The purpose of this study was to assess the effectiveness and perceptions of the keyword method (KWM) and the rote learning method (RLM) for learning English collocations. Previous researchers claimed that the KWM is less useful for L1 Chinese speakers, but empirical investigations are scarce. A highly controlled laboratory-like setting was adopted for randomly assigning participants to the rote learning group (n=15) or the keyword learning group (n=15). After receiving training on use of the respective strategy, the two participant groups applied the respective strategy to the learning of collocations. Target collocations were assessed at three different time periods, and additional data regarding perceptions of the two strategies were elicited through one-on-one post-hoc interviews. The quantitative data revealed the KWM was superior to the RLM in terms of long-term retention of productive collocation knowledge; knowledge of adjective-noun collocations was retained better than verbnoun collocations. The qualitative data revealed that participants deemed the KWM was unfamiliar but effective for learning collocations. Additionally, participants claimed the RLM was facile but may result in a high rate of forgetting. The pedagogical implications of the results are that EFL teachers should encourage EFL learners to use the KWM for learning English collocations. Doing so may consolidate learners' collocation knowledge.