

2024 Faculty of Education Postgraduate Research Symposium
“Emerging Issues in Education”

Program Booklet
27 April 2024

Faculty of Education
University of Macau



澳門大學
UNIVERSIDADE DE MACAU
UNIVERSITY OF MACAU



教育學院
Faculdade de Educação
Faculty of Education

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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 language of the symposium is English.

This is the fourth year FED has held the postgraduate research symposium. This year's symposium theme is "Emerging Issues in Education". The rapidly evolving world presents challenges that demand attention from educational researchers, teachers, students, and stakeholders alike. This context underscores the crucial role of research in addressing pressing concerns such as technological integration in classrooms, inclusive learning environments, evolving teaching methodologies, and the impact of globalization on educational practices. Understanding and navigating these emerging issues through research becomes pivotal to fostering holistic improvements in education across diverse landscapes. With those in mind, the Faculty of Education (FED) at the University of Macau invited proposals by FED postgraduate students in all fields of education that explore educational practices in varied educational contexts.

Our invitation for proposal submissions resulted in the acceptance of six oral presentations and eight poster presentations on different aspects of education. Presentations this year cover English education, science education, mathematics education, music education, educational technology, educational psychology, physical education, among others. In addition, we have the honor of having *Ming Ming CHIU*, Chair Professor at The Education University of Hong Kong, deliver a keynote speech on "How to improve students' research projects for publication: Case studies of University of Macau student competition winners".

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 Interim Dean Michael King Man HUI, my fellow symposium organizers, the abstract, poster, and paper reviewers, the FED administrative staff, and the student assistants. I hope everyone finds the presentations intellectually inspiring and rich in opportunities for learning.

Barry Lee Reynolds
Symposium Chair & Budgeting
1 April 2024

Symposium Organizers

<i>Michael King Man HUI</i>	Chair Professor Interim Dean of Faculty of Education University of Macau	<i>Professional Consultant</i>
<i>Barry Lee REYNOLDS</i>	Associate Professor Faculty of Education University of Macau	<i>Symposium Chair & Budgeting</i>
<i>Boby Ho-Hong CHING</i>	Associate Professor Faculty of Education University of Macau	<i>Poster Presentation Coordinator, Proposal/Presentation Evaluation Coordinator, & Email Monitoring</i>
<i>Katy leong Cheng HO WEATHERLY</i>	Assistant Professor Faculty of Education University of Macau	<i>Proposal/Presentation Evaluation Coordinator, Email Monitoring, Food & Beverage, Transportation, & Venue Coordinator</i>
<i>Chester Chun Seng KAM</i>	Associate Professor Faculty of Education University of Macau	<i>Food & Beverage, Transportation, & Venue Coordinator</i>
<i>Alice Si Man LEI</i>	Assistant Professor Faculty of Education University of Macau	<i>Oral Presentation Coordinator</i>
<i>Xin LIN</i>	Assistant Professor Faculty of Education University of Macau	<i>Symposium Program Book Coordinator</i>
<i>Lijia LIN</i>	Assistant Professor Faculty of Education University of Macau	<i>Website Content Creator</i>

Review Board

Oral Presentation and Poster Presentation Abstract Submission Review Board

Jin SUN

Andy Chun Wai FAN

Boby Ho-Hong CHING

Alice Si Man LEI

Shing On LEUNG

Barry Lee REYNOLDS

Chester Chun Seng KAM

Lijia LIN

Audrey Min-Chuan SUNG

Sou Kuan VONG

Rui (Eric) YUAN

Zhengdong GAN

Xin LIN

Poster Presentation Review Board

Wei Wen CHEN

Siu Ming CHOI

Katy leong Cheng Ho WEATHERLY

Oral Presentation Review Board

Xin LIN

Boby Ho-Hong CHING

Jin SUN

Jin-Jy SHIEH

Schedule of Events

Saturday 27 April 2024				
Time	Event	Presenter	Location	Topic
9:00-9:30	Registration		E33-G021 Entrance	
9:30-9:40	Preamble	Prof. Barry Lee REYNOLDS	E33-G021	
9:40-10:00	Opening remarks	Prof. Michael King Man HUI	E33-G021	
10:00-11:00	Keynote Speech	Prof. Ming Ming CHIU	E33-G021	How to improve students' research projects for publication: Case studies of University of Macau student competition winners
11:00-11:30	Presentation #1	Xiaoke BAI	E33-G021	The effects of reading task type and digital glossing on incidental vocabulary learning: An eye-tracking replication of Hill & Laufer (2003)
11:30-12:00	Presentation #2	Zhimeng JIANG	E33-G021	Science identity and science career intention: A meta-analysis
12:00-12:30	Presentation #3	Ning REN	E33-G021	Virtual companion or flesh and blood? An experimental study exploring the effect of study-with-me videos on learners' well-being and performance
12:30-13:00	Presentation #4	Wei CHEN	E33-G021	Learning via video: The effects of summarizing strategies and self-explanation prompts
13:00-14:15	Lunch		E33 GF Learning Commons	
14:15-14:45	Presentation #5	Yuqi LIN	E33-G021	Collective efficacy and goal orientation in collegiate and professional a cappella ensembles in China
14:45-15:15	Presentation #6	Xiangyun ZHANG	E33-G021	Correlation between students' mathematics performance and teacher-administered instruction in PISA test: Exploration Based on Mediator Analysis
15:15-16:45	Tea Break / Poster Session		E33 GF Learning Commons	
16:45-17:00	Best Oral & Poster Presentation Awards and Closing Remarks	Prof. Barry Lee REYNOLDS	E33-G021	
18:15	Courtesy Dinner for Keynote Speaker, Conference Committee, and Best Oral/Poster Presenters		Castico in Taipa Village	

Keynote Speech

Keynote Speaker

Ming Ming CHIU is Chair (Distinguished) Professor of Analytics and Diversity and Analytics Assessment Research Center Director, The Education University of Hong Kong. A graduate of Columbia BS (computer science), Harvard EdM (interactive technology) and UC-Berkeley PhD (education), he was Senior Advisor to South Korea's Minister of Corporations and advises China's Ministry of Education and Qatar's Ministry of Education. He invented (a) statistical discourse analysis to model online and face-to-face conversations (top 50 learning science idea –International Society of the Learning Sciences), (b) multilevel diffusion analysis to detect corruption in the music industry, (c) artificial intelligence Statistician, and (d) online detection of sexual predators. His 85 grants (US\$24 million) yielded 290 publications (198 journal articles; 15,000+ citations; #8 in Education in China, 2022), 17 keynote speeches, 5 television broadcasts, 17 radio broadcasts, and 189 news articles in 22 countries. He creates automatic statistical analyses for Big Data.

How to improve students' research projects for publication: Case studies of University of Macau student competition winners

Ming Ming CHIU

Chair Professor, The Education University of Hong Kong

Every good, publishable research study begins with an important question whose answer has useful consequences. Next, we learn from scholars' past efforts to answer the question to build a corresponding theory with cause -> effect mechanisms (A -> B -> C ...). To test our theory, we design the best possible study (data, analysis), given our (team's) limited skills and resources. After implementing the study, we interpret the results to determine which parts of our theory are supported (vs. rejected). Then, we consider its implications for theory, methodology, and practice/policy for key stakeholders. Using research proposals from University of Macau student competition winners, I will illustrate these ideas and give them customized tips. Then, I will answer audience questions about their own research proposals.

Oral Presentations

The Effects of Reading Task Type and Digital Glossing on Incidental Vocabulary Learning: An Eye-tracking Replication of Hill & Laufer (2003)

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While the extant literature shows reading in conjunction with the completion of a task is more effective at inducing incidental vocabulary acquisition than reading alone, it remains unclear whether it is the involvement load (IL) induced by particular tasks or the time spent on completing them that leads to these more robust incidental vocabulary acquisition outcomes. To address this issue, a replication-extension study of Hill and Laufer (2001) was conducted to investigate the effects IL, time on task, and time on targets while reading e-glossed texts have on the incidental acquisition of vocabulary. 49 L2 English learners were recruited and randomly assigned to one of three reading conditions: reading-only task ($n=16$; low IL), meaning-oriented task ($n=16$; low IL), and form-oriented task ($n=17$; mid IL). Eye movement data was collected measuring the time that participants spent processing target words and e-glosses while completing the different tasks. Participants received a pre- (1 week prior), post- (immediate), and delayed post-test (2 weeks after) measuring the incidental acquisition of receptive form, receptive meaning, and productive meaning. This study checked the previous study's findings by examining involvement loads of the reading tasks and identified the effect of time on tasks and time on target items on incidental vocabulary. This study can help language teachers design reading tasks that elicit more vocabulary learning in the classroom when learners read.

Science identity and science career intention: A meta-analysis

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Science identity has gained immense significance for its impact on shaping students' aspirations and motivations to pursue careers in STEM fields. Although its effectiveness has been evidenced by some empirical studies, its concrete roles continue to be ambiguous due to inconsistent findings across various research studies. This meta-analysis aimed to investigate the association between science identity and science career intention. By conducting a comprehensive meta-analysis in R, we estimated the average weighted correlation coefficient (r) and explored six potential moderators, including several study characteristics and sample characteristics to explain the heterogeneity among studies. Utilizing a random-effects model, we analyzed 78 effect sizes from 35 quantitative studies and found a positive and statistically significant average weighted correlation of $r = .47$ ($SE = .04$, $p < .001$) between science identity and science career intention. The robustness of the results was confirmed through sensitivity analyses. In conducting moderator analysis, the magnitude of this correlation was found to be significantly varied by identity type and gender. These findings highlight the significance of science identity in shaping science career intentions and provide a nuanced and detailed understanding of their interconnectedness.

Virtual companion or flesh and blood? An experimental study exploring the effect of study-with-me videos on learners' well-being and performance

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Selecting an optimal learning space is critical for informal self-directed learning. Recently, study-with-me (SWM) videos become prevalent as a novel hybrid learning space. SWM videos showcase individuals engaging deeply in their work for extended periods, providing a virtual companion for the viewer. Prior qualitative studies suggested that SWM videos may enhance learners' motivation, mitigate stress, and improve performance. However, whether and how SWM videos contribute to learners' well-being and performance remains unknown. Drawing on Basic Psychological Need Theory (BPNT), this study investigated the effect of SWM videos on learners' well-being and performance. The study further investigated the construction of learning spaces that meet learners' basic psychological needs for learners' well-being and performance, comparing SWM videos against two other learning spaces: learning alone and learning with an authentic person. The study assessed the well-being and performance of 60 university students across these three learning spaces. Intrinsic motivation and stress were measured as well-being, and participants' reading time and accuracy in a speed-reading practice were assessed as performance. Linear mixed model (LMM) analyses identified stress as the only significant variable affected among different learning spaces. Participants experienced less stress with SWM videos than learning with an authentic person despite a lower sense of relatedness in the former learning space. Among the three basic psychological needs, competence emerged as the most crucial in designing a supportive learning space for informal self-directed learning, followed by autonomy. Contrarily, relatedness did not significantly affect learners' well-being and performance in this context.

Learning via video: The effects of summarizing strategies and self-explanation prompts

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It has been widely concerned about how to improve learning with online multimedia lessons. Prior studies have tried to divide video lessons into several short videos to help learning. However, there has been a debate concerning whether embedding generative learning activities during the pause between the videos can better facilitate learning. In the present study, we aimed to investigate: a) whether the use of the summarizing strategy would benefit learning via video with regard to learning outcome, cognitive load, intrinsic motivation, and metacognition; and b) which self-explanation prompts would further engage learners. A total of 149 university students were randomly assigned to one of six conditions formed by a 2 X 3 between-subjects design with self-explanation prompts (structured prompts vs. open-ended prompts) and summarizing (constructed summarizing vs. provided summarizing vs. no summarizing) as factors. The results of the Analysis of covariance indicated that: a) the structured prompts reduced extraneous cognitive load and fostered metacognition, b) the positive effect of the structured prompts on retention was dependent upon no summarizing, and c) the provided summarizing strategy resulted in higher perceived competence when compared to the constructed summarizing strategy. These findings are discussed within the contemporary engagement theory and cognitive load theory. This research could provide some implications for designing short instructional videos to facilitate learning.

Collective Efficacy and Goal Orientation in Collegiate and Professional A Cappella Ensembles in China

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The purpose of this study was to explore the correlation between goal orientation and collective efficacy in collegiate and professional a cappella ensembles members ($n = 102$) in China. Participants were from collegiate a cappella ensembles ($n = 73$) and professional a cappella ensembles ($n = 29$). Data were collected via two questionnaires adapted from the 2×2 achievement goal orientation (performance-approach, mastery-avoidance, performance-approach, and performance-avoidance goals), and the 20-item collective efficacy questionnaire for sports (factors include Ability, Effort, Preparation, Persistence, and Unity). The keywords in the questionnaires from classroom environment were adapted based on the rehearsal context of a cappella ensembles. Results presented that both types of ensembles were highly engaged with mastery-approach, while the avoidance-approach goal orientation was ranked the lowest. The regression analyses indicated a positive correlation between the mastery-approach goal orientation and all five collective efficacy measures, suggesting groups that prioritize mastery learning and overcoming challenges exhibit elevated levels of collective efficacy. In light of these findings, this study posits that a cappella ensembles, irrespective of their pedagogical approach, may derive substantial benefits from embracing mastery-approach styles of participation and rehearsal methods, rather than being exclusively fixated on achieving performance outcomes. Accordingly, this study presents a framework grounded in prior research on mastery approaches within the context of a cappella ensemble rehearsals, offering music educators guidance on facilitating ensemble members to adopt and learn through mastery approach during rehearsals. The framework is structured through several thematic components: (1) Collective affirmation of positive beliefs; (2) Promotion of grit & flow; (3) Emphasis on intrinsic Motivation; (4) Implementation of systematic practice methods; and (5) Support for risk taking. This research underscores the significance of a mastery-oriented approach within a cappella ensembles, providing a robust link between individual goal orientation and the collective efficacy of the ensemble.

Correlation between students' mathematics performance and teacher-administered instruction in PISA test: Exploration Based on Mediator Analysis

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The paper starts by investigating the mathematics field in PISA-2012 from an international perspective. Its goal is to determine what type of teacher-administered instruction will encourage the intermediary factors to play a better role and, as a result, accomplish the goal of improving students' mathematics performance. Seven independent variables, two covariant variables, three intermediary factor variables, and one dependent variable were used to create SEM models using IBM SPSS AMOS software. Data analysis revealed that teacher-administered instruction that improves students' grades is highly consistent with earlier research, and the new variable Mathematics Work Ethics is thought to possess a significant effect. This dissertation is of great significance to the study that national policies focus on "teachers" in the changing themes of global educational research development.

Poster Presentations

The Impact of High-Intensity Interval Training on Body Composition and Well-Being in University Students: A Controlled Pre-And-Post Trial

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Sedentary lifestyle and mental health issues are very common among university students, in response to the present educational challenges. Previous research conducted in school settings have provided evidence that High-Intensity Interval Training (HIIT) is an effective technique to address these concerns. The present study aims to explore the effects of HIIT on both body composition and psychological well-being. A randomised controlled trial is being conducted, with a sample of 60 university students ($n=60$) within the age range of 18 to 25. The participants are categorised into two groups: 30 students in experimental group (HG) that undergo an 8-week HIIT program (once a week), and 30 students in control group (CG) that continue with normal physical education classes. The HIIT program consists of 2 sets of 4 exercises (high knees, dot steps, jumping jacks, and squat jumps), each performed for a duration of 30 seconds with a rest period of 10 seconds. The measurement tools encompass InBody test for evaluating body composition, fitness tests, and psychological questionnaires. Data analysis with SPSS involves Normality Testing (Shapiro-Wilk test), Repeated Measures ANOVA, and Correlation Analysis to evaluate physical and mental changes, using a significance level of $p < 0.05$. The primary outcome is that the participants of HG are expected to experience significant improvements in body composition, specifically decreases in body fat percentage. Secondary outcomes may include improvements in general physical fitness, including increased endurance and strength, as well as favourable alterations in psychological well-being, such as decreased stress levels and improved mood. This HIIT program, blending aerobic and resistance exercises, targets physical inactivity and low fitness in Macau's university students. It aims to improve cardiorespiratory fitness, muscular strength, and mental well-being. Future studies should extend HIIT durations, assess mental health further, and test its wider applicability.

Enhancing Physical Education through Technology Integration: A Study of Teacher Challenges and Opportunities in Macau

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This study examines the integration of technology in physical education (PE) in Macau, aligning with the region's focus on enhancing educational practices through technological advancement. The research is contextualized within the TPACK (Technology, Pedagogy, and Content Knowledge) model, showing how technological integration intersects with pedagogical strategies and content knowledge in PE. This study aims to investigate the barriers teachers face in employing technology in PE, the necessity for specialized professional development in this field, and the optimal use of technological resources for interactive and engaging PE sessions. It seeks to provide insights into Macau teachers' perspectives on using technology to foster a more dynamic and inclusive PE environment. A qualitative approach was used, involving semi-structured interviews with ten PE teachers in Macau ($n=10$). The study focused on their experiences and challenges with technology integration in PE. Thematic analysis was applied to the data to identify key themes related to technology usage, obstacles, and potential enhancements in the PE curriculum. The study highlights the diverse comprehension among teachers about the PE curriculum and TPACK, with barriers such as limited resources and reluctance to change inhibiting the ability to effectively teach physical literacy. Although there is a desire to integrate technology, confidence, and expertise are lacking. As a means of reconciling the theoretical advantages and real-world difficulties of technology in physical education, this emphasizes the necessity for targeted professional development and partnerships with organizations. In summary, this research emphasizes the need for improving teacher training in the physical education curriculum, specifically in the area of TPACK, to address limitations in resources and reluctance to change. The research highlights the need to provide high-quality teaching in physical literacy and promotes the development of technology integration skills. It encourages cooperation and professional growth to bridge the gap between theoretical concepts and practical applications of technology in physical education.

Fraction Vocabulary Proficiency Between the US and Chinese Students

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Fractions, along with ratios and decimals, are foundational for students to learn algebra and other advanced mathematical concepts. As one of the most challenging contents in mathematics, understanding fraction knowledge inevitably involves a lot of novel and specific vocabulary terms. Although previous studies have demonstrated that Chinese students outperform their counterparts in the U.S. in certain fraction domains, no study has specifically examined the varying proficiency levels of fraction vocabulary between the two countries. In this study, our primary goal is to compare fraction vocabulary proficiency between U.S. and Chinese students. Additionally, since we have not yet discovered a specific fraction vocabulary measure in China, we have also expanded the items in the English version of fraction vocabulary developed by Lin and Powell (2023) and adapted it to the Chinese version of fraction vocabulary measure. Data were collected from 362 Chinese and 428 U.S. fourth-grade students. Analysis indicated the strong internal consistency and validity of the Chinese version of fraction vocabulary measure. Meanwhile, the results of comparing different types of vocabulary showed that (a) Chinese students exhibited significantly greater mastery in overall fraction vocabulary terms; $t(785) = -6.85, p < .001$. (b) Chinese students exhibited significantly higher proficiency levels in fraction measurement vocabulary; $t(780.75) = -2.22, p = .027$, fraction operation vocabulary $t(726.31) = -0.52, p < .001$, and fraction-decimal vocabulary $t(565.20) = -13.61$. However, there was no significant difference in part-whole vocabulary between the U.S. and China, with an accuracy rate of 0.61 and 0.58 ($p = 0.064$). (c) Chinese students demonstrated superior proficiency in conceptual vocabulary, but there was no difference between the two samples in procedural vocabulary. (d) Chinese students demonstrated higher proficiency in fraction number terms; $t(787.65) = -0.48, p < .001$. Based on these and previous results, we discussed potential factors contributing to the performance differences and provided suggestions for educators in different countries.

The relation between equation-vocabulary and mathematics competence among fifth-grade students

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The role of mathematics vocabulary in mathematics has received more and more attention in recent years. Most prior relevant research has focused on preschool and early elementary school students in the United States and often involves a single analysis of mathematics vocabulary and mathematics outcomes. In this study, we explored the relationship between the equation vocabulary in the curriculum and the different mathematics competencies (conceptual knowledge, procedural flexibility, and procedural knowledge) of Chinese fifth-grade students. In particular, we developed and tested the equation vocabulary measure for students in Grade 5 to determine the internal consistency and level of difficulty of this measure. Data were collected on the equation vocabulary and mathematics competence (equation section) among 157 students. The results of the study showed that in both tests, students answered only 50% correctly. In addition, we investigated that students' equation vocabulary had the highest correlation with procedural flexibility and the lowest correlation with procedural knowledge in the mathematics competencies. We also detected differences between students who have mathematics difficulties and without mathematics difficulties.

The initial Efficacy of a Decimal Arithmetic-vocabulary Intervention for Students Experiencing Mathematics Difficulty in Grade 5

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The purpose of this study was to determine the initial efficacy of a decimal arithmetic vocabulary intervention for Grade 5 students with mathematics difficulty and to explore its impact on decimal arithmetic performance. The researcher employed a nonconcurrent multiple baseline, single-subject research design to evaluate the effects of the intervention through explicit instruction. Five fifth-grade students identified as experiencing mathematics difficulty participated in the study and the intervention occurred 5 sessions per week for 2 months. Visual analyses demonstrated the main effect of the decimal arithmetic vocabulary intervention was significant for improving decimal arithmetic vocabulary and decimal arithmetic performance. That effects were maintained 3 weeks after intervention. Findings suggest students with mathematics difficulty can successfully learn decimal arithmetic vocabulary through an intervention, and improved decimal arithmetic vocabulary knowledge may positively affect their decimal arithmetic performance. Limitations and implications for future research and practice are discussed.

Investigating the two-factor structure of stress mindsets in academic settings: their associations with Chinese adolescent students' emotions and behaviors

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People's mindsets about stress refer to their beliefs about the nature or consequences of stress, which guide their emotions and behaviors (Crum et al., 2013; Crum et al., 2017). The present research applied the stress mindset theory to academic contexts, explored the structure of academic stress mindsets, and investigated their connection with academic-related emotional (i.e., academic anxiety and school burnout) and behavioral (i.e., self-handicapping behaviors, proactive behaviors under academic stress, and challenge-seeking behaviors) outcomes among Chinese adolescent students. A total of 652 Chinese students from junior and senior high schools were included in this study. We adapted the measure of stress mindsets into academic contexts and found a two-factor model of academic stress mindsets, in which academic stress-is-enhancing (SIE) and stress-is-debilitating (SID) mindsets were related but distinct constructs. These two kinds of mindsets exhibited different patterns of connection with academic-related outcomes after controlling for the effects of demographics and other stress-related variables (e.g., academic stress levels). Specifically, the academic SIE mindset was more associated with adaptive learning outcomes (i.e., proactive behaviors), while the academic SID mindset was more predictive of maladaptive learning outcomes (i.e., academic anxiety, school burnout, and self-handicapping behaviors). These findings extend stress mindset theory into academic contexts and highlight the importance of considering specific contexts when investigating stress mindsets. This study emphasizes the importance of considering both SIE and SID dimensions in research on academic stress mindsets and suggests that future interventions designed to change students' learning states should focus on enhancing their academic SIE mindset while simultaneously reducing their academic SID mindset.

Investigation of Cognitive Process in new Grade-6 English Textbook with reference to Bloom's Revised Taxonomy

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Prior research has provided evidence of critical thinking integration within the educational frameworks of several Asian countries like Malaysia (Salih, 2010), Singapore (Matthews & Lally, 2010), Taiwan (Yang & Chung, 2009), and Indonesia (Ilyas, 2015). This study explores the incorporation of cognitive thinking in the Grade-6 English textbook, issued by the Ministry of Education in Myanmar in 2019, employing Bloom's Revised Taxonomy (2001) to analyze frequency and percentage. Findings of this content analysis indicate that the cognitive processes of the tasks, exercises, and activities in the textbook are significantly and moderately correlated with their respective instructional and educational objectives, suggesting effective integration conducive to fostering the cognitive development intended by the educational outcomes. The study also offers pedagogical implications for curriculum developers and educators aiming to enhance textbook quality.

Exploring the Holistic Approach of Physical Literacy Among Basketball Athletes in Macau: A Qualitative Inquiry

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This study aims to investigate the multiple facets of physical literacy in the context of sports education, with a particular emphasis on basketball athletes in Macau. To understand and explain the dual abilities of these athletes, who simultaneously act as both players and coaches. This investigation explores the complex interplay between their athletic and coaching duties, analyzing how these interconnected positions impact their overall growth in sports education. This inquiry seeks to get a thorough grasp of the intricate relationship between athletic experience and coaching tactics by using a qualitative research approach. The findings of this study will give useful insights into the larger subject of physical literacy. Semi-structured interviews were conducted with 8 Macau college basketball players who also serve as coaches or instructors (4 males, 4 females). Interpretative phenomenological analysis was utilized to analyze the interview transcripts, inductively coding emergent themes on their perspectives of physical literacy development in their dual roles. Triangulation was used to ensure the trustworthiness of the findings. Participants displayed a multifaceted understanding of physical literacy, influenced by their experiences as players and coaches. They recognized the importance of physical skills and performance and valued psychological resilience, emotional well-being, and social dimensions of physical literacy. Their unique position as coaches/instructors allowed them to appreciate the broader implications of physical literacy in sports education. Challenges highlighted include balancing two roles, managing injuries, and coping with stress. Participants emphasized the need for an integrated approach in education and coaching to promote holistic development. To summarise, dual-role athletes in Macau possess a deep and comprehensive understanding of physical literacy, effectively managing their responsibilities as both athletes and coaches. The individuals face significant obstacles, such as effectively dealing with injuries and managing stress. This emphasizes the need for comprehensive and integrated educational approaches in sports education.