



Self-Efficacy

1-The Contribution of Teacher Self-Efficacy, Resilience and Emotion Regulation to Teachers' Well-Being: Technology-Enhanced Teaching Context

By Lu, LH (Lu, Lihua) [1] ; Wang, CY (Wang, Cuiying) [2] ; Wang, YS (Wang, Yunsong) [3] (provided by Clarivate) Source EUROPEAN JOURNAL OF EDUCATION Volume 59 Issue 4 DOI 10.1111/ejed.12755 Published DEC 2024 Early Access SEP 2024 Indexed 2024-09-30 Document Type Article

Abstract

The COVID-19 pandemic has significantly altered teaching methodologies by integrating technology into syllabi, emphasising the crucial role of teacher well-being influenced by positive psychology. Also, as the foremost issues of education, teachers' individual factors should be considered as their beliefs in their capabilities to persist in the case of difficulties and their emotion regulation (ER) have been underlined in the literature. Therefore, this study examined the correlation between teacher self-efficacy (TSE), resilience and ER and teacher well-being among 424 Chinese teachers. The findings through running the structural equation model revealed that those teachers with a heightened degree of TSE, resilience and ER are more likely to have better well-being. Multiple regression analysis indicated that TSE explained 61% of the variance in teachers' well-being. Meanwhile, the same analysis found that resilience and ER explained 54% and 51% of the variance in teachers' well-being, respectively. Succinctly, some educational implications are provided for educational members to attract their attention to the role of these constructs in technology-enhanced teaching.

Keywords

Author Keywords

[emotion regulation](#)[resilience](#)[self-efficacy](#)[teachers well-being](#)[technology-enhanced teaching](#)

Keywords Plus

[CROSS-LAGGED ANALYSIS](#)[INTERPLAY](#)[BURNOUT](#)



Self-Efficacy

2-Association between anxiety, depression symptoms, and academic burnout among Chinese students: the mediating role of resilience and self-efficacy

By Liu, WQ (Liu, Wanqing) [1]; Zhang, RY (Zhang, Ruiyun) [1]; Wang, H (Wang, Huan) [2]; Rule, A (Rule, Andrew) [2]; Wang, M (Wang, Min) [2]; Abbey, C (Abbey, Cody) [2]; Singh, MK (Singh, Manpreet K.) [3]; Rozelle, S (Rozelle, Scott) [2]; She, XS (She, Xinshu) [4], [5]; Tong, L (Tong, Lian) [1] (provided by Clarivate) Source BMC PSYCHOLOGY Volume 12 Issue 1 DOI 10.1186/s40359-024-01823-5 Article Number 335 Published JUN 7 2024 Indexed 2024-06-21 Document Type Article

Abstract

Background To explore the associations between anxiety and depression symptoms and academic burnout among children and adolescents in China, and to examine the role of resilience and self-efficacy in addressing academic burnout. **Methods** A total of 2,070 students in grades 4-8 were recruited from two primary and three middle schools in Shanghai, completed the Elementary School Student Burnout Scale (ESSBS), the Multidimensional Anxiety Scale for Children-Chinese (MASC-C), the Center for Epidemiological Studies Depression Scale (CES-D), the Connor-Davidson Resilience Scale (CD-RISC), and the General Self-Efficacy Scale (GSES), with 95.04% effective response rate. Multivariable regression analyses examining the associations between anxiety / depression symptoms and academic burnout (as well as the associations between resilience / self-efficacy and academic burnout) were performed using STATA 16.0 and SmartPLS 3.0. **Results** Anxiety symptoms ($\beta = 0.124$, $p < 0.01$) and depression symptoms ($\beta = 0.477$, $p < 0.01$) were positively correlated with academic burnout. Resilience partially mediated the association between depression symptoms and academic burnout ($\beta = 0.059$, $p < 0.01$), with a mediation rate of 12.37%. Self-efficacy partially mediated the associations between anxiety symptoms and academic burnout ($\beta = 0.022$, $p < 0.01$) and between depression symptoms and academic burnout ($\beta = 0.017$, $p < 0.01$), with mediation rates of 17.74% and 3.56%, respectively. Resilience and self-efficacy together ($\beta = 0.041$, $p < 0.01$) formed a mediating chain between depression symptoms and academic burnout, with a mediation rate of 8.6%. **Conclusions** Anxiety and depression symptoms were positively associated with academic burnout. Resilience and self-efficacy were found to mediate the associations partially.

Keywords

Author Keywords

[Academic burnout](#)[Anxiety](#)[Depression](#)[Resilience](#)[Self-efficacy](#)[Children and adolescent](#)

Keywords Plus

[SCHOOL](#)

[BURNOUT](#)[ADOLESCENTS](#)[STRESS](#)[ENGAGEMENT](#)[CHILDREN](#)[SCALE](#)[ACHIEVEMENT](#)[PREVALENCE](#)[TRANSITION](#)[MOTIONS](#)



Self-Efficacy

3-Do you have AI dependency? The roles of academic self-efficacy, academic stress, and performance expectations on problematic AI usage behavior

By Zhang, SA (Zhang, Shunan) [1] , [2] ; Zhao, XY (Zhao, Xiangying) [1] , [2] ; Zhou, T (Zhou, Tong) [3] ; Kim, JH (Kim, Jang Hyun) [1] , [2] (provided by Clarivate) Source INTERNATIONAL JOURNAL OF EDUCATIONAL TECHNOLOGY IN HIGHER EDUCATION Volume 21 Issue 1 DOI 10.1186/s41239-024-00467-0 Article Number 34 Published MAY 17 2024 Indexed 2024-05-26 Document Type Article

Abstract

Although previous studies have highlighted the problematic artificial intelligence (AI) usage behaviors in educational contexts, such as overreliance on AI, no study has explored the antecedents and potential consequences that contribute to this problem. Therefore, this study investigates the causes and consequences of AI dependency using ChatGPT as an example. Using the Interaction of the Person-Affect-Cognition-Execution (I-PACE) model, this study explores the internal associations between academic self-efficacy, academic stress, performance expectations, and AI dependency. It also identifies the negative consequences of AI dependency. Analysis of data from 300 university students revealed that the relationship between academic self-efficacy and AI dependency was mediated by academic stress and performance expectations. The top five negative effects of AI dependency include increased laziness, the spread of misinformation, a lower level of creativity, and reduced critical and independent thinking. The findings provide explanations and solutions to mitigate the negative effects of AI dependency.

Keywords

Author Keywords

[Artificial intelligence](#)[AI dependency](#)[Academic self-efficacy](#)[Academic stress](#)[Performance expectations](#)[ChatGPT](#)

Keywords Plus

[MEDIATING ROLES](#)[INTERNET-USE](#)[ADDICTION](#)[ASSOCIATION](#)[FACEBOOK](#)[STUDENTS](#)[GENDER](#)[DETERMINANT](#)[CONSEQUENCE](#)[DEPRESSION](#)



Self-Efficacy

4-Modelling Generative AI Acceptance, Perceived Teachers' Enthusiasm and Self-Efficacy to English as a Foreign Language Learners' Well-Being in the Digital Era

By Huang, FW (Huang, Fangwei) [1] ; Wang, YL (Wang, Yongliang) [2] ; Zhang, HJ (Zhang, Haijing) [3] (provided by Clarivate) Source EUROPEAN JOURNAL OF EDUCATION Volume 59 Issue 4 DOI 10.1111/ejed.12770 Published DEC 2024 Early Access SEP 2024 Indexed 2024-10-05 Document Type Article

Abstract

As artificial intelligence (AI) has been integrated into foreign language (FL) education, learners' well-being is influenced by various factors, including technological, personal and contextual elements. However, few studies explored how external and internal factors jointly shape FL learners' well-being in the era of generative AI. To fill this gap, this study explores the effects of generative AI acceptance, perceived teachers' enthusiasm and self-efficacy on FL learners' well-being by investigating 613 university learners of English as a foreign language (EFL). The structural equation modelling results reveal that (1) generative AI acceptance positively predicts EFL learners' well-being and self-efficacy; (2) perceived teachers' enthusiasm does not predict learners' well-being and positively predicts EFL learners' self-efficacy; and (3) the self-efficacy for receptive skills mediates the relationship between generative AI acceptance/perceived teachers' enthusiasm and EFL learners' well-being, whereas self-efficacy for productive skills does not play the mediation role. This research broadens the understanding of the antecedents of EFL learners' well-being and extends the application of self-efficacy theory in the AI-driven educational environment, providing significant pedagogical implications.

Keywords

Author Keywords

[English as a foreign language](#)[generative AI acceptance](#)[learners' well-being](#)[perceived teachers' enthusiasm](#)[self-efficacy](#)

Keywords Plus

[ANXIETY](#)[ENJOYMENT](#)



Self-Efficacy

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Self-Efficacy

6-Association between anxiety, depression symptoms, and academic burnout among Chinese students: the mediating role of resilience and self-efficacy

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Abstract

Background To explore the associations between anxiety and depression symptoms and academic burnout among children and adolescents in China, and to examine the role of resilience and self-efficacy in addressing academic burnout. **Methods** A total of 2,070 students in grades 4-8 were recruited from two primary and three middle schools in Shanghai, completed the Elementary School Student Burnout Scale (ESSBS), the Multidimensional Anxiety Scale for Children-Chinese (MASC-C), the Center for Epidemiological Studies Depression Scale (CES-D), the Connor-Davidson Resilience Scale (CD-RISC), and the General Self-Efficacy Scale (GSES), with 95.04% effective response rate. Multivariable regression analyses examining the associations between anxiety / depression symptoms and academic burnout (as well as the associations between resilience / self-efficacy and academic burnout) were performed using STATA 16.0 and SmartPLS 3.0. **Results** Anxiety symptoms ($\beta = 0.124$, $p < 0.01$) and depression symptoms ($\beta = 0.477$, $p < 0.01$) were positively correlated with academic burnout. Resilience partially mediated the association between depression symptoms and academic burnout ($\beta = 0.059$, $p < 0.01$), with a mediation rate of 12.37%. Self-efficacy partially mediated the associations between anxiety symptoms and academic burnout ($\beta = 0.022$, $p < 0.01$) and between depression symptoms and academic burnout ($\beta = 0.017$, $p < 0.01$), with mediation rates of 17.74% and 3.56%, respectively. Resilience and self-efficacy together ($\beta = 0.041$, $p < 0.01$) formed a mediating chain between depression symptoms and academic burnout, with a mediation rate of 8.6%. **Conclusions** Anxiety and depression symptoms were positively associated with academic burnout. Resilience and self-efficacy were found to mediate the associations partially.

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Author Keywords

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[BURNOUT](#)[ADOLESCENTS](#)[STRESS](#)[ENGAGEMENT](#)[CHILDREN](#)[SCALE](#)[ACHIEVEMENT](#)[PREVALENCE](#)[TRANSITION](#)[MOTIONS](#)



Self-Efficacy

7-Can AI really help? The double-edged sword effect of AI assistant on employees' innovation behavior

By Yin, M (Yin, Meng) [1] ; Jiang, SY (Jiang, Shiyao) [2] ; Niu, XY (Niu, Xiongying) [1]
(provided by Clarivate) Source COMPUTERS IN HUMAN BEHAVIOR Volume 150 DOI
10.1016/j.chb.2023.107987 Article Number 107987 Published JAN 2024 Early Access OCT 2023
Indexed 2023-11-26 Document Type Article

Abstract

With artificial intelligence (AI) replacing humans at work, creative work is becoming increasingly important for humans. Although AI may improve employees' innovation behavior, some evidence suggests a negative effect through employees' psychological well-being. To address these contradictory arguments, this study investigated the double-edged sword effect of AI-assistant intelligence on employees' innovation behavior based on the transactional model of stress. Two scenario-based experiments reveal that an AI assistant characterized as high intelligence has a positive indirect effect on employees' AI-enabled innovation behavior via creative self-efficacy, while the indirect effect is stronger when organizational AI readiness is higher than when it is lower. However, the same AI assistance has a negative indirect effect on employees' AI-enabled innovation behavior via STARA awareness when organizational AI readiness is low. These findings have pivotal implications for both management theory and practice.

Keywords

Author Keywords

[Artificial intelligence](#)[Creative self-efficacy](#)[STARA awareness](#)[Organizational AI readiness](#)[Innovation behavior](#)

Keywords Plus

[CREATIVE SELF-EFFICACY](#)[ARTIFICIAL-INTELLIGENCE](#)[HEALTH-CARE](#)[SERVICE](#)[ROBOT](#)[SATISFACTION](#)[ANTECEDENTS](#)[PERFORMANCE](#)[ACCEPTANCE](#)[FRAMEWORK](#)



Self-Efficacy

8-Design and validation of the AI literacy questionnaire: The affective, behavioural, cognitive and ethical approach

By Ng, DTK (Ng, Davy Tsz Kit) [1] ; Wu, WJ (Wu, Wenjie) [2] ; Leung, JKL (Leung, Jac Ka Lok) [3] ; Chiu, TKF (Chiu, Thomas Kin Fung) [2] ; Chu, SKW (Chu, Samuel Kai Wah) [4] (provided by Clarivate) Source BRITISH JOURNAL OF EDUCATIONAL TECHNOLOGY Volume 55 Issue 3 DOI 10.1111/bjet.13411 Published MAY 2024 Early Access DEC 2023 Indexed 2023-12-27 Document Type Article

Abstract

Artificial intelligence (AI) literacy is at the top of the agenda for education today in developing learners' AI knowledge, skills, attitudes and values in the 21st century. However, there are few validated research instruments for educators to examine how secondary students develop and perceive their learning outcomes. After reviewing the literature on AI literacy questionnaires, we categorized the identified competencies in four dimensions: (1) affective learning (intrinsic motivation and self-efficacy/confidence), (2) behavioural learning (behavioural commitment and collaboration), (3) cognitive learning (know and understand; apply, evaluate and create) and (4) ethical learning. Then, a 32-item self-reported questionnaire on AI literacy (AILQ) was developed and validated to measure students' literacy development in the four dimensions. The design and validation of AILQ were examined through theoretical review, expert judgement, interview, pilot study and first- and second-order confirmatory factor analysis. This article reports the findings of a pilot study using a preliminary version of the AILQ among 363 secondary school students in Hong Kong to analyse the psychometric properties of the instrument. Results indicated a four-factor structure of the AILQ and revealed good reliability and validity. The AILQ is recommended as a reliable measurement scale for assessing how secondary students foster their AI literacy and inform better instructional design based on the proposed affective, behavioural, cognitive and ethical (ABCE) learning framework.

Keywords

Author Keywords

[AI education](#)[AI literacy](#)[AI literacy questionnaire \(AILQ\)](#)[artificial intelligence](#)[questionnaire validation](#)

Keywords Plus

[DIGITAL CITIZENSHIP](#)[ARTIFICIAL-INTELLIGENCE](#)[META-ANALYSIS](#)[CRITERION MODEL](#)



Self-Efficacy

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Keywords

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Keywords Plus

[DIGITAL CITIZENSHIP](#)[ARTIFICIAL-INTELLIGENCE](#)[META-ANALYSIS](#)[CRITERION MODEL](#)



Self-Efficacy

10-Fostering students' AI literacy development through educational games: AI knowledge, affective and cognitive engagement

By Ng, DTK (Ng, Davy Tsz Kit) [1] ; Chen, XY (Chen Xinyu) [1] ; Leung, JKL (Leung, Jac Ka Lok) [2] ; Chu, SK W (Chu, Samuel Kai Wah) [3] (provided by Clarivate) Source JOURNAL OF COMPUTER ASSISTED LEARNING Volume 40 Issue 5 Page 2049-2064 DOI 10.1111/jcal.13009 Published OCT 2024 Early Access MAY 2024 Indexed 2024-05-31 Document Type Article

Abstract

Background: As the significance of artificial intelligence (AI) continues to increase, there is a need for effective scaffolding and support for novice learners. Educators have encountered challenges in effectively scaffolding novice learners AI concepts, and providing appropriate motivational support. Research evidence has shown the potential of game-based approaches to fostering secondary school students' AI literacy and motivation to learn AI.

Objectives: This study developed an online platform TreasureIsland to gamify ebooks and investigated whether and how students playing with it can effectively enhance their AI literacy. This study aims to contribute an empirical and theoretical basis for AI literacy education and promote the use of gamification that would be broadly applied in other schools.

Methods: A quasi-experiment was conducted to evaluate the effects of the proposed gamified approach, which included a control group using an ebook with playful resources. To triangulate the quantitative results obtained from the pre and post-test, focus group interviews were also conducted.

Results: The platform was effective in improving students' motivation, self-efficacy, career interest, and understanding of AI concepts and ethics, but did not enhance their confidence of using AI, and high cognition of applying, evaluating and creating AI. TreasureIsland players demonstrated significant improvement in all affective and cognitive domains, except for the ability to apply, evaluate, and create AI. Interviews revealed that the gamified approach could promote students' AI literacy by adhering to guidelines, including (1) creating a competitive and motivating learning environment through game mechanics, (2) providing scaffolding modules and feedback, and (3) visualising complex AI concepts via simulations. Feedback collected from the study suggested adding pedagogical elements such as flipped classrooms and project-based learning in future research to improve the instructional design, and enable students to reach a higher level of cognition.

Conclusions: This study concludes that the use of gamification can provide affective and cognitive support and an enjoyable experience for fostering learners' AI literacy. It helps instructional designers and teachers enrich the pedagogical knowledge related to gamified platform and AI literacy.

Keywords

Author Keywords

[AI literacygamificationpedagogysecondary education](#)

Keywords Plus

[GAMIFICATIONMOTIVATIONPERFORMANCECLASSROOM](#)