



## **Associate Professor Dr. Patcharin Panjaburee**

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Dr. Patcharin Panjaburee is currently an Associate Professor at the Institute for Innovative Learning. She received her Ph.D. degree in Science and Technology Education from the Mahidol University in Thailand with conducting research training in National Tainan University in Taiwan in 2010. Dr. Patcharin serves as an editorial board member and a reviewer for academic journals of educational technology and e-learning in science, mathematics, computer science, and technology. She has also been the principal investigator of research projects funded by Mahidol University, Ministry of Education in Thailand, and Thailand Research Fund. Her research interests include design and development of digital learning such as mobile and ubiquitous learning, digital game-based learning in Computer Science and Mathematics, and design and development of personalized e-learning system in subject areas.

Dr. Patcharin has published research articles in such professional journals as *Computers & Education*, *Interactive Learning Environments*, *Educational Technology & Society*, *British Journal of Educational Technology*, *Innovations in Education and Teaching International*, *International Journal of Mobile Learning and Organisations*, *Journal of Computers in Education*, and *Knowledge Management & E-Learning: An International Journal*.

### **CURRENT POSITION**

**Associate Professor**, Institute for Innovative Learning, Mahidol University, Thailand

**Editorial Board**, *International Journal of Mobile Learning and Organisation (SCOPUS)*, *Journal of Computers in Education*



## ประวัติ

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ชื่อ - นามสกุล รองศาสตราจารย์ ดร. พัชรินทร์ ปัญจบุรี

สังกัด อาจารย์ประจำสาขาวิทยาศาสตร์และเทคโนโลยีศึกษา (หลักสูตรนานาชาติ)

### ประวัติการศึกษา

ปริญญาตรี สาขาวิทยาการคอมพิวเตอร์ คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่ (2544-2548)

ประกาศนียบัตรบัณฑิตวิชาซีพครู มหาวิทยาลัยราชภัฏเชียงใหม่ (2548-2549)

ปริญญาเอก สาขาวิทยาศาสตร์และเทคโนโลยีศึกษา (หลักสูตรนานาชาติ) สถาบันนวัตกรรม-การเรียนรู้ มหาวิทยาลัยมหิดล (2549-2552)

ความเชี่ยวชาญ การประยุกต์เทคโนโลยีเพื่อส่งเสริมการเรียนรู้วิทยาศาสตร์ และคณิตศาสตร์

การจัดการเรียนรู้ออนไลน์แบบจำเพาะบุคคล

การจัดการเรียนรู้ออนไลน์แบบมีปฏิสัมพันธ์

### ประสบการณ์เกี่ยวกับการบริการวิชาการ

1. เป็นวิทยากรอบรมเรื่องนวัตกรรมการใช้สื่อแบบดิจิทัลเพื่อส่งเสริมการเรียนรู้ (Digital Media for Enhancing Learning)
2. การสร้างและใช้ Cloud Technology เป็นเครื่องมือสนับสนุนการเรียนรู้แบบ ยูบิควิตัส (Ubiquitous Learning) เพื่อพัฒนาทักษะทางปัญญาทางการคิดวิเคราะห์
3. เป็นวิทยากรการอบรมเชิงปฏิบัติการเรื่อง “การบูรณาการใช้เครื่องมือเทคโนโลยีสารสนเทศ เพื่อการจัดการเรียนรู้คณิตศาสตร์”
4. เป็นวิทยากรการอบรมเชิงปฏิบัติการ เรื่อง Active Learning วิธีแห่งการจัดการเรียนการสอนในระดับอุดมศึกษายุคใหม่
5. เป็นวิทยากรการอบรมเชิงปฏิบัติการการจัดการความรู้ในองค์กร เรื่อง “การเรียนการสอนที่เน้นผู้เรียนเป็นสำคัญ”
6. เป็นวิทยากรบรรยายเรื่อง “การบูรณาการใช้เครื่องมือเทคโนโลยีสารสนเทศเพื่อสนับสนุนการจัดการเรียนรู้”

## Academic Publications

### *International papers*

\* Corresponding author

1. Daungcharone, K., **Panjaburee, P.\***, & Thongkoo, K. (2020). Implementation of mobile game-transformed lecture-based approach to promoting C programming language learning. *International Journal of Mobile Learning and Organisation*, 14(2), 236-254. (SCOPUS, Q2)
2. Thongkoo, K., **Panjaburee, P.\***, & Daungcharone, K. (2019). Integrating inquiry learning and knowledge management into a flipped classroom to improve students' web programming performance in higher education. *Knowledge Management & E-Learning*, 11(3), 304–324. (SCOPUS, Q2)
3. Srisuwan, C & **Panjaburee, P.\*** (2019). Implementation of flipped classroom with personalised ubiquitous learning support system to promote the university student performance of information literacy. *International Journal of Mobile Learning and Organisation*, inpress (SCOPUS, Q2)
4. Thanyaphongphat, J., & **Panjaburee, P.\*** (2019). Effects of a Personalized Ubiquitous Learning Support System based on Learning Style-Preferred Technology Type Decision Model on University Students' SQL Learning Performance. *International Journal of Mobile Learning and Organisation*, 13(3), 233 - 254 (SCOPUS, Q2)
5. Thongkoo, K., **Panjaburee, P.\***, & Daungcharone, K. (2019). A development of ubiquitous learning support system based on an enhanced inquiry-based learning approach. *International Journal of Mobile Learning and Organisation*, 13(2), 129-151. (SCOPUS, Q2)
6. Daungcharone, K., **Panjaburee, P.\***, & Thongkoo, K. (2019). A mobile game-based C programming language learning: Results of university students' achievement and motivations. *International Journal of Mobile Learning and Organisation*, 13(2), 171-192. (SCOPUS, Q2)
7. Srisawasdi, N., & **Panjaburee, P.\*** (2019) Implementation of Game-transformed Inquiry-based Learning to Promote the Understanding of and Motivation to Learn Chemistry. *Journal of Science Education and Technology*, 28(2), 152-164. (IF=1.375, SSCI)
8. **Panjaburee, P.**, & Srisawasdi, N.\* (2018). The opportunities and challenges of mobile and ubiquitous learning for future schools: A context of Thailand. *Knowledge Management & E-Learning*, 10, 485-506.(SCOPUS, Q2)
9. Komalawardhana, N., **Panjaburee, P.\*** (2018). Proposal of personalised mobile game from inquiry-based learning activities perspective: relationships among genders,

- learning styles, perceptions, and learning interest. *International Journal of Mobile Learning and Organisation*, 12(1), 55-76. (SCOPUS, Q1)
10. Wongwatkit, C., Srisawasdi, N., Hwang, G.J., & Panjaburee, P.\* (2017). Influence of an integrated learning diagnosis and formative assessment-based personalized web learning approach on students learning performances and perceptions. *Interactive Learning Environments*, 25(7), 889–903. (IF=1.674, SSCI, Q1)
  11. Wongwatkit, C., Panjaburee, P.\*, & Srisawasdi, N. (2017). A proposal to develop a guided-inquiry mobile learning with a mastery learning mechanism for improving students' learning performance and attitudes in Physics. *International Journal of Mobile Learning and Organisation*, 11(1), 63-86. (SCOPUS, Q2)
  12. Srisawasdi, N.\*, Fwungchan, W., Meuansechai, K, Kongpet, K., & Panjaburee, P. (2016). The study on integrating visualised simulation into context-aware ubiquitous learning activities for elementary science education. *International Journal of Mobile Learning and Organisation*, 10(4), 263-291. (SCOPUS, Q2)
  13. Panjaburee, P. & Srisawasdi, N.\* (2016). An integrated learning styles and scientific investigation-based personalized web approach: a result on conceptual learning achievements and perceptions of high school students. *Journal of Computers in Education*, 3(3), 253–272.
  14. Srisawasdi, N.\* & Panjaburee, P. (2016). Emerging pedagogies for computer-based learning. *Journal of Computers in Education*, 3(3), 247–251.
  15. Chookaew, S., Wanichsan, D., Hwang, G.J., & Panjaburee, P.\* (2015). Effects of a personalised ubiquitous learning support system on university students' learning performance and attitudes in computer-programming courses. *International Journal of Mobile Learning and Organisation*, 9(3), 240-257. (SCOPUS, Q3)
  16. Srisawasdi, N. & Panjaburee, P. (2015). Exploring effectiveness of simulation-based inquiry learning in science with integration of formative assessment. *Journal of Computers in Education*, 2(3), 323–352.
  17. Dorji, U., Panjaburee, P.\*, & Srisawasdi, N. (2015). Gender differences in students' learning achievements and awareness through residence energy saving game-based inquiry playing. *Journal of Computers in Education*, 2(2), 227-243.
  18. Dorji, U., Panjaburee, P.\*, & Srisawasdi, N. (2015). A Learning Cycle Approach to Developing Educational Computer Game for Improving Students' Learning and Awareness in Electric Energy Consumption and Conservation. *Educational Technology & Society*, 18(1), 91–105. (IF=1.34, SSCI, Q2)
  19. Chookaew, S., Panjaburee, P.\*, Wanichsan, D., & Laosinchai, P. (2014). A Personalized e-Learning Environment to Promote Student's Conceptual Learning on Basic Computer Programming. *Procedia - Social and Behavioral Sciences*, 116(21), 815-819.

20. Srisawasdi, N. & **Panjaburee, P.\*** (2014). Technology-enhanced Learning in Science, Technology, and Mathematics Education: Results on Supporting Student Learning. *Procedia - Social and Behavioral Sciences*, 116(21), 946-950.
21. Sheikh, S. S., **Panjaburee, P.\***, Laosinchai, P., Srisawasdi, N. (2013). Developing Learning Activity Based on the Learning Cycle Approach to Promote Students' Understanding of Square Root. *The International Journal of Science, Mathematics, and Technology Learning*, 19(4), 71-81.
22. Piyayodilokchai, H., **Panjaburee, P.\***, Laosinchai, P., Ketpichainarong, W., & Ruenwongsa, P. (2013). A 5E Learning Cycle Approach-Based, Multimedia-Supplemented Instructional Unit for Structured Query Language. *Educational Technology & Society*, 16(4), 146–159. **(IF=1.171, SSCI, Q2)**
23. Hwang, G. J.\*, **Panjaburee, P.**, Shih, B. Y., Triampo, W. (2013). A group decision approach to developing concept effect models for diagnosing student learning problems. *British Journal of Educational Technology*, 44(3), 453–468. **(IF=1.313, ISI, Q1)**
24. **Panjaburee, P.**, Triampo, W., Hwang\*, G. J., Chuedoung, M., & Triampo, D. (2013). Development of a diagnostic and remedial learning system based on an enhanced concept effect model. *Innovations in Education and Teaching International*, 50(1), 72-84. **(IF=0.676, SSCI, Q1)**
25. Wanichsan, D., **Panjaburee, P.\***, Laosinchai, P., Triampo, W., & Chookaew, S. (2012). A majority-density approach to developing testing and diagnostic systems with the cooperation of multiple experts based on an enhanced concept-effect relationship model. *Expert Systems with Applications*, 39(9), 8380-8388. **(IF=1.854, SCI, SSCI, Q1)**
26. Piyayodilokchai H., Ruenwongsa, P., Ketpichainarong W., Laosinchai, P., **Panjaburee, P.\***. (2011). Promoting students' understanding of SQL in a database management course: a learning cycle approach. *International Journal of Learning*, 17(11), 325-337.
27. **Panjaburee, P.**, Hwang, G. J., Triampo, W.\*, & Shih, B. Y. (2010). A multi-expert approach for developing testing and diagnostic systems based on the concept effect model. *Computers & Education*, 55(2), 510-540. **(IF=2.775, SSCI, Q1)**

### *Conference Proceedings*

1. Wongwatkit, C., **Panjaburee, P.**, & Chookaew, S. (2019, December 2-6). An online personalized learning system with ongoing learning experience adaptation: A prototype system for STEM discipline. In *Proceedings of the 27th International Conference on Computers in Education 2019*. Asia-Pacific Society for Computers in Education, Taiwan. (SCOPUS)

2. Srisuwan, C., **Panjaburee, P.**, & Srisawasdi, N. (2018, July 31-Aug 2). Diagnosing individual university students' information literacy problems with a concept-effect propagation-oriented system. In Proceedings of International Symposium on Educational Technology ISET, Japan (SCOPUS, IEEE)
3. Tapingkae, P., **Panjaburee, P.**, & Srisawasdi, N. (2018, July 31-Aug 2). Development of a digital citizenship computer game with a contextual decision-making-oriented approach. In Proceedings of International Symposium on Educational Technology ISET, Japan (SCOPUS, IEEE)
4. Srisawasdi, N., Nantakaew, N., & **Panjaburee, P.** (2017, December 4-8). A contextual online game based on inquiry learning approach for improving students' learning performance in a chemistry course. In Proceedings of the 25th International Conference on Computers in Education 2017. Asia-Pacific Society for Computers in Education, New Zealand. (SCOPUS)
5. Srisawasdi, N., & **Panjaburee, P.** (2017, July 9-13). A Development of Supervised-Online Personal Learning Environment: Examining Factors Affecting Self-Directed Learning and Conceptual Understanding Progression. In Proceedings of the 6th IIAI International Congress on Advanced Applied Informatics. International Institute of Applied Informatics, Japan. (SCOPUS, IEEE)
6. Thanyaphongphat, J., & **Panjaburee, P.** (2017, July 9-13). Effects of Online Learning with Matching Learning Styles and Preferred Digital Media Types on University Students' Perceptions. In Proceedings of the 6th IIAI International Congress on Advanced Applied Informatics. International Institute of Applied Informatics, Japan. (SCOPUS, IEEE)
7. Daungcharone, K., **Panjaburee, P.**, & Thongkoo, K. (2017, July 9-13). Using Digital Game as Compiler to Motivate C Programming Language Learning in Higher Education. In Proceedings of the 6th IIAI International Congress on Advanced Applied Informatics. International Institute of Applied Informatics, Japan. (SCOPUS, IEEE)
8. Thongkoo, K., **Panjaburee, P.**, & Daungcharone, K. (2017, July 9-13). An Inquiry Blended SECI Model-Based Learning Support Approach for Promoting Perceptions and Learning Achievement of University Students. In Proceedings of the 6th IIAI International Congress on Advanced Applied Informatics. International Institute of Applied Informatics, Japan. (SCOPUS, IEEE)
9. Komalwardhana, N., & **Panjaburee, P.** (2016, 28 November - 2 December). The incorporation of inquiry-based learning into digital game: A pilot study on gender and learning style differences in students' perceptions. In Proceedings of the 24th International Conference on Computers in Education 2016. Asia-Pacific Society for Computers in Education, India. (SCOPUS)

10. Thanyaphongphat, J., & **Panjaburee, P.** (2016, 28 November - 2 December). Matching learning styles with digital media preference for recommending SQL instruction in a database management course. In Proceedings of the 24th International Conference on Computers in Education 2016. Asia-Pacific Society for Computers in Education, India. **(SCOPUS)**
11. Wongwatkit, C., Srisawasdi, N., Hwang, G. J., & **Panjaburee, P.** (2016, July 25-28). Enhancing Learning Attitudes and Performance of Students in Physics with a Mastery Learning Mechanism-based Personalized Learning Support System. In Proceedings of The 16th IEEE International Conference on Advanced Learning Technologies (pp. 278-282). Austin, TX, USA. **(SCOPUS)**
12. Srisawasdi, N. & **Panjaburee, P.** (2015, 30 November - 4 December). Personal Learning Activity Approach for Developing Adaptive Web-based Learning Systems. In Proceedings of the 23rd International Conference on Computers in Education 2015. Asia-Pacific Society for Computers in Education, China. **(SCOPUS)**
13. **Panjaburee, P.\***, Dorji, U., & Srisawasdi, N. (2014, 30 November - 4 December). Investigating Factors Affecting Conceptual Learning Progression when Playing Digital Game-based Inquiry Learning for Energy Education. In Proceedings of the 22nd International Conference on Computers in Education 2014. Asia-Pacific Society for Computers in Education, Japan. **(SCOPUS)**
14. Dorji, U., **Panjaburee, P.\*** & Srisawasdi, N. (2014, 30 November - 4 December). Effects of Gender differences and Learning Performance within Residence Energy Saving Game-based Inquiry Playing. In Proceedings of the 22nd International Conference on Computers in Education 2014. Asia-Pacific Society for Computers in Education, Japan. **(SCOPUS)**
15. Srisawasdi, N.\*, & **Panjaburee, P.** (2014, 30 November - 4 December). Do They Keep Technology in Mind? An Implementation of TPACK-oriented Science Teacher Program for Science Degree-graduated Students. In Proceedings of the 22nd International Conference on Computers in Education 2014. Asia-Pacific Society for Computers in Education, Japan. **(SCOPUS)**
16. **Panjaburee, P.\*** & Srisawasdi, N. (2013, 18-22 November). Criteria and Strategies for Applying Concept-Effect Relationship Model in Technological Personalized Learning Environment. In Proceedings of the 21st International Conference on Computers in Education 2013. Asia-Pacific Society for Computers in Education, Indonesia. **(SCOPUS)**
17. **Panjaburee, P.\*** & Srisawasdi, N. (2013, 18-22 November). Guideline for the Development of Personalized Technology-enhanced Learning in Science, Technology, and Mathematics Education. In Proceedings of the 21st International Conference on Computers in Education 2013. Asia-Pacific Society for Computers in Education, Indonesia. **(SCOPUS)**

18. Srisawasdi, N.\*, Moonsara, R., & **Panjaburee, P.** (2013, 18-22 November). Students' Motivation of Science Learning in Integrated Computer-based Laboratory Environment. In Proceedings of the 21st International Conference on Computers in Education 2013. Asia-Pacific Society for Computers in Education, Indonesia. **(SCOPUS)**
19. Srisawasdi, N.\*, Junphon, S., & **Panjaburee, P.** (2013, 18-22 November). Effect of Simulation-based Inquiry with Dual-situated Learning Model on Change of Student's Conception. In Proceedings of the 21st International Conference on Computers in Education 2013. Asia-Pacific Society for Computers in Education, Indonesia. **(SCOPUS)**
20. Dorji, U., & **Panjaburee, P.\*** (2013, 13-15 November). Multimedia-Supplemented Instructional Unit for Learning Household Electrical Energy Consumption and Conservation. In Proceedings of the 4th International Conference on Teaching and Learning 2013. Bangkok, Thailand.
21. Srisawasdi, N.\*, Srikasee, S., & **Panjaburee, P.** (2012, 26-30 November). Development of a Constructivist Web-based Learning System with Student Personalized Conceptual Profile. In Proceeding from the 20th International Conference on Computers in Education 2012. Asia-Pacific Society for Computers in Education, Singapore. **(SCOPUS)**
22. **Panjaburee, P.\***, & Piyayodilokchai H. (2011, 7-10 November). Using Multimedia to Support Students' Learning on SQL: A 5E Learning Approach. In proceeding from London International Conference on Education 2011. London, England.
23. **Panjaburee, P.\*** (2010, 15-17 November). Development of an intelligent diagnostic and adaptive tutoring system to promote students' learning performance. In proceeding from the International Conference of Education, Research, and Innovation 2010. Madrid, Spain.
24. Shih, B. Y., Hwang, G. J.\*, **Panjaburee, P.**, Triampo, W. (2010, 24-26 February). Diagnosing student learning problems based on concept relationship model with multi-expert approach. In Proceeding from the International Conference on Learning Innovation in Science and Technology 2010. Pattaya, Thailand.
25. **Panjaburee, P.**, Triampo, W., Hwang, G. J.\*, & Shih, B. Y. (2009, 30 November – 4 December). A multi-expert approach for developing testing and diagnostic systems. In Proceeding from the 17th International Conference on Computers in Education 2009. Asia-Pacific Society for Computers in Education, Hongkong. **(SCOPUS)**
26. **Panjaburee, P.\***, Hongboontri, C., & Panijpan, B. (2007, 6-9 November). Thai secondary school students' beliefs toward realistic mathematics education (RME) based alternative teaching activities. In Proceeding from ICASE Asian Symposium 2007. Pattaya, Thailand.