

Assist.Prof. Chaninan Pruekpramool, Ed.D (Science Education)
Science Education Center, Faculty of Science
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Academic background

- 2006- 2011 Doctor of Education (Ed.D) in Science Education from the Science Education Center, Srinakharinwirot University, Bangkok, Thailand
- Dissertation: The Development of the Science of Sound in Traditional Thai Musical Instruments Interdisciplinary Course for Non-science Upper Secondary School Students by using Integrated Teaching Approach.”
Advisors: Assoc. Prof. Dr. Nason Phonphok,
 Assoc. Prof. Dr. Orvil L. White
 Dr. Kusalin Musikul
- 2008-2009 Visiting scholar at State University of New York College at Cortland (SUNY Cortland), New York, USA
- 2005-2006 Graduate Diploma in Teaching Science Profession from the Faculty of Education, Kasetsart University, Bangkok, Thailand
- 2000-2004 Bachelor of Science in Physics (2nd class honor) from the Department of Physics, Faculty of Science, Kasetsart University, Bangkok, Thailand
- Senior project: The study of crystal structure and color of natural blue sapphire using X-ray diffractometer
Advisor: Assoc.Prof. Siwaporn Sahawat

Current Academic Position

Faculty member at Science Education Center, Faculty of Science, Srinakharinwirot University, Thailand

Research interests

Physics education research, Science curriculum development, Learning models, STEM education, Assessment and evaluation in science learning, Scientific skills, Misconceptions in Physics, Scientific imagination and creativity, and Science communication

Publications

International Publications

- Pruekpramool, C.**, Phonphok, N., White, O. L., & Musikul, K. (2011). Student Attitudes toward Science: The Case of Thai Upper Secondary School Non-Science Students. *The International Journal of Learning*. 1(18). 289-301.
- Dahsah, C., Phonphok, N., **Pruekpramool, C.**, Sangpradit, T., & Sukonthachat, J. (2012). Students' Conception on Sizes and Distances of the Earth -Moon- Sun Models. *European Journal of Social Science*. 32(4): 583-597.

- Pruekpramool, C.,** Phonphok, N., White, O. L., & Musikul, K. (2013). SoSTI Course: An Elective Course for Thai Upper School Non-science Students . *US-China Education Review A*. 3(1). 10-18.
- Pruekpramool, C.,** Phonphok, N., White, O.L., & Musikul, K. (2013). Learning science through traditional Thai musical instruments: An elective science course for non-science students. *The International Journal of Science, Mathematics, and Technology Learning*, 19(3), 147-163.
- Pruekpramool, C.,** & Sangpradit, T. (2016). Teaching Physics in English: A Continuing Professional Development for Non-Native English-Speaking Teachers in Thailand. *Journal of Education and Learning*. 5(2). 47-59.
- Dahsah, C. & **Pruekpramool, C.** (2016). *Using Community Resources as Funds of Knowledge to Promote Science Learning in Thailand*. A book chapter from “Science Education Research and Practice in Asia: Challenges and Opportunities”. Springer. 553-568.

National Publications

- Pruekpramool, C.** (2014). Assessing science process skills. *Suthiparithat Journal*. April – June 2014. 28(86): 352-364. (In Thai language)
- Pruekpramool, C.,** Phonphok, N., Kanyaprasit, K. Sangpradit, T. & Dahsah, C. (2016). In-service Science Teachers’ Views toward Scientific Imagination for Science Learning in the Classroom. *Journal of Education Naresuan University*. 18(2): 81-92. (In Thai language)
- Taweasang, C., Sangpradit, T., **Pruekpramool, C.** & Khumwong, P. (2016). The Effect of a Learning Model Based on the Meta-Level to Enhance Scientific Thinking of 7Th Grade Students. *Journal of Graduate Studies in Northern Rajabhat Universities*. 6(10): 87-102. (In Thai language)
- Latwong, T., **Pruekpramool, C.,** Phonphok, N., & Boonprakob, M. (2016). A Development of Metacognition Test in Science Subject for Ninth-Grade Students. *Journal of Education and Social Development*. 11(2): 293-305. (In Thai language)
- Latwong, T., **Pruekpramool, C.,** Phonphok, N., & Boonprakob, M. (2016). The Effects of 5A Science Learning Model on Metacognition and Scientific Learning Achievement of the Ninth-Grade Students. *Veridian E-Journal, Silpakorn University*. 9(2):269-286. (In Thai language)
- Lohakarok, K. **Pruekpramool, C.,** Wongyounoi, S. & Punya-In, K. (2016). The development of science learning model to enhance critical thinking for seventh grade students in an educational opportunity expansion school. *Journal of Education and Social Development*. 12(1): 35-47. (In Thai language)
- Thaengnoi, P., **Pruekpramool, C.,** Phonphok, N. & Wongyounoi, S. (2016). The development of learning model to promote scientific problem-solving ability for seventh grade students. *Journal of Education and Social Development*. 12(1): 201-211. (In Thai language)
- Pruekpramool, C.,** Sangpradit, T. & Phonphok, N. (2016). Promoting Teachers’ Understanding of Physics Concepts: A Professional Development for Science Teachers in Sa Kaeo Province of Thailand. *Kasetsart Educational Review*. 31(3): 54-64. (In Thai language)
- Klaythong, K. & **Pruekpramool, C.** (2017). A Preliminary Investigation of the Generality and Problems on Doing Science Project of Upper Secondary School Students in Princess Chulabhorn’s College Group. *Journal of Graduate Studies in Northern Rajabhat Universities*. 7(12): 139-155. (In Thai language)

- Pruekpramool, C.** (2017). Scientific Imagination for Science Learning in the 21st Century. *SDU Research Journal Humanities and Social Sciences*. May – August 2017. 13(2). (Accepted). (In Thai language)
- Lohakarok, K. **Pruekpramool, C.**, Wongyounoi, S. & Punya-In, K. (2017). The Study of Critical Thinking Skills of Seventh Grade Hmong Hilltribe Students in Tak Province. *Journal of Education, Mahasarakham University*. 11(2): 28-41. (In Thai language)
- Thaengnoi, P., **Pruekpramool, C.**, Phonphok, N. & Wongyounoi, S. (2017). Study of Scientific Problem-Solving Abilities Based on Scientific Knowledge about Atmosphere and Weather for Seventh Grade Students. *Journal of Education, Mahasarakham University*. 11(2): 143-154. (In Thai language)
- Homrit, S. & Pruekpramool, C. (2017). The Study of Misconceptions and Lack of Knowledge about Force and Laws of Motion of Upper Secondary School Students in Singburi Province Using Four-tier Diagnostic Test. *Journal of Education Research, Faculty of Education, Srinakharinwirot University*. 11(2): 220-231. (In Thai language)

Proceedings

- Homrit, S., & **Pruekpramool, C.** (2014). Misconception about Force and Laws of Motion: A Case Study of 11th Grade Students in Sing Buri Province Using Structured Interview Protocol. *Proceeding of the 2nd International Conference for Science Educators and teachers*. 172-183.
- Poochai, S. & **Pruekpramool, C.**(2015). Instrument development of Chiang Mai secondary school science teachers' perceptions toward science learning management integrated to information literacy in science classroom. *Proceeding of the 3rd International Conference for Science Educators and teachers*. 300-310.
- Pruekpramool, C.**, Hwang, G.J., Sangpradit, T. & Khumwong., P. (2015). Using blended mobile learning model for learning on tablets through local science learning stations in Sakaeo province, Thailand. *Proceeding of the 3rd International Conference for Science Educators and teachers*. 328-343.
- Thaengnoi, P., **Pruekpramool, C.**, Phonphok, N. & Wongyounoi, S. (2016). Study of Scientific Problem-Solving Abilities Based on Scientific Knowledge about Atmosphere and Weather for Mathayomsuksa I Students. *Proceeding of the 4th International Conference for Science Educators and teachers*. 510-516.
- Lohakarok, K. **Pruekpramool, C.**, Wongyounoi, S. & Punya-In, K. (2016). The Study of Critical Thinking Skills of Seventh Grade Hmong Hilltribe Students in Tak Province. *Proceeding of the 4th International Conference for Science Educators and teachers*. 517-524.
- Pruekpramool, C.** (2017). Scientific Imagination of Lower Secondary School Students in Thailand. *Proceeding of the Sixth Edition of the International Conference New Perspectives in Science Education, held on 16-17 March 2017 in Florence, Italy*. 585-589.

Research Presentations

1. **Pruekpramool, C.** *Physics of Sound in Thai Classical Music Instruments: an Interdisciplinary Course Development for Upper Secondary School Students by Using an Integrated Teaching Approach*, Poster presentation, PTEC conference 2009, March 13, 2009, Pittsburgh, PA

2. **Pruekpramool, C.**, White, O.L., Musikul, K. & Phonphok, N. *Student Attitudes toward Science: The Case of Thai Upper Secondary School Non-Science Students*. 17th International Conference on Learning, Hong Kong, 6-9 July 2010.
3. **Pruekpramool, C.** *The Development of the Science of Sound in Traditional Thai Musical Instruments Interdisciplinary Course for Non-science Upper Secondary School Students by using Integrated Teaching Approach*.
 - National Taiwan University of Science and Technology (NTUST), Taiwan, March 16, 2011
 - Science Education Department, National Taiwan Normal University, Taiwan, March 17, 2011.
4. **Pruekpramool, C.** *SoSTI Course: An Elective Science Course for Thai Upper Secondary School Non-science Students*. East-Asian Association for Science Education conference (EASE 2011), Chosun University, Gwangju, Korea October 25-29, 2011.
5. **Pruekpramool, C.**, White, O.L., Musikul, K. & Phonphok, N. *Learning Science through Traditional Thai Musical Instruments: An Elective Science Course for Non-science Students*. 19th International Conference on Learning, Institute of Education, University of London, GBT 14-16 August 2012.
6. **Pruekpramool, C.** *In-service Science Teachers' Views toward Scientific Imagination for Science Learning in the Classroom*. The International Conference for Science Educators and Teachers, Pattaya, Thailand, May 9-11, 2013
7. Klaythong, K. & **Pruekpramool, C.** *A Preliminary Investigation of the Generality and Problems on Doing Science Project of Upper Secondary School Students in Princess Chulabhorn's College*. The 2nd International Conference for Science Educators and Teachers, Phuket, Thailand, July 16-18, 2014.
8. Homrit, S. & **Pruekpramool, C.** *Misconception about Force and Laws of Motion: A Case Study of 11th Grade Students in Sing Buri Province Using Structured Interview Protocol*. The 2nd International Conference for Science Educators and Teachers, Phuket, Thailand, July 16-18, 2014.
9. **Pruekpramool, C.** *Science teachers' perceptions of scientific imagination: the missing piece in science classroom*. Asian Conference on Education, Osaka, Japan, October 28-November 2, 2014
10. Dahsah, C., **Pruekpramool, C.**, Sangpradit, T & Krajcik, J.S. *The Use of Community Resources to Promote Science Learning*. 2014 NARST Annual International Conference. Pittsburg, USA, March 30-April 2, 2014.
11. Poochai, S. & **Pruekpramool, C.** *Instrument development of Chiang Mai secondary school science teachers' perceptions toward science learning management integrated to information literacy in science classroom*. The 3rd International Conference for Science Educators and teachers, Bangkok, Thailand, July 17-19, 2015.
12. **Pruekpramool, C.**, Hwang, G.J., Sangpradit, T & Khumwong, P. *Using blended mobile learning model for learning on tablets through local science learning stations in Sakaeo province, Thailand*. The 3rd International Conference for Science Educators and teachers, Bangkok, Thailand, July 17-19, 2015.
13. **Pruekpramool, C.**, Phonphok, N. & Sangpradit, T. *Promoting Teachers' Understanding of Physics Concepts: A Professional Development for Science Teachers in a Frontier Province of Thailand*. 2015 International Conference of East-Asian Association for Science Education, Beijing, China, October 16-18, 2015.

14. Khumwong, P., **Pruekpramool, C.** & Phonphok, N. *Views of STEM Education and STEM Self-efficacy of Secondary Science Teachers in the School Under the Project of Expanding Opportunities for Education in Sakaeo Province, Thailand.* 2015 International Conference of East-Asian Association for Science Education, Beijing, China, October 16-18, 2015.
15. Thaengnoi, P., **Pruekpramool, C.**, Phonphok, N. & Wongyounoi, S. *Study of Scientific Problem-Solving Abilities Based on Scientific Knowledge about Atmosphere and Weather for Mathayomsuksa I Students.* The 4th International Conference for Science Educators and teachers, Khon Kaen, Thailand. June 3-5, 2016.
16. Lohakarok, K. **Pruekpramool, C.**, Wongyounoi, S. & Punya-In, K. *The Study of Critical Thinking Skills of Seventh Grade Hmong Hilltribe Students in Tak Province.* The 4th International Conference for Science Educators and teachers, Khon Kaen, Thailand. June 3-5, 2016.
17. **Pruekpramool, C.**, *Thai In-service Teachers' Competence in Designing Science Learning Activities to Promote Science Process Skills for Primary School Students.* Paper presented at East-Asian Association for Science Education conference (EASE 2016). Tokyo University of Science, Tokyo, Japan. August 26-28, 2016.
18. Dahsah, C., Phonphok, N., **Pruekpramool, C.**, Sangpradit, T., Seetee, N., Kanyaprasith, K., and Khumwong, P. (2016). *High School Interdisciplinary STEM Curriculum about Waste Management.* Paper presented at the 2016 International Conference of East-Asian Association for Science Education (EASE2016TOKYO), Tokyo University of Science, Tokyo, Japan, 26-28 August 2016.
19. Dahsah, C., Phonphok, N., **Pruekpramool, C.**, Sangpradit, T., Seetee, N., Kanyaprasith, K., and Khumwong, P. (2016). *Expanding STEM Education by Integrated Languages, Social, and Morality Aspects.* Paper presented at the first International Conference on Transformative Education Research and Sustainable Development, Dhulikel, **Nepal, 21-23 October 2016.**
20. **Pruekpramool, C.** (2017). *Scientific Imagination of Lower Secondary School Students in Thailand.* The Sixth Edition of the International Conference New Perspectives in Science Education, held on 16-17 March 2017 in Florence, Italy.
21. **Pruekpramool, C.**, Kanyaprasith, K., Phonphok, N. & Thithuy, .H. (2017). *Exploring Science and Mathematics Teaching Experiences in Thailand Using Reflective Journals of an Internship Program between Vietnamese and Thai students.* Paper presented at the 5th International Conference for Science Educators and teachers, Phuket, Thailand, June 6-8, 2017.
22. A-nongwech, N. & **Pruekpramool, C.** (2017). *The Development of Metacognition Test in Genetics Laboratory for Undergraduate Students.* Paper presented at the 5th International Conference for Science Educators and teachers, Phuket, Thailand, June 6-8, 2017.

Research Projects (Done)

Research Projects	Year	Position	Funding
A development of astronomy and physics teaching media	2012	Researcher	Thailand Center of Excellence in Physics (ThEP)
A study of scientific literacy levels and a survey of scientific literacy needs of citizen in a community: A case study of Tambon Nongmakfai Amphur Wattanakorn, Sa-keaw Province	2013	Researcher	Science Education Center, SWU
The development physics teacher's efficacies by using a Continuing Professional Development (CPD) program English integrated science approach	2013	Researcher	Thailand Center of Excellence in Physics (ThEP)
A study of in-service science teachers' views toward scientific imagination for science learning management in the classroom	2014	Research project leader	Science Education Center, SWU
The development of science learning activities package to promote scientific imagination in the classroom for lower secondary school students	2015	Research project leader	Thailand annual government statement of expenditure 2015
Development of Understanding and Self-efficacy Beliefs Regarding STEM Teaching of Lower Secondary Science Teachers	2015	Researcher	Science Education Center, SWU
An Evaluation and Follow-up of Master and Doctoral of Education in Science Education Program, Srinakharinwirot University	2015-2016	Researcher	Science Education Center, SWU

Ongoing Research Projects

Research Projects	Duration	Position	Funding
Science teacher development through collaborative action research	2015-2017	Researcher	Science Education Center, SWU
Multiple perspectives on students' scientific sense making using communication-based strategies	2016-2017	Research project leader	SWU budget of expenditure 2016
Science Literacy and Communication of Thai People in the 21st Century	2016-2017	Research project leader	Thailand annual government statement of expenditure 2017

Reviewer/Editorial Board Member

1. Associate Editors, International Journal of Science, Mathematics, and Technology Learning - Volume 20
2. Organizing committee and editorial committee, International Conference for Science Educators and Teachers (ISET)
3. Book editor, *The grace of H.R.H. Princess Maha Chakri Sirindhorn: project of increasing science learning achievement in secondary schools under Bangkok Metropolitan Administration* (2015) (In Thai language)
4. Book editor, Physics supplementary book for Grade 9-12, Aksorn Charoen Tat Act. Co., Ltd. (In Thai language)

Teaching Experiences

- **Secondary school level**
2005 – 2006 Teaching Physics at Pakkred school, Nonthaburi, Thailand
 - **Undergraduate Courses**
2013 - 2014 Physics for science teachers I and II at Faculty of Science, Srinakharinwirot University
 - **Graduate Courses**
2011 –Present at Science Education Center, Srinakharinwirot University
 - Main concepts in Physics for science educator
 - Main concepts in science for science educator
 - The Earth and Universe
 - Earth science for science educator
 - Advanced statistics for science education
 - Statistics for science education research
 - Advanced quantitative research for science education
 - Advanced qualitative research for science education
 - Assessment for learning in science
 - Seminar for science education research
 - Seminar on innovative science learning
 - Independent study in science education
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