

Ms. Jeerawan Ketsing		Curriculum Vitae	
Current Position: Assistant professor, Kasetsart University		Contact Information: E-mail: fedujwk@ku.ac.th	
Affiliation:	Division of Science Education, Department of Education, Faculty of Education, Kasetsart University 50 Ngam Wong Wan Rd, Ladyao, Chatuchak, Bangkok, Thailand, 10900		
Work position:	Assistant Professor of Science Education		
Date of Birth:	July 9 th , 1982		
Email:	fedujwk@ku.ac.th		
Phone:	(+66) 0-2942-8200 # 1823 # 125 (+66) 0-8-1665-0642		
Education	Ph.D. (Science Education), Faculty of Education, Kasetsart University, 2010		
	Dissertation title: Enhancement of Inquiry-based Instruction of Thai Secondary Science Teachers Using Collaborative Action Research, under the supervision of Prof.Dr. Vantipa Roadrangka, Prof.Dr. Boongea Vajarasathira, Prof.Dr. Jolie Mayer-Smith and Prof.Dr. Gaalen Erickson		
	Grad. Dip. (Teaching Science Profession), Faculty of Education, Kasetsart University, 2005		
	B.Sc. (Biology), Faculty of Science, Kasetsart University, 2004		
Academic appointments	2013 –	Assistant professor	Faculty of Education, Kasetsart University, Thailand
	2013 – 2014	Visiting scholar under the supervision of Prof.Dr. Noriyuki Inoue	Department of Learning and Teaching, School of Leadership and Education Sciences, University of San Diego, USA
	2010 – 2013	Lecturer	Faculty of Education, Kasetsart University, Thailand
	2010 – 2011	Biology teacher	Kasetsart University Laboratory School
	2007 – 2008	Doctoral research fellow under the supervision of Prof.Dr. Gaalen Erickson and Prof.Dr. Jolie Mayer-Smith	Department of Curriculum and Pedagogy, Faculty of Education, University of British Columbia, Canada
Scholarships	Full scholarships for pursuing B.S. (Biology), Grad.Dip. (Teaching Science Profession), and Ph.D. (Science Education) from the Project for the Production of Science and Mathematics Talented Teachers (PSMT), from the Institute for the Promotion of Teaching Science and Technology (IPST), Thailand, academic year 2000 to 2010		
Research Areas	Inquiry-based learning, Biology education, Environmental education, Action research, Science teacher professional development, STEM		
Research Grants	1) Fiscal year 2019-2020 scholarship from the Royal Golden Jubilee (RGJ) Ph.D. Programme, Thailand Research Fund, in the topic of “Developing Pre-service Teachers’ Science Teacher Identity through Informal Learning Contexts” 940,000 Bath (Thesis advisor)		

	<ol style="list-style-type: none"> 2) Fiscal year 2018 research grant from the Faculty of Education, Kasetsart University, in the topic of "The development and variation of a causal model of Thai students' engagement and participation in high school science classrooms of Thailand" 96,000 Baht (Project investigator) 3) Fiscal year 2016 research grant from the Science Education Special Program, Kasetsart University, in the topic of "Developing pre-service teachers' science teaching practices in integrating PISA scientific competencies using action research" 25,000 Baht (Project investigator) 4) Fiscal year 2015 research grant from the Faculty of Education, Kasetsart University, in the topic of "Teaching science via STEAM framework for developing 8th graders' scientific conception on human and animal body system" 10,000 Baht (Project investigator) 5) Fiscal year 2014-2015 research grant from Thailand Research Fund (TRF), in the topic of "The development of an action research course for promoting pre-service science teachers in the PSMT program to conduct classroom action research" 480,000 Baht (Project investigator) 6) Fiscal year 2013 research grant from the Faculty of Education, Kasetsart University, in the topic of "Enhancement of pre-service teachers' understanding and practice of inquiry-based learning via collaborative action research professional development programme" 10,000 Baht (Project investigator) 7) Fiscal year 2013 research grant from the Faculty of Education, Kasetsart University, in the topic of "A study of student teachers' attitude and behavior of environmental conservation" 10,000 Baht (Project investigator) 8) Fiscal year 2013 research grant from the National Research Council of Thailand, in the topic of "Instructional system development for developing educational technology competencies in teaching profession of pre-service teachers" 1,000,000 Baht (Co-researcher) 9) Fiscal year 2007 research grant for doctoral candidate in social science, Graduate School of Kasetsart University, for the topic "Enhancement of inquiry-based instruction of Thai secondary science teachers using collaborative action research" 100,000 Baht (Project investigator)
Awards	<ol style="list-style-type: none"> 1) Faculty Member Research Excellence Award, academic year 2014-15, Faculty of Education, Kasetsart University 2) Honourable Mention by the National Award in Education, academic year 2010-11, Thailand Educational Deans' Council 3) Certificate for Outstanding Academic Performance, Doctoral Degree in Social Science, academic year 2009-10, Graduate School of Kasetsart University 4) Honourable Mention for Doctoral Dissertation in Social Science, academic year 2009-10, Graduate School of Kasetsart University
Field Contribution	<ol style="list-style-type: none"> 1) Member of Science Education Association (Thailand) 2) Reviewer of Kasetsart Journal of Social Science 3) Reviewer of the East-Asian Association for Science Education conference 4) Organizing committee and academic secretary of the Asian Teacher Network Conference 2017 (AsTEN 2017), Bangkok, Thailand. 5) Organizing committee of the 2017 HU-SNU-NTNU-KU Joint-Symposium for Science Education, Sapporo, Japan. 6) Organizing committee and secretary of the 3rd International Conference for Science Educators and Teachers (ISET 2015)

Selected Publications
Research Articles (Peer reviewed journals)
Vasinayanuwatana, T., Pongsophon, P., Chattham, N., & Ketsing, J. (.....). Current state, problem, need, and readiness for STEM education in Islamic private schools. <i>Journal of Education Prince of Songkla University</i> . (under review).
Pinthong, T., Jaitrong, W., & Ketsing, J. (2020, accepted). A study of relationship between pre-service teachers' prior experience on science learning and their self-efficacy on inquiry-based learning. <i>Journal of Education Naresuan University</i> 22(1), in press.
Ketsing, J. (2017). Preservice science teachers' challenges in doing classroom action research and learning activities to cope with the challenges. <i>Kasetsart University of Social Science</i> 38(1), 457-469.
Khemkong, S. Ketsing, J. & E-gobon, T. (2017). Good teaching practices in inquiry-based learning for developing grade 11 students' scientific reasoning ability. <i>Journal Mahasarakham University (Humanity and Social Science) Special issue</i> , 77-87.
Ketsing, J. (2016). Environmental education course for improving pre-service science teachers' environmental attitudes and behaviors. <i>Songklanakarin Journal of Social Sciences and Humanities</i> 22(2), 213-252.
Panyawan, K., Ketsing, J., & Pattanaporkratana, A. (2016). Upper elementary students' learning achievement and environmental consciousness on electricity conservation. <i>Journal of Research Unit on Science, Technology and Environmental for Learning</i> 7(2), 349-362.
Ketsing, J. (2015). Preservice science teachers' environmental attitudes and behaviors. <i>Kasetsart University of Social Science</i> 36(2), 297-307.
Tangpet, N., Ketsing, J., & Vajarasathira, B. (2014). The development of grade 11 students' conceptions of neurons by brain-based learning. <i>Kasetsart Educational Review</i> 29(2), 63-78.
Pukpoonthanapat, P., Ketsing, J. & Peyachoknagul, S. (2013). 12 th graders' gene and chromosome concepts after learning the concepts through constructivist approach in combining with analogy technique. <i>Kasetsart Educational Review</i> 28(1), 59-71.
Ketsing, J. & Roadrangka, V. (2008). A study of teaching ecology in lower secondary schools under the project for extension of educational opportunity in Bangkok. <i>KKU Research Journal of Humanities and Social Sciences</i> 13(11), 1332-1344.
Review Article
Janhom, C. & Ketsing, J. (2018). 6E learning activities for Duchenne Muscular Dystrophy. <i>Institute for the Promotion of Teaching Science and Technology (IPST) Magazine</i> 46(212), 32-36.
Faikhamta, C., Ketsing, J., Tanak, A., & Chamrat, S. (2018). Science teacher education in Thailand: A challenging journey. <i>Asia-Pacific Science Education</i> , DOI: https://doi.org/10.1186/s41029-018-0021-8
Ketsing, J. (2012). Action research: A new approach for teacher professional development. <i>Kasetsart Educational Review</i> 27(2), 65-77.
Ketsing, J. & Roadrangka, V. (2011). Inquiry-based instruction for science teaching. <i>Journal Mahasarakham University (Humanity and Social Science)</i> 30(1), 84-105.
International Conference
Ketsing, J., Inoue, N., & Buczynski, S. (2018). Exploring pre-service science teachers' reflective quality on inquiry-based learning within a professional learning community. <i>Paper presented</i>

<p>at <i>International Science Education Conference (ISEC 2018)</i>. National Institute of Education (NIE), Singapore.</p>
<p>Janhom, C., Tongsrinut, C., & Ketsing, J. Developing grade 9 students' creativity and innovation skills for the 21st century using STEM education in Biology subject. <i>Paper presented at International Science Education Conference (ISEC 2018)</i>. National Institute of Education (NIE), Singapore.</p>
<p>Kongkoe, T. Boonsoong, B., & Ketsing, J. High school students' learning progression in carbon cycle. <i>Paper presented at International Science Education Conference (ISEC 2018)</i>. National Institute of Education (NIE), Singapore.</p>
<p>Ketsing, J., Faikhamta C., & Inoue, N. (2017). Inquiring into an action research course: Exploring secret recipes of helping pre-service teachers learn to teach science through action research. <i>Paper presented at 18th Biennial Conference of Teachers and Teaching (ISATT 2017 Conference)</i>. Salamanca, Spain.</p>
<p>Ketsing J., Faikhamta C., & Tanak A. (2016). Inquiry-based teaching for scaffolding Thai students' practice of PISA scientific competencies: Lesson learned from preservice teachers' action research projects. <i>Paper presented at East-Asian Association for Science Education (EASE 2016 Conference)</i>. Tokyo, Japan.</p>
<p>Noohuang, D. Ketsing, J. & Chutikulworanun, M. (2016). Teaching science via STEAM framework for developing 8th graders' scientific conception on human and animal body system. <i>Paper presented at 4th International Conference for Science Educators and Teachers (ISET 2016)</i>, KhonKaen, Thailand.</p>
<p>Ketsing, J. (2015). Classroom action research in Thai context: Challenges and solutions. <i>Paper presented at Collaborative Action Research Network Conference (CARN Conference 2015)</i>, Braga, Portugal.</p>
<p>Ketsing, J. (2015). Science classroom action research: A journey from within. <i>Paper presented at 3rd International Conference for Science Educators and Teachers (ISET 2015)</i>, Bangkok, Thailand.</p>
<p>Sithichai, P. Ketsing, J., & Kaewwaiyut, S. (2015). Inquiry-based learning and visualization media for teaching nervous system concepts. <i>Paper presented at 3rd International Conference for Science Educators and Teachers (ISET 2015)</i>, Bangkok, Thailand.</p>
<p>Ketsing, J. (2014). Preservice teachers' difficulties in teaching inquiry in Thai science classrooms. <i>Paper presented at International Science Education Conference (ISEC 2014)</i>, National Institute of Education (NIE), Singapore.</p>
<p>Ketsing, J. (2014). Collaborative reflective supervision: Scaffolding Thai pre-service science teachers' inquiry teaching. <i>Paper presented at NARST 2014 Annual Conference</i>, Pittsburgh, United States.</p>
<p>Ketsing, J. (2013). Environmental attitudes and behavior of student teachers: A note for environmental education course. <i>Paper presented at International Conference for Science Educators and Teachers (ISET 2013)</i>, Pattaya, Thailand.</p>
<p>Ketsing, J., Roadrangka, V. & Mayer-Smith, J. (2012). Collaborative action research for changing science teachers' understanding and practice of inquiry. <i>Paper presented at International Conference: Innovative Research in a Changing and Challenging World</i>, Phuket, Thailand.</p>
<p>Ketsing, J., & Roadrangka, V. (2009). Thai science teachers' understanding and practice of inquiry-based instruction. <i>Paper presented at ASERA 2009: 40th Australasian Science Education Research Association Conference</i>, Deakin University, Geelong, Australia.</p>

Ketsing, J., & Roadrangka, V. (2008). Teaching ecology in lower secondary schools under the project for extension of education opportunity in Bangkok. <i>Paper presented at 34th Congress on Science and Technology of Thailand (STT 34)</i> , Bangkok, Thailand.	
National Conference	
Piboonwitidthamrong, P., Ketsing, J., & Imaram, M. (2016). Grade 10 th science gifted students' conceptions and patterns of concept mapping on living things and population distribution. <i>Paper presented at 38th National Graduate Research Conference</i> . Phitsanulok, Thailand.	
Hummai, O., Ketsing, J. & Wananlerse, B. (2016). The development of grade 7 th students' learning achievement on thermal energy using inquiry-based learning. <i>Paper presented at 54th KU Conference</i> . Bangkok, Thailand.	
Chailangka, S., Ketsing, J. & Hongtrakul, V. (2015). Teaching techniques for developing 11 th graders' view of nature of science: action research. <i>Paper presented at 34th National Graduate Conference</i> . Khonkaen, Thailand.	
Sitthichai, P., Ketsing, J. & Kaewwaiyuth, S. (2015). The impact of inquiry-based learning and visualization media on 11 th graders' nervous system concepts. <i>Paper presented at 53rd KU Conference</i> . Bangkok, Thailand.	
Suriyo, A., Ketsing, J. & Agobol, T. (2015). The development of 10 th students' conception of human homeostasis concepts by using context-based learning. <i>Paper presented at 53rd KU Conference</i> . Bangkok, Thailand.	
Thaimee, D. & Ketsing, J. (2015). Grade 11 gifted students' views of nature of science. <i>Paper presented at 53rd KU Conference</i> . Bangkok, Thailand.	
Koetduang, S., Ketsing, J., & Kaewwaiyuth, S. (2014). Effect of inquiry teaching for improving 4 th graders' science process skills. <i>Paper presented at 11th International KU-KPS Conference</i> , Nakron-Pratom, Thailand.	
Pratumtong, M., Ketsing, J., & Pongtongkam, P. (2014). The development of 10 th graders' scientific concept on cell division and genetic inheritance via inquiry-based learning. <i>Paper presented at Naresuan University National Conference 2014</i> , Pisanulok, Thailand.	
Anugoonsawat, W., Ketsing, J., & Anuntasethkul, T. (2012). Grade 11 students' conceptions of cell and cell structure. <i>Paper presented at 50th KU Conference</i> . Bangkok, Thailand.	
Pukpoonthanapat, P., Ketsing, J., & Peyachoknagul, S. (2012). Grade 12 students' conceptions of characteristics of genetic materials after learning the concepts through constructivist-based instruction in combining with analogy technique. <i>Paper presented at 21st Thaksin University Annual Conference</i> . Song Kla, Thailand.	
Teaching Experiences	
Undergraduate courses	
	01159271 Science Process Skills
	01159371 Readings in Contemporary Science Education Issues
	01159381 Science and Technology Education and Society
	01159382 Environmental Education for School
	01162422 Field Experiences: Student Teaching
	01162423 Field Experiences: Student Teaching and Classroom Action Research
Graduate courses	

	01159529 Practicum in Teaching Science
	01159592 Research in Science Education
	01159594 Science Classroom Action Research
	01159597 Seminar
	01159697 Seminar (I, III)