

DR. RAVINDER KOUL

Associate Professor of Education (Curriculum and Instruction)

THE PENNSYLVANIA STATE UNIVERSITY

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ADDRESS

The Pennsylvania State University, 177 Chambers Building, University Park, PA 16802, USA

AREAS OF EXPERTISE AND INTEREST

- Curriculum design and student engagement
- Cultural aspects in motivation and learning
- Equity issues in teaching and learning

CURRENT EDITORIAL WORK:

Associate Editor, *Electronic Journal of Research in Science and Math Education*
Reviewer, *Journal of Engineering Education*

AWARDS

2013: Selected for Fulbright Senior Specialist Award for South Korea,
U.S. Department of State, Bureau of Educational and Cultural Affairs.

2010: Fulbright Senior Specialist Award for Thailand,
U.S. Department of State, Bureau of Educational and Cultural Affairs.

Dr. Koul conducted seminars and workshops on two areas of science and engineering education and research:

- 1) Socio-cultural goal theories of motivation applied to students' decision making about careers in science, math, engineering, and related professions.
- 2) Utilization of computer tools (specifically, "semantic", "modeling" and "simulation" tools) for inquiry-based science teaching and research.

2006: Fulbright Senior Specialist Award for Thailand,
U.S. Department of State, Bureau of Educational and Cultural Affairs.

Dr. Koul assisted Dean and faculty of the King Mongkut University of Technology with the curriculum development for new doctoral program in education and was the keynote speaker at the International Conference on Vocational and Technical Education for 21st Century, December 2006, Bangkok, Thailand.

EDUCATION

M.A.T.	Marshall University, WV	1992
Ph.D.	Pennsylvania State University Curriculum and Instruction (Science Education) Dissertation Title: <i>Contextualized science</i>	1997

TEACHING CERTIFICATION

West Virginia State Department of Education: Math grades 5-12, Physics 9-12, Chemistry 9-12

PROFESSIONAL EXPERIENCE

2014-Present	Associate Professor of Education (Curriculum and Instruction), The Pennsylvania State University, University Park, PA.
2005-2014	Associate Professor of Education and Coordinator of Curriculum and Instruction, The Pennsylvania State University – Great Valley, Malvern, PA.
1998-2004	Assistant Professor of Education, The Pennsylvania State University – Great Valley, Malvern, PA.
1997-1998	Research Associate, Department of Curriculum and Instruction, West Virginia University, Morgantown, WV.
1994-1997	Research Assistant, College of Education, The Pennsylvania State University, University Park, PA.
1992-1994	Graduate Assistant, Department of Physics and Physical Sciences, Marshall University, Huntington, WV.
1987-1991	Physics and Math Teacher, Tutume McConnell Senior Secondary School, Tutume, Botswana, Southern Africa.

PUBLICATIONS IN PEER-REVIEWED JOURNALS

Koul, R. & Musikul, K. *Professional development in curriculum analysis and growth in teaching self-efficacy: A mixed-methods study*. Working paper.



- Koul, R. & Musikul, K. (2022). *Mentoring in the development of science teaching self-efficacy among primary school teachers in Thailand: A mixed methods study*. Manuscript submitted for publication.
- Chan S., Maneewan S., & Koul R. (2022). Cooperative learning in teacher education: A means to further learning motivation and academic engagement among EFL pre-service teachers. *European Journal of Teacher Education*. <https://doi.org/10.1080/02619768.2022.2117026>
- Preechawong, S., Anmanatrakul, A., Pinit, P., Koul, R., & Easter, M. A. (2021). Relationship between mentoring and coaching experience, teaching self-efficacy and job satisfaction of vocational school teachers in Thailand. *Educational Studies*, 1-21. <https://doi.org/10.1080/03055698.2021.1994374>
- Preechawong, S., Anmanatrakul, A., Pinit, P., & Koul, R. (2021). Factors affecting the intention to quit from the teaching profession among vocational teachers. *Advanced Education*, 69-78.
- Chan S., Maneewan S., & Koul R. (2021). Teacher educators' teaching styles: relation with learning motivation and academic engagement in pre-service teachers. *Teaching in Higher Education*. <https://doi.org/10.1080/13562517.2021.1947226>
- Chan, S., Maneewan, S., & Koul, R. (2021). Cooperative learning in teacher education: its effects on EFL pre-service teachers' content knowledge and teaching self-efficacy. *Journal of Education for Teaching*. <https://doi.org/10.1080/02607476.2021.1931060>
- Chan, S., Maneewan, S., & Koul, R. (2021). An examination of the relationship between the perceived instructional behaviours of teacher educators and pre-service teachers' learning motivation and teaching self-efficacy. *Educational Review*. <https://doi.org/10.1080/00131911.2021.1916440>
- Nownaisin, P., Koul, R., Chomsuwan, K., Poondej, C., & Lerdpornkulrat, T. (2020). Linking social relatedness with motivational goals and bachelor degree aspirations of vocational students. *European Journal of Educational Research*, 9(4), 1581-1589. <https://doi.org/10.12973/eu-jer.9.4.1581>
- Srisupawong, Y., Koul, R., & Neanchaleay, J. (2019). The factors that enhance the strength of students' computer self-efficacy in a computer classroom. *International Journal of Information and Education Technology*, 9(12). Available at: <https://dx.doi.org/10.18178/ijiet.2019.9.12.1323>
- Lerdpornkulrat, T., Poondej, C., Koul, R., Khiawrod, G., & Prasertsirikul, P. (2019). The positive effect of intrinsic feedback on motivational engagement and self-efficacy in information literacy. *Journal of Psychoeducational Assessment*, 37(4), 421-434. Available at: <https://doi.org/10.1177/0734282917747423>



- Koul, R. (2018). Work and family identities and engineering identity. *Journal of Engineering Education*, 107(2), 219-237. Available at: <http://dx.doi.org/10.1002/jee.20200>
- Sangkawetai, C., Neanchaleay, J., Koul, R., Murphy, E. (2018). Predictors of k-12 teachers' instructional strategies. *Technology, Knowledge and Learning*. Advanced online publications. Available at: <http://doi.org/10.1007/s10758-018-9373-0>
- Lerdpornkulrat, T., Koul, R., & Poondej, C. (2018). Student perceptions of learning environment: Disciplinary program versus general education classrooms. *Tertiary Education and Management*. Advanced online publication. Available at: <http://dx.doi.org/10.1080/13583883.2018.1479768>
- Srisupawong, Y., Koul, R., Neanchaleay, J., Murphy, E., & Francois, E. J. (2018). The relationship between sources of self-efficacy in classroom environments and the strength of computer self-efficacy beliefs. *Education and Information Technologies*, 23(2), 681-703. Available at: <http://dx.doi.org/10.1007/s10639-017-9630-1>
- Koul, R., Lerdpornkulrat, T., & Poondej, C. (2017). Gender contentedness in aspirations for careers as engineers or medical doctors. *European Journal of Engineering Education*, 42(6), 1422-1438. Available at: <http://dx.doi.org/10.1080/03043797.2017.1303450>
- Koul, R., Sosik, J. J., & Lerdpornkulrat, T. (2017). Students' possible selves and achievement goals: Examining personal and situational influences in Thailand. *School Psychology International*, 38(4), 408-433. Available at: <http://dx.doi.org/10.1177/0143034317702946>
- Sosik, J. J., Chun, J. U., & Koul, R. (2017). Relationships between psychological wellbeing of Thai college students, goal orientations, and gender. *Psychology in the Schools*, 54(7), 703-717. Available at: <http://dx.doi.org/10.1002/pits.22024>
- Lerdpornkulrat, T., Koul, R., & Poondej, C. (2017). Relationship between perceptions of classroom climate and institutional goal structures and student motivation, engagement, and intention to persist in college. *Journal of Further and Higher Education*, 42(1), 102-115. Available at: <http://dx.doi.org/10.1080/0309877x.2016.1206855>.
- Sosik, J. J., Koul, R., & Cameron, J. C. (2017). Gender and contextual influences in social responsibility in Thai schools: A multi-study person versus situation analysis. *Journal of Beliefs & Values*, 38(1), 45-62. Available at: <http://dx.doi.org/10.1080/13617672.2016.1237251>
- Lerdpornkulrat, T., Poondej, C., & Koul, R. (2017). Construct reliability and validity of the shortened version of the information-seeking behavior scale. *International Journal of Information and Communication Technology Education*, 13(2), 27-37.



- Koul, R., Lerdpornkulrat, T., & Poondej, C. (2016). Influence of perceived parenting styles on goal orientations and career aspirations of high school science students in Thailand. *The International Education Journal: Comparative Perspectives*, 15(4), 56-65.
- Koul, R., Lerdpornkulrat, T., & Poondej, C. (2016). Gender compatibility, math-gender stereotypes and self-concepts in math and physics. *Physical Review Special Topics-Physics Education Research*, 12(2), 020115-020126.
Available at: <http://dx.doi.org/10.1103/physrevphyseducres.12.020115>
- Deechuay, N., Koul, R., Maneewan, S., & Lerdpornkulrat, T. (2016). Relationship between gender identity, perceived social support for using computers, and computer self-efficacy and value beliefs of undergraduate students. *Education and Information Technologies*, 21(6), 1699-1713. Available at: <http://dx.doi.org/10.1007/s10639-015-9410-8>.
- Chantara, S., Koul, R., & Kaewkuekool, S. (2014). Relationship between life-style values and achievement goal orientation among vocational students in Thailand. *Journal of Beliefs and Values*, 35(1), 36-47.
- Hengsadeekul, C., Koul, R., & Kaewkuekool, S. (2014). Motivational orientation and preference for English medium programs in Thailand. *International Journal of Educational Research*, 66, 35-44.
- Poondej, C., Koul, R., & Sujivorakul C. (2013). Achievement goal orientation and the critical thinking disposition of college students across academic programmes. *Journal of Further and Higher Education*, 37(4), 504-518.
- Koul, R. (2012). Multiple motivational goals, values, and willingness to cheat. *International Journal of Educational Research*, 56, 1-9.
- Lerdpornkulrat, T., Koul, R., & Sujivorakul C. (2012). Influence of ability beliefs and motivational orientation on the self-efficacy of high school science students in Thailand. *Australian Journal of Education*, 56(2), 163-181.
- Koul, R., Roy, L., & Lerdpornkulrat, T. (2012). Multiple goal orientation, perceptions of biology and physics classroom learning environments, and gender. *Learning Environments Research*, 15, 217-229.
- Koul, R., Lerdpornkulrat, T., & Chantara, S. (2011). Relationship between career aspirations and measures of motivation toward biology and physics, and the influence of gender. *Journal of Science Education and Technology*, 20, 761-770.
- Songsriwittaya, A., Koul, R., & Kongsuwan, S. (2010). Achievement goal orientation and differences in self-reported copying behavior across academic programs. *Journal of Further and Higher Education*, 34(3), 419-430.



- Koul, R., Clariana, R. B., Kongsuwan, S., & Suji-Vorakul, C. (2009). Students' goal orientations and perceptions of professional competencies. *Journal of Vocational Education and Training, 61*(3), 307-318.
- Koul, R., Roy, L., Kaewkuekool, S., & Ploisawaschai, S. (2009). Multiple goal orientations and foreign language anxiety. *System: International Journal of Educational Technology and Applied Linguistics, 37*, 676-688.
- Koul, R., Clariana, R. B., Jitgarun, K., & Songsriwittaya, A. (2009). The influence of achievement goal orientation and gender on plagiarism. *Learning and Individual Differences, 19*, 506-512.
- Ontakharai, S, Koul, R., & Neanchaleay, J. (2008). Religious outlook and students' attitudes towards the environment. *Journal of Beliefs and Values, 29*(3), 305-311.
- Clariana, R. B., & Koul, R. (2008). The effects of learner's prior knowledge when creating concept maps from text passages. *International Journal of Instructional Media, 35*(2), 229-236.
- Koul, R. (2006). Relationship between religious outlook and attitudes towards school science. *Journal of Values and Beliefs, 27*(3), 251-267.
- Clariana, R. B., & Koul, R. (2006). The effects of different forms of feedback on fuzzy and verbatim memory of science principles. *British Journal of Educational Psychology, 76*(2), 259-270.
- Koul, R. (2006). Curriculum analysis—helping educators recognize personal and education program philosophies. *The Journal of Educational Alternatives, 2*(2), 65-74.
- Clariana, R., Koul, R., & Salehi, R. (2006). The criterion-related validity of a computer-based approach for scoring concept maps. *International Journal of Instructional Media, 33*(3), 317-325.
- Koul, R. (2005). Curriculum ideologies: A card activity. *The Journal of Education, 2*(1), 49-52.
- Koul, R., Clariana, R., & Salehi, R. (2005). Comparing several human and computer-based methods for scoring concept maps and text summaries. *Journal of Educational Computing and Research, 32*(3), 227-239.
- Clariana, R., & Koul, R. (2005). Multiple-Try feedback and higher order learning outcomes. *International Journal of Instructional Media, 32*(3), 239-245.
- Koul, R. (2003). Revivalist thinking and student conceptualizations of science/religion. *Studies in Science Education, 39*, 103-124.



- Koul, R. (2002). The relevance of public image of science in science education policy and practice. *Science and Education*, 11(1), 1-10.
- Koul, R. (2002). A report on Hoshingabad Science Teaching Program. *Interchange*, 33(3), 219-235.
- Koul, R., Wiesenmayer, R. W., & Rubba, P. A (2001). Evaluating RuralNet: Teaching with Internet. *Journal of Educational Computing and Research*, 25(2), 129-140.
- Koul, R., & Rubba, P. A. (1999). An analysis of the reliability and validity of personal Internet teaching efficacy beliefs scale. *Electronic Journal of Science Education*, 4(1) Available at: <http://unr.edu/homepage/jcannon/ejse/ejsev4n1.html>
- Wiesenmayer, R., & Koul, R. (1999). Level of use of Internet in a professional development project. *Journal of Science Education and Technology*, 8(2), 123-135.
- Wiesenmayer, R., & Koul, R. (1998). Integrating Internet resources into the science classroom: Teachers' perspectives. *Journal of Science Education and Technology*, 7(3), 271-277.
- Koul, R., & Dana, T. (1997). School science: Curriculum developers'/authors' perspectives. *Electronic Journal of Science Education*, 2(2) Available at: <http://unr.edu/homepage/jcannon/ejse/ejsev2n2.html>
- Koul, R., & Dana, T. (1997). Contextualized science for teaching science and technology. *Interchange*, 28(2 & 3), 121-144.

BOOK CHAPTER

- Koul, R., Lerdpornkulrat, T., & Poondej, C. (2019). Learning environments and student motivation and engagement: A review of studies from Thailand. In G. A. D. Liem, & S. H. Tan (Eds.), *Asian Education Miracles: In Search of Sociocultural and Psychological Explanations* (pp. 241-255). New York: Routledge.

PROCEEDINGS

- Preechawong, S., Anmanatarkul, A., Pinit, P., & Koul, R. (2020, Nov). Teacher characteristics, teacher burnout and motivation to leave the teaching profession. *Paper presentation at 12th Asian Conference on Education, October 30-November 2, Japan.*
- Preechawong, S., Anmanatarkul, A., Pinit, P., & Koul, R. (2020, Feb). Influence of mentoring and coaching on job satisfaction and life satisfaction of vocational school teachers. *Paper presentation at The Southeast Asian Conference on Education, February 7-9, Singapore.*
- Sangkawetai, C., Neanchaleay, J., & Koul, R. (2017). Factor Predicting K-12 teachers' approach to deep learning in ICT. *Proceeding of the 7th Conference on International Academic Multidisciplinary Research Conference, Zurich, Switzerland, pp. 301-308.*



- Srisupawong, Y., Koul, R., & Neanchaleay, J. (2016). Perceptions of classroom learning environments and computer self-efficacy beliefs of computer science students. *Proceedings of The Asian Conference on Education & International Development*, April, pp. 443-454, Kobe, Japan.
- Sangkawetai, C., Koul, R., & Neanchaleay, J. (2016). Predicting Teachers' ICT Integration in the Classroom. *Proceeding of the 2nd The IAFOR International Conference on Education, Hawaii, United States of America*, pp. 177-191.
- Poondej, C., & Koul, R. (2014, March). Confirmatory factor analysis of Thai version of achievement goal orientation scale. *Proceedings of The Conference on Education and Human Development in Asia 2014, Hiroshima, Japan*.
- Lerdpornkulrat, T., & Koul, R. (2014, March). The influence of motivational goal orientation and classroom learning environment on perceived responsibility for learning. *Proceedings of The Conference on Education and Human Development in Asia 2014, Hiroshima, Japan*.
- Lerdpornkulrat, T., & Koul, R. (2013, May). The influence of institutional context on females' self-efficacy beliefs. *Proceedings of The 3rd Conference on Creative Education, Beijing, China*, 109-113.
- Lerdpornkulrat, T., Poondej, C., & Koul, R. (2012, October). The relationship between anxiety, goal orientation, and self-reported cheating in math study of computer science students. *Proceedings of the 38th Congress on Science and Technology of Thailand, Chiang Mai, Thailand*.
- Poondej, C., Lerdpornkulrat, T., & Koul, R. (2012, October). Self-efficacy beliefs in computer programming of computer science students. *Proceedings of the 38th Congress on Science and Technology of Thailand. Chiangmai, Thailand*.
- Poondej, C., Koul, R., & Sujivorakul, C. (2012, April). The beliefs about the nature of learning and the achievement goal orientations of college students. *Proceedings of the 4th International Conference on Humanities and Social Sciences, Faculty of Liberal Arts, Prince of Songkla University. Songkla, Thailand*.
- Lerdpornkulrat, T., Koul, R., & Sujivorakul, C. (2012, April). Influence of perceived parenting styles on goal orientations and career aspirations of high school science students in Thailand. *Proceedings of The 4th International Conference on Humanities and Social Sciences, Prince of Songkla University, Songkla, Thailand, 1-10*.
- Lerdpornkulrat, T., & Koul, R. (2011, October). Thai high school science students' career aspirations for high earning science- related professions, and the influence of gender. *Proceedings of the 37th Congress on Science and Technology of Thailand, Thailand, 1-6*.
- Poondej, C., Koul, R., & Sujivorakul, C. (2011, March). The influence of epistemological beliefs on motivational goal orientation. *Proceedings of the Third International Conference on Science and Technology for Sustainable Development of the Greater Mekong Sub-region (3rd STGMS), Luang Prabang, Laos*.



- Lerdpornkulrat, T., Koul, R., & Sujivorakul, C. (2011, March). Career aspirations, self-efficacy beliefs and the influence of gender. *Proceedings of the Third International Conference on Science and Technology for Sustainable Development of the Greater Mekong Sub-region (3rd STGMS), Luang Prabang, Laos, 398-402.*
- Chantara S., Kaewkueakool, S., & Koul, R. (2011, February). Self-determination theory and career aspirations: A review of literature. *Proceedings of the international conference on social science and humanities, Singapore.*
- Chantara, S., Koul, R., & Kaewkuekool, S. (2010). Career aspirations, goal orientation, and classroom anxiety. In *Communication and Management in Technological Innovation and Academic Globalization - Int. Conference on Communication and Management in Technological Innovation and Academic Globalization, COMATIA'10* (pp. 133-146)
- Poondej, C., Koul, R., & Sujivorakul, C. (2010). Disciplinary differences in personal attributes: A review of the literature. In *Selected Topics in Education and Educational Technology - 9th WSEAS International Conference on Education and Educational Technology, EDU'10* (pp. 83-88)
- Lerdpornkulrat, T., Koul, R., & Sujivorakul, C. (2010). Career aspiration and the influence of parenting styles: A review of the literature. In *Selected Topics in Education and Educational Technology - 9th WSEAS International Conference on Education and Educational Technology, EDU'10* (pp. 71-76)
- Hengsadeekul, C., Hengsadeekul, T., Koul, R., & Kaewkuekool, S. (2010). English as a medium of instruction in Thai universities: A review of literature. In *Selected Topics in Education and Educational Technology - 9th WSEAS International Conference on Education and Educational Technology, EDU'10* (pp. 89-94)
- Hengsadeekul, C., Koul, R., & Kaewkuekool, S. (2010, August). College students' perceptions of English as a medium of instruction. *Proceedings of the 2nd International Conference on Language and Communication: Dynamism of Language and Communication in Society, Bangkok, Thailand.*
- Koul, R. (2008, March). Epistemological considerations in curricular design. *Proceedings of International Conference on E-Education, Bangkok, Thailand.*
- Albright, K. E., Koul, R., & Clariana, R. B. (2006, September). Using Pathfinder Knot analytic tools for comparing and combining concept maps. *Proceedings of the Second International Conference on Concept Mapping, San Jose, Costa Rica.*
- Clariana, R.B., & Koul, R. (2004, September). A computer-based approach for translating text into concept map-like representations. In A.J.Canas, J.D.Novak, and F.M.Gonzales, Eds., *Concept maps: theory, methodology, technology*, vol. 2, in the *Proceedings of the First International Conference on Concept Mapping* (pp.131-134). Pamplona, Spain: See <http://cmc.ihmc.us/papers/cmc2004-045.pdf>



Koul, R. (2003, July). A case study on the genesis and nature of student epistemologies of science. *Proceedings of the 7th International Conference of History, Philosophy and Sociology of Science and Science Teaching, Winnipeg, Canada.*

PRESENTATIONS

Kamata, N., Jitjumnong, K., Srisupawong, Y., Koul, R. (2020, April). A Study on the Development of Electronic Craft Materials in Early Childhood Education -LED Lighting Learning Using Arduino Uno R3. Annual meeting of the Japan Society for Industrial Technology Education (JSTE), Chiba, Japan (in Japanese).

Kamata, N., Jitjumnong, K., Srisupawong, Y., Koul, R. (2021, March). Development and construction of electronic material learning kit for elementary school students. Paper presentation at the annual meeting of the Institute of Electrical Engineers of Japan (IEEJ), Osaka, Japan (in Japanese).

Kamata, N., Jitjumnong, K., Srisupawong, Y., Koul, R. (2020, August). Development of an electrical and electronic engineering curriculum for elementary school students. The Japan Society of Technology Education (JSTE), 64th National Convention Sapporo, Hokkaido Japan. (in Japanese).

Kamata, N., Toshifumi, Y., Toshio, B., Tanes, T., Kanyuma, J., Koul, R. (2021, September). Comparison study for earning content on electricity for junior high school in Japan and Thailand. Paper presented at the Technical Meeting on "Frontiers in Education", The Institute of Electrical Engineers of Japan (IEEJ), Fukushima Japan. (in Japanese).

Lerdpornkulrat, T., & Koul, R. (2019, Feb). Rubrics as formative assessment tool to enhance information literacy. *ICEET 2019: International Conference on Education and Education Technology, February 11-12, Barcelona, Japan.* This paper received best presentation award for outstanding work.

Sosik, J. J., Chun, J. U., & Koul, R. (2017, April). Examining psychological wellbeing of Thai college students through a self-presentational and impression management lens. Paper presented at the Annual Meeting of the American Educational Research Association conference, San Antonio, TX.

Srisupawong, Y., Koul, R., Neanchaleay, J., & Francois, E. J. (2016, October). The differences in computer self-concept and computer self-efficacy beliefs of computer science students in Thailand. Paper presented at the International Conference on Transnational Education and Learning, Memphis, TN.

Srisupawong, Y., Neanchaleay, J., Koul, R., & Francois, E., (2016). Sources of general computer and computer programming self-efficacy beliefs of computer science students in Thailand. *Transnational Education and Learning Society, Inc.*, October, Tennessee, USA.

Sangkawetai, C., Koul, R., Neanchaleay, J., & Francois, E. J. (2016, March). Relationship between teaching self-efficacy beliefs and classroom goal structures of in-service



- teachers in Thailand. Paper presented at the International Conference on Transnational Education and Learning, Memphis, TN.
- Lunasin, D. M., Auchey, J. D., Slagel, L. M., Sosik, J. J., & Koul, R. (2014, April). Effects of gender and school context on social responsibility in Thai high schools: A person versus situation analysis. Presented at the Annual Meeting of the American Educational Research Association conference, Philadelphia, PA.
- Sosik, J. J., Koul, R., & Cameron, J. C. (2014, October). Gender and contextual differences in social responsibility in Thai schools: A multi-study person versus situation analysis. Presented at the Institute of Behavioral and Applied Management conference, Orlando, FL.
- Sosik, J. J., Koul, R., & Lerdpornkulrat, T. (2014, October). Students' possible selves and achievement goals: Examining personal and situational influences in Thailand. Presented at the Institute of Behavioral and Applied Management conference, Orlando, FL.
- Lerdpornkulrat, T., & Koul, R. (2013, May). The influence of institutional context on females' self-efficacy beliefs. Paper presented at the International Conference of Creative Education, Beijing, China.
- Poondej, C., & Koul, R., (2013, May). The influence of belief about the nature of learning to the achievement goal orientation of undergraduate students in Thailand. Paper to be presented at the International Conference of Creative Education, Beijing, China.
- Koul, R., & Lerdpornkulrat, T. (2013, April). Gender stereotypes and self-efficacy beliefs of high school science students in Thailand. Paper presented at the Annual Meeting of American Educational Research Association, San Francisco, CA.
- Koul, R., & Poondej, C. (2013, April). Motivational perspective on Thai high school students' attitudes toward cheating: An empirical study. Paper presented at the Annual Meeting of American Educational Research Association, San Francisco, CA.
- Koul, R. (2012, April). Cheating behavior among high school and college students: Student characteristics and situational factors. Invited paper at 4th International Conference on Humanities and Social Sciences, Faculty of Liberal Arts, Prince of Songkla University. Songkla, Thailand.
- Songsriwittaya, A., Kongsuwan, S., Jitgarun, K., Kaewkuekool, K., & Koul, R. (2009, November). Engineering Students' Attitude towards Plagiarism: A Survey Study. International Conference on Engineering Education and Research (ICEER-2009), Seoul, Korea.
- Koul, R. (2009, April). Students' attitudes towards environment: A review of empirical studies. Paper presented at the Annual Meeting of American Educational Research Association, San Diego, CA.
- Booneka, N., Koul, R., & Kiattikomol, P. (2007, September). Grounded theory methodology and culturally relevant model of competency: A pilot study. Paper presented at the 8th International Conference on Advances in Qualitative Methods, Banff, Canada.



- Koul, R. (2006, May). Comparing human and computer-based methods of scoring scientific language. Paper presented at the 1st World Congress of the Power of Language, Bangkok, Thailand.
- Koul, R. (2004, December). Epistemological stances towards knowledge in school science. A presentation at Homi Bhabha Center for Science Education, Tata Institute for Fundamental Research, Mumbai, India.
- Koul, R., & Clariana, R. B. (2004, October). Some relationships between concept maps and written summaries. Online presentation for the 36th Annual International Visual Literacy Association (IVLA) Conference in Plainesburg, South Africa.
- Koul, R. (2004, April). Epistemological stances towards knowledge and the cultural context of India. Paper presented at the annual conference of National Association of Research in Science Teaching, Vancouver, Canada.
- Koul, R. (2003, December). Locating the parameters of approaches to education. Paper presented at the International Education Conference, Rajkot, India.
- Koul, R. (2003, March). Revivalist thinking and student conceptualizations. Paper presented at the annual conference of National Association of Research in Science Teaching, Philadelphia, PA.
- Koul, R. (2002, December). Culturally relevant science education programs: Comparative perspectives. Presentation at the International Conference on history of environment and environmental education in South-East Asia. Organized by Zakir Hussain Center for Education Studies, New Delhi.
- Koul, R. (2002, October). Data driven inquiry practices. Poster session at E-Learn Conference, Montreal, Canada.
- Koul, R. (2002, March). Approaches to science education: A worldview theory perspective. Presented at the International Conference: Problems and prospects in developing countries, Bridgetown, Barbados.
- Koul, R. (2001, March). An investigation into student conceptualizations of relationships between scientific and traditional non-western religious worldview. Paper presented at the annual conference of National Association of Research in Science Teaching, St. Louis, MO.
- Koul, R. (2000, October). Significance of cultural factors in program implementation. Paper presented at the International Conference on Curriculum Design for the Learning Society at the University of Twente, The Netherlands.
- Koul, R. (2000, April). Science education programs in India: Two perspectives. Paper presented at the Annual Meeting of American Educational Research Association, New Orleans, LA.
- Koul, R. (2000, April). RuralNet Project: Teaching Science with the Internet. Paper presented at the annual meeting of the Annual Meeting of American Educational Research Association, New Orleans, LA



- Koul, R. (2000, April). Relation between science and religion in a Hindu Indian context. Paper presented at the National Association of Research in Science Teaching, New Orleans, LA.
- Koul, R., Wiesenmayer, R., & Rubba, P.A. (1999, November). Evaluating efficacy of teaching with the Internet. Paper presented at the annual meeting of the American Evaluation Association, Orlando, FL.
- Koul, R. (1999, April). Level of use in a professional development project. Paper presented at Association of Supervision and Curriculum Development, San Francisco, CA.
- Koul, R. (1998, October). Network technologies: Reflections on classroom practices from participants in a professional development project. Paper presented at International Conference on Action Research, Brentwood, UK.
- Koul, R., Dana, T., & Wiesenmayer, R. (1998, April). Science in context—qualitative evaluation of a project. Paper presented at the National Association of Research in Science Teaching, San Diego, CA.
- Wiesenmayer, R., & Koul, R. (1997, October). Integrating Internet resources into the science classroom: teachers' perspectives. Paper presented at the Mid Atlantic Association for the Education of Teachers in Science meeting, Mountain Lake, VA.
- Koul, R., & Dana, T. (1997, June). Contextualized Science. Paper presented at the International Conference of the History, Philosophy and Sociology of Science and Science Teaching Group, Calgary, Canada.
- Koul, R. (1997, March). An analysis of concept development and assessment in Indian school science textbooks. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Koul, R. (1997, March). An analysis of the nature of science in Indian school science curriculum materials. Paper presented at at the Annual Meeting of the National Association of Research in Science Teaching, Chicago, USA.
- Koul, R. (1996, December). School science curriculum—International perspectives. Lecture given at the National Council of Educational Research and Training, New-Delhi, India.
- Koul, R. (1996, April). Discussant at The Growth of Mathematical Knowledge. Presentation at the international Conference on the History and Philosophy of Mathematics, Pennsylvania State University, University Park, PA.
- Koul, R. (1996, March). Development of conceptions on mechanics. Poster session presented at the Penn State Graduate Research Exhibition, Pennsylvania State University, PA.

KEYNOTE LECTURES

- Koul, R. (2015, July). Motivational perspectives on issues of equity in STEM education. Keynote speech at the 3rd International Conference for Science Educators and Teachers. Kasetsart



University, Bangkok, Thailand.

Koul, R. (2015, May). Student engagement in STEM fields: Curriculum and research perspectives for the ASEAN community. Keynote speech at International Academic & Research Conference, Nakhon Si Thammarat Rajabhat University, Thailand.

Koul, R. (2014, July). Curricular and research perspectives on general education. Keynote speech at Srinakharinwirot University, Bangkok, Thailand.

Koul, R. (2013, October). E-learning curriculum for school administrators in Bangkok. Keynote speech at Kasetsart University, Bangkok, Thailand

Koul, R. (2006, December). Epistemological considerations in learning and innovation. Keynote speech at the International Conference on Vocational and Technical education for the 21st century, Bangkok, Thailand.

GRADUATE STUDENT ADVISING

Master's degree advisees:

Student

Castor, Jennifer E.
Hassler, Jennifer M.
Hughes, Brian S.
Kirk, Michael J.
Nair, Paayal A.
Rodgers, Barbara A.
Young, Nadine L.
Heck, Brian P.
Jurasinski, Cynthia A.
Kline, Dara C.
Moyer, Kenneth K.
Nogami, Stephen S.
Story, LeeAnn
Rebecca Wills
Alan Futrick
Gail E. Bullock
Heather L. Crist
Nereida Bonilla
Matthew R. Bornais
Cynthia R. Douglas
Ave Gaffney
Edward R. Motzer
Elisha Ozer
Amy E. Trusal
Tory Young
Kathy J. Beck

Student

Scott Hippensteel
Abigail Houck
Kristen Jenkins
David Korczakowski
Pamela Masciantonio
Maria Meade-Walton
Robert Ruch
Sarah Stout
Heather Sznoluch
Christine Page
Alison Huyett
Tiffany Holdeman
Greta Keltz
Shannon Morris
Tab Musser
Nicole Ottaviano
Christopher West
Maria E. Breen
Zacheya Champagne-Lee
Lindsay Hetherington
Mark Hineman
Jennifer Stanley
Ann Weaver
Gail Yoder
Deborah Tulone
William Adamson

Student

Lennon, Joseph A.
March, Jill
Reichl, Craig
Ries, Kevin D.
Subjin, Janet
Szymendera, Michael T.
Tancredi, Susan
Baran, Lynne
Bell, Linda
Brehm, John Jr.
Dziunycz, Matthew
Eckert, Jason
Furlong, Molly
Gotro, Christina
Gray-Bolden, Anthony
Grimm, Karen
Helm, Alyssa M.
Hummel, Debbie
Joiner, Hayley
Krall, Troy E.
Lathrop, Patricia
Lee, Alison
Long, Wesley
Maule, Ryan W.
McCarthy, Margaret
Mitt, Michael Dustin



Student

Jamie L. Branham
 Susan G. Levy
 Maryann Schalleur
 Faccenda Jr. Robert D.
 Madden, Jeff
 Sheehan, Karen P.
 Walton, Jeremy A.
 Borton, Nadine A.
 Curran, Tresa L.
 Donnelly, Michael A.
 Spino Dana
 McCormick, John J.
 Ainge, Jennifer A.
 Borton, Nadine
 Cox, Patricia L.
 Kelly, Kristen L.
 Moritzen, Christopher E.
 Ott, Amy L.
 Palmer, Bernadette E.
 Pretz, Leanne E.
 Rosenberger, Carolyn
 Salehi, Roya
 Taddeo, Jean Marie
 Schultz, Matthew
 Wood, Jennifer
 Cheung, Giena
 Creswell, Brad
 Lawrence, Elizabeth
 Matthews, Danielle
 Beckius, Valarie
 Berkey, Michelle
 Eigenbrot, Karen
 Gring, Paul
 Mack, Laura
 Whiteley, Michael
 Frey, Andrew
 Mc Knight, Sean
 Miller, Robert
 Van Horn, Todd
 John Gallo
 Ryan Katzenmoyer
 Laurie Kolka
 Arlen Mummau
 Judith Speicher
 Kimberly Steele
 Jenna Conroy
 Kristen Esty

Student

Jennifer Ayers
 Rebecca Clossick
 Joshua Hoyt
 Heather Logic
 David Parker
 Lori Young
 Allyson Zalewski
 Ayers, Jennifer M.
 Boyle, Holly
 Ditullio, Natalie
 Dwinal, Kate
 McCausland, Melissa
 Shireman, Kathleen E.
 Tulone, Deborah
 Webb, Michael
 Boyle, Holly
 Ditullio, Natalie
 Alvarez, Tony
 Alloway, Matthew J.
 Benfield, Jason
 Lavin, Todd K
 Thomas, Rutlege
 Andrea, Rutlege
 Bryan, Nawrocki
 Jackqueline, Ranieri
 Larry, Ansell
 Ansell, Larry
 Black, Tiffany
 Heflin, Lisa
 Hirtzel, Stephanie
 Lehman, Ann
 Nawrocki, Bryan
 Rutlege, Andrea
 Bekesy, Robert
 Estrada, Sally
 Ranieri, Jacqueline
 Sabatino, Donna
 Costello, Jason
 Crowther, Nicholas
 Evans, Jenny
 Group, Mary Ann
 Linderman, Abby
 Lotz, Diane
 Miller, Ronni
 Smutek, Victoria
 Tomaselli, Jennifer
 Hoerbuerger Maggie

Student

Moerschbacher, Sara
 Rees, Mike
 Rhodes, Jeffrey
 Rowe, Amy
 Shagren, Courtney
 Smith, James
 Strickler, Marisa
 Strohl, Bryan
 Susi, Melanie
 Trahey, Michael
 Tridico, Robin
 Smith, James
 Baron, John
 Barr, Carolyn
 Cilli, Nancy
 Chirieleison, F. Christopher
 Haupt, Josh
 Sue Mee, Choi
 Manal, Nachef
 Jennifer, Goffshall
 Miller Rachael
 Osborne Kyle
 Schoenberger Lauren
 Undercuffler Laura
 Vermillion Heidi
 Grauert Kathryn
 Padula Gina
 Querner Janet
 Schrag Stephen
 Tradewell Melissa
 Gina Conlen
 Susan Feinstein
 Caitlin Fisher (Warren)
 Joanna McGinnis
 Gina Padula
 Janet Querner
 Matthew Reichenbach
 Stephen Schrag
 Heather Shaw
 Jacqueline Sheridan
 Bret Wade
 Nicole Austin
 Danielle Egan
 Jamie Himmelberger
 Jane Ferris (Matthews)
 Kathryn Grauert
 Melissa Tradewell



Student

Maria Garcia
 Stephanie Hahn
 Nicole Tuohey
 Laura Lorts
 Michelle Cook
 Rachel Putnik
 Sara Fischer
 Anissa Fellabaum
 Razan Dandan
 Lauren Washburn
 Claire Nolan
 Grace Carlock

Student

MacNamara Lindsey
 McGuckin Jaclyn
 David Krakower
 Kelleen Lanagan
 Catherine Yeung
 Laura Murphy
 Trisha Blascovich
 Henrietta Creighton
 Susan Mahachi
 Kathryn Kiliany
 Kristi Vandergrift
 Kayla Bixler

Student

Amy Woodward
 Marisa Marchese
 Katherine Ellen Hansen
 Arimani Caprio
 Joseph Robison
 Morgan Cronin
 Rebecca Kline
 Courtney McNabb
 Kyra Landzelius,
 Ashley Gresko
 Charisse Kartchner
 Nicole Krupski

Doctoral committee with student and date of completion (2015-2022)

<i>Student</i>	<i>Year</i>	<i>Type of degree</i>	<i>Dissertation title</i>
Daniel F. Fanella	2015	Ph.D.	The Effects of Changing the Number of Terms Used to Create Proximity Files on the Predictive Ability of Scoring Essay-Derived Network Graphs Via the ALA-Reader Approach (Role: Committee member)
Nadeyah S H A Alzemi	2019	Ph.D.	Professional learning experiences that affect self-efficacy beliefs and Achievement goal orientations of kindergarten teachers in Kuwait (Role: Adviser)
Dwayne R. Cormier	2019	Ph.D.	The cultural proficiency continuum dialogic protocol (Role: Committee member)
Hala Almutawa	2022	Ph.D.	English teachers' motivation-related outcomes: A mixed-methods study (Role: Adviser)
Kelly McGurgan	2021	Ph.D.	The impact of video recordings on the depth of self-reflections (Role: Committee member)
Sushan Mahachi		Ph.D.	Role: Adviser
Qout Alturki		Ph.D.	Role: Adviser
Shuang Xie		Ph.D.	Role: Committee member
Yen Yun-Chen		Ph.D.	Role: Committee member



<i>Student</i>	<i>Year</i>	<i>Type of degree</i>	<i>Dissertation title</i>
Junxiu Yu		Ph.D.	Role: Committee member
Trang T. T. Pham		Ph.D.	Role: Committee member

Member of the doctoral committees for doctoral students at other institutions (2008-2019):

<i>Student</i>	<i>Year</i>	<i>Type of degree</i>
Sunanchai Ontakharai	2008	Ph.D.
Alisa Songsriwittaya	2010	Ph.D.
Thanita Lerdpornkulrat	2012	Ph.D.
Chanut Poondej	2013	Ph.D.
Chadarat Hengsadeeikul	2014	Ph.D.
Soontornpathai Chantara	2014	Ph.D.
Naraphol Deechuay	2015	Ph.D.
Yuwarat Srisupawong	2017	Ph.D.
Cheeraporn Sangkawetai	2019	Ph.D.

GRADUATE COURSES TAUGHT AT PENN STATE

- CI 500: Multiple and Mixed methods in Curriculum Inquiry
- CI 401: Introduction to Research Literature
- CI 501: Teaching as Inquiry
- CI 550: Overview of Contemporary School Curriculum
- CI 595: Internship in Curriculum, Supervision
- CS 551: Curriculum Design: Theory and Practice
- CS 553: Issues in Curriculum
- CS 557: Seminar in Curriculum Research
- CS 560: Principles of Instructional Supervision
- CS 562: Methods of Classroom Supervision
- CS 563: Designing Staff Development Programs
- EDLDR 551: Curriculum Design: Theory and Practice
- SCIED 460/MTHED 460: Trends and Issues in STEM Education
- SCIED 497D: Science Teaching and Learning in Elementary School
- SCIED 552: Research Problems in Science Teaching
- SCIED 551: History, Philosophy and Sociology of Science and Science Teaching
- SCIED 559: Analysis of Instruction in Elementary School Science
- SCIED 590: Science Education Colloquium
- SCIED 597: Computer Tools for Inquiry-based Science Teaching



- SCIED 597: Science Education Curriculum

UNDERGRADUATE COURSES TAUGHT

- SCIED 411: Teaching Secondary Science I
- SCIED 412: Teaching Secondary Science II
- CI 405: Strategies for Classroom Management
- SCIED 497: Nature of Science and School Curriculum
- EDTHP 416: Sociology of Education
- Internet Integration on-line course (West Virginia University)
- Internet Skills on-line course (West Virginia University)
- General Physics 202/204 laboratory (Marshall University)

SERVICE TO THE INSTITUTION

- Lead faculty, Department of Curriculum and Instruction, STEM education program, Penn State World Campus, 2016-present
- College of Education Alternate Representative, Penn State University Faculty Senate, 2022-
- Member, College of Education Leadership Committee, World Campus Doctoral Program in Education, 2022-
- Member, College of Education Faculty Council, 2022-
- Member, Application review committees, Curriculum and Instruction (Curriculum and Supervision program, Custom option), 2017-present
- Member, Department of Curriculum and Instruction, Curriculum and Supervision program Faculty Search Committee, 2018
- College of Education Representative, Penn State Graduate Council, 2015-2016
- Member, Department of Curriculum and Instruction, Curriculum Affairs Committee, 2015-present
- Coordinator, Curriculum and Instruction programs, Penn State-Great Valley, 2001-2014
- Penn State Great Valley Representative, Penn State University Faculty Senate, 2000-2006
- Penn State Great Valley Alternate Representative, Penn State University Graduate Council, 2000-2002
- Chair, Penn State Great Valley Research Committee, 2001-2002
- Chair, Penn State Great Valley Research Development Grant Committee, 2002-2003
- Chair, Penn State Great Valley Curriculum Development Proposal Review Committee, 2002-2003
- Chair, Penn State Great Valley C&I (Science Education) Faculty Search Committee, 2006
- Chair, Penn State Great Valley C&I Faculty (Language and Literacy Education) Search Committee, 2008
- Chair, Penn State Great Valley EDLDR Faculty Search Committee, 2009
- Member, Penn State Great Valley P&T Committee, 2005-2008



- Member, Penn State University Park, Special Education Department P&T Committee, 2008 and 2009
- Member, Penn State LV Department of Liberal Arts, P&T Committee, 2008
- Member, Penn State University, College of Education Professional Development Task Force
- Member, Penn State Great Valley Curricular Affairs, 2010-2012
- Member, Penn State Great Valley Marketing Committee, 2008
- Member, Penn State Great Valley Faculty Affairs, 2006-2009
- Member, Penn State Great Valley CAPA Committee, 2001-2002
- Member, Penn State Great Valley Summer Research Stipend Review Committee, 2001
- Member, Penn State University Great Valley CEO Search Committee, 2005
- Member, Penn State University Great Valley Head of the Department Search Committee, 2002
- Member, Penn State Great Valley Distance Education Committee, 2001-2002
- Member, Penn State Great Valley Instructional Technology Committee, 1998-2006
- Member, Penn State Great Valley Research Committee, 1998-2006

SERVICE TO THE PROFESSION

Professional Organizations

- Secretary and Treasurer, Penn State Chapter of AAUP (2022-)
- Member, Anti-Racist committee, Penn State Chapter of AAUP (2020-)
- Member, conference Committee, Science Educators for Equity, Diversity and Social Justice (2022-)
- Chair of the sub-committee about the NARST international scholarships (2017)
- Chair, NARST International Committee, SAARST Annual SAARMSTE Research School for Mathematics, Science and Technology Education scholarships (2017).
- Advisor, NARST Election Committee (2017).
- *Executive Board Member: SIG on International Studies*, American Educational Research Association, 1999-2003.

Government Agencies

- Member, *Physics Education Peer Review Committee*, Council for International Exchange of Scholars and Fulbright Senior Specialist Program, U.S. Department of State's Bureau of Educational and Cultural Affairs (2016).

Editorial Work

- *Associate Editor*, Electronic Journal of Research in Science and Mathematics Education, 2020-Current
- *Editorial Board Member*, Electronic Journal of Science Education, 1997-2019.
- *Review Board Member*, Current Issues in Education, 2010-2019
- *Reviewer*, Journal of Engineering Education, 2022-

Program Proposal Review



- *Program Proposal Reviewer for Teaching and Teacher Education*, American Educational Research Association, 2019-.
- *Program Proposal Reviewer for the SIG on Learning Environments*, American Educational Research Association, 2009-2018.
- *Program Proposal Reviewer for the SIG on Science Teaching and Learning*, American Educational Research Association, 2009-2013.
- *Program Proposal Reviewer for the SIG on Learning and Instruction*, American Educational Research Association, 2009-2013.
- *Program Proposal Reviewer for the SIG on History, Philosophy and Epistemology*, National Association for Research in Science Teaching, 1998-2006.
- *Program Proposal Reviewer for the SIG on Religion and Education*, American Educational Research Association, 2004-2009.
- *Program Proposal Reviewer for the SIG on International Studies*, American Educational Research Association, 1999-2017.
- *Program Proposal Reviewer for the SIG on Multicultural Contexts of Education within and Across Subject Areas*, American Educational Research Association, 1999-2004.
- *Program Proposal Reviewer for the SIG on Science Education*, American Educational Research Association, 1998-2007.
- *Program Proposal Reviewer for the SIG on Teaching, Learning, Assessment and Evaluation*, American Educational Research Association, 1999-2003.
- *Program Proposal Reviewer for the SIG on Technology Research*, American Educational Research Association, 1999-2001.

PROFESSIONAL ORGANIZATION MEMBERSHIP

- Member: American Educational Research Association (1999-current)
 - SIG Member: Science Teaching and Learning
 - SIG Member: Motivation in Education
 - SIG Member: International Studies
 - SIG Member: Learning Environments
 - SIG Member: Teaching and Teacher Education
 - Member: National Association for Research in Science Teaching (2000-2020)
 - Member: Science Educators for Equity, Diversity and Social Justice (2022-)
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