Dr Farzad Radmehr's Curriculum Vita

Address: Department of Teacher Education, Norwegian University of Science and Technology (NTNU)

Email: Farzad.radmehr@ntnu.no; f.radmehr65@gmail.com

Current position: Full professor (Mathematics Education) at NTNU.

Profile

- Published 54 *journal* papers (34 indexed in Scopus, 30 indexed in Web of Science, and 10 are JCR (Q1:1, Q2:5, Q3:3, and Q4:1)); 49 in international academic journals in English and five in national journals. This includes **seven Level 2** publications in Norway's journal ranking system.

- Successful in publishing in the well-known journals of mathematics education and higher education such as *Educational Studies in Mathematics, ZDM – Mathematics Education, Mathematical Thinking and Learning, Mathematical Behavior, For the Learning of Mathematics, Research in Mathematics Education, IEEE Transactions on Education, Higher Education Research & Development,* and *Studies in Educational Evaluation*.

- Presented in 49 international and national conferences and seminars in Australia, New Zealand, USA, Germany, Spain, Denmark, Norway, Italy, Hungary, China, Iran, Ukraine and Tunisia.

- A member of the editorial board of ***Educational Studies in Mathematics*** *and worked as ad-hoc reviewer of many other journals of mathematics education such as Mathematical Thinking and Learning. Reviewed 120 journal articles for 33 different journals including 24 for ESM.*

- Involved in the supervision of PhD and Master theses since 2015, working mainly towards improving the teaching and learning of mathematics at upper secondary and tertiary levels.

- Involved in the supervision of six PhD theses and 21 master's theses to successful completion.

- Secured research funding for a two-year post-doctoral research fellow to the value of 594400NOK per year (equal to $66000 US dollar) from the University of Agder, Norway (2019-2021).

- Secured research funding for doing research to the value of $70000 per year for two years from Victoria University of Wellington, New Zealand (2016-2017). Two research projects have been designed to explore how enrolment, retention, and course completion of university students can be improved, particularly in STEM subjects for Pasifika students.

- Secured research funding for doing PhD to the value of $23500 per year for three years from Victoria University of Wellington, New Zealand (2013-2016). During my second PhD study, I have developed my understanding of qualitative research in mathematics education.

- More than 13 years (since 2011) experience of teaching mathematics and mathematics education at tertiary level in New Zealand, Norway, and Iran, including master and PhD courses in mathematics education.

- Have a thorough understanding of statistical analysis for conducting quantitative research in mathematics education and social sciences. Extensively published papers in mathematics education using statistical tools. A range of tools were used, including correlations, T-test, ANOVA, ANCOVA, MANOVA, regression, path-analysis, hierarchical models, factor analysis and cluster analysis.

- Worked with a range of quantitative databases related to Mathematics Education, including databases about students' cognitive abilities, affective factors, and mathematical performance.

- Conducted a range of qualitative and mixed methods studies related to improving teaching and learning of mathematics at upper secondary and tertiary levels.

Education

PhD in Mathematics Education (2013-2016).
Faculty of Education. Victoria University of Wellington, New Zealand.
Thesis Title. Exploring students' learning of integral calculus using Revised Bloom's Taxonomy

PhD in Applied Mathematics: Mathematics Education (2011-2014).
Faculty of Mathematical Science, Ferdowsi University of Mashhad
Thesis Title. Cluster analysis: A tool for analyzing data in the psychology of learning mathematics (19.80 out of 20).

M.Sc. in Mathematics Education (2009-2011).
Faculty of Mathematical Science. Ferdowsi University of Mashhad, Iran.
Thesis Title. Analyzing students' mathematical performance based on Revised Bloom's Taxonomy (20 out of 20).

B.Sc. in Pure Mathematics (2005-2009).
Faculty of Mathematical Science. Ferdowsi University of Mashhad, Iran.
Thesis Title. Ethno-mathematics (19 out of 20).

Awards, Honours, and Grants

1. Received a RSO grant from the faculty of social and educational sciences at NTNU to employ a PhD student with a three-year full scholarship (worth approximately $300000) for a research project on task design in mathematics education (2022): First rank proposal at the Department of Teacher education between 36 proposals from different sections.
2. Received small grants from Department of Teacher education at NTNU for research activities (2021-2024): 24500 NOK, ca. $2450 (2021), 31500 NOK, ca. $3150 (2022), 38000 NOK, ca. $3800 (2023), 49000 NOK, ca. $4900 (2024), 31000 NOK ca. $3100 (2025).
3. Have a nominated paper for the best research paper at SEFI 50th Annual conference (2022).
4. Secured research funding for a two-year post-doctoral research fellow to the value of 594400 NOK per year (equal to $66000 US dollar) from the University of Agder, Norway (2019).
5. The highest point in Student Teaching Evaluation in Faculty of Mathematical Sciences (FMS) of Ferdowsi University of Mashhad between Assistant professors (2018). *Currently, 13 Assistant Professors work in FMS.*
6. Secured research funding for doing research to the value of $70000 per year for two years from Victoria University of Wellington, New Zealand (2016).
7. Won MERGA (Math Education Research Group of Australasia) bursary for attending MERGA 38- 800$ (2015).
8. Won MERGA International Research Development Scheme bursary for attending MERGA37 (2014).
9. Victoria Doctoral Scholarship -$23,500 per annum plus tuition fees for 3 years (2013).
10. Highest Master and PhD GPA in the field of Mathematics education at Ferdowsi University (2011, 2012).
11. 3rd position in 8th Ferdowsi Festival in the branch of sciences for M.Sc. thesis between 22 universities in Iran (2011).

Completed Courses and Programs in Teaching in Higher education

1. University-level Mathematics Teaching Course (2019-2020) (MatRIC/University of Agder offered this course in collaboration with the Norwegian University of Science and Technology (NTNU) and the German Centre for

Higher Mathematics Education (khdm)) (100 hours)

2. NTNU's Program for Pedagogical Basic Competence (2021-2022). (200 hours)

Publications: Journal Papers and Books

❖ ***2025***

1. Canogullari, A., **Radmehr, F.**, (2025). Main Task Design Principles in Mathematics Education: A Literature Review. *International Journal of Mathematical Education in Science and Technology*. https://doi.org/10.1080/0020739X.2025.2457365

❖ ***2024***

2. **Radmehr, F.**, Turgut, M. (2024). Learning more about derivative: Leveraging Online Resources for Varied Realizations. *ZDM-Mathematics Education, 56, 589–604* [JCR Q2]. https://doi.org/10.1007/s11858-024-01564-0
3. Rezvanifard, F., & **Radmehr, F.** (2024). The Laplace transform in mathematics and electrical engineering: A praxeological analysis of two textbooks on the differential equations and signal processing. *IEEE Transactions on Education* [JCR Q3] https://doi.org/10.1109/TE.2024.3349662
4. **Radmehr, F.** (2024). Learning eigenvalues and eigenvectors with online YouTube resources: A journey in the embodied, proceptual-symbolic and formal worlds of mathematics. *Problems, Resources, and Issues in Mathematics Undergraduate Studies*. https://doi.org/10.1080/10511970.2024.2327330
5. Zakariya, Y. F. , Awofala, A. O. A., & **Radmehr, F.** (2024). Editorial: Affective constructs in mathematics education. *Frontiers in Psychology.*15:1373804. https://doi.org/10.3389/fpsyg.2024.1373804

❖ ***2023***

6. **Radmehr, F.** (2023). Problem-posing tasks and the inclusion principle. *For the Learning of Mathematics, 43*(3), 24–26 https://flm-journal.org/Articles/36422A5341F86A525A332386AA4B4.pdf
7. Taghizadeh Bilondi, M., & **Radmehr, F.** (2023). Students' mathematical thinking of the tree concept: An integration of APOS with Tall's three worlds of mathematics. *Research in Mathematics Education.* https://doi.org/10.1080/14794802.2023.2292260
8. **Radmehr, F.**, Tohidinasab, K., & Tavakoli, M. (2023). Teaching and learning of vertex coloring using an inquiry-based approach. *Problems, Resources, and Issues in Mathematics Undergraduate Studies*. https://doi.org/10.1080/10511970.2023.2170505
9. **Radmehr, F.** (2023). Toward a theoretical framework for task design in mathematics education. *Journal on Mathematics Education. 14*(2), 189–204. https://doi.org/10.22342/jme.v14i2.pp189-204
10. Haghjoo, S., **Radmehr, F.**, & Reyhani, E. (2023). Analyzing the written discourse in calculus textbooks over 42 years: The case of primary objects, concrete discursive objects, and a realization tree of the derivative at a point. *Educational Studies in Mathematics, 112*, 73–102. **[JCR Q1]** https://doi.org/10.1007/s10649-022-10168-y
11. **Radmehr, F**., & Goodchild. S. (2023). A transition to online teaching and learning of mathematics in Norwegian higher education institutions: The perspectives of lecturers and students. *Teaching Mathematics and its Applications: An International Journal of the IMA, 42* (3), 228–248. https://doi.org/10.1093/teamat/hrac014
12. Rezvanifard, F., **Radmehr, F.** & Drake, M. (2023). Perceptions of lecturers and engineering students of sophism and paradox: The case of differential equations. *Education Sciences, 13(4),* 354. *https://doi.org/10.3390/educsci13040354*
13. Rezvanifard, F., **Radmehr, F.** & Rogovchenko, Y. (2023). Advancing Engineering Students' Conceptual Understanding through Puzzle-based Learning: A Case Study with Exact Differential Equations. *Teaching Mathematics and its Applications: An International Journal of the IMA, 42 (2),* 126–149. https://doi.org/10.1093/teamat/hrac005

❖ ***2022***

14. **Radmehr, F**., & Goodchild. S. (2022). Switching to fully online teaching and learning of mathematics: The case of Norwegian mathematics lecturers and university students during the Covid-19 pandemic, *International Journal of Research in Undergraduate Mathematics Education, 8*, 581–611. https://doi.org/10.1007/s40753-021-00162-9
15. **Radmehr, F**., Nedaei, M., & Drake, M. (2022). Introducing an elective mathematics education course for mathematics majors. *Problems, Resources, and Issues in Mathematics Undergraduate Studies, 32*(4), 517–532. https://doi.org/10.1080/10511970.2020.1856247

❖ ***2021***

16. **Radmehr, F.**, Niazi, N., Rezvani Fard, F., Farsani, D., Laban, W., Overton, J., & Bakker, L. (2021). How do university students of different ethnic backgrounds perceive factors that hinder learning in STEM and non-

STEM majors? *Higher Education Research & Development, 41*(5), 1693–1709. https://doi.org/10.1080/07294360.2021.1902949 **[JCR Q2]**

17. Salavati Nejad, N. Alamolhodaei, H., & **Radmehr, F.** (2021). Toward a model for students' combinatorial thinking. *The Journal of Mathematical Behavior, 61,* 100823. https://doi.org/10.1016/j.jmathb.2020.100823
18. Nedaei, M., **Radmehr, F**., & Drake, M. (2021). Exploring undergraduate engineering students' mathematical problem posing: The case of the integral-area relationship in integral calculus. *Mathematical Thinking and Learning*. https://doi.org/10.1080/10986065.2020.1858516 **[JCR Q3]**
19. Farsani, D., **Radmehr, F.,** Alizadeh, M., & Zakariya, Y. F. (2021). Unpacking the black-box of students' visual attention in Mathematics and English classrooms: Empirical evidence using mini-video recording gadgets. *Journal of Computer Assisted Learning, 37,* 773–781. **[JCR Q2]** https://doi.org/10.1111/jcal.12522
20. Borji, V., **Radmehr, F.,** & Font, V. (2021). The Impact of Procedural and Conceptual Teaching on Students' Mathematical Performance over Time. *International Journal of Mathematical Education in Science and Technology*,*52*(3), 404–426. https://doi.org/10.1080/0020739X.2019.1688404
21. Amani, A., Alamolhodaei, H., Ghanbari, R., & **Radmehr, F.** (2021). An epidemiological model for predicting students' mathematics anxiety. *Journal of Interdisciplinary Mathematics, 24*(4), 793–805. https://doi.org/10.1080/09720502.2020.1786938

❖ ***2020***

22. **Radmehr, F**., & Vos, P. (2020). Issues and challenges for 21st century assessment in mathematics education. In L. Leite, E. Oldham, A. S. Afonso, F. Viseu, L. Dourado, H. Martinho (Eds.) *Science and mathematics education for 21st century citizens: Challenges and ways forwards*. (pp. 437–462). New York: Nova Science Publishers.https://novapublishers.com/shop/science-and-mathematics-education-for-21st-century-citizens-challenges-and-ways-forwards/
23. **Radmehr, F**., Laban, W., Overton, J. & Bakker, L. (2020). Student perceptions of effective lecturers: The need to recognize the role of ethnicity and choice of discipline. *Higher Education Research & Development, 39*(2), 302–317. **[JCR Q2]** https://doi.org/10.1080/07294360.2019.1674789
24. **Radmehr, F**., & Drake, M. (2020). Exploring students' metacognitive knowledge: The case of integral calculus, *Education* Sciences, *10*(3), 55. https://doi.org/10.3390/educsci10030055
25. Kolahdouz, F., **Radmehr, F.** & Alamolhodaei, H. (2020). Exploring students' proof comprehension of the Cauchy Generalized Mean Value Theorem. *Teaching Mathematics and its Applications: An International Journal of the IMA, 39,* 213–235. https://doi.org/10.1093/teamat/hrz016
26. **Radmehr, F**., & Rahimian, H. (2020). Exploring the impacts of using Geogebra software on secondary school students' misconceptions in trigonometric functions. *Technology of Education, http://dx.doi.org/10.22061/jte.2019.4688.2105 [In Persian]*

❖ ***2019***

27. **Radmehr, F**., & Drake, M. (2019). Revised Bloom's taxonomy and major theories and frameworks that influence the teaching, learning, and assessment of mathematics: a comparison, *International Journal of Mathematical Education in Science and Technology, 50*(6), 895–920. https://doi.org/10.1080/0020739X.2018.1549336
28. Nedaei, M., **Radmehr, F**., & Drake, M. (2019). Exploring engineering undergraduate students' attitudes towards mathematical problem posing. *Journal of Professional Issues in Engineering Education and Practice, 145*(4). [**JCR Q3**] https://doi.org/10.1061/(ASCE)EI.1943-5541.0000418
29. **Radmehr, F**., & Drake, M. (2019). Students' mathematical performance, metacognitive experiences and metacognitive skills in relation to integral-area relationships. *Teaching Mathematics and its Applications: An International Journal of the IMA, 38*(2), 85–106. https://doi.org/10.1093/teamat/hry006

❖ **2018**

30. Radmehr, F., & Drake, M. (2018). An assessment-based model for exploring the solving of mathematical problems: Utilizing revised bloom's taxonomy and facets of metacognition. *Studies in Educational Evaluation, 59*, 41–51. **[JCR Q2]** https://doi.org/10.1016/j.stueduc.2018.02.004

31. Radmehr, F., Laban, W, Overton, J. & Bakker, L. (2018). Motivational strategies of university students in New Zealand: The role of ethnicity. *The Asia-Pacific Education Researcher, 27*(3), 245-255. **[JCR Q4]** https://doi.org/10.1007/s40299-018-0383-4

32. Borji, V., Alamolhodaei, H. & **Radmehr, F**. (2018). Application of the APOS/ACE Theory to improve Students' Graphical Understanding of Derivative. *EURASIA Journal of Mathematics, Science and Technology Education, 14*(7), 2947–2967. https://doi.org/10.29333/ejmste/91451

33. Kolahdouz, F., Alamolhodaei, H., **Radmehr, F**., & Jabbari, N. M. (2018). Exploring students' attitudes towards Dynamic E-Assessment. *Education Strategies in Medical, 10*(6),414–422. *(In Persian)*

34. Kolahdouz, F., **Radmehr, F**., Alamolhodaei, H., & Mirzavaziri, M. (2018). Evaluating students' mathematical performance in a Paper-pencil and an electronic-based dynamic assessment. *Quarterly Journal of Research and Planning in Higher Education, 24* (1), 91–112. *(In Persian).*

❖ ***2017***

35. **Radmehr, F**., & Drake, M. (2017). Revised Bloom's taxonomy and integral calculus: unpacking the knowledge dimension. *International Journal of Mathematical Education in Science and Technology, 48*(8), 1206–1224. https://doi.org/10.1080/0020739X.2017.1321796
36. **Radmehr, F**., & Drake, M. (2017). Exploring students' mathematical performance, metacognitive experiences and skills in relation to fundamental theorem of calculus. *International Journal of Mathematical Education in Science and Technology, 48*(7), 1043–1071. https://doi.org/10.1080/0020739X.2017.1305129

❖ ***2014***

37. Rahbarnia, F., Hamedian, S., & **Radmehr, F**. (2014). A Study on the relationship between multiple intelligences and mathematical problem solving based on Revised Bloom's Taxonomy, *Journal of Interdisciplinary Mathematics, 17*(2), 109–134.

38. **Radmehr, F**., & Alamolhodaei, H. (2014). Who should be interviewed? A response from cluster analysis. *Practice in Clinical Psychology, 2*(3), 143–152.
39. **Radmehr, F**., & Alamolhodaei, H. (2014). Cluster analysis: a tool for data analysis in quantitative and mixed method studies. *Psychological models and methods, 4(15), 13–36. (In Persian)*

❖ ***2013***

40. Hajibaba, M., **Radmehr, F**., & Alamolhodaei, H. (2013). A psychological model for mathematical problem solving based on Revised Bloom's Taxonomy for high school girl students. *Journal of the Korea Society of Mathematical Education Series D: Research In Mathematical Education. 17*(3), 199–220.
41. Azari, S., **Radmehr, F**., Mohajer, M., Alamolhodaei, H. (2013). A study on the relationship between students' cognitive style and Mathematical word and procedural problem solving while controlling for students' intelligent quotient and math anxiety. *European Journal of Child development, Education and Psychopathology. 1*(2), 59–73.
42. Abbasi Alikamar, M., Alamolhodaei, H., & **Radmehr, F**. (2013). The role of metacognition on effects of working memory capacity on students' mathematical problem solving. *European Journal of Child development, Education and Psychopathology. 1*(3), 123–137.
43. Fardin, D., & **Radmehr, F**. (2013). A Study on K5 students' mathematical problem solving based on Revised Bloom's Taxonomy and psychological factor contribute to it. *European Journal of Child development, Education and Psychopathology. 1*(3), 97–122.

❖ ***2012***

44. Mousavi, S., **Radmehr, F**., & Alamolhodaei, H. (2012). The role of mathematical homework and prior knowledge on the relationship between students' mathematical performance, cognitive style and working memory capacity. *Electronic Journal of Research In Educational Psychology, 10*(3).1223–1248.
45. **Radmehr, F**., & Alamolhodaei, H. (2012). Revised Bloom's Taxonomy and its application for mathematics teaching, learning and curriculum development. *Journal of Curriculum Studies, 6(24),183–202.(In Persian)*
46. Amani, A., Alamolhodaei, H., & **Radmehr, F**. (2012). The relationship between students' cognitive abilities, mathematical performance and the level of Testosterone, Thyroid-Stimulating Hormone, Prolactin and Thyroxine. *The Journal of Mathematics and Computer Science,5(*1), 1–*16.*
47. Azari, S., **Radmehr, F**., & Alamolhodaei, H. (2012). Secondary mathematics teachers' field dependency and its effects on their cognitive abilities. *Journal of American Science, 8*(6),745–757.
48. Daneshamooz, S., **Radmehr, F**., Alamolhodaei, H., & Mohajer, M. (2012). The effects of sleep duration on predictive factors of mathematical performance. *Journal of Science and Technology, 2*(4), *283–291*.
49. Amani, A., Alamolhodaei, H., & **Radmehr, F**. (2012). The relationship between predictive factors of mathematical performance and the level of Testosterone, Thyroid-Stimulating Hormone, Prolactin and Thyroxine. *Journal of American Science, 8*(4), 201–212.
50. Afkhami, R., Alamolhodaei, H, **Radmehr, F**. (2012). Exploring the relationship between Iranian students' Mathematical Literacy and Mathematical performance. *Journal of American Science, 8(4)*, 213–222.
51. Amani, A., Alamolhodaei, H., & **Radmehr, F**. (2012). *Mathematical performance and hormones.* Lambert Academic Publication. Germany. ISBN:978-3-659-11939-2.

❖ ***2011***

52. Alamolhodaei, H., Hedayat Panah, A., & **Radmehr, F**. (2011). Students' Field-dependency and their

Mathematical Performance based on Bloom's Cognitive Levels. *Journal of the Korea Society of Mathematical Education Series D: Research In Mathematical Education. 15*(4), 373–386.

53. Amani, A., Alamolhodaei, H., & **Radmehr, F**. (2011). A gender study on predictive factors of mathematical performance of University students. *Educational Research, 2*(6), 1179–1192.
54. Pezeshki, P., Alamolhodaei, H., & **Radmehr, F**. (2011). A predictive model for mathematical performance of blind and seeing students. *Educational Research, 2*(2), 864–873.
55. Fardin, D., Alamolhodaei, H., **Radmehr, F**.(2011). A Meta -Analyze On Mathematical Beliefs and Mathematical Performance of Iranian Students. *Educational Research, 2*(4), 1051–1058.

❖ ***2010***

56. **Radmehr, F**., & Alamolhodaei, H. (2010). A Study on the performance of students' Mathematical problem solving based on cognitive process of Revised Bloom's Taxonomy. *Journal of the Korea Society of Mathematical Education Series D: Research in Mathematical Education.,14*(4), 381–403.

Conference papers, Workshops, Posters, and Presentations

❖ **2025**

1. **Radmehr, F.,** Strømskag, H. (2025). Introducing preservice mathematics teachers to multivariable functions through modelling: A study and research paths approach. *The 14th Congress of the European Society for Research in Mathematics Education (CERME14)*. *Accepted for publication*. Free University of Bozen-Bolzano and ERME.
2. Canogullari, A., **Radmehr, F.** (2025)**.** Ecology of task design, adaptation, and selection: A phenomenological study with Norwegian mathematics lecturers. *The 14th Congress of the European Society for Research in Mathematics Education (CERME14)*. *Accepted for publication*. Free University of Bozen-Bolzano and ERME.
3. **Radmehr, F.** (2025). *A Research-Informed Reflection on Learning Opportunities in YouTube Resources. The Fifth International Conference on Mathematics Textbook Research and Development*. ***Invited speaker*: Panel discussion.**
4. Turgut, M., **Radmehr, F.** (2025). *Learning opportunities in YouTube resources: an intrinsic case study on linear transformations. The Fifth International Conference on Mathematics Textbook Research and Development. Accepted for publication.*

❖ **2024**

5. **Radmehr, F.**, Strømskag, H. (2024). Modelling real-world scenarios: The role of variables and parameters in multivariable functions. *Nordic Network for Algebra Learning*. Kristiansand, Norway.
6. **Radmehr, F.**, Arnesen, K. K., & Valenta, A. (2024, July). YouTube content creators' discourse: a multiple case study on the cross product using commognition and positioning theory. In T. Evans, O. Marmur, J. Hunter, G. Leach, & J. & Jhagroo (Eds.), *Proceedings of the 47th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 4) (pp. 41–48). PME.
7. **Radmehr, F.** (2024, June). Didactic transposition of the fundamental theorem of calculus-Part 1: A comparative study of the knowledge to be taught at university and the taught knowledge in YouTube learning resources. *Fifth conference of the International Network for Didactic Research in University Mathematics, Barcelona, Spain*.
8. **Radmehr, F.**, & Rezvanifard, F. (2024, July). Engineering Students' Understanding of the Laplace Transform: A Praxeological Analysis. *International Congress on Mathematical Education-15*, Sydney, Australia.
9. Valenta, A., & **Radmehr, F.** (2024, July). The potentials of Always- sometimes- never tasks for promoting reasoning and proving, and beyond. *International Congress on Mathematical Education-15*, Sydney, Australia.
10. Canogullari, A., & **Radmehr, F.** (2024, June). Principles for and Approaches to Task Design in Mathematics Education: The Perspectives of Norwegian and Turkish Mathematics Teachers and Lecturers, In C.K. Skott, M. Blomhøj, A. Eckert, R. Elicer, R. Herheim, B. Kristinsdóttir, D.M. Larsen, G.A. Nortvedt, P. Nyström, J.Ö. Sigurjónsson, A.L. Tamborg (Eds.), Interplay between research and teaching practice in mathematics education, *Proceedings of NORMA24: The tenth Nordic Conference on Mathematics Education*, (pp. 96–103). SMDF.

❖ **2023**

11. Rezvanifard, F, & **Radmehr, F.** (2023, August). Laplace transforms in engineering: An analysis of differential equations and signals and systems textbooks. *54th Annual Iranian Mathematics Conference*, University of Zanjan, Zanjan. Iran.
12. **Radmehr, F.,** & Taghizadeh Bilondi, M. (2023, July). The importance of moving between embodied, symbolic and formal worlds of mathematical thinking: The case of the tree concept, *13th Congress of the European Society for Research in Mathematics Education*, Budapest, Hungary.
13. Liping, D. & **Radmehr, F.** (2023, July). Rethinking the emotional characteristics of students' attitudes towards mathematics. *13th Congress of the European Society for Research in Mathematics Education*, Budapest, Hungary.
14. **Radmehr, F**., Haghjoo, S., Reyhani, E. (2023). Task design using a realization tree: The case of the derivative in the context of chemistry. In T. Dreyfus, A. S. González-Martín, J. Monaghan, E. Nardi, & P. Thompson (Eds.), *The Learning and Teaching of Calculus Across Disciplines – Proceedings of the Second Calculus Conference* (pp. 149–152). MatRIC. https://matriccalcconf2.sciencesconf.org/
15. **Radmehr, F.** (2023, May). Task design in mathematics education. *A seminar presented at the Faculty of mathematical sciences of the Ferdowsi University of Mashhad*. ***Invited Speaker*** (In Persian).
16. **Radmehr, F.,** & Turgut, M. (2023, March). Economics students' perception of effective teaching of mathematics at the tertiary level, *MNT konferansen*, Stavanger, Norway.

❖ **2022**

17. **Radmehr, F.** (2022, November). Problem-posing: An inclusive activity for improving teaching and learning of mathematics at the university level. *Presented at a symposium entitled Students' agency in selecting and using curriculum resources in The Fourth International Conference on Mathematics Textbook Research and Development (ICMT 4), Beijing Normal University, Beijing, China.* ***Invited Speaker***.
18. **Radmehr, F.** (2022, November). *Mathematics teacher education in Norway and Australia. 3rd Seminar of mathematical sciences and challenges. Institute for Advanced Studies in Basic Sciences, Zanjan. Iran.* ***Invited Speaker*** (In Persian).
19. **Radmehr, F.**, Ezzati, M. (2022, September). Exploring engineering students' engagement with proof without words: The case of calculus. In H. Järvinen, S. Silvestre, A. Llorens and B. Nagy (Eds.) *Towards a new future in engineering education, new scenarios that European alliances of tech universities open up, SEFI 50th Annual conference*, (pp. 635–642). Barcelona, Spain. **This paper is nominated for the best research paper at this SEFI conference.** https://www.sefi.be/wp-content/uploads/2022/12/ebook-sefi-2022-1.pdf
20. **Radmehr, F.** (2022, September). Task design in mathematics education: Principles and approaches. *18th Iranian Mathematics Education Conference*. Damghan University, Damghan, Iran. ***Invited Speaker*** (In Persian).

❖ **2021**

21. **Radmehr, F.,** Nedaei, M., & Rezvanifard, F (2021, September). Task design in engineering mathematical courses: The case of problem-posing and puzzle tasks. In H. Heiß, H. Järvinen, A. Mayer, A. Schulz (Eds.) *Blended Learning in Engineering Education: challenging, enlightening – and lasting? SEFI 49th Annual Conference* (pp. 1175–1183). https://www.sefi.be/wp-content/uploads/2021/12/SEFI49th-Proceedings-final.pdf
22. **Radmehr, F.** (2021, December). Mathematics education as a minor for undergraduate mathematics students: An opportunity to learn about teaching and learing of mathematics at school and university. *Presented at Faculty of Mathematical Sciences, Ferdowsi University of Mashhad*. ***Invited Speaker*** (In Persian).
23. **Radmehr, F.** (2021, September). Teaching and learning of mathematics at university level after the corona pandemic: A reflection on the MatRIC survey. *Presented at Norwegian Mathematics Council Ananual Meeting*, 22-24 September, Trondheim, Norway. ***Invited Speaker***
24. **Radmehr, F**., Rezvanifard, F., & Drake, M. (2021, July). The attitudes of lecturers and students towards puzzle-based learning: The case of differential equations. *The 14th International Congress on Mathematical Education, 11th to 18th of July, Shanghai, China.*
25. **Radmehr, F**., & Drake, M. (2021, June). Exploring students' metacognition in relation to an integral-area evaluation task. *NORMA 20*: *The ninth Nordic Conference on Mathematics Education: Bringing Nordic mathematics education into the future* (pp. 217–224).
26. **Radmehr F.** (2021, June). Teaching and learning of vertex coloring using an inquiry-based approach. *PLATINUM Webinar "Creating Communities of Inquiry: Focus On Students With Special Needs And On Mathematical Modelling"*.
27. **Radmehr, F**., & Tavakoli, M. (2021, February). Workshop on Inquiry based teaching and learning with particular focus on graph theory. *51st Annual Iranian Mathematics Conference.* ***Invited Speaker*** *(In Persian)*
28. **Radmehr, F**., & Goodchild. S. (2021, March). Online mathematics teaching and learning during the COVID-19

pandemic: The perspective of lecturers and students. *MNT konferansen 21*.

29. Rezvanifard, F., & **Radmehr, F.** (2021), How do undergraduate engineering students engage with puzzle problems related to first-order differential equations? Karunakaran, S. S. & Higgins, A. (Eds.). (2021). *2021 Research in Undergraduate Mathematics Education Reports* (pp. 48–55).
30. Gjesteland, T., Lima, V., Lunøe-Nielsen, S., **Radmehr, F.**, Goodchild, S. (2021, March). Gruppebasert prosjektoppgave i matematikk: Veiledernes erfaringer. *MNT konferansen 21*.

❖ **2020**

31. **Radmehr, F**. Nedaei, M., & Drake. M. (2020). Exploring undergraduate engineering students' competencies and attitudes towards mathematical problem posing in integral calculus. In T. Hausberger, M. Bosch & F. Chelloughi (Eds.), *Proceedings of the Third Conference of the International Network for Didactic Research in University Mathematics (INDRUM 2020, 12-19 September 2020)* (pp. 258-267). Bizerte, Tunisia: University of Carthage and INDRUM.
32. **Radmehr, F**., Goodchild, S. (2020, May). Undersøkelse om digital matematikkundervisning i Norge. *MatRIC seminar on digital mathematics teaching.* ***Invited Speaker***
33. **Radmehr, F**. (2020, May). Opportunities and challenges of teaching, learning, and assessment in online education. *Semnan University online Seminars.* ***Invited Speaker***

❖ **2019**

34. **Radmehr, F**. (2019, October). Improving the quality of teaching, learning, and assessment of mathematics at higher education: Utilizing Revised Bloom's Taxonomy and facets of metacognition. *MatRIC Annual Conference*, Bergen, Norway, ***Invited Speaker***
35. Nedaei, M., & **Radmehr, F.** (2019, August). Exploring students' mathematical problem-posing abilities in relation to integral calculus, *17th Iranian Mathematics education Conference, Tabriz, Iran.* (In Persian).
36. Borji, A., & **Radmehr, F.** (2019, August). Exploring resources, orientations, and goals of mathematics lecturers and teachers, *17th Iranian Mathematics education Conference, Tabriz, Iran.* (In Persian).
37. Mirsondosi, M., & **Radmehr, F**. (2019, August). The flipped classroom: A different and effective approach to teaching tertiary mathematics, *17th Iranian Mathematics education Conference, Tabriz, Iran.* (In Persian)
38. **Radmehr, F**. (2019, April). Improving the quality of teaching and learning of mathematical sciences at tertiary level. *2nd Seminar of Mathematical Sciences and challenges.* Mashhad, Iran. ***Invited Speaker***. (In Persian).

❖ ***2018***

39. **Radmehr, F**. (2018, August). Improving assessment of mathematical performance using Revised Bloom's Taxonomy. *16th Iranian Mathematics education Conference*. Babolsar, Iran. ***Invited Speaker***. (In Persian).
40. Nedaie, M. & **Radmehr, F**. (2018, August). Exploring university students' attitudes towards mathematical problem posing. *16th Iranian Mathematics education Conference*. Babolsar, Iran. (In Persian).
41. **Radmehr, F**. (2018, January). Methods of exploring students' metacognition: Challenges and opportunities (*15th Iranian Mathematics education Conference*. Boshehr, Iran. ***Invited Speaker***. (In Persian).

❖ ***2015***

42. **Radmehr, F**., Avrill, R., & Drake, M. (2015, July). The Knowledge Dimension of Revised Bloom's Taxonomy for Integration. *The 38th annual conference of the Mathematics Education Research Group of Australasia, Sunshine Coast, Australia*.

❖ ***2013***

43. **Radmehr, F**., Alamolhodaei, H., Hosseini, R., & Rezaei, K. (2013, August). Cluster Analysis for quantitative data in Mathematics Education. *The 44th Annual Iranian Mathematics Conference*. 27-30 Aug 2013. Mashhad, Iran. (In Persian).

❖ ***2012***

44. **Radmehr, F**., Alamolhodaei, H., Amani, A. (2012, August). A Study on the Performance of Students' Mathematical Problem Solving Based On knowledge dimension of Revised Bloom's Taxonomy. *12th Iranian Mathematics education Conference.* 2-5 August. Semnan. Iran. (In Persian).

❖ ***2011***

45. **Radmehr, F**., Alamolhodaei, H., Pezeshki, P. (2011, May). Fundamental transformation in teaching practices, learning, and assessment based on Revised Bloom's Taxonomy. *The Proceedings of the First National Conference of Basic Evolution in Iran's Curriculum System*. 347-353,18. Mashhad. Iran. (In Persian).
46. Daneshamooz, S., **Radmehr, F**., Alamolhodaei, H. (2011, November). A review on the relationship between mathematical performance and working memory. *The first national conference on the finding of cognitive science in education.* Mashhad, Iran. (In Persian).
47. **Radmehr, F**., Daneshamooz, S., Alamolhodaei, H. (2011, November). Individual differences in mathematics

anxiety, attitude, attention and their effects on mathematical performance. *The first national conference on the finding of cognitive science in education.* Mashhad, Iran. (In Persian).

❖ ***2010***

48. **Radmehr, F**. (2010, July). APS and students' mathematics difficulties. *11th Iranian Mathematics education Conference.* Sari, Iran. (In Persian).
49. **Radmehr, F**. & Amani, A. (2010, July). Gender difference in mathematical performance. *11th Iranian Mathematics education Conference*. Sari, Iran. (In Persian).

Editorial Board

- Educational Studies in Mathematics (December 2022 to present)
- Co-editor of a research topic, *affective constructs in mathematics education*, in Frontiers in Psychology (2022-2023)
- Mathematics Culture and Thought (*Farhang & Andisheh Riazi*, Original name in Persian published by Iranian mathematics society). (2022 to present).
- Towards Mathematical Sciences (2020 to present).
- European Journal of Child development, Education and Psychopathology (2013 to present).

Reviewer & Examiner

Grant Research Proposal Reviewer

1. Swiss National Science Foundation (SNSF), [2024].

PhD thesis examiner

1. Norwegian University of Science and Technology (2025).
2. University of Agder, Norway (2020).
3. The University of Newcastle, Australia (2019).
4. Ferdowsi University of Mashhad, Iran (2019).

A member of an expert committee for evaluating Post-doctoral applicants

1. Norwegian University of Science and Technology (2024)

A member of an expert committee for evaluating PhD proposals

1. Ferdowsi University of Mashhad, Iran (2022, 2024).
2. Shahid Rajaee Teacher Training University, Tehran, Iran (2022).

A member of an expert committee for evaluating PhD applicants

1. Norwegian University of Science and Technology (2022)

2. Ferdowsi University of Mashhad (2020, 2022)

Master thesis examiner

1. Norwegian University of Science and Technology (2023-present)
2. Western Norway University of Applied Sciences (2023-2024)
3. Oslomet university, Norway (2022, 2024)
4. University of Agder, Norway (2022)
5. Høgskulen i Volda, Norway (2022, 2025)
6. Ferdowsi University of Mashhad, Iran (2017-2019)

Journal Reviewer** **(Total:120 Journal Papers)

1. Educational Studies in Mathematics (2022-present) *N=24*
2. International Journal of Mathematical Education in Science and Technology (2019-present) *N=33*
3. International Journal of Research in Undergraduate Mathematics Education (2023-present) *N=5*
4. Mathematical Thinking and Learning (2022-2024) *N=4*
5. International Journal of Science and Mathematics Education (2024-present) *N=4*
6. Journal of Mathematical Behavior (2025) *N=1*
7. Research in Mathematics Education (2024) *N=1*
8. School Science and Mathematics (2021, 2025) *N=2*
9. For the Learning of Mathematics (2024) *N=1*
10. Journal of Mathematics Teacher Education (2024) *N=1*
11. European Journal of Engineering Education (2025) *N=2*
12. PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies) (2012, 2022-2024) *N=6*
13. Studies in Educational Evaluation (2021, 2024) *N=2*
14. Education and Information Technologies (2023-2024) *N=3*
15. Educational Evaluation and Policy Analysis (2024) *N=1*
16. BOLEMA: Mathematics Education Bulletin (2025) *N=1*
17. Thinking Skills and Creativity (2024, 2025) *N=2*
18. Active Learning in Higher Education (2025) *N=1*
19. The Journal of Educational Research (2023) *N=1*
20. Mathematics Education Research Journal (2022) *N=1*
21. Investigations in Mathematics Learning (2022) *N=1*
22. Frontiers in Education (2022) *N=1*
23. Frontiers in Psychology (2021) *N=1*
24. International Journal of Education in Mathematics, Science and Technology (2019) *N=1*
25. International Journal of Electrical and Computer Engineering (2019) *N=1*
26. Journal of Educational Innovations (2019) *N=1*
27. EURASIA Journal of Mathematics, Science and Technology Education (2018, 2021) *N=2*
28. TEJ-Technology of Education Journal (2017-2020) *N=9*
29. Training and learning research (2018) *N=1*
30. The Asia-Pacific Education Researcher (2012, 2018) *N=2*
31. Research in Teaching (2017) *N=1*
32. Learning and Individual Differences (2013-2014) *N=2*
33. Educational Research Journal (2011) *N=1*

Book Reviewer

1. Science and mathematics education for 21st century citizens: challenges and ways forwards (2019, 2020)

2. Mathematics and Statistics in the middle year: Evidence and practice (2014)

Conferences Reviewer

1. CERME 14 (Congress of European society of research in mathematics education) (2025)

2. SEFI 52nd (European Society for Engineering Education) Annual conference (2024)

3. Fifth conference of the International Network for Didactic Research in University Mathematics (INDRUM) (2024)

4. CERME 13 (Congress of European society of research in mathematics education) (2023)

5. The 25th Annual Conference on Research on Undergraduate Mathematics Education (2023)

6. SEFI 51st (European Society for Engineering Education) Annual conference (2023)

7. Fourth conference of the International Network for Didactic Research in University Mathematics (INDRUM) (2022)

8. CERME 12 (Congress of European society of research in mathematics education) (2021)

9. Research on Undergraduate Mathematics Education reports (2021)

10. NORMA (the Nordic Conference on Mathematics Education) (2020)

11. Third conference of the International Network for Didactic Research in University Mathematics (INDRUM) (2019)

12. The XXIII Annual Conference on Research on Undergraduate Mathematics Education (2019)

13. 2nd Seminar of Mathematical Sciences and challenges (2019)

14. 16th Iranian Mathematics education Conference (2018)

15. 15th Iranian Mathematics education Conference (2017)

16. The 10th Delta Conference on the Teaching and Learning of Undergraduate Mathematics and Statistics (2015)

17. 13th Iranian Mathematics education Conference (2014)

18. 12th Iranian Mathematics education Conference (2012)

Research Interests

- Teaching and learning of mathematics at upper secondary and tertiary levels.
- Networking theories in mathematics education.
- Task design in mathematics education.
- Mathematical modeling and applications.
- Mathematics Teacher Education.

Full-time positions

❖ ***Full professor of mathematics education***

Norwegian University of Science and Technology (September 2023-present)

❖ ***Associate professor of mathematics education***

Norwegian University of Science and Technology (2021- 2023)

Western Norway University of Applied Science (2020- 2021)

❖ ***Post-doctoral research fellow in mathematics education***

University of Agder (2019- 2020)

❖ ***Assistant professor of mathematics education***

Ferdowsi University of Mashhad (2017- 2019)

❖ ***Researcher/ Data analyst***

Victoria University of Wellington (2016-2017)

Part-time positions

❖ *Associate Professor II*

Western Norway University of Applied Sciences (2023-2025)

❖ *Teaching-Research scholar*

Ferdowsi University of Mashhad (2019- 2023)

Work experience

❖ *Member of postgraduate studies committee of Department of Applied mathematics*

Ferdowsi University of Mashhad (2019-2021)

Teaching experiences

❖ *Lecturing experiences*

Guest Lecturer – PhD Program in STEM Education (2025), delivered a lecture on *qualitative approaches in educational research*. Hosted by University of Rwanda – College of Education (UR-CE), Coordinated by the African Centre of Excellence in the Teaching and Learning of Mathematics and Science (ACETLMS)

Norwegian University of Science and Technology (2021-present)

1. MAED8052–Theories in the Teaching and Learning of Mathematics (**a PhD course offered as part of the capacity-building activities under the NORHEDII project**)
2. MGLU5504 – Theories of Science and Research Methods 5-10 (Mathematics) (***master course-course coordinator***)
3. MGLU4502 – Mathematical Modeling and Related Topics (***master course-course coordinator***)
4. MGLU5203 – Theories of Science and Research Methods (Mathematics) (***master course***)
5. DID3001– Theories of Science and Research Methods (***master course***)

Western Norway University of Applied Science (2020- 2021, 2023-present)

6. MGUMA502 Matematikk 3, Subject 2 – Theories of science and research methods (***master course- course coordinator***)
7. MGUMA503 Matematikk 3, Subject 3 – Mathematics didactics in the research field (***master course***) (***master course- course coordinator***)
8. MGUMA501 Mathematics 3, Subject 1 – Mathematics didactics in the field of practice (***master course***)
9. MDIP501B – Mathematics didactics in the field of practice (***master course***)
10. MGUMA402 Matematikk 2, Subject 2 – problem solving and action competence in mathematics (***course coordinator***)

Ferdowsi University of Mashhad (2017- 2023)

11. Specific fields of research in mathematics education (***PhD course***)
12. Teaching and learning theories of mathematics and problem solving (***PhD course***)
13. Principals of Mathematics Education (***master course***)
14. Psychology of learning and research in mathematics education (***master course***)
15. Mathematical curriculum and teaching methods (***master course***)

Ferdowsi University of Mashhad (2017- 2019)

16. Differential Equations (***undergraduate course***)
17. Calculus 1 (***undergraduate course***)
18. Calculus 2 (***undergraduate course***)
19. Mathematics I (***undergraduate course***)
20. Mathematics II (***undergraduate course***)
21. Mathematics Education 1 (***undergraduate course***)
22. Mathematics Education 2 (***undergraduate course***)

Ferdowsi University of Mashhad (2012- 2013)

23. Mathematics Education 1 (***undergraduate course***)

Shandiz Institute of Higher Education (2011-2013).

24. Pre-Calculus (***undergraduate course***)
25. Calculus 1 (***undergraduate course***)
26. Calculus 2 (***undergraduate course***)

Toos Institute of Higher Education (2011-2013).

27. Mathematics education 1 (***undergraduate course***)
28. Mathematics Education 2 (***undergraduate course***)
29. Philosophy of science (***undergraduate course***)
30. History of mathematics (***undergraduate course***)

❖ ***Tutoring***

Victoria University of Wellington (2014-2016).

1. MATH 141(Calculus, 1A)
2. MATH 142 (Calculus, 1B)
3. MATH 243 (Multivariable Calculus)
4. MATH 244 (Differential equations). The number of students in tutorials varied up to 25 students.

❖ ***Teacher Assistant***

Ferdowsi University of Mashhad (2010-2013): Mathematics Education.

Ferdowsi University of Mashhad (2006-2012): Differential Equations.

❖ ***Research Assistant***

Victoria University of Wellington (2013-2016): Mathematics Education and statistical analysis.

Ferdowsi University of Mashhad (2010 to 2013): Mathematics Education and statistical analysis.

Completed supervision

Doctoral theses

1. Rezvanifard, F. (2025). Exploring the Teaching and Learning of Laplace Transforms in Electrical Engineering Education: An Anthropological Theory of Didactics Approach. *Ferdowsi University of Mashhad.*
2. Haghjoo, S. (2023). Designing a model of students' thinking about the relationship between the graph of the derivative function and its antiderivative. *Shahid Rajaee Teacher Training University*
3. Salavati Nejad, N. (2021). Developing a model of students' combinatorial thinking using a grounded theory approach. *Ferdowsi University of Mashhad.*
4. Amani, A. (2020). Introducing mathematical models for predicting mathematics attitude, anxiety and mathematical performance. *Ferdowsi University of Mashhad.*

5. Kolahdooz, F. (2018). Exploring students' mathematical proof comprehension in a paper-pencil and a dynamic assessment. *Ferdowsi University of Mashhad.*
6. Borji, V. (2018). Application of the APOS-ACE theory to improve students' graphical understanding of the derivative. *Ferdowsi University of Mashhad.*

Master theses

1. Bergh, E. K. (2025). Didactic transposition of functions: From scholarly knowledge to knowledge to be taught in lower and upper secondary schools. *Norwegian University of Science and Technology*.
2. Zeka, H. B. (2025). Mathematics Teacher Students' Selection and Use of Resources for Mathematics Teaching: A phenomenological study of fifth-year mathematics teacher students. *Norwegian University of Science and Technology*.
3. Haugsgjerd, E. T. (2025). Opportunities for developing reasoning and proof in mathematics textbooks for 10th grade: A case study on functions. *Western Norway University of Applied Science*.
4. Røgeberg, A. (2024). The didactic transposition of the limits of functions: From academic knowledge to be taught at university to knowledge to be taught at upper secondary school. *Norwegian University of Science and Technology*.
5. Furberg Hvidsten, F. M. (2024). On the possibility of integrating problem posing and mathematics trails in teaching and learning of mathematics: A case study. *Norwegian University of Science and Technology*.
6. Dønheim-Nilsen, G. (2024). Students' and teachers' participation in a dynamic mathematics test. *Norwegian University of Science and Technology*.
7. Heimdahl, S. (2024). Routines and participation in problems posing tasks related to fractions: A phenomenological study of pupils in the 6th grade using commognition theory. *Norwegian University of Science and Technology*.
8. Olsen, J. J. (2024). Learning opportunities on Campus Inkrement: The case of algebra at 6th grade. *Western Norway University of Applied Science*.
9. Tøsse, A. V. and Rege, P. H. (2023). Integrating teaching and learning of statistics with puzzle-based learning: A commognitive study. *Norwegian University of Science and Technology.*
10. Bedsvaag, F. G. and Moan M. (2023). Integrating mathematical modelling activities with math trails: A mixed methods study of pupils at 9th grade. *Norwegian University of Science and Technology.*
11. Vildgren, F. (2023). Integrating math trails with mathematical modelling tasks related to fraction at the primary level. *Norwegian University of Science and Technology.*
12. Rohde, R. (2022). The introduction of the derivative in German and Norwegian schools: A comparative schoolbook analysis. *Berlin Institute of Technology/Norwegian University of Science and Technology.*
13. Ezzati, M. (2022). Exploring the possibility of using proofs without words to improve the teaching and learning of integral calculus. *Ferdowsi University of Mashhad.*
14. Taghizadeh Bilandi, M. (2021). Exploring students' mathematical understanding of the concept of tree using APOS theory and Tall's three worlds of mathematics. *Ferdowsi University of Mashhad.*
15. Mirsondosi, M. (2020). Exploring the possibility of using a flipped classroom teaching method to improve the teaching and learning of mathematics at the undergraduate level. *Ferdowsi University of Mashhad.*
16. Rezvanifard, F. (2019). On the possibility of using puzzle-based learning to improve the teaching and learning of differential equations. *Ferdowsi University of Mashhad.*
17. Hosieni, A. S. (2019). Components of pedagogical content knowledge for teaching limits and continuity. *Ferdowsi University of Mashhad.*
18. Borji, A. (2019). Exploring resources, orientations, and goals of Year 12 mathematics teachers and mathematics lecturers. *Ferdowsi University of Mashhad.*
19. Mahbubeh, N. (2018). Exploring students' abilities and attitudes towards problem posing in integral calculus. *Ferdowsi University of Mashhad.*
20. Moghaddam, K. (2018). Content analysis of integral calculus topic of Year 12 calculus textbook based on Revised Bloom's taxonomy. *Ferdowsi University of Mashhad.*
21. Niazi, N. (2017). Components of effective teaching from the perspectives of mathematics lecturers. *Ferdowsi University of Mashhad.*