Curriculum Vitae

Elahe Aminifar, PhD

Associate Professor in Mathematics Education

Address: School of Mathematics, Faculty of Science,

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Academic Preparation

1. Doctor of Philosophy (PhD) in Mathematics Education, 2008, University of Wollongong, Wollongong, Australia.

   Aminifar, E. 2007, *Technology and the Improvement of Mathematics Education at the Tertiary Level*, PhD thesis, School of Mathematics and Applied Statistics, University of Wollongong, Australia, http://ro.uow.edu.au/theses/258.

2. Master of Science (MSc) in Applied Mathematics, 1995, Iran University of Science and Technology, Tehran, Iran.

   Aminifar, E. 1995, *Numerical Solution of Fredholm Integral Equation on the First Kind by Using Tikhonov Regularization and Truncated Singular Value Decomposition (TSVD)*, MSc dissertation, School of Mathematics, Iran University of Science and Technology, Tehran, Iran.

3. Bachelor of Science (BSc) in Pure Mathematics, 1992, University of Isfahan, Isfahan, Iran.

Experiences

1. Associate Professor and a member of the academic board in the School of Mathematics, Faculty of Science, Shahid Rajaee Teacher Training University, Tehran, Iran, from 2015 till present.

2. Head of School of Mathematics, Faculty of Science, Shahid Rajaee Teacher Training University Tehran, Iran, 2012-2015.

3. Assistant Professor and a member of the academic board in the School of Mathematics, Faculty of Science, Shahid Rajaee, Teacher Training University Tehran, Iran, 2008-2015.

4. Head of School of eLearning, Shahid Rajaee Teacher Training University, Tehran, Iran, 2010-2011.

5. Lecturer and a tutor at the University of Wollongong for mathematics and statistics subjects Wollongong, Australia, 2004-2007.

6. Member of a team at the School of Mathematics and Applied Statistics to improve mathematics subjects for students who commence engineering and science degree at the University of Wollongong Wollongong, Australia, 2004-2007.

7. President of the Iranian Club at the University of Wollongong, 2004-2005.

8. Consultant for mathematics students at the Shahid Rajaee Teacher Training University from Tehran, Iran. 1994 till present exclusive of 2004-2008.

9. Mathematics teacher at the Sepeher Marefat High School and Pre-University Tehran, Iran, 1999-2001.

10. Lecturer for mathematics subjects at the Iran University of Science and Technology Tehran, Iran,1993-1994.

11. Accountant at the Refah Bank, supervising accounting branch and loans, Sabzevar, Iran, 1992.

Teaching Experience at University Level in Iran

1. Philosophical and Psychological Roots of Mathematics Education
2. Contemporary Approaches to Research in Mathematics Education
3. Theories of Mathematics Education
4. Principles of Mathematics Education
5. Foundations of Mathematics
6. Differential Equations
7. General Mathematics

8. Probability and Statistics
9. Statistical Design of Experiments
10. Research Method
11. Content Analysis of Mathematics Textbooks

Teaching Experience at the University of Wollongong, Australia

1. General Mathematics
2. Probability and Statistics
3. Differential Equations

Publications
Refereed Journal Articles

1. Aminifar, E., Zohrevand, Sh. & Zaeembashi, A. (2015). Students' Understanding and Misconceptions of Concept of Variable in Preliminary Algebra. *Quarterly Journal of Educational Innovations*, 14(53), 77-95.
2. Aminifar, E. & Alipour, M. (2014). Developing an Item Bank for Homogeneous Second Order Differential Equations by Calibrated Items. *European Journal of Educational Sciences*, 1(2), 161-170.
3. Aminifar, E. & Karimikia Kiya, Kh. (2014). Enhancing Students' Learning in the First Order Equation. *Educational Sciences.* 21(2), 23-38.
4. Aminifar, E., Karimikia Kiya, Kh. & Khamali Khamse, F. (2014). Identifying Misconceptions of High School Students about First Order Equation. *Journal of Curriculum Studies.* 9(34), 71-92.
5. Aminifar, E., Majidifar, M. & Saleh Sedghpour, B. (2014). The Fundamental Components in Learning Trigonometric Circle and Their Relationships. *Studies in Learning and Instruction*, 6(1), 1-19.
6. Aminifar, E., Aqili. N. & Zaeembashi, A. (2012). The Structural Relationships between Conceptual and Procedural Knowledge in Differential Equations. *Quarterly Journal of Research on Issues of Education*, 28, 5-24.
7. Aminifar, E. & Bahalu Hore, K. (2012). Students' Meaningful Learning Model in Laplace Transforms. *Quarterly Educational Psychology*, 8(26), 35-44.

8. Aminifar, E., Alamolhodaie, H. & Abdolahi, S.H., (2012). A Study on the Role of Students' Mathematics Anxiety and Learning Styles on Solving Calculus Word Problems. *Quarterly Journal of Educational Innovations*, 42, 105-118.

9. Aminifar, E., Saleh Sedghpour, B. & Zadedabbaq, H. (2012). The Effect of a Computer Game on Students' Mathematics Motivation and Achievement. Journal of Technology of *Education*, 6(3), 177-184.

10. Aminifar, E. & Zaeembashi, A. (2011). Improving Students Learning and Achievement in Mathematics by Using Smartboard. *Quarterly Journal of Research in Educational Systems*, 5(14), 91-98.

11. Aminifar, E., Saleh Sedghpour, B. & Sabaghzadeh, Z. (2011). The Structural Model of Learner Knowledge Based on Designing Instructional Objectives. *Journal of Advanced Mathematical Modeling*, 1(1), 79-97.

12. Aminifar, E., Saleh Sedghpour, B. & Valinejad, F. (2011). The Role of Technology on the Mathematics Learning. *Journal of Technology of Education*, 5(4), 265-272.

13. Aminifar, E., Saleh Sedghpour, B. & Bagheri, N. (2011). Creating Valid and Reliable Geometric Thinking Test Based on the First Three Levels of Van Hiele Theory. *Quarterly Educational Measurement*, 1(4), 111-125.

14. Aminifar, E. & Saleh Sedghpour, B., (2010). Development and Validation of Mathematics Achievement Motivation Questionnaire. *Quarterly Journal of Research in Educational Systems*, 4(10), 97-110.

15. Aminifar, E., Porter, A., Caladine, R. & Nelson, M. I. (2007). Creating Mathematical Learning Resources - Combining Audio and Visual Components. *ANZIAM Journal*, 47, C934-C955, accessed 30/07/07, http://anziamj.austms.org.au/V47EMAC2005/Aminifar/home.html.

Conference Articles

1. Aminifar, E., Alipour, M., Hatami, J. & Alekasir, H. 2015, 'Developing an Item Bank for Differential Equations by Calibrated Items', in *Proceedings of ED-MEDIA 2015 -World Conference on Educational Media and Technology*, Montréal, Canada.

2. Aminifar, E., Ahmadloo, L. & Kardan, A. 2011, 'Creating Learner's Knowledge Network Based on Hierarchical of Learning Objects', *The 10ᵗʰ Annual Conference of the Iranian Curriculum Studies Association*, Tehran, Iran.

3. Ahmadloo, L., Aminifar, E., Kardan, A. & Salehsedghpour, B. 2011, 'Producing e-Content based on Structural Modeling', *The 10ᵗʰ Annual Conference of the Iranian Curriculum Studies Association*, Tehran, Iran.

4. Sabaghzadeh Firoozabadi, Z., Aminifar, E. & Salehsedghpour, B. 2011, 'Design, Compilation and Implementation of Learning Objects for Developing e-Content', *The 10th Annual Conference of the Iranian Curriculum Studies Association*, Tehran, Iran.

5. Aminifar, E., Salehsedghpour, B. & Aqili, N. 2010, 'Structural Modeling of Learner's Knowledge in Production of Electronic Content of Second Order Differential Equations', *The Second International Conference on E-Learning and E-Teaching*, Tehran, Iran.

6. Aqili, N., Zaeembashi, A. & Aminifar, E. 2010, 'Compilation of Electronic Content of the Second Order Homogeneous Differential Equations Based on Goal-Content's Table', *The Second International Conference on E-Learning and E-Teaching*, Tehran, Iran.

7. Aminifar, E. & Bahiraey, D. 2010, 'Online Learning and Teaching at Higher Education', in *Proceedings* of *World Conference on Educational Multimedia, Hypermedia & Telecommunication (ED-MEDIA 2010)*, Toronto, Canada, pp.410-418.

8. Aminifar, E. & Valinejad, F. 2010, 'Use of NEWGRAPH Educational Software to Improve Classroom Teaching', in *Proceedings* of *World Conference on Educational Multimedia, Hypermedia & Telecommunication (ED-MEDIA 2010)*, Toronto, Canada, pp.3248-3254.

9. Aqili, N., Zaeembashi, A. & Aminifar, E. 2010, 'Design and Evaluation of Learning Objects of the Second Order Homogeneous Differential Equations for Developing Educational Software', *11th Iranian Mathematics Education Conference,* Mazandaran, Iran.

10. Aminifar, E. 2010, 'Online Learning Resources to Mathematical Problems: Do They Work?', *National Conference on Modern Instructional Methods*, Tehran, Iran.

11. Aminifar, E., Kardan, A. & Ahmadloo, L. 2010, 'Evaluation of Learning Objects of the First Order Differential Equations for Designing e-Content', *National Conference on Modern Instructional Methods*, Tehran, Iran.

12. Aminifar, E., Saleh Sedghpour, B. & Zadedabbaq, H. 2010, 'The Impact of Technology on Students' Mathematics Motivation', *National Conference on Modern Instructional Methods*, Tehran, Iran.

13. Aqili, N., Aminifar, E. & Zaeembashi, A. 2010, 'Determining Learning Objects of the Second Order Homogeneous Differential Equations for Designing e-Content', *National Conference on Modern Instructional Methods*, Tehran, Iran.

14. Mortazavi, H., Mesgarani, H. & Aminifar, E. 2010, 'Mathematics Achievement by Utilizing a Courseware', *National Conference on Modern Instructional Methods*, Tehran, Iran.

15. Qeisari Godarzi, S., Aminifar, E. & Bakhshalizadeh, S. 2010, 'The Impact of Educational Technology on Teaching and Learning of Mathematics Concepts', *National Conference on Modern Instructional Methods*, Tehran, Iran.

16. Sabaghzadeh Firoozabadi, Z., Salehsedghpour, B. & Aminifar, E. 2010, 'Evaluation of Learning Objects of the Nonhomogeneous Second Order Linear Differential Equations', *National Conference on Modern Instructional Methods*, Tehran, Iran.

17. Aminifar, E. & Caladine, R. 2009, 'Learning with Real-Time Rich Media Technologies', *International Conference on E-Learning and Teaching*, Tehran, Iran.

18. Aminifar, E. Mesgarani, H. & Mortazavi, H. 2009, 'The Effectiveness of a Courseware on Students' Achievement in Mathematics', *International Conference on E-Learning and Teaching, Iran University of Science and Technology*, Tehran, Iran.

19. Valinejad, F., Aminifar, E. & Bakhshalizadeh, S. 2009, 'The Impact of the NEWGRAPH Educational Software on the Conceptual Perception of the Graph Theory', *International Conference on Science and Mathematics Education (CoSMEd2009)*, Penang, Malaysia, pp. 280-287.

20. Qeisari Godarzi, S., Aminifar, E. & Bakhshalizadeh, S. 2009, 'The Impact of Using Computer Algebra Systems (CAS) in Teaching and Learning of "Double Integral" ', *International Conference on Science and Mathematics Education (CoSMEd2009)*, Penang, Malaysia, pp. 430-437.

21. Abdolahi S. H., Alamolhoda, S. H. & Aminifar, E. 2009, 'The Effectiveness of Working Memory and Mathematics Anxiety on Students' Mathematics with Different Learning Style in Calculus Word Problem Solving', *International Conference on Science and Mathematics Education (CoSMEd2009)*, Penang, Malaysia, pp. 438-443.

22. Qeisari Godarzi, S., Aminifar, E. & Bakhshalizadeh, S. 2009, 'Investigating of the Impact of Composing Computer Algebra System with Mathematics Curriculum at University Level', *The 9th Annual Conference of the Iranian Curriculum Studies Association, Higher Education Curriculum in Iran: Challenges and Perspectives*, Tabriz, Iran.

23. Aminifar, E., Caladine, R., Porter, A. & Nelson, M. I. 2007, 'Beyond Videoconference: Increased Functionality to Enhance Media-Rich Interactions in Teaching and Learning', in *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education*, Bastiaens, T. & Carliner, S. (eds.), Québec City, Canada, Chesapeake, VA: AACE, pp. 6985-6990.

24. Caladine, R. & Aminifar, E. 2007, 'The Future of Real Time Communication in Online Learning', in *Proceedings of 2007 Information Resources Management Association*

International Conference, 18th Annual IRMA International Conference, Vancouver, Canada, pp. 1074-1076.

25. Porter, A., Caladine, R., Nelson, M. I., Aminifar, E. & Williams, G. 2007, 'Access Grid Rooms: The Plan, the Reality', *Fourth East Asia Regional Conference on Mathematics Education,* Penang, Malaysia, pp. 285-291.

26. Aminifar, E., Porter, A. L., Caladine, R. J. & Nelson, M. I. 2007, 'Evaluation of Information Communication Technologies in Mathematics Education', *The Iranian Student's Cultural and Scientific Conference*, Sydney, Australia.

27. Aminifar, E., Caladine, R., Porter, A. & Nelson, M. I. 2006, 'Online Solutions to Mathematical Problems: Combining Video, Audio and Stills on the Web', in *Proceedings of World Conference on E-Leaning in Corporate, Government, Healthcare, and Higher Education*, Reeves, T. C. & Yamashita, S. F. (eds.), Hawaii, USA, Chesapeake, VA: AACE, pp. 2-9.

28. Aminifar, E., Porter, A., Caladine, R. & Nelson M. I. 2006, 'Evaluation of Using Technology for Teaching and Learning Mathematics', *8th Iranian Mathematics Education Conference (IMEC-8),* Shahrekord, Iran.

29. Aminifar, E., Porter, A. & Caladine, R. 2005, 'Evaluation of Web Conference and Collaboration Tools for Teaching Mathematics and Statistics', *International Statistics Institute Conference,* Sydney, Australia, accessed 24/04/07, www.stat.auckland.ac.nz/~iase/publications/13/Aminifar-Porter-Caladine.pdf.

Master Students Graduated

1. Najafi, Hadi, 2014, The Investigation of Divergent Thinking of Seventh Grade Students in Solving Mathematical Open-Ended Problems, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

2. Rabbani, Sanaz, 2014, Students' Misconceptions in Conditional Probability, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

3. Bakhshizade, Amin, 2014, The Effect of Neuroscience Based Generalization on Students' Achievement and Mathematics Attitude, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran

4. Alekasir, Hosein, 2013, Developing the Item Bank for Computerized Adaptive Test in First Order Linear Differential Equations by using Calibrated Questions, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

5. Salehi, Mostafa, 2012, The Estimation of Learner's Knowledge Ability Level Based on Adaptive Exam, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

6. Sabaghzadeh Firoozabadi Zahra, 2011, The Empirical Model of Learner's Knowledge Based on Design, Implementation, Evaluation of Instructional Objectives, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

7. Ahmadloo, Leila, 2011, The Hierarchical Design of Learning Objects for eLearning Environment Based on the Structural Model of Learner's Knowledge, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

8. Kalantarynejad, Fazlolah, 2011, Structural Modeling of Solving Differential Equations by Series, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

9. Bahalu Hore, Kobra, 2010, The Model of Learner's Cognitive Map in Laplace Transforms, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

10. Aqili, Narges, 2010, The Structural Model of Learner's Knowledge Network for Homogeneous, Second Order Differential Equations, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

11. Dadashi, Ali, 2010, Structural Equations Modeling of Differential Equations System and e-Content Production, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

12. Baqrei, Nayere, 2010, Preparing and Investigating the Reliability and Validation of Measuring Geometry Thinking based on Van Hiele Theory, MSc Thesis, Science and Research Branch, Islamic Azad University, Tehran, Iran.

13. Zadeh Dabagh, Hossein, 2010, The Effectiveness of an Instructional Computer Game on Students' Motivation and Achievement in Mathematics, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

14. Mortazavi, Hossein, 2010, The Effectiveness of a Mathematics Courseware on Students' Attitude and Achievement in Mathematics, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

15. Gheisari Godarzi, Sara, 2010, The Impact of Computer Algebra System on Conceptual and Procedural Knowledge, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

16. Valinejad, Fateme, 2009, The Impact of NEWGRAPH Educational Software on the Conceptual Perception of Graph Theory, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.

17. Abdollahi, Seyed Hosein, 2009, The Effectiveness of Working Memory and Mathematics Anxiety on Students' Mathematics with Different Learning Style in Calculus Word Problem Solving, MSc Thesis, Shahid Rajaee Teacher Training University, Lavizan, Tehran, Iran.