



UNIVERSITAS NEGERI YOGYAKARTA

Faculty of Mathematics and Natural Sciences

Department of Mathematics Education

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Bachelor of Education in Mathematics

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STAFF HANDBOOK

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|---|---|----------------------------------|-------------------------|
| Name | Sugiman, Drs., M.Si., Dr. | | |
| Expertise | Mathematics Education | | |
| Academic Career | Initial Academic Appointment | Institution | Year |
| | | Universitas Negeri Yogyakarta | 1991 |
| Academic Background | 1. Post Doctoral | - | - |
| | 2. Doctoral Degree | Universitas Pendidikan Indonesia | 2010 |
| | 3. Master Degree | Institut Teknologi Bandung | 1997 |
| | 4. Undergraduate Degree | IKIP Yogyakarta | 1989 |
| Employment | Position | Employer | Period |
| | 1. Tenaga Pengajar/CPNS | Universitas Negeri Yogyakarta | 01/01/1991 - 01/12/1992 |
| | 2. Asisten Ahli Madya | Universitas Negeri Yogyakarta | 01/12/1992 - 01/05/1995 |
| | 3. Asisten Ahli | Universitas Negeri Yogyakarta | 01/05/1995 - 01/11/1999 |
| | 4. Instructor (Lektor Muda) | Universitas Negeri Yogyakarta | 01/11/1999 - 01/01/2001 |
| | 5. Assistant Professor (Lektor) | Universitas Negeri Yogyakarta | 01/01/2001 - 01/01/2008 |
| | 6. Associate Professor (Lektor Kepala) | Universitas Negeri Yogyakarta | 01/01/2008 - sekarang |
| Research and development projects over the last 5 years | 1. DIPA FMIPA UNY "PERKEMBANGAN PEMAHAMAN SISWA SMP TERHADAP MATERI PERSEN DENGAN BANTUAN PERCENTAGE BAR" Periode: 2016 Partner: Iham Rizkianto, S.Pd., M.Sc.; Drs. Sugiyono, M.Pd.; Fandi Kurnia Giri; Praneswari Kusuma Dewi; Dr. Ali Mahmudi, M.Pd.; Dr. Ariyadi Wijaya, S.Pd.Si., M.Sc. Amount of financing: IDR 10.000.000,- | | |
| | 2. DIPA FMIPA UNY (Lesson Study) "Peningkatan Kompetensi Pedagogik Guru melalui Lesson Study Pembelajaran Matematika Berbasis Masalah dengan Pendekatan Worked Example" Periode: 2017 Partner: Nila Mareta Murdiyani, S.Pd., M.Sc.; Iham Rizkianto, S.Pd., M.Sc.; Endah Retnowati, S.Pd., M.Ed., Ph.D.; Dr. Dra. Raden Rosnawati, M.Si.; Dr. Ali Mahmudi, M.Pd. Amount of financing: IDR 7.500.000,- | | |

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| | <p>3. Balitbang (Penelitian Kebijakan) "Pengembangan Model Pembelajaran Terintegrasi Penilaian Berbasis HOT TIMSS dan PISA untuk Meningkatkan HOT" Periode: 2017 Partner: Dr. Jailani; Dr. Antuni Wiyarsi; Dr. Rahmawati; Dr. Tjaturningsih Rosdiana; M. Rifan Jauhari, SE, MA. Amount of financing: IDR 200.000.000,-</p> <p>4. DIPA FMIPA UNY "Desain Lintasan Belajar dalam Pembelajaran Matematika yang Berorientasi pada Kemampuan Komunikasi dan Kolaborasi Siswa di Abad 21" Periode: 2018 Partner: Drs. Sugiyono, M.Pd.; Nila Mareta Murdiyani, S.Pd., M.Sc.; Listia Palupi Wisnu Aji; Umy Maysyaroh Amount of financing: IDR 15.000.000,-</p> <p>5. Penelitian Hibah Bersaing, Kemenristekdikti "Pengembangan Laboratorium Pendidikan Matematika Virtual: Adaptive E-Learning dan" Periode: 2018 Partner: Prof. Dr. Siti Irene Astuti D.; Eka Zuliana, M.Pd. (Univ Muria Kudus) Amount of financing: IDR 53.000.000,-</p> <p>6. DIPA UNY "Identifikasi Kendala Didaktis Siswa dalam Mempelajari Konsep Pecahan dan Operasinya" Periode: 2018 Partner: Drs. Tuharto, M.Si.; Dr. R. Rosnawati Amount of financing: IDR 15.000.000,-</p> |
| <p>Industry collaborations over the last 5 years</p> | <p>1. Project Title: Pelatihan Penelitian Tindakan Kelas untuk Angkat Kredit PKB bagi Guru Matematika SMP (2016) Partners: DIPA FMIPA UNY</p> <p>2. Project Title: PENGUATAN KEMAMPUAN DIDAKDIK GURU MIPA DI KOTA YOGYAKARTA MELALUI KEGIATAN LESSON STUDY BERBASIS SEKOLAH MITRA (2017) Partners: DIPA FMIPA UNY</p> <p>3. Project Title: Pengembangan Lembar Kerja Siswa Berdasarkan Cognitive Load Theory dalam Pembelajaran Geometri SMP (2017) Partners: PPM Diseminasi Hasil Penelitian PPs UNY</p> <p>4. Project Title: Workshop Penguatan Konsep dan Inovasi Pembelajaran Matematika Kelas V Sekolah Dasar (2018) Partners: DIPA FMIPA UNY</p> <p>5. Project Title: PENGEMBANGAN LEMBAR KERJA SISWA BERDASARKAN COGNITIVE LOAD THEORY DALAM PEMBELAJARAN ALJABAR SMP (2018) Partners: LPPM UNY/ PPM Berbasis Hasil Penelitian</p> <p>6. Project Title: Pengembangan dan Implementasi Lesson Study untuk Guru guru SD dan SMP di Kabupaten Gunung Kidul (2018) Partners: Dinas Pendidikan Kabupaten Gunungkidul</p> <p>7. Project Title: Pelatihan Penyusunan Rencana Pelaksanaan Pembelajaran (RPP) dan Perangkat Penilaian Higher Order Thinking Skills (HOTS) Bagi Guru Matematika MA di Kabupaten Sleman Yogyakarta (2019) Partners: MGMP Matematika MA Kabupaten Sleman</p> <p>8. Project Title: Pelatihan Pengembangan Desain Pembelajaran Matematika berdasarkan Cognitive Load Theory (2019) Partners: LPPM UNY/ PPM Berbasis Hasil Penelitian</p> |

| | Title | Year |
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| Patents and proprietary rights | 1. Published book: " Desain Pembelajaran Matematika untuk Melatihkan Higher Order Thinking Skills " Oleh: Jailani, Sugiman, Heri Retnawati, Bukhori, Ezi Apino, Hasan Djidu, Zainal Arifin UNY Press, Yogyakarta ISBN: 978-602-6338-22-8 | 2018 |
| | 2. Published book: " Kalkulus lanjut berbantuan geogebra " Oleh: Sugiman UNY Press, Yogyakarta ISBN: 978-602-498-001-6 | 2018 |
| Important publications over the last 5 years | Selected recent publications form a total of approx.: | |
| | 1. Kumalasari, A., & Sugiman, S. (2015). ANALISIS KESULITAN BELAJAR MAHASISWA PADA MATA KULIAH KAPITA SELEKTA MATEMATIKA SEKOLAH MENENGAH . Jurnal Riset Pendidikan Matematika, 2(1), 16 - 27. doi: https://doi.org/10.21831/jrpm.v2i1.7147 | |
| | 2. Melianingsih, N., & Sugiman, S. (2015). Keefektifan pendekatan open-ended dan problem solving pada pembelajaran bangun ruang sisi datar di SMP . Jurnal Riset Pendidikan Matematika, 2(2), 211 - 223. doi: https://doi.org/10.21831/jrpm.v2i2.7335 | |
| | 3. Azis, A., & Sugiman, S. (2015). Analisis kesulitan kognitif dan masalah afektif siswa SMA dalam belajar matematika menghadapi ujian nasional . Jurnal Riset Pendidikan Matematika, 2(2), 162 - 174. doi: https://doi.org/10.21831/jrpm.v2i2.7331 | |
| | 4. Daniyati, N., & Sugiman, S. (2015). Hubungan Antara Kemampuan Verbal, Kemampuan Interpersonal, dan Minat Belajar dengan Prestasi Belajar Matematika . Pythagoras: Jurnal Pendidikan Matematika, 10(1), 50-60. doi: https://doi.org/10.21831/pg.v10i1.9109 | |
| | 5. Amiluddin, R., & Sugiman, S. (2016). Pengaruh problem posing dan PBL terhadap prestasi belajar, dan motivasi belajar mahasiswa pendidikan matematika . Jurnal Riset Pendidikan Matematika, 3(1), 100-108. doi: https://doi.org/10.21831/jrpm.v3i1.7303 | |
| | 6. Sulistyarningsih, E., & Sugiman, S. (2016). The effect of CBT national examination policy in terms of senior high school students' cognitive readiness and anxiety facing mathematics tests in DIY Province . Jurnal Riset Pendidikan Matematika, 3(2), 198-208. doi: https://doi.org/10.21831/jrpm.v3i2.10868 | |
| | 7. Afdhal, M., & Sugiman, S. (2017). Pengembangan perangkat pembelajaran berbasis reciprocal teaching berorientasi pada antusiasme dan kemampuan berpikir kritis siswa . Pythagoras: Jurnal Pendidikan Matematika, 12(2), 173-186. doi: https://doi.org/10.21831/pg.v12i2.17716 | |
| | 8. Jailani, J., Sugiman, S. , & Apino, E. (2017). Implementing the problem-based learning in order to improve the students' HOTS and characters . Jurnal Riset Pendidikan Matematika, 4(2), 247-259. doi: https://doi.org/10.21831/jrpm.v4i2.17674 | |
| 9. Pandra, V., Sugiman , & Mardapi, D. (2017). Development of Mathematics Achievement Test for Third Grade Students at Elementary School in Indonesia . International Electronic Journal of Mathematics Education, 12(3), 769-776. e-ISSN: 1306-3030 | | |

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| 10. Widdiharto, R., Kartowagiran, B., & Sugiman, S. (2017). A construct of the instrument for measuring junior high school mathematics teacher's self-efficacy. REiD (Research and Evaluation in Education), 3(1), 64-76. doi: https://doi.org/10.21831/reid.v3i1.13559 |
| 11. Hidayati, K., Budiyono, B., & Sugiman. (2018). Development and Validation of Student's Responsibility Scale on Mathematics Learning Using Subject Scaling Model. International Journal of Instruction, 11(4), 499-512. e-ISSN: 1308-1470, p-ISSN: 1694-609X. |
| 12. Sumaryanta, S., Mardapi, D., Sugiman, S. , & Herawan, T. (2018). Assessing Teacher Competence and Its Follow-up to Support Professional Development Sustainability. Journal of Teacher Education for Sustainability, 20(1), 106-123. DOI: https://doi.org/10.2478/jtes-2018-0007 |
| 13. Hidayati, K., Budiyono, B., & Sugiman, S. (2018). Developing scale to measure student's honesty characters on mathematics learning using subject scaling. Jurnal Penelitian dan Evaluasi Pendidikan, 22(2), 143-153. doi: https://doi.org/10.21831/pep.v22i2.19310 |
| 14. Hidayati, K., Budiyono, B., & Sugiman, S. (2018). Using Alignment Index and Polytomous Item Response Theory on Statistics Essay Test. Eurasian Journal of Educational Research, 79, 115-132. doi: https://10.14689/ejer.2019.79.6 |
| 15. Absorin, A., & Sugiman, S. (2018). Eksplorasi kemampuan penalaran dan representasi matematis siswa sekolah menengah pertama. Pythagoras: Jurnal Pendidikan Matematika, 13(2), 189-202. doi: https://doi.org/10.21831/pg.v13i2.21249 |
| 16. Retnowati, E., Murdiyani, N.M., Marsigit, M., Sugiman, S. , & Mahmudi, A. (2018). Improving pedagogic competence using an e-learning approach for pre-service mathematics teachers. Journal of Physics: Conference Series, 983(1), p.012126. doi :10.1088/1742-6596/983/1/012126 |
| 17. Sugiman, S. , & Apino, E. (2018). Silent method for mathematics instruction: An overview of teaching subsets. AIP Conference Proceedings, 1848(1), p.040015. doi: 10.1063/1.4983953, https://aip.scitation.org/doi/abs/10.1063/1.4983953 |
| 18. Watan, S., & Sugiman, S. (2018). The Van Hiele theory and realistic mathematics education: As teachers' instruction for teaching geometry. AIP Conference Proceedings, 2014(1), p.020075. doi: 10.1063/1.5054479, https://aip.scitation.org/doi/abs/10.1063/1.5054479 |
| 19. Watan, S., & Sugiman, S. (2018). Exploring the relationship between teachers' instructional and students' geometrical thinking levels based on van Hiele theory. Journal of Physics: Conference Series, 1097(1), p. 012122. doi : 10.1088/1742-6596/1097/1/012122 |
| 20. Rifa'i, A., & Sugiman, S. (2018). Students' Perceptions of Mathematics Mobile Blended Learning Using Smartphone. Journal of Physics: Conference Series, 1097(1), p. 012153. doi : 10.1088/1742-6596/1097/1/012153 |
| 21. Wisniarti, W., & Sugiman, S. (2018). A Student's cognitive dissonance in solving non-routine perimeter problems. Journal of Physics: Conference Series, 1097(1), p. 012099. doi : 10.1088/1742-6596/1097/1/012099 |

| Activities in specialist bodies over the last 5 years (Membership without a specific role need not be mentioned) | Organization | Role | Period |
|---|---------------------------------|---|-----------|
| | Indonesian Mathematical Society | Coordinator of Indonesia (Master of Education in Mathematics) | 2016-2018 |
| | Indonesian Mathematical Society | Deputy Governor of Indo-MS, DIY-Jateng Region | 2019-2020 |