



TEMA-TEMA PENELITIAN TESIS

PROGRAM STUDI
S-2 PENDIDIKAN KIMIA

**Program Pascasarjana
Universitas Negeri Yogyakarta
Tahun 2016**

DAFTAR ISI

<i>Halaman Sampul</i>	<i>i</i>
<i>Daftar isi</i>	<i>ii</i>
<i>Kata Pengantar</i>	<i>iii</i>

Tema-Tema Penelitian Tesis dari Dosen:

1. Prof. Dr. Endang Widjajanti Laksono FX, M.Si	1
2. Dr. Hari Sutrisno, M.Si	2
3. Dr. Eli Rohaeti, M.Si	4
4. Jaslin Ikhsan, M.app.Sc., Ph.D	6
5. Dr. Antuni Wiyarsi, M.Sc	8
6. Prof. Dr. Sri Atun, M.Si	11
7. Dr. Siti Sulastri, M.S	12
8. Dr. Isana Supiah Yosephine Louise, M.Si	13
9. Dr. Suyanta, M.Si	15
10. Prof. K.H. Sugiyarto, Ph.D	16
11. Dr. Amanatie, M.Pd., M.Si	17
12. Prof. A. K. Prodjosantosa, Ph.D	18

*Tema-Tema Penelitian Tesis
Program Studi S-2 Pendidikan Kimia
Program Pascasarjana, Universitas Negeri Yogyakarta*

Kata Pengantar

Puji syukur kehadiran Allah SWT atas limpahan rahmat dan karunia-Nya sehingga Buku Tema-Tema Penelitian Tesis Program Studi S-2 Pendidikan Kimia, Program Pasca Sarjana, Universitas Negeri Yogyakarta, dapat diselesaikan.

Buku Tema-Tema Penelitian Tesis ini diterbitkan dengan tujuan untuk membantu mahasiswa S-2 Pendidikan Kimia dalam penentuan tema atau judul dan pembimbing tesis, sehingga diharapkan akan mempercepat kelulusannya.

Kaprodik mengucapkan banyak terima kasih kepada semua dosen yang telah mengirimkan tema-tema penelitian untuk dimuat dalam buku ini. Buku ini masih jauh dari sempurna, oleh karena itu diharapkan kritik dan saran ke arah perbaikan. Semoga buku ini dapat memberi manfaat bagi para mahasiswa S-2 pendidikan kimia dan semua pihak yang membutuhkan.

Yogyakarta, 01 Juni 2016
Kaprodik S-2 Pendidikan kimia



Dr. Hari Sutrisno

Nama Dosen : Prof. Dr. Endang Widjajanti Laksono FX, M.S
NIP : 19621203 198601 2 001
Pangkat : Pembina Utama Madya / IV c
Jabatan : Guru Besar
Nomor HP : 0274-632549, HP. 08122768553
Alamat e-mail : ewxlaksono@yahoo.com



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia Fisika 1
 - b. Kimia Fisika 4
 - c. Ikatan Kimia
 - d. Kimia Permukaan dan Koloid
 - e. Kimia Katalis
 - f. Metode Penelitian Kimia
- 2. Program S-2**
 - a. Spektroskopi Kimia
 - b. Kapita Selektiva Kimia
- 3. Program S-3**
 - a. Topik Khusus dalam Kimia Anorganik dan Kimia Fisika

Tema Penel. Pend. **Pengembangan Model Pembelajaran Kimia dan Integrated Instrumen Assesment**

Tema Penel. Pend. Khusus

1. Pengembangan model pembelajaran kimia dan perangkatnya untuk meningkatkan kemampuan meta kognisi
2. Pengembangan integrated instrumen assesment berbasis kemampuan berpikir tingkat tinggi

Jaringan Penelitian --

Pustaka

1. Aydeniz, M. & Kotowski, M. R. (2014). Conceptual and methodological issues in the measurement of attitude. *Electronic Journal of Science Education*. **18**(3): 1-24.
2. Eggen, P.D. & Kauchak, D. (2012a). *Strategies and Models for Teacher: Teaching Content and Thinking Skills 6th Edition*. Boston: Pearson Education
3. Eggen, Paul D. & Kauchak, D. (2012b). *Strategies and Models for Teacher: Teaching Content and Thinking Skills 6th Edition: Strategi dan Model Pembelajaran Mengajarkan Konten dan Keterampilan Berpikir Edisi 6*. Penerjemah: Satrio Wahono. Boston: Pearson Education
4. Pitafi, I. A. & Farooq, M. (2012). Measurement of scientific attitude of secondary school student in Pakistan. *Journals of Academic Reasearch International*. **2**(2): 379-392.
5. Austin, A.C., Ben-Daat, H., Zhu, M., Atkinson, R., Barrows, N. & Gould, I. R. (2015). Measuring student performance in generale organic chemistry. *Chemistry Education Research and Practice*. **16**(168): 168
6. Chabalengula, Vivien Mweene, Mumba, Frackson & Mbewe, Simeone, (2012), How pre-service teachers' understand and perform scince process skills. *Eurasia Journal of Mathematics, Science & Technology Education*, **8**(3): 167-176.
7. Ferrel, B. & Barbera, J. (2015). analysis of student' self-efficacy, interest, and effort beliefs in general chemistry. *Chemistry Education Research and Practice*. **10**(152):

Nama Dosen : Dr. Hari Sutrisno, M.Si
NIP : 19670407 199203 1 002
Pangkat : Pembina / IV a
Jabatan : Lektor Kepala
Nomor HP : 08122753549
Alamat e-mail : sutrisnohari@uny.ac.id atau
sutrisnohari@hotmail.com



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia Anorganik I
 - b. Kristalografi dan Mineralogi
 - c. Metodologi Penelitian Kimia
 - d. Kimia Zat Padat
 - e. Praktikum Kimia Anorganik I

- 2. Program S-2**
 - a. Kimia Struktur Anorganik
 - b. Praktikum dan Proyek Kimia

- 3. Program S-3**
 - a. Kimia Material Fungsional
 - b. Topik Khusus dalam Kimia Anorganik dan Kimia Fisika
 - b. Nanokimia dan Nanomaterial

Tema Penel. Pend. ***Pedagogical Chemistry Knowledge (PChK): Pemahaman dan Pengembangan tentang Strategi Pengajaran untuk Pembelajaran Kimia***

Tema Penel. Pend. Khusus

1. Identifikasi *Pedagogical Chemistry Knowledge (PChK)* dalam kegiatan pembelajaran di laboratorium kimia
2. Pengembangan petunjuk praktikum kimia SMA berbasis *Pedagogical Chemistry Knowledge (PChK)*.
3. *Multiple Representations* dalam pemahaman konsep-konsep kimia
4. Pengembangan kerangka dan model pengajaran kimia berdasarkan *Pedagogical Chemistry Knowledge (PChK)*.

Jaringan Penelitian

1. Internasional : -
2. Nasional : - Pendidikan Kimia, STKIP Bima, NTB
- Pendidikan Kimia, FKIP, Universitas Palangkaraya

Pustaka

1. Chen, B. & Wei, B. (2015). Examining chemistry teachers' use of curriculum materials: in view of teachers' pedagogical content knowledge. *Chemistry Education Research and Practice*. **16**: 260-272.
2. Wang, C.Y. & Barrow, L. H. (2013). Exploring conceptual frameworks of models of atomic structures and periodic variations, chemical bonding, and molecular shape and polarity: a comparison of undergraduate general chemistry students with high and low levels of content knowledge. *Chemistry Education Research and Practice*. **14**: 130-146.
3. Saeli, M., Perrenet, J., Jochems, W.M.G. & Zwaneveld, B. (2011). Teaching programming in secondary school: a pedagogical content knowledge perspective. *Informatics in Education*. **10**(1): 73-88.

4. Halim, L., Subahan Mohd Meerah, T., Zakaria, E., Intan Sharina Syed Abdullah, S., & Tambychik, T. (2012). An exploratory factor analysis in developing pedagogical content knowledge scale for teaching science. *Research Journal of Applied Sciences, Engineering and Technology*. **4**(19): 3558-3564.
5. Papageorgiou, G., Markos, A. & Zarkadis, N. (2016). Students' representations of the atomic structure-the effect of some individual differences in particular task contexts. *Chemistry Education Research and Practice*. **17**: 209-219.

**Keterangan
Tambahan**

Memiliki keahlian dalam analisis data penelitian dengan Model Rasch

Nama Dosen : Dr. Eli Rohaeti, M.Si
NIP : 19691229 199903 2 001
Pangkat : Pembina / IVa
Jabatan : Lektor Kepala
Nomor HP : 08567896365
Alamat e-mail : rohaetieli@yahoo.com;
rohaetieli64@gmail.com



Pengalaman Mengajar

1. Program S-1

- a. Dinamika Molekul
- b. Kimia Fisika Polimer
- c. Kimia Organik Polimer
- d. Pengajaran Mikro Kimia
- e. Praktikum Dinamika Molekul
- f. Praktikum Kesetimbangan Kimia

2. Program S-2

- a. Kapita Selekta Kimia
- b. Kapita Selekta Pendidikan Kimia
- c. Kajian Penelitian Terbaru Pendidikan Kimia
- d. Model dan Pemodelan dalam Pembelajaran Kimia
- e. Kurikulum Kimia

3. Program S-3

- a. Isu dan Trend dalam Penelitian Pendidikan Kimia
- b. Kimia dalam Kehidupan Modern
- c. Topik Khusus dalam Kimia Fisik dan Kimia Anorganik

Tema Penel. Pend. **Pengembangan dan Implementasi Berbagai Model Pembelajaran, Pendekatan Pembelajaran, dan Strategi Dalam Pembelajaran Kimia**

Tema Penel. Pend. Khusus

1. Implementasi model Problem Based Learning, *environmental problem solving*, *Contextual Teaching and Learning*, *Inquiry Based Learning* dalam pembelajaran kimia untuk meningkatkan kemampuan berpikir kritis, analitis, sikap ilmiah (*knowledge, attitude, dan skill*)
2. Pengembangan perangkat pembelajaran berbasis *Problem Based Learning*, *Contextual Teaching and Learning*, *Inquiry Based Learning*
3. Penerapan Strategi Metakognitif dalam pembelajaran kimia
4. Pengembangan *Integrated Assessment* dalam pembelajaran kimia

Jaringan Penelitian

1. Internasional : -
2. Nasional : -

Pustaka

1. Ozgur, S. D., Temel, S., & Yilmaz, A. (2012). The effect of learning styles of preservice chemistry teachers on their perceptions of problem solving skills and problem solving achievements. *Social and Behavioral Sciences*. **46**: 1450-1454.
2. Gulacar, O., Bowman, C. R., & Feakes, D. A. (2013). Observational investigation of student problem solving: the role and importance of habits. *Science Educational International*. **24**(2): 344-360.

3. Temel, S., Ozgur, S. D., Sen, S., & Yilmaz, A. (2012). The examination of metacognitive skill levels and usage of learning strategies of preservice chemistry teachers. *Social and Behavioral Sciences*. **46**: 1445-1449.
4. Juntunen, M. & Aksla, M. (2013). Life – cycle analysis and inquiry-based learning in chemistry teaching. *Science Education International*. **24**(2): 150-166
5. Kondakci, E. U. & Aydin, Y. C. (2013). Predicting critical thinking skills of univerty students through metacognitive self-regulation skills and chemistry self-efficacy. *Educational Sciences*. **13**(1):666-670.

**Keterangan
Tambahan**

-

Nama Dosen : Jaslin Ikhsan, M.app.Sc., Ph.D
NIP : 19680629 199303 1 001
Pangkat : Penata Tk I / III-d
Jabatan : Lektor
Nomor HP : 081428608258
Alamat e-mail : jikhsan@uny.ac.id; jaslinikhsan@gmail.com



Pengalaman Mengajar

1. Program S-1

- a. Kimia Permukaan dan Koloid
- b. Kimia Fisika II
- c. Dinamika Molekul
- d. Metodologi Penelitian Kimia
- e. Praktikum Kimia Fisika I
- f. Praktikum Kimia Fisika II
- g. Pengembangan Media Pembelajaran Kimia
- h. Keterampilan TIK dalam Pembelajaran Kimia
- i. Kurikulum Kimia

2. Program S-2

- a. Pengembangan Media Pembelajaran Kimia
- b. Keterampilan TIK dalam Pembelajaran Kimia
- c. Keterampilan TIK dalam Pembelajaran Fisika
- d. Keterampilan TIK dalam Pembelajaran Biologi
- e. Keterampilan TIK dalam Pembelajaran IPA
- f. Inovasi Pembelajaran Kimia
- g. Visualisasi Pembelajaran Kimia
- h. International Publication

Tema Penel. Pend. **ICT-Based Learning:** Pengembangan Model Pembelajaran Kimia Berbasis TIK (Teknologi Informasi dan Komunikasi)

Tema Penel. Pend. Khusus

1. Pengembangan Media Pembelajaran Kimia Berbasis TIK
2. Pengembangan Model Pembelajaran ICT-based Hybrid Learning
3. Pengembangan *Virtual Lab* Berbasis TIK
4. Manajemen Laboratorium dan Perpustakaan Kimia Digital

Jaringan Penelitian

1. Internasional : SEAMEO Secretariat, Bangkok
2. Nasional : - SEAMOLEC, Jakarta
- P4TK IPA, Bandung

Pustaka

1. Buzzetto-More, N.A. and Sweat-Guy, R. (2006). *Hybrid Learning Defined*, Journal of Information Technology Education, Vol 5.
2. Baker, S.C. (2014), *Making It Work for Everyone: HTML5 and CSS Level 3 for Responsive, Accessible Design on Your Library's Web Site*, Journal of Library & Information Services, in Distance Learning, 8:118–136.

3. Garaizar, P., Vadillo, M.A., & Lopez-de-Ipina, D. (2014). *Presentation Accuracy of the Web Revisited: Animation Methods in the HTML5 Era*, PLOS ONE, Volume 9, Issue 10 ,e109812, www.plosone.org, October 2014.
4. van der Kolk, K., Hartog, R., Beldman, G., and Gruppen, H., (2013), *Exploring the Potential of Smartphones and Tablets for Performance Support in Food Chemistry Laboratory Classes*, Journal of Science Education & Technology, Vol. 22 Issue 6, 984-992
5. Alexander, Mystica M, Lynch, John E., Rabinovich, Tamara, Knutel, Phillip G., (2014). *Snapshot Of A Hybrid Learning Environment*, Quarterly Review of Distance Education, Vol. 15, 1, 9-21.
6. Ikhsan, J., and Hadi, H. S. (2015), *Delivering Science-Engineering Virtual Labs Using the New Web Technologies (HTML5)*, International Conference on Educational Research and Innovation, LPPM UNY.

**Keterangan
Tambahan**

Owner of CENTIMOLE (Center for Institute of Mobile Learning)

Nama Dosen : Dr. Antuni Wiyarsi, M.Sc
NIP : 19800825 200501 2 002
Pangkat : Penata Tk.I/III d
Jabatan : Lektor (300)
Nomor HP : 081328681494
Alamat e-mail : antuni_w@uny.ac.id;
antuniwiyarsi@gmail.com



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia SMK
 - b. Telaah Kurikulum Kimia Sekolah
 - c. Filsafat Ilmu
 - d. *Microteaching*
 - e. Kimia SMA
 - f. Praktik Strategi pembelajaran kimia
 - g. Kimia Dasar
 - h. Kimia Analisis 2 (Kuantitatif)
 - i. Praktikum Kimia Analisis 2 (kuantitatif)
 - j. Praktikum Kimia Analisis Instrumen
 - k. Praktikum Kimia Dasar
 - l. Ilmu Alamiah Dasar
- 2. Program S-2**
 - a. Model dan Pemodelan dalam Pembelajaran Kimia
 - b. Penilaian dan Evaluasi Pembelajaran Kimia
 - c. Seminar Proposal Tesis

Tema Penel. Pend. 1. Kurikulum dan Pembelajaran Kimia Berbasis Konteks
2. Model Pengembangan Keprofesionalan Guru dan Calon Guru Kimia

Tema Penel. Pend. Khusus 1. Kurikulum dan pembelajaran kimia terintegrasi konteks kejuruan
2. Model pembelajaran kimia berbasis konteks
3. Model pembelajaran kimia untuk meningkatkan literasi sains
4. Bahan ajar kimia terintegrasi konteks kejuruan
5. Model penyiapan calon guru kimia
6. Model *Continuing Professional Development* (CPD) guru kimia berbasis *pedagogical content knowledge* (PCK)
7. Representasi PCK (*CoRe* & *PaPers*) kimia konteks kejuruan sebagai kerangka pengembangan keprofesionalan guru
8. *Self-efficacy* dalam pengembangan keprofesionalan guru dan calon guru kimia

Jaringan Penelitian 1. Internasional : -
2. Nasional : - MGMP guru kimia Kabupaten Sleman

Pustaka 1. Vos, M.A.J., Taconis, R., Jochems, W.M. & Pilot, A. (2010). Teachers implementation context-based teaching materials: a framework for case-analysis in chemistry. *Chemistry Education Research and Practice*, 11, 193-206.
2. Gilbert, John K., Bulte, Astrid M.W. and Pilot, Albert. (2011) 'Concept Development and Transfer in Context-Based Science Education', *International Journal of Science Education*, 33: 6, 817-837

3. Okorie, E.U & Akubulo, F. (2013). Towards improving quality of education chemistry: an investigation into chemistry teacher's knowledge of chemistry curriculum. *International Journal of Emerging Science and Engineering*, 1 (9), 30-34.
4. Coenders, F., Terlouw, C., Dijkstra, S & Pieters, J. (2010). The effects of the design and development of a chemistry curriculum reform on teachers' professional growth: a case study. *Journal Science Teacher Education*, 21, 535-557.
5. Dolfing, R., Bulte, M.W., Pilot, A. & Vermunt, J.D. (2011). Domain-specific expertise of chemistry teachers on context-based education about macro-micro thinking in structure-property relations. *Research of Science Education*, DOI. 10.1007/s11165-011-9211-z.
6. Vaino, K., Holbrook, J. & Rannikmae, M. 2012. Stimulating students' intrinsic motivation for learning chemistry through the use of context-based learning. *Chem. Educ. Res. Pract.*, 13, 410-419
7. Cigdemoglu, C. & Geban, O. (2015). Improving students' chemical literacy levels on thermochemical and thermodynamics concept through a context-based approach. *Chem. Educ. Res. Pract.*, 16, 302-317.
8. Shwartz, Y., Ben-Zvi, R. & Hofstein, A. The use of scientific literacy taxonomy for assessing the development of chemical literacy among high-school students . *Chemistry Education Research and Practice*, 7 (4), 203-225.
9. Khasawneh, S.A., Olimat, Q., & Abu, T. (2008). Measuring the perceptions of vocational education students regarding the application of national vocational teacher standard in the classrooms: the key to human resource education in Jordan. *IJAES*, 2(1), 24-37.
10. Powell. C.B., Pamplin, K.L., Blake, R.E. & Mason, D.S. (2010). Summer professional development in chemistry for inservice teachers using owl quick prep. *Journal of Science Education Technology*, 19,126-132.
11. Khezerlou, E. (2013). Teacher autonomy perceptions of Iranian and Turkish EFL teachers. *Journal of History Culture and Art Research*, 2(2), 199-211.
12. Zhang, M., Lundeberg, M. & Ebehardt, J. (2011). Strategic facilitation of problem-based discussion for teacher professional development. *The Journal of The Learning Sciences*, 20, 342-394.
13. Ememe P.I., Aitokhuehi, MRS. O.O., Jegede, S. & Ojo-Ajibare, J.O. 2013. Enhancing teaching quality through continuing professional education. *European Journal of Educational Studies*, 5(2), 277-291
14. Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F. & Yoon, K.S. (2011). What makes professional development effective? result from a national sample of teachers. *American Educational Research Journal*, 38, 915-945.
15. Park, S.H., Jang, J.Y, Chen, Y.C., & Jung, J. (2011). Is pedagogical content knowledge (pck) necessary for reformed science teaching?: evidence from an empirical study. *Research in Science Education*, 41, 245-260.
16. Hume, A. & Berry, A. (2011). Constructing cores—a strategy for building pck in pre-service science teacher education. *Research in Science Education*, 41, 341-355.
17. Jong, S. & Chuan, S. (2009). Developing in-service science teachers' pck through a peer coaching-based model. *Education Research*, 3, 87-108.

18. Karaman, A. (2012). The place of pedagogical content knowledge in teacher education. *Atlas Journal of Science Education*, 2 (1), 56-60.
19. Karisan, D., Senay, A. & Ubuz, B. (2013). A science teacher's pck in classes with different academic success levels. *Journal of Educational and Instructional Studies*, 3(1), 22-31.
20. Williams, J. (2012). Using CoRe to develop the pedagogical content knowledge (PCK) of early career science and technology teachers. *Journal of Technology Education*, 24(1), 34-50.
21. Pendergast, D., Garvis, S. & Keogh, J. (2011). Pre-service student-teacher self-efficacy beliefs: an insight into making of teachers. *Australian Journal of Teacher Education*, 36 (12), 46-58.
22. Gavora, P. (2010). Slovak pre-service teacher self-efficacy: theoretical and research considerations. *The New Educational Review*, 21(2), 17-30.
23. Alkan, F. & Erdem, E. (2012). The relationship between teacher self-efficacy and competency perceptions of chemistry teacher candidates. *Procedia-Social and Behavioral Sciences*, 47, 1927-1932.

**Keterangan
Tambahan**

-

Nama Dosen : Prof. Dr. Sri Atun
NIP : 19651012 199001 2 001
Pangkat : Pembina Utama / IV e
Jabatan : Guru Besar
Nomor HP : 081320318642
Alamat e-mail : sriatun@uny.ac.id; Atun_1210@yahoo.com



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia organik
 - b. Kimia Organik Bahan Alam
 - c. Kimia Organik Analisis
 - d. Kimia Organik Polimer
 - e. Praktikum Kimia Organik

- 2. Program S-2**
 - a. Elusidasi struktur molekul organik
 - b. Praktikum pembelajaran kimia

Tema Penel. Pend. **Pengembangan Metode dan Media Pembelajaran Kimia**

Tema Penel. Pend. Khusus

1. Pengaruh pendekatan *technological pedagogical and content knowledge (TPACK)* dan *science environment technology society (SETS)* terhadap kemampuan literasi sains dan ketrampilan sosial.
2. Pengembangan metode pembelajaran berbasis inquiry dan discovery
3. Pengembangan pembelajaran berbasis TIK

Jaringan Penelitian -

Pustaka

1. Barak, M., & Dori, Y. (2005). Enhancing undergraduate Student's Chemistry Understanding Through Project-based Learning in an IT Environment. *Science Education* , 117-139.
2. So, H. J., & Kim, B. (2009). Learning About Problem Based Learning: Student Teacher Integrating Technology, Pedagogy and Content Knowledge. *Australasian Journal of Educational Technology* , 101-116.
3. Kalantzis M, Cope B, (2012). *New learning: Elements of a science of education.* Cambrige University Press.
4. Beheshtifar, M., & Norozy, T. (2013). Social Skill: A Factor to Employees' Success. *International Journal of Academi Research in Business and Social Science*, 74-79.

Keterangan Tambahan

Nama Dosen : Dr. Siti Sulastrri, M.S
NIP : 19511219197803 2 001
Pangkat : Pembina Utama Muda / IV c
Jabatan : Lektor Kepala
Nomor HP : 081328740848
Alamat e-mail : sulastrri_sunarto@yahoo.com



Pengalaman Mengajar **Program S-1**
a. Kimia Dasar
b. Kimia Analitik Dasar
c. Pemisahan Kimia
d. Kimia Analisis Instrumen
e. Metode Pemisahan dan Analisis Kimia
f. Pengajaran Mikro

Tema Penel. Pend. **Analisis Isi Buku dan Kurikulum**

Tema Penel. Pend. Khusus 1. Content Analysis (analisis isi buku ajar kimia serta perangkat pembelajaran lainnya ditinjau dari berbagai aspek)
2. Analisis pelaksanaan kurikulum pada pembelajaran kimia

Jaringan Penelitian -

Pustaka 1. Buku dan Journal tentang analisis isi
2. Buku dan Journal tentang pengembangan Kurikulum
3. Buku dan journal tentang pembelajaran kimia

Keterangan Tambahan .

Nama Dosen : Dr. Isana Supiah Yosephine Louise, M.Si
NIP : 19610923 198812 2 001
Pangkat : Pembina Utama Muda / IV c
Jabatan : Lektor Kepala
Nomor HP : 08157947745
Alamat e-mail : isana_supiah@uny.ac.id;
isanasyl2000@yahoo.com;
isylouise09@gmail.com



Pengalaman Mengajar

Program S-1

- a. Kesetimbangan Kimia
- b. Kimia Katalis
- c. Elektrokimia
- d. Ikatan Kimia
- e. Termodinamika
- f. Kimia Fisika IV
- g. Kimia Fisika II
- h. Kimia Fisika I
- i. Kimia Dasar
- j. Praktikum Kimia Dasar
- k. Praktikum Kimia Fisika I
- l. Praktikum Kimia Fisika II
- m. Praktikum Kimia Anorganik I
- n. Praktikum Kimia Anorganik II
- o. Praktikum Kimia Anorganik III
- p. Penelitian Kimia
- q. Pengajaran Mikro Kimia
- r. Praktek Pengalaman Lapangan

Tema Penel. Pend. **Keefektivan Pembelajaran, Pengembangan Media dan Metoda Pembelajaran**

Tema Penel. Pend. Khusus

1. Keefektivan pembelajaran IPA
2. Keefektivan pembelajaran Kimia
3. Pengembangan media dan metoda pembelajaran

Jaringan Penelitian --

Pustaka

1. Plass et al. (2012). Investigating the Effectiveness of Computer Simulations for Chemistry Learning. *Journal of Research in Science Teaching*. 49(3):394-419
2. Bransford, J.D., Brown, A.L., & Cocking, R.R. (Eds.) (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academies Press.
3. Clement, J. (1982). Students' preconceptions in introductory mechanics. *American Journal of physics*, **50**(1), 66-71.
4. Keil, F. (1994). The birth and nurturance of concepts by domains: The origins of concepts of living things. In L. Hirschfield & S. Gelman (Eds.), *Mapping the mind: Domain specificity in cognition and culture*. Cambridge: Cambridge University Press.

5. Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, **93**: 223-232.
6. Bruner, J. S. (1960). *The process of education*. Cambridge, MA: Harvard University Press.
7. Chiu, J. L. & Linn, M. C. (2012). The role of self-monitoring in learning chemistry with dynamic visualizations. *Metacognition in Science Education*, **40**:133-163.

**Keterangan
Tambahan**

--

Nama Dosen : Dr. Suyanta, M.Si
NIP : 19660508 199203 1 002
Pangkat : Pembina Tk I/ Ivb
Jabatan : Lektor Kepala
Nomor HP : 081578848275
Alamat e-mail : suyanta@uny.ac.id:
ytakimiauny@yahoo.com.au



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia Analitik Instrumen dan Praktikum
 - b. Kimia Analisis II dan Praktikumnya
 - c. Dasar-dasar Pemisahan Kimia dan Praktikumnya
 - d. Elektrokimia Analitik
 - e. Mikro Teaching
- 2. Program S-2**
 - a. Elektrokimia Analitik
 - b. Penulisan Karya Ilmiah

Tema Penel. Pend. ***Pengembangan Metode Pembelajaran Kimia dan Evaluasinya***

Tema Penel. Pend. Khusus

1. Pengembangan model-model pembelajaran Kimia
2. Pengembangan bahan ajar terutama yang terkait bidang kimia analitik untuk sekolah menengah
3. Pengembangan bahan ajar untuk materi redoks dan elektrokimia.
4. Pengembangan sistem penilaian untuk materi redoks, elektrokimia dan terkait kimia analitik.

Jaringan Penelitian

1. Internasional : - UPSI Malaysia
2. Nasional : - Pendidikan Kimia Unima Manado
- Pendidikan Kimia FMIPA UNM Makasar

Pustaka

1. Al-bashaireh, Zeid. (2011). Systemic Approach Effect on Achievement of Tafila School Students in Science. *International Journal of Humanities and Social Science*, 1 (3), p. 47-52
2. Fahmy, A.F.M., Lagowski, J.J. (2002). Systematic Approach To Teaching and Learning Chemistry: SALTC in Egypt. *Chemical Education International*, 3, p. 1-21.
3. Lagowski, J.J. (2008). SATL, Learning Theory, and the Physiology of Learning. *20th ICCE Proceeding, Mauritius, Aug.3-8 2008*.
4. Nana Syaodih Sukmadinata. (2008). *Metode Penelitian Tindakan*. Bandung: PT Remaja Rosdakarya

Keterangan Tambahan

Nama Dosen : Prof. K.H. Sugiyarto, Ph.D
NIP : 19480915 196806 1 001
Pangkat : Pembina Utama Madya / IV d
Jabatan : Guru Besar
Nomor HP : 08157935534
Alamat e-mail : sugiyarto@uny.ac.id;
sugiyartokristian@gmail.com;
kristiansugiyarto@yahoo.com



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia Anorganik I dan Praktikum
 - b. Kimia Anorganik II dan Praktikum
 - c. Kimia Anorganik III dan Praktikum
 - d. Kimia Anorganik IV (Aplikasi Kimiawi Teori Grup)
 - e. *English for Chemistry*
 - f. *English for Spesial Purpose*
 - g. Pendidikan Kewarganegaraan

- 2. Program S-2**
 - a. Spektroskopi Molekuler

Tema Penel. Pend.

- 1. Miskonsepsi dalam Pembelajaran Kimia**
- 2. Berbagai Metode dan Content Pembelajaran Kimia**
- 3. Media *Game* dalam Pembelajaran Kimia**

Tema Penel. Pend. Khusus *Misconception in Various Content of Chemistry*

Jaringan Penelitian

1. Internasional : - China dan Prince of Songkla University - Thailand
2. Nasional : - Pendidikan Kimia, Universitas Negeri Medan

Pustaka

1. Herron, J.D., (1996). *The chemistry classroom: formula for successful teaching*. Washington DC: American Chemical Society.
2. Pekmez, E.S. (2010). *Using analogies to prevent miscobception about chemical equilibrium*, 11, 1-38.
3. Suparno, P. (1997). *Filsfat konstruktivisme dalam pendidikan*
4. Novak, J.D; & Gowin, D.B. (1986). *Learning How to learn*

Keterangan Tambahan *Teaching English for Chemistry*

Nama Dosen : Dr. Amanatie, M.Pd. M.Si
NIP : 19521230 197603 2 001
Pangkat : Pembina Tk. I / IV b
Jabatan : Lektor Kepala
Nomor HP : 085868334117
Alamat e-mail : amanatie@uny.ac.id;
amanatie_ama@yahoo.com



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia Organik
 - b. Kimia Organik Fisik
 - c. Evaluasi Pendidikan
 - d. Metodologi Penelitian Pendidikan
 - e. Kimia Dasar
- 2. Program S-2**
 - a. Praktikum dan Proyek Kimia

Tema Penel. Pend. **Evaluasi Pembelajaran Kimia SMA**

Tema Penel. Pend. Khusus

1. *Class room of chemistry education* (Kaji tindak)
2. Evaluasi Implementasi Kurikulum Kimia SMA
3. Evaluasi Implementasi Pembelajaran Kimia SMA
4. Evaluasi pembelajaran Kimia SMA menggunakan SS-Chem

Jaringan Penelitian

1. Internasional : -
2. Nasional : -

Pustaka

1. J.P Guilford . *Psychometric Methods* . Mc Grow-Hill Book Company.Inc. Tokyo: Kogakusha Company.LTD
2. John P.Keeves. *The IEA Technical Handbook*. The International Association for the evaluation of educational Achievement (IEA).
3. Charles D.Hopkins and Richard L.Antes. (1990) *Classroom measurement and Evaluation*. F.E Peacock Publishers. Inc
4. Curtis R.Finch and John R.Crunkilton. *Curriculum Development in Vocational and Technical Education, Planning, Content, and Implementation*.London.Allyn and Bacon, Inc
5. Carol Taylor Fitz-Gibbon and Lynn Lyons Morris. *How to Design a program Evaluation* (1987). California: Sage Publication. Inc
6. Robert A. Levine, Marian A. Solomon., Gerd-Michael Helistern., Helimut Wollmann. *Evaluation research and Practice*. London: Sage Publications.Inc
7. James, P.Shaver. Handbook of research on social studies teaching and learning. New York: MacMillan Publising Company

Keterangan Tambahan

S1 IKIP NEGERI YOGYAKARTA
S2- PEP IKIP JAKARTA di Yogyakarta dan S2 Kimia Organik UGM
S3 Kimia Organik UGM
Judul Tesis S2 : Evaluasi Implementasi Program Tahap Pertama Bersama (TPB)
Kurikulum Pendidikan MIPA –LPTK Strata Satu
Pembimbing: 1. Prof. Dr. Sukardjo dan 2. Dr. Fx. Sudarsono, MA.

Nama Dosen : Prof. AK. Prodjosantoso, PhD.
NIP : 19601028 198503 1 002
Pangkat : Pembina Utama / IV e
Jabatan : Guru Besar
Nomor HP : 085726353694
Alamat e-mail : prodjosantoso@uny.ac.id
prodjosantoso@yahoo.com



Pengalaman Mengajar

- 1. Program S-1**
 - a. Kimia Anorganik Logam
 - b. Kimia Organologam
 - c. Kimia Anorganik Sintesis
 - d. Mikroteaching
 - e. Kimia Lingkungan
- 2. Program S-2**
 - a. Kimia Struktur Anorganik
 - b. Filsafat Sains
- 3. Program S-3**
 - a. Kimia dalam IPA
 - b. Nanokimia dan Nanomaterial

Tema Penel. Pend. **Metode dan Pendekatan Pembelajaran Kimia yang Efektif**

Tema Penel. Pend. Khusus

1. Inovasi metode pembelajaran kimia di sekolah menengah.
2. Hambatan aplikasi metode pembelajaran kimia di sekolah menengah.
3. *Efektifitas* aplikasi metode pembelajaran pada kemampuan kognitif dan kemampuan non kognitif pada siswa di sekolah menengah.

Jaringan Penelitian

1. Internasional : Sydney University, Sydney, Australia.
2. Nasional : - Pendidikan Kimia, UNJ, Jakarta.
- Pendidikan Kimia, Universitas Palangkaraya, Palangkaraya.

Pustaka

1. Ingo Eilks and Bill Byers. (2010). The need for innovative methods of teaching and learning chemistry in higher education. *Chem. Educ. Res. Pract.* 11. 233-240 doi: 10.1039/C0RP90004D.
2. Takbir Ali. (2012). A Case Study of the Common Difficulties Experienced by High School Students in Chemistry Classroom in Gilgit-Baltistan (Pakistan). *Sage Journals*. May¹⁶. doi: 10.1177/2158244012447299.
3. Nathan L. Charnock. (2016). Teaching Methods for Balancing Chemical Equations: An Inspection versus an Algebraic Approach. *American Journal of Educational Research*. Vol. 4. No. 7. pp 507-511. doi: 10.12691.
4. Nor Hasniza Ibrahim, Johari Surif, Khew Pei Hui, Safiah Yaakub. 2014. "Typical" Teaching Method Applied in Chemistry Experiment. *Procedia - Social and Behavioral Sciences*. Volume 116, 21 February, Pages 4946-4954.
5. Hagen, J.P. (2000). Cooperative learning in organic chemistry: Increase retention on a commuter campus. *Journal of Chemical Education*. 77(11), 1441-1444.

6. Lin, Y. and Lin, Z. (2003). Using appropriate strategies to improve teaching and learning in organic chemistry and organic chemical experiment course. *The China Papers*. 2, 34-38.
7. Ram, P. (1999) Problem-based learning in undergraduate education. *Journal of Chemical Education*. 76(8), 1122- 1126.
8. Hass, M.A. (2000) Student-Directed learning in organic chemistry laboratory. *Journal of Chemical Education*. 77(8), 1035-1038.
9. Lagowski, J.J. (1990). Retention rates for student learning. *Journal of Chemical Education*. 67, 811-812.

**Keterangan
Tambahan**

Memiliki keahlian dalam microteaching.