

**PENGARUH METODE *PROBLEM BASED LEARNING* DAN *GUIDED INQUIRY LEARNING* TERHADAP KEMAMPUAN BERPIKIR KRITIS PESERTA DIDIK DI MODERASI OLEH MOTIVASI BELAJAR**  
**(Studi Kuasi Eksperimen Pada Mata Pelajaran Ekonomi di SMA Plus Negeri 17 Palembang)**

**TESIS**

Diajukan untuk memenuhi Sebagian syarat untuk memperoleh gelar Magister Pendidikan Ekonomi



Oleh:

**Muhammad Samadya Liyanto  
1803034**

**PROGRAM STUDI PENDIDIKAN EKONOMI  
SEKOLAH PASCASARJANA  
UNIVERSITAS PENDIDIKAN INDONESIA  
2020**

**PENGARUH METODE *PROBLEM BASED LEARNING* DAN *GUIDED INQUIRY LEARNING* TERHADAP KEMAMPUAN BERPIKIR KRITIS PESERTA DIDIK DI MODERASI OLEH MOTIVASI BELAJAR  
(Studi Kuasi Eksperimen Pada Mata Pelajaran Ekonomi di SMA Plus Negeri 17 Palembang)**

Oleh

Muhammad Samadya Liyanto  
NIM 1803034

Sebuah Tesis yang diajukan untuk memenuhi salah satu syarat memperoleh gelar Magister Pendidikan (M.Pd.) pada Sekolah Pascasarjana Program Studi Pendidikan Ekonomi Sekolah Pascasarjana Universitas Pendidikan Indonesia

© Muhammad Samadya Liyanto  
Universitas Pendidikan Indonesia  
September 2020

Hak Cipta dilindungi undang-undang.  
Tesis ini tidak boleh diperbanyak seluruhnya atau sebagian,  
dengan dicetak ulang, difoto kopi, atau cara lainnya tanpa ijin dari penulis

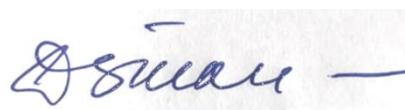
## LEMBAR PENGESAHAN

MUHAMMAD SAMADYA LIYANTO  
NIM. 1803034

PENGARUH METODE PROBLEM BASED LEARNING DAN GUIDED  
INQUIRY LEARNING TERHADAP KEMAMPUAN BERPIKIR KRITIS  
PESERTA DIDIK DI MODERASI OLEH MOTIVASI BELAJAR  
(Studi Kuasi Eksperimen Pada Mata Pelajaran Ekonomi  
di SMA Plus Negeri 17 Palembang)

Disidangkan pada tanggal 25 September 2020  
Disetujui dan disahkan oleh :

Pembimbing I



Prof. Dr. H. Disman, M.S.

NIP. 195902091984121001

Penguji I

Pembimbing II



Dr. H. Dadang Dahlan, M.Pd

NIP. 1957120519820301002

Penguji II



Dr. Ikaputera Waspada, M.M

NIP: 196104201987031002



Dr. Hj. Neti Budiwati, M.Si.

NIP: 196302211987032001

Mengetahui,  
Ketua Program Studi Pendidikan Ekonomi  
Sekolah Pascasarjana Universitas Pendidikan Indonesia



Prof. Dr. H. Hari Mulyadi, M.Si.

NIP: 195905151986011001

**PENGARUH METODE PROBLEM BASED LEARNING DAN GUIDED  
INQUIRY LEARNING TERHADAP KEMAMPUAN BERPIKIR KRITIS  
PESERTA DIDIK DI MODERASI OLEH MOTIVASI BELAJAR**  
**(Studi Kuasi Eksperimen pada Mata Pelajaran Ekonomi  
di SMA Plus Negeri 17 Palembang)**

**Muhammad Samadya Liyanto**

**Abstrak**

Penelitian ini bertujuan untuk mengetahui perbedaan pengaruh kemampuan berpikir kritis peserta didik yang menggunakan metode *problem based learning* dan metode *guided inquiry learning*, untuk mengetahui perbedaan kemampuan berpikir kritis pada tingkat *motivasi belajar* tinggi, sedang, dan rendah, dan interaksi antara metode *problem based learning* dan metode *guided inquiry learning* dengan *motivasi belajar* terhadap kemampuan berpikir kritis peserta didik. Penelitian ini merupakan studi kuasi eksperimen dengan desain faktorial 3x3. Adapun alat pengumpulan data menggunakan tes kemampuan berpikir kritis dan kuesioner *motivasi belajar*. Analisis data menggunakan inferensial parametris *two way anova SPSS Versi 25*. Hasil penelitian menunjukkan bahwa: 1) Terdapat perbedaan pengaruh kemampuan berpikir kritis peserta didik pada kelas yang menggunakan metode *problem based learning* dan metode *guided inquiry learning*, 2) terdapat perbedaan kemampuan berpikir kritis pada tingkat motivasi belajar, 3) terdapat interaksi metode *problem based learning* dan metode *guided inquiry learning* dengan motivasi belajar terhadap kemampuan berpikir kritis peserta didik.

**Kata Kunci:** Kemampuan berpikir kritis, metode *problem based learning*, metode *guided inquiry learning*, dan motivasi belajar

**THE EFFECT OF PROBLEM BASED LEARNING AND GUIDED  
INQUIRY LEARNING METHODS MODERATED BY LEARNING  
MOTIVATION ON STUDENTS' CRITICAL THINKING SKILL  
(A Quasi Experimental Study on Economics in SMA Plus Negeri 17  
Palembang)**

**Muhammad Smadya Liyanto**

**Abstract**

This study aimed to determine the effect of problem based learning and guided inquiry learning methods on critical thinking skill, the effect of learning motivation on critical thinking skill, and the effect of the interaction between problem based learning method, guided inquiry learning method, and learning motivation on creative thinking skill. this study was a quasi-experimental study with 3x3 factorial design. the data were collected by using tests critical thinking skill and learning motivation questionnaires. the data were analyzed by using two-way anova spss version 25. the result of the study revealed that: 1) there was an effect of problem based learning and guided inquiry learning methods on critical thinking skill, 2) there was an effect of learning motivation on critical thinking skill, 3) there was an effect of the interaction between problem based learning method, guided inquiry learning method, and learning motivation on critical thinking skill

**Keywords:** Critical thinking skill, problem based learning method, guided inquiry learning method, and learning motivation

## DAFTAR ISI

	Halaman
<b>HALAMAN JUDUL .....</b>	<b>i</b>
<b>LEMBAR PENGESAHAN .....</b>	<b>iii</b>
<b>KATA PENGANTAR.....</b>	<b>iv</b>
<b>PERNYATAAN KEASLIAN TESIS .....</b>	<b>v</b>
<b>UCAPAN TERIMA KASIH.....</b>	<b>vi</b>
<b>ABSTRAK .....</b>	<b>viii</b>
<b>ABSTRACT .....</b>	<b>ix</b>
<b>DAFTAR ISI.....</b>	<b>x</b>
<b>DAFTAR TABEL.....</b>	<b>xiv</b>
<b>DAFTAR GAMBAR.....</b>	<b>xvi</b>
<b>BAB I .....</b>	<b>1</b>
<b>PENDAHULUAN.....</b>	<b>1</b>
1.1 Latar Belakang Masalah.....	1
1.2 Rumusan Masalah .....	8
1.3. Tujuan Penelitian .....	8
1.4. Manfaat Penelitian .....	8
<b>BAB II .....</b>	<b>10</b>
<b>KAJIAN PUSTAKA, KERANGKA PEMIKIRAN DAN HIPOTESIS.....</b>	<b>10</b>
2.1. Kemampuan Berpikir Kritis .....	10
2.1.1. Definisi Kemampuan Berpikir Kritis .....	10
2.1.2. Karakteristik Kemampuan Berpikir Kritis .....	11
2.1.3. Indikator Kemampuan Berpikir Kritis .....	13
2.1.4. Manfaat Kemampuan Berpikir Kritis.....	15
2.1.5. Faktor-Faktor yang Mempengaruhi Kemampuan Berpikir Kritis .....	16
2.2. Metode <i>Problem Based Learning</i> .....	16
2.2.1. Definisi <i>Problem Based Learning</i> .....	16
2.2.2. Landasan Teori Belajar pada Metode <i>Problem Based Learning</i> .....	18
2.2.3. Karakteristik Metode <i>Problem Based Learning</i> .....	20

Muhammad Samadya Liyanto, 2020

*PENGARUH METODE PROBLEM BASED LEARNING DAN GUIDED INQUIRY LEARNING TERHADAP KEMAMPUAN BERPIKIR KRITIS PESERTA DIDIK DI MODERASI OLEH MOTIVASI BELAJAR*  
Universitas Pendidikan Indonesia | repository.upi | perpustakaan.upi.edu

2.2.4. Langkah-langkah Metode <i>Problem Based Learning</i> .....	21
2.2.5. Keunggulan dan Kelemahan Metode <i>Problem Based Learning</i> .....	23
2.3. Metode <i>Guided Inquiry Learning</i> .....	24
2.3.1. Definisi Metode <i>Guided Inquiry Learning</i> .....	24
2.3.2. Landasan Teori Belajar pada Metode <i>Guided Inquiry Learning</i> .....	25
2.3.3. Karakteristik Metode <i>Guided Inquiry Learning</i> .....	27
2.3.4. Langkah-Langkah Metode <i>Guided Inquiry Learning</i> .....	27
2.3.5. Keunggulan dan Kelemahan Metode <i>Guided Inquiry Learning</i> .....	29
2.4. Motivasi Belajar.....	30
2.4.1. Definisi Motivasi Belajar .....	30
2.4.2. Faktor-Faktor yang Mempengaruhi Motivasi Belajar.....	31
2.4.3. Manfaat Motivasi Belajar.....	33
2.4.4. Indikator Motivasi Belajar .....	33
2.5. Penelitian Terdahulu .....	35
2.6. Kerangka Pemikiran.....	40
2.7. Paradigma Penelitian.....	45
2.8. Hipotesis Penelitian.....	45
<b>BAB III.....</b>	<b>46</b>
<b>METODE PENELITIAN .....</b>	<b>46</b>
3.1. Metode Penelitian.....	46
3.2. Desain Penelitian.....	46
3.3. Objek Penelitian .....	47
3.4. Definisi Operasional Variabel.....	47
3.4.1. Kemampuan Berpikir Kritis .....	48
3.4.2. Metode <i>Problem Based Learning</i> .....	48
3.4.3. Metode <i>Guided Inquiry Learning</i> .....	49
3.4.4. Motivasi Belajar .....	50
3.5. Instrumen Penelitian.....	51
3.5.1. Tes .....	51
3.5.2. Kuisioner .....	53
3.6. Pengujian Instrumen Penelitian.....	55

3.6.1. Tes .....	55
3.6.2. Kuisioner .....	60
3.7. Prosedur Penelitian.....	64
3.8. Teknik Pengolahan Data .....	66
3.9. Teknik Analisis Data.....	66
3.9.1. Uji Normalitas.....	66
3.9.2. Uji Homogenitas .....	67
3.9.3. Uji Hipotesis.....	67
<b>BAB IV .....</b>	<b>69</b>
<b>HASIL PENELITIAN DAN PEMBAHASAN .....</b>	<b>69</b>
4.1. Deskripsi Lokasi Penelitian.....	69
4.2. Deskripsi Subjek Penelitian .....	70
4.3. Deskripsi Pelaksanaan Penelitian.....	71
4.3.1. Kelas Eksperimen 1 menggunakan Metode <i>Problem Based Learning</i> .....	72
4.3.2. Kelas Eksperimen 2 menggunakan Metode <i>Guided Inquiry Learning</i> .....	73
4.3.3. Kelas Kontrol menggunakan Metode Diskusi .....	74
4.4. Hasil Pengolahan Data Kemampuan Berpikir Kritis Peserta Didik.....	75
4.4.1. Kemampuan Berpikir Kritis Peserta didik Kelas Eksperimen dan Kelas Kontrol .....	75
4.4.2. Ketuntasan Indikator Kemampuan Berpikir Kritis Peserta Didik.....	77
4.5. Hasil Pengolahan Data Motivasi Belajar Peserta Didik.....	79
4.5.1. Kategori Motivasi Belajar .....	80
4.6. Hasil Analisis Data.....	82
4.6.1. Hasil Uji Normalitas .....	82
4.6.2. Hasil Uji Homogenitas .....	83
4.6.3. Hasil Uji N-Gain .....	84
4.6.4. Uji Hipotesis.....	84
4.7. Pembahasan Hasil Penelitian .....	96
4.7.1. Pengaruh Metode <i>Problem Based Learning</i> dan Metode <i>Guided Inquiry Learning</i> terhadap Kemampuan Berpikir Kritis .....	96
4.7.2. Pengaruh Motivasi Belajar Terhadap Kemampuan Berpikir Kritis ..	101

4.7.3. Pengaruh Interaksi Antara Metode <i>Problem Based Learning</i> dan Metode <i>Guided Inquiry Learning</i> Terhadap Kemampuan Berpikir Kritis...	103
4.8. Keterbatasan Penelitian.....	106
<b>BAB V.....</b>	<b>108</b>
<b>KESIMPULAN DAN SARA .....</b>	<b>108</b>
5.1. Kesimpulan .....	108
5.2. Saran.....	109
<b>DAFTAR PUSTAKA .....</b>	<b>110</b>
<b>LAMPIRAN.....</b>	<b>118</b>

## **DAFTAR TABEL**

Tabel 1. 1 Nilai Rata-Rata Ujian Nasional (UN) Mata Pelajaran Ekonomi.....	3
Tabel 1. 2 Hasil Tes Kemampuan Berpikir Kritis Peserta Didik Pada Mata Pelajaran Ekonomi Kelas XI SMA Plus Negeri 17 Palembang Tahun Ajaran 2019/2020.....	4
Tabel 2. 1 Indikator Kemampuan Berpikir Kritis .....	13
Tabel 2. 2 Langkah-Langkah Metode <i>Problem Based Learning</i> .....	21
Tabel 2. 3 Langkah-Langkah Metode <i>Guided Inquiry Learning</i> .....	28
Tabel 2. 4 Penelitian Terdahulu .....	35
Tabel 3. 1 Desain Faktorial 3x3 .....	46
Tabel 3. 2 Indikator Kemampuan Berpikir Kritis .....	48
Tabel 3. 3 Langkah-Langkah Metode <i>Problem Based Learning</i> .....	49
Tabel 3. 4 Langkah-Langkah Metode <i>Guided Inquiry Learning</i> .....	49
Tabel 3. 5 Operasional Variabel Motivasi Belajar .....	50
Tabel 3. 6 Rubrik Skor Kemampuan Berpikir Kritis .....	52
Tabel 3. 7 Kriteria Kemampuan Berpikir Kritis Peserta Didik.....	53
Tabel 3. 8 Skor Penilaian Pilihan Jawaban Angket.....	54
Tabel 3. 9 Pengkategorian Motivasi Belajar .....	54
Tabel 3. 10 Hasil Uji Validitas Soal Kemampuan Berpikir Kritis.....	56
Tabel 3. 11 Interpretasi Nilai r .....	57
Tabel 3. 12 Interpretasi Indeks Kesukaran.....	57
Tabel 3. 13 Hasil Uji Tingkat Kesukaran Instrumen Tes Kemampuan Berpikir Kritis.....	58
Tabel 3. 14 Interpretasi Indeks Diskriminasi .....	58
Tabel 3. 15 Hasil Uji Daya Pembeda Instrumen Tes Kemampuan Berpikir Kritis.....	59
Tabel 3. 16 Hasil Uji Validitas Per Item Motivasi Belajar Peserta Didik.....	60
Tabel 3. 17 Hasil Uji Validitas Per Indikator Motivasi Belajar Peserta Didik .....	61

Muhammad Samadya Liyanto, 2020

**PENGARUH METODE PROBLEM BASED LEARNING DAN GUIDED INQUIRY LEARNING TERHADAP KEMAMPUAN BERPIKIR KRITIS PESERTA DIDIK DI MODERASI OLEH MOTIVASI BELAJAR**  
Universitas Pendidikan Indonesia | repository.upi | perpustakaan.upi.edu

Tabel 3. 18 Hasil Uji Validitas Per Indikator Motivasi Belajar Peserta Didik .....	62
Tabel 3. 19 Interpretasi Nilai r .....	64
Tabel 3. 20 Hasil Rekapitulasi Uji Reliabilitas Soal Kemampuan Berpikir Kritis.....	64
Tabel 3. 21 Kategori N-Gain Ternormalisasi.....	66
Tabel 4. 1 Jumlah Peserta Didik Kelas XI SMA Plus Negeri 17 Palembang Tahun Ajaran 2019/2020.....	69
Tabel 4. 2 Perbandingan Hasil PreTest Untuk Penentuan Kelas .....	71
Tabel 4. 3 Deskriptif Statistik Keampuan Berpikir Kritis Kelas Eksperimen 1, Kelas Eksperimen 2 dan Kelas Kontrol .....	76
Tabel 4. 4 Pengkategorian Motivasi Belajar .....	80
Tabel 4. 5 Deskripsi Kategori Motivasi Belajar Peserta Didik Pada Eksperimen 1, Kelas Eksperimen 2 dan Kelas Kontrol .....	80
Tabel 4. 6 Hasil Uji Normalitas Kemampuan Berpikir Kritis Peserta Didik Kelas Eksperimen 1, Kelas Eksperimen 2, dan Kelas Kontrol .....	82
Tabel 4. 7 Hasil Uji Homogenitas Kemampuan Berpikir Kritis Peserta Didik Kelas Eksperimen 1, Kelas Eksperimen 2, dan Kelas Kontrol .....	83
Tabel 4. 8 Hasil Uji N-Gain Kemampuan Berpikir Kritis Kelas Eksperimen 1, (Metode <i>Problem Based Learning</i> ) dan Kelas Eksperimen 2 (Metode <i>Guided Inquiry Learning</i> ) .....	84
Tabel 4. 9 Hasil Pengujian <i>Anova Between Suject Effects</i> .....	86
Tabel 4. 10 Deskripsi Statistik Variabel <i>Post Hoc Test</i> .....	89
Tabel 4. 11 <i>Simple Effect</i> .....	89
Tabel 4. 12 Hasil Analisis <i>Post Hoc Test</i> Variabel Interaksi .....	90

## **DAFTAR GAMBAR**

Gambar 2. 1 Kerangka Pemikiran .....	44
Gambar 2. 2 Paradigma Penelitian .....	45
Gambar 3. 1 Prosedur Penelitian.....	65
Gambar 4. 1 Perbedaan Rata-Rata Nilai Posttest Kemampuan Berpikir Kritis Peserta Didik Kelas Eksperimen 1, Kelas Eksperimen 2 dan Kelas Kontrol.....	76
Gambar 4. 2 Persentase Ketuntasan Indikator Kemampuan Berpikir Kritis Kelas Eksperimen 1, Kelas Eksperimen 2, dan Kelas Kontrol .....	78
Gambar 4. 3 Kategori Motivasi Belajar Peserta Didik di Kelas Eksperimen 1, Kelas Eksperimen 2, dan Kelas Kontrol.....	81
Gambar 4. 4 Profile Plots Means of Kemampuan Berpikir Kritis .....	87
Gambar 4. 5 Interpretasi Variabel Interaksi Metode Pembelajaran dengan Motivasi Belajar Peserta Didik.....	95

## DAFTAR PUSTAKA

**Sumber Buku:**

- Amir, M. Taufiq. (2009). *Inovasi Pendidikan Melalui Problem Based Learning*. Jakarta: Kencana Pernada Media Group.
- Anggelo. (1996). *Berfikir Mendalam*, Bandung: Sinar Baru Algensindo.
- Arends, R. I. (2008). *Learning to Teach: Belajar untuk mengajar*. Yogyakarta: Pustaka Pelajar.
- \_\_\_\_\_. (2012). *Learning to Teach: Ninth Edition*. USA: The McGraw-Hill Companies.
- \_\_\_\_\_. (2013). *Learning to Teach: Belajar untuk mengajar*. Jakarta: Salemba Humanika.
- Arikunto, S. (2012). *Dasar – Dasar Evaluasi Pendidikan*. Jakarta: Bumi aksara.
- \_\_\_\_\_. (2013). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
- Barrows, H. S., & Tamblyn, R. M. (1980). *Problem-based learning: An approach to medical education*. Springer Publishing Company.
- Budiwati, N., & Permana, L. (2010). Perencanaan Pembelajaran Ekonomi. Bandung: *Laboratorium ekonomi dan Koperasi*.
- Budi, Triton Prawira. 2006. *SPSS 13.0 Terapan; Riset Statistik Parametrik*. Yogyakarta: C.V ANDI OFFSET.
- Cece Wijaya. (2010). *Pendidikan Remedial: Sarana Pengembangan Mutu Sumber Daya Manusia*. Bandung: Remaja Rosdakarya.
- Cruickshank, D. R., Jenkins, D. B., & Metcalf, K. K. (2006). *The act of teaching*. New York: McGraw Hill.
- Dimyanti & Mudjiono. (2009). *Belajar dan Pembelajaran*. Jakarta: Rineka Cipta.
- Feldman, A. D. (2010). *Berpikir Kritis: Strategi Untuk Pengambilan Keputusan*. Jakarta: Indeks
- Fisher, A. (2009). *Berpikir kritis sebuah pengantar*. Jakarta: Erlangga.
- Gulo. (2008). *Strategi Belajar Mengajar*. Jakarta: Grasindo.
- Hamalik, Oemar. (2007). *Proses Belajar Mengajar, Cet. 6*. Jakarta: Bumi Aksara.
- Handoko, Hani T. 2008. *Manajemen Personalia dan Sumber Daya Manusia*. BPFE: Yogyakarta.
- Isjoni. (2010). *Pembelajaran Kooperatif meningkatkan Kecerdasan Komunikasi Antar Peserta Didik*. Yogyakarta: Pustaka Pelajar.
- Johnson, Elaine. B. (2002). *Contextual Teaching and Learning. Menjadikan Kegiatan Belajar Mengajar Mengasikkan dan Bermakna*. Bandung: MLC
- Kemendikbud (2014). *Materi Pelatihan Implementasi Kurikulum 2013*. Jakarta: Kemendikbud.
- \_\_\_\_\_. (2017). *Panduan Penilaian oleh Pendidik dan Satuan Pendidikan untuk Sekolah Menengah Atas*. Jakarta: Direktorat Jenderal Pendidikan Dasar dan Menengah
- Kuhlthau, C. C., L. K. Maniotes, and A. K. Caspari. (2007). *Guided inquiry: Learning in the 21st century*. Westport, CT: Libraries Unlimited.
- Lang, H. R., & Evans, D. N. (2006). *Methods, Strategies, And Methods for Effective Teaching*. USA: Pearson Education.

- Mason, M. 2008. *Critical Thinking and Learning*. Australia: Blackwell Publishing.
- Memes, Wayan. (2000). *Model Pembelajaran Fisika di SMP*. Jakarta: Proyek Pengembangan Guru Sekolah Menengah Depdiknas.
- Milan, Mc. and Schumacher, S. (2001). *Research Education*. New York: Longman.
- Ngalimun. (2016). *Strategi dan Model Pembelajaran*. Yogyakarta: Aswaja Pressindo.
- Paul, R., & Elder, L. (2013). *Critical thinking: Tools for taking charge of your professional and personal life*. Pearson Education.
- Prayitno, E. (1989). *Motivasi Dalam Belajar*. Jakarta. FKIP IKIP Padang.
- Purwanto, N. (2010). *Prinsip-Prinsip dan Teknik Evaluasi Pengajaran*. Bandung: Remaja Rosdakarya.
- Ratumanan. (2004). *Model Pembelajaran Menciptakan Proses Belajar Mengajar yang Kreatif dan Efektif*. Jakarta: Bumi Aksara.
- Riduwan. (2015). *Dasar-Dasar Statistika*, Bandung: Alfabeta.
- Sadia, I Wayan. (2014). *Model-Model Pembelajaran Sains Konstruktivistik*. Yogyakarta: Kencana Prenada Media Grup.
- Sagala, Syaiful. (2006). *Konsep dan makna Pembelajaran*. Bandung: Alfabeta.
- Sani, R. A. (2013). *Inovasi Pembelajaran*. Jakarta: Bumi Aksar.
- Sanjaya, W. (2008). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana Prenada Media Group.
- Santrock, W., J. (2008). *Psikologi Pendidikan*. Jakarta: Kencara Prenada Media Grup.
- Sardiman, A.M. (2016). *Interaksi & motivasi belajar mengajar*. Jakarta: Grafindo Persada.
- Slavin, R. E. (2011). *Educational Psychology: Theory and practice, 9th ed (terjemahan oleh Marianto Samosir)*, Jilid 2. Jakarta Barat: Indeks.
- Sudijono, A. (2011). *Pengantar Evaluasi Pendidikan*. Jakarta: Rajawali Press.
- Sudjana, Nana. (2009). *Penilaian Hasil Proses Belajar Mengajar*. Bandung: Remaja Rosdakarya.
- Sugiyono. (2012). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Bandung: Alfabetha.
- Trianto. (2009). *Mendesain Model Pembelajaran Inovatif-Progresif*. Jakarta: Kencana Prenada Media Group.
- \_\_\_\_\_. (2010). *Model Pembelajaran Terpadu*. Jakarta: Bumi Aksara.
- \_\_\_\_\_. (2011). *Pembelajaran Inovatif Berorientasi Konstruktivistik. (Konsep, Landasan Teori, Praktis dan Implementasinya)*. Jakarta: Prestasi Pustaka Publisher.
- Uno, H. B. (2011). *Teori Motivasi dan Pengukurannya*. Jakarta: Bumi Aksara.
- Uno, H. B., & Mohamad, N. (2011). *Belajar dengan pendekatan PAILKEM*. Jakarta: Bumi Aksara.
- Wardoyo, Sigit M. (2013). *Pembelajaran Berbasis Riset*. Jakarta: Akamedia Permata.
- Widoyoko, Eko Putro. (2017). *Teknik Penyusunan Instrumen Penelitian*. Yogyakarta: Pustaka Pelajar.
- Wilis., R., & Dahar. (2006). *Teori-Teori Belajar dan Pembelajaran*. Bandung: Erlangga.

Woolfolk, A.E. 2004. *Educational psychology*. 9th edn. New York: Pearson.

**Sumber Jurnal:**

- Ak, O., & Özkarde, R. (2007). *The Effects of Problem-Based Active Learning in Science Education on Students' Academic Achievement, Attitude and Concept*. *Online Submission*, 3(1), 71-81.
- Akioka, E., & Gilmore, L. (2013). *An intervention to improve motivation for homework*. Australian Journal of Guidance and Counselling, 23(1), 34–48. <https://doi.org/10.1017/jgc.2013.2>
- Amiratul H., & Harun, N. (2016). *Implementation of Guided Inquiry Learning Model to Practice Critical Thinking Skill on Chemical Equilibrium Material at SMA Negeri 1 Probolinggo*. UNESA Journal of Chemical Education. Vol. 5 No. 1, pp 159-166.
- Anazifa, R. D. (2016). *The effect of problem-based learning on critical thinking skills and student achievement*. In Proceedings of International Conference on Research, Implementation and Education of Mathematics and Science, (hal. 43-48). Yogyakarta.
- Anggraeni, S. W. (2015). *Hubungan Motivasi Berprestasi Dan Kemampuan Berpikir Kritis Dengan Kemampuan Menulis Narasi*. Jurnal Pendidikan Dasar, 6(1), 165 - 176. <https://doi.org/10.21009/JPD.061.14>
- Asri T., P., & Budi, J. (2013). *Implementasi Model Pembelajaran Inkuiiri Terbimbing (Guided Inquiry) terhadap Kemampuan Berpikir Kritis Peserta didik Pada Pembelajaran Fisika Materi Fluida Statis Kelas XI di SMA Negeri 2 Sidoarjo*. Jurnal Inovasi Pendidikan Fisika, Vol. 02 No. 03, 121-125.
- Avsec, S., & Kocijancic, S. (2014). *The effect of the use of an inquiry-based approach in an open learning middle school hydraulic turbine optimisation course*. World Transactions on Engineering and Technology Education, 12(3), 329–337.
- Bailin, S. (1987). *Critical and Creative Thinking*. Informal logic, 9(1).
- Bakar, R. (2014). *The effect of learning motivation on students productive competencies in vocational high school, West Sumatra*. International Journal of Asian Social Science, 4(6), 2226–5139.
- Behar-Horenstein, L. S., & Niu, L. (2011). *Teaching Critical Thinking Skills In Higher Education: A Review Of The Literature*. Journal of College Teaching & Learning (TLC), 8(2), 25–42. <https://doi.org/10.19030/tlc.v8i2.3554>
- Bentley, D. C. (2014). *Inquiry Guided Learning Projects for the Development of Critical Thinking in the College Classroom: a pilot study*. Collected Essays on Learning and Teaching, 7(2), 112. <https://doi.org/10.22329/celt.v7i2.3981>
- Ceker, E. & Ozdamli, F. (2016). *Features and characteristics of problem based learning*. Cypriot Journal of Educational Sciences, 11(4), 195-202.
- Coombs, G., & Elden, M. (2004). *Introduction to the special issue: Problem-based learning as social inquiry—PBL and management education*. Journal of Management Education, 28(5), 523–535. <https://doi.org/10.1177/1052562904267540>
- Cruickshank, R, Jenkin, D.B. & Metcalf, K. . (2006). *The act of teaching*. New York: McGraw Hill. International Journal of Nursing Sciences, 4(2), 128–134.

- <https://doi.org/10.1016/j.ijnss.2017.02.006>
- De Witte, K., & Rogge, N. (2016). *Problem-based learning in secondary education: evaluation by an experiment*. Education Economics, 24(1), 58–82. <https://doi.org/10.1080/09645292.2014.966061>
- Dehkordi, A. H., & Heydarnejad, M. S. (2008). *The effects of problem-based learning and lecturing on the development of Iranian nursing students' critical thinking*. Pakistan Journal of Medical Sciences, 24(5), 740–743. <https://doi.org/10.1111/j.1365-2929.2006.02481.x>
- Dewi, E. K., & Jatiningsih, O. (2015). Pengaruh Penggunaan Model Pembelajaran Problem Based Learning Terhadap Kemampuan Berpikir Kritis Peserta didik pada Mata Pelajaran PPKn Kelas X SMAN 22 Surabaya. Kajian Moral Dan Kewarganegaraan, 02, 936–950. <https://doi.org/10.1007/s10237-014-0598-0>
- Djafar, Fatmawati. (2015). *Rendahnya Prestasi Peserta Didik di Indonesia*. World Applied Sciences Journal, 1-10.
- Duron, R., Limbach, B., & Waugh, W. (2006). *Critical thinking framework for any discipline*. International Journal of Teaching and Learning in Higher Education, 17(2), 160–166.
- Dwyer, C. P., Hogan, M. J., & Stewart, I. (2012). *An evaluation of argument mapping as a method of enhancing critical thinking performance in e-learning environments*. Metacognition and Learning, 7(3), 219–244. <https://doi.org/10.1007/s11409-012-9092-1>
- Edora. (2014). *Pengaruh Metode Pembelajaran Problem Based Learning Terhadap Peningkatan Kemampuan Berpikir Kritis Peserta Didik*. Oikos: Jurnal Kajian Pendidikan Ekonomi dan Ilmu Ekonomi, 1(2), 1-13.
- El-shaer, A., & Gaber, H. (2014). *Impact of Problem-Based Learning on Students` Critical Thinking Dispositions, Knowledge Acquisition and Retention*. Journal of Education and Practices, 5(14), 74–86.
- Facione, N. C. & P. A. F. (2008). *Clinical Reasoning in the Health Sciences: an International Multidisciplinary Teaching Anthology*. In The California Academic Press (Vol. 285, Issue July). [https://doi.org/10.1016/S1607-551X\(08\)70131-1](https://doi.org/10.1016/S1607-551X(08)70131-1)
- Gambrill, E. (2006). *Evidence-based practice and policy: Choices ahead*. Research on Social Work Practice, 16(3), 338–357. <https://doi.org/10.1177/1049731505284205>
- Gholami, M., dkk. (2016). *Comparing the Effects of Problem-based Learning and The Traditional Lecture Method on Critical Thinking Skills and Metacognitive Awarness In Nursing Students In a Critical Care Nursing Course*. Nurse Education Today, 45, 16-21. <http://dx.doi.org/10.1016/j.nedt.2016.06.007>
- Gracia, T., & R., Pintrich. (1992). *Critical thinking and its relationship to motivation, learning strategies, and classroom experience*. Paper presented at the Annual Meeting of the American Psycho Association, Seattle. W. A.
- Hasanah, U. (2016). *Pengaruh Model Pembelajaran Dan Kemampuan Berpikir Kritis Terhadap Hasil Belajar IPA Kelas V SD Di Kelurahan Menteng, Jakarta Pusat*. Jurnal Pendidikan Dasar, 7(2), 375. <https://doi.org/10.21009/JPD.072.14>
- Hermayani, A. Z., Dwiaستuti, S., & Marjono, M. (2015). *Peningkatan Motivasi*

- Belajar Dan Kemampuan Berpikir Kritis Peserta didik Pada Materi Ekosistem Melalui Penerapan Model Inkuiri Terbimbing.* BIOEDUKASI, 6(2).
- Hmelo-Silver, C. E. (2004). *Problem-based learning: What and how do students learn?.* Educational Psychology Review, 16(3), 235–266. <https://doi.org/10.1023/B:EDPR.0000034022.16470.f3>
- Iakovos, T. (2011). *Critical and Creative Thinking in the English Language Classroom.* International Journal of Humanities and Social Science, 1(8), 82–86.
- Jensen, R. D. J. (2015). *The effectiveness of the Socratic method in developing critical thinking skills in English language learners.* Online Submission, 34.
- Kuhlthau, C. C. (2010). *Call for 21 st Century Skills Information Technology – The Easy Part and the Hard Part.* School Libraries Worldwide, 16(1), 17–28.
- Kyndt, E., Dochy, F., & Struyven, K. (2010). *Higher Education Research & Development The direct and indirect effect of motivation for learning on students' approaches to learning through the perceptions of workload and task complexity.* Journal of Career Development, 40(4), 271-291. <https://doi.org/10.1080/07294360.2010.501329>
- Lidinillah, D. A. M. (2013). *Pembelajaran Berbasis Masalah (Problem Based Learning).* Jurnal Pendidikan Inovatif, 5(1), 1–7.
- Ludwigsen, D., Brelin-fornari, J., & Neal, J. (2011). *Crash Safety in the Introductory Physics Lab.*
- Malayeriazis, K., Jafari, Ebrahim, M., Sharif, M., Asgari, M., & Omidi, M. (2012). *The impact of guided inquiry methods of teaching on the critical thinking of high school students.* Journal of Education and Practice, 3(10), 42–48.
- Masek, A., & Yamin, S. (2012). *The Impact of Instructional Methods on Critical Thinking: A Comparison of Problem-Based Learning and Conventional Approach in Engineering Education.* ISRN Education, 2012, 1–6. <https://doi.org/10.5402/2012/759241>
- Ministry of Learning, A. L. (2004). *Focus Learning in Inquiry.*
- Mmatthew, B., & Kenneth, I. O. (2013). *a Study on the Effects of Guided Inquiry Teaching Method on Students Achievement in Logic.* International Researcher, 2(1), 135–140.
- Monrad, M., & Mølholt, A. (2017). *Problem-Based Learning in Social Work Education : Students' Experiences in Denmark Problem-Based Learning in Social Work Education.* Journal of Teaching in Social Work, 37(1), 71–86. <https://doi.org/10.1080/08841233.2016.1271382>
- Muhfahroyin, M. (2009). *Memberdayakan Kemampuan Berpikir Kritis Peserta didik Melalui Pembelajaran Konstruktivistik.* Jurnal Pendidikan Dan Pembelajaran (JPP), 16(1), 88–93.
- Norman, G. R., & Schmidt, H. G. (2000). *Effectiveness of problem based learning curricula: theory, practice and paper darts.* Medical Education, 34(9), 721–728.
- Nugraha, A. J., Suyitno, H., & Susilaningsih, E. (2017). *Analisis Kemampuan Berpikir Kritis Ditinjau dari Keterampilan Proses Sains dan Motivasi Belajar melalui Model PBL.* Journal of Primary Education, 6(1), 35–43.
- Pagander, L., & Read, J. (2014). *Is Problem-Based Learning ( PBL ) An Effective*

- Teaching Method ? A study Based on Existing Reserch.* Institutionen För Kultur Och Kommunikation, 581(83), 1–45.
- Partnership for 21st Century Skills. (2013). *Reimagining citizenship for the 21st century*.
- Pascarella, E. T., Martin, G. L., Hanson, J. M., Trolian, T. L., Gillig, B., & Blaich, C. (2014). *Effects of diversity experiences on critical thinking skills over 4 years of college*. Journal of College Student Development, 55(1), 86–92. <https://doi.org/10.1353/csd.2014.0009>
- Paul, R., & Elder, L. (2008). *Critical Thinking: Strategies for Improving Student Learning, Part II*. Journal of Developmental Education, 32(2), 34–35.
- Phan, H. P. (2009). *Amalgamation of future time orientation, epistemological beliefs, achievement goals and study strategies: Empirical evidence established*. British Journal of Educational Psychology, 79(1), 155–173. <https://doi.org/10.1348/000709908X306864>
- Pintrich, P. R., & Schrauben, B. (1992). *Students' motivational beliefs and their cognitive engagement in classroom academic tasks*. Student perceptions in the classroom, 7, 149–183.
- Redecker, C., Leis, M., Leendertse, M., Punie, Y., Gijsbers, G., Kirschner, P., Stoyanov, S., & Hoogveld, B. (2011). *The Future of Learning: Preparing for Change - Publication*. In Publications Office of the European Union (Issue May 2014). <https://doi.org/10.2791/64117>
- Reinstein, A., & Bayou, M. E. (1997). *Critical thinking in accounting education: processes, skills and applications*. Managerial Auditing Journal, 12(7), 336–342. <https://doi.org/10.1108/02686909710180698>
- Savery, J. R. (2015). *Overview of problem-based learning: Definitions and distinctions*. Essential readings in problem-based learning: Exploring and extending the legacy of Howard S. Barrows, 9, 5–15.
- Schrum, L., Davis, N., Lund, A., & Jacobsen, M. (2015). *AERA 2015 Conference Invited Panel for SIG TACTL*. 16–20.
- Senjayawati, E., & Nurfauziah, P. (2018). *P2M STKIP Siliwangi P2M STKIP Siliwangi*. Jurnal Ilmiah P2M STKIP Siliwangi P2M STKIP Siliwangi, 5(2), 1–6.
- Semerci, Ç. (2011). *The relationships between achievement focused motivation and critical thinking*. African Journal of Business Management, 5(15), 6179.
- Setyorini, U., Sukiswo, S. E., & Subali, B. (2011). *Penerapan model problem based learning untuk meningkatkan kemampuan berpikir kritis peserta didik SMP*. Jurnal pendidikan fisika indonesia, 7(1).
- Sommers, C. L. (2014). *Considering culture in the use of problem-based learning to improve critical thinking — Is it important?*. Nurse Education Today, 34(7), 1109–1111. <https://doi.org/10.1016/j.nedt.2014.03.010>
- Sr, C. T. W., & Okie, W. (2017). *Problem-Based Learning and the Training of Secondary Social Studies Teachers : A Case Study of Candidate Perceptions during their Field Experience Problem-Based Learning and the Training of Secondary Social Studies*. International Journal for the Scholarship of Teaching and Learning, 11(2), n2.
- Sucipta, Ahman, E., & Budiwati, N. (2018). *Metode Guided Discovery Learning*

- terhadap Tingkat Berpikir Kritis Peserta didik Dilihat dari Motivasi Belajar.* Indonesian Journal Of Economics Education, 1(1), 1–8. <https://doi.org/10.17509/jurnal>
- Tohir, M., & Ibrahimy, U. (2020). *Hasil PISA Indonesia Tahun 2018 Turun Dibanding Tahun 2015.* 10–12. <https://doi.org/10.17605/OSF.IO/8Q9VY>
- Trivette, C. M., Dunst, C. J., Hamby, D. W., & O 'herin, C. E. (2009). *Characteristics and Consequences of Adult Learning Methods and Strategies.* Research Brief, 3(2), 1–32.
- Ukamaka, U. T., Of, E., Inquiry, G., On, M., & Basic, I. I. N. (2014). *Faculty Of Education Ogbonna Nkiru.*
- Utami, B., & S, A. N. C. (2015). *Penerapan Model Pembelajaran Problem Based Learning (PBL) Dilengkapi Macromedia Flash Untuk Meningkatkan Kemampuan Berpikir Kritis Pokok Termokimia Kelas XI Peserta didik SMA Negeri 2 Karanganyar Tahun Pelajaran 2014/2015.* Jurnal Pendidikan Kimia, 4(4), 87-94.
- Vaughn, L., & Baker, R. (2001). *Teaching in the medical setting: Balancing teaching styles, learning styles and teaching methods.* Medical Teacher, 23(6), 610–612. <https://doi.org/10.1080/01421590120091000>
- Wadani, F., & Khan, A. R. (2014). *Problem-based learning in ophthalmology : A brief review.* Oman journal of ophthalmology, 7(1), 1. <https://doi.org/10.4103/0974-620X.127908>
- Walker, P., & Finney, N. (1999). *Skill Development and Critical Thinking in Higher Education.* Teaching in Higher Education, 4(4), 531–547. <https://doi.org/10.1080/1356251990040409>
- Wigfield, A., & Eccles, J., S. (2000). *Expectancy-Value Theory of Achievement Motivation.* Contemporary Educational Psychology 25, 68-81. <http://dx.doi:10.1006/ceps.1995.1015>.
- Witte, K. De, & Rogge, N. (2014). *Problem-based learning in secondary education : evaluation by an experiment.* May 2015, 37–41. <https://doi.org/10.1080/09645292.2014.966061>
- Wiyono, K., Pd, S., Setiawan, A., Si, M., Suhandi, A., & Si, M. (2009). "Model Pembelajaran Multimedia Interaktif Relativitas Khusus Untuk Meningkatkan Keterampilan Berpikir Kritis Peserta didik SMA". Makalah Seminar Nasional Pendidikan FKIP Universitas Sriwijaya Palembang, 1–12.
- Wood, D. F. (2003). *ABC of Learning and Teaching in Medicine: Problem Based Learning.* Journal Clinical Review BMJ. Vol 326 (8) 2.
- Worrell, J. A., & Profetto-McGrath, J. (2007). *Critical thinking as an outcome of context-based learning among post RN students: A literature review.* Nurse education today, 27(5), 420-426.
- Yamin, S., & Masek, A. (2011). *The Effect of Problem Based Learning on Critical Thinking Ability: A Theoretical and Empirical Review.* International Review of Social Sciences and Humanities, 2(1), 215–221. [www.irssh.com](http://www.irssh.com)
- Yunita, N., Rosyana, T., & Hendriana, H. (2018). *Analisis Kemampuan Berpikir Kritis Matematis Berdasarkan Motivasi Belajar Matematis Peserta didik SMP.* JPMI (Jurnal Pembelajaran Matematika Inovatif), 1(3), 325-332.
- Zabit, M. N. M. (2010). *Problem-Based Learning On Students Critical Thinking*

- Skills In Teaching Business Education In Malaysia: A Literature Review.*  
American Journal of Business Education (AJBE), 3(6), 19–32.  
<https://doi.org/10.19030/ajbe.v3i6.436>
- Zanthy, L. S. (2016). *Pengaruh Motivasi Belajar Ditinjau Dari Latar Belakang Pilihan Jurusan Terhadap Kemampuan Berpikir Kritis Mahasiswa Di STKIP Siliwangi Bandung*. TEOREMA : Teori Dan Riset Matematika, 1(1), 47.  
<https://doi.org/10.25157/teorema.v1i1.540>
- Zubaaidah, S. (2016). *Keterampilan Abad Ke-21: Keterampilan Yang Diajarkan Melalui Pembelajaran*. Seminar Nasional Pendidikan, 2(2), 1–17.  
<https://doi.org/10.1021/acs.langmuir.6b02842>
- Zubaaidah, S., & Corebima, A. D. (2011). *Asesmen Berpikir Kritis Terintegrasi Tes Essay*. Symbion: Symposium on Biology Education, 200–213.