

e-Jurnal: <http://doi.org/10.21009/1>

p-ISSN: 2461-0933

e-ISSN: 2461-1433

JPPPF

Volume 6 Issue 2, December 2020

DOI: doi.org/10.21009/1.062

Jurnal Penelitian dan Pengembangan
**PENDIDIKAN
FISIKA**



Pendidikan
Fisika



LPPM



JURNAL PENELITIAN & PENGEMBANGAN PENDIDIKAN FISIKA
Abstracting and Indexing:

 DOAJ DIRECTORY OF OPEN ACCESS JOURNALS	 Google Scholar	 PKP INDEX	 Crossref
 BASE	 sinta Science and Technology Index	 indonesia oneSearch	 ISJDNeo INDONESIAN SCIENTIFIC JOURNAL DATABASE Database Jurnal Ilmiah Indonesia
 Microsoft Academic Search	 OpenAIRE Open Access Infrastructure for Research in Europe	 SIS Scientific Indexing Services	 citeulike
 DCLC WorldCat	 UNIVERSITY OF SASKATCHEWAN University Library	 WorldWideScience.org The Open Access Journal	 EBSCO INFORMATION SERVICES Open Science Directory
 Scilit	 MORAREF	 IPI	 JOURNAL FACTOR
 ACADEMIA	 资源发现 天津理工大学资源发现系统	 ESJI Eurasian Scientific Journal Index www.ESJIndex.org	 INTERNATIONAL Scientific Indexing
 DRJI Directory of Research Journal Indexing	 GARUDA GARDA BUJARAN DIGITAL		

e-Jurnal: <http://doi.org/10.21009/1>

JPPPF

Volume 6 Issue 2, December 2020

DOI: doi.org/10.21009/1.062

Developing Physics Learning Tools of Blended Learning Using Schoology with Problem-Based Learning Model

Dwi Ulan Rahmawati, Jumadi Jumadi, Eko Mhd Ramadan

The Effectiveness of Using Serious Games to Improve Physics Learning Outcomes in Light Concept

Rudi Haryadi, Heni Pujiastuti

Physics Online Learning Devices Based on Guided Discovery Model for High School Class X on Momentum and Impulse Material

Eko Mhd Ramadan, Jumadi Jumadi, Dwi Ulan Rahmawati

The Correlation of Isomorphic, Open-Ended, and Conventional Score on the Ability to Solve Kinematics Graph Questions

Tomy Suganda, Sentot Kusairi, Nur Azizah, Parno Parno

Development of Electronic Module Using Creative Problem-Solving Model Equipped with HOTS Problems on The Kinetic Theory of Gases Material

I Made Astra, Raibanati Raibanati, Nur Mujayanah

Teaching Material using SETS Approach for Volcanic Dust Disaster Mitigation

Cherly Salawane, Supriyadi Supriyadi, Ani Rusilowati, Dyah Rini Indriyanti, Achmad Binadja

The Impact of the E-Learning Module on Remediation of Misconceptions in Modern Physics Courses

A. Halim, Soewarno Soewarno, Elmi Elmi, Zainuddin Zainuddin, I. Huda, Irwandi Irwandi

Learning Ohm's Law through Electric Puzzle Media

Adam Malik, Muhamad Dudi Asyidik, Kusmi Heni Nursamsika, Rifadiyah Nurul Khotimah, Rismaya Fitriyani

The 3D Printing in Material Research and Medical Physics Education and Its Accuracy Study

Talitha Asmaria, Rafida Rahmi, Muhammad Satrio Utomo, Franciska Pramuji Lestari, Aprillia Erryani, Patmah Fathoni, Tutun Nugraba, Ika Kartika

Moodle-based E-Learning Model for Critical Thinking in the Lesson of Electromagnetic Induction

Ketang Wiyono, Zulberman Zulberman, Saparini Saparini, Melly Ariska, Rini Khoirunnisa, Sri Zakiya

The Effectiveness of Web-Based Assessment on Student's Understanding of Concepts on Equilibrium and Rotation Dynamics

Neng Dyah Surya Pratama

Levels of Inquiry-Interactive Demonstration: Its Effect on Students' Critical Thinking Ability in Online Learning with the Topic of Waves and Sounds

Siti Nafingab, Mohamad Agung Rokhimawan, Ali Mustadi, Muhammad Nur Wangid

Meta-Analysis of the Effect of Cognitive Conflict on Physics Learning

Fatni Mufit, Asrizal Asrizal, Reni Puspitasari

Study of The Lazy Nature of Physics Students Using The Quadratic Optimal Control Method

Dimas Kukub Nur Rachim

Android-Based Learning Media Using Problem Based Learning on Physics Learning of Senior High School Students

Reni Tania, Jumadi Jumadi, Falentinus Tolino

e-Jurnal: <http://doi.org/10.21009/1>

JPPPF

Volume 6 Issue 2, December 2020

DOI: doi.org/10.21009/1.06200

Editor-in-Chief

Fauzi Bakri, M.Si. (Universitas Negeri Jakarta, Indonesia)

Editors

Prof. Madya Dr. Md. Nizam Abd Rahman (Universiti Teknikal Malaysia Melaka, Malaysia)
Prof. Marie Paz E. Morales, Ph.D, Sci. Ed. (Philippine Normal University, Philippine)
Prof. Bayram Coştu (Department of Science, Yıldız Technical University, Istanbul, Turkey)
Prof. Dr. Yetti Supriyati, M.Pd. (Universitas Negeri Jakarta, Indonesia)
Prof. Dr. I Made Astra, M.Si. (Universitas Negeri Jakarta, Indonesia)
Prof. Dr. Agus Setyo Budi, M.Sc. (Universitas Negeri Jakarta, Indonesia)
Po-Sheng Chiu, Ph.D. (National Chiayi University, Taiwan)
Dr. Ezza Syuhada Sazali (Universiti Teknologi Malaysia, Malaysia)
Dewi Mulyati, M.Si.,M.Sc. (Universitas Negeri Jakarta, Indonesia)
Dr. Esmar Budi, M.T. (Universitas Negeri Jakarta, Indonesia)
Siswoyo, M.Pd. (Universitas Negeri Jakarta, Indonesia)
Handjoko Permana, M.Si. (Universitas Negeri Jakarta, Indonesia)

Reviewers (Mitra Bebestari)

Prof. Md. Rahim Sahar (Universiti Teknologi Malaysia, Malaysia)
Prof. Dr. Festiyed, M.Si. (Universitas Negeri Padang, Indonesia)
Dr. Abdurrahman, M.Si. (Universitas Lampung, Indonesia)
Dr. Desnita, M.Si. (Universitas Negeri Padang, Indonesia)
Dr. Ida Kaniawati, M.Si. (Universitas Pendidikan Indonesia)
Dr. Sahrul Hidayat M.Si. (Universitas Padjajaran, Indonesia)
Dr. Lia Yuliati, M.Pd. (Universitas Negeri Malang, Indonesia)
Dr. Sarwanto, M.Si. (Universitas Sebelas Maret, Indonesia)
Sukarmin, M.Si., Ph.D. (Universitas Sebelas Maret, Indonesia)
Dr. Adam Malik, M.Pd. (Universitas Islam Negeri Sunan Gunung Djati, Indonesia)

Editorial Office

Program Studi Pendidikan Fisika Fakultas MIPA
Kampus A Universitas Negeri Jakarta
Gedung K.H. Hasyim Asyari Lt.10
Jalan Rawamangun Muka No.1 Rawamangun-Pulogadung
Jakarta Timur, 13220
Indonesia

EDITORIAL FOREWORD

JPPPF (Jurnal Penelitian & Pengembangan Pendidikan Fisika) is dedicated to all practitioners of education. JPPPF coverage includes: experimental research, action research, qualitative research, quantitative research, and development research (model, media, and learning evaluation) aimed at improving the quality and building innovation in Physics education.

JPPPF Volume 6 Issue 2 contains 15 articles, there was: 1) Developing Physics Learning Tools of Blended Learning Using Schoology with Problem-Based Learning Model; 2) The Effectiveness of Using Serious Games to Improve Physics Learning Outcomes in Light Concept; 3) Physics Online Learning Devices Based on Guided Discovery Model for High School Class X on Momentum and Impulse Material; 4) The Correlation of Isomorphic, Open-Ended, and Conventional Score on the Ability to Solve Kinematics Graph Questions; 5) Development of Electronic Module Using Creative Problem-Solving Model Equipped with HOTS Problems on The Kinetic Theory of Gases Material; 6) Teaching Material using SETS Approach for Volcanic Dust Disaster Mitigation; 7) The Impact of the E-Learning Module on Remediation of Misconceptions in Modern Physics Courses; 8) Learning Ohm's Law through Electric Puzzle Media; 9) The 3D Printing in Material Research and Medical Physics Education and Its Accuracy Study; 10) Moodle-based E-Learning Model for Critical Thinking in the Lesson of Electromagnetic Induction; 11) The Effectiveness of Web-Based Assessment on Student's Understanding of Concepts on Equilibrium and Rotation Dynamics; 12) Levels of Inquiry-Interactive Demonstration: Its Effect on Students' Critical Thinking Ability in Online Learning with the Topic of Waves and Sounds; 13) Meta-Analysis of the Effect of Cognitive Conflict on Physics Learning; 14) Study of The Lazy Nature of Physics Students Using The Quadratic Optimal Control Method; and 15) Android-Based Learning Media Using Problem Based Learning on Physics Learning of Senior High School Students.

Hopefully, JPPPF can be a reference for readers and researchers in developing physics education.

Jakarta, 31 December 2020
Editor-in-Chief,

Fauzi Bakri

TABLE OF CONTENTS

Developing Physics Learning Tools of Blended Learning Using Schoology with Problem-Based Learning Model <i>Dwi Ulan Rahmawati, Jumadi Jumadi, Eko Mhd Ramadan</i>	139 – 152
The Effectiveness of Using Serious Games to Improve Physics Learning Outcomes in Light Concept <i>Rudi Haryadi, Heni Pujiastuti</i>	153 - 162
Physics Online Learning Devices Based on Guided Discovery Model for High School Class X on Momentum and Impulse Material <i>Eko Mhd Ramadan, Jumadi Jumadi, Dwi Ulan Rahmawati</i>	163 - 172
The Correlation of Isomorphic, Open-Ended, and Conventional Score on the Ability to Solve Kinematics Graph Questions <i>Tomy Suganda, Sentot Kusairi, Nur Azizah, Parno Parno</i>	173 - 180
Development of Electronic Module Using Creative Problem-Solving Model Equipped with HOTS Problems on The Kinetic Theory of Gases Material <i>I Made Astra, Raibanati Raibanati, Nur Mujayanah</i>	181 - 194
Teaching Material using SETS Approach for Volcanic Dust Disaster Mitigation <i>Cherly Salawane, Supriyadi Supriyadi, Ani Rusilowati, Dyah Rini Indriyanti, Achmad Binadja</i>	195 - 202
The Impact of the E-Learning Module on Remediation of Misconceptions in Modern Physics Courses <i>A. Halim, Soewarno Soewarno, Elmi Elmi, Zainuddin Zainuddin, I. Huda, Irwandi Irwandi</i>	203 - 216
Learning Ohm's Law through Electric Puzzle Media <i>Adam Malik, Muhamad Dudi Asyidik, Kusmi Heni Nursamsika, Rifadiyah Nurul Khotimah, Rizmaya Fitriyani</i>	217 - 226
The 3D Printing in Material Research and Medical Physics Education and Its Accuracy Study <i>Talitha Asmaria, Rafida Rabmi, Muhammad Satrio Utomo, Franciska Pramuji Lestari, Aprillia Erryani, Patmah Fatboni, Tutun Nugraha, Ika Kartika</i>	227 - 236
Moodle-based E-Learning Model for Critical Thinking in the Lesson of Electromagnetic Induction <i>Ketang Wiyono, Zulberman Zulberman, Saparini Saparini, Melly Ariska, Rini Khoirunnisa, Sri Zakiya</i>	237 - 246
The Effectiveness of Web-Based Assessment on Student's Understanding of Concepts on Equilibrium and Rotation Dynamics <i>Neng Dyah Surya Pratama</i>	247 - 254
Levels of Inquiry-Interactive Demonstration: Its Effect on Students' Critical Thinking Ability in Online Learning with the Topic of Waves and Sounds <i>Siti Nafingab, Mohamad Agung Rokhimawan, Ali Mustadi, Muhammad Nur Wangid</i>	255 - 266
Meta-Analysis of the Effect of Cognitive Conflict on Physics Learning <i>Fatni Mufit, Asrizal Asrizal, Reni Puspitasari</i>	267 - 278
Study of The Lazy Nature of Physics Students Using The Quadratic Optimal Control Method <i>Dimas Kukuh Nur Rachim</i>	279 - 288
Android-Based Learning Media Using Problem Based Learning on Physics Learning of Senior High School Students <i>Reni Tania, Jumadi Jumadi, Falentinus Tolino</i>	289 - 298

