Jurnal Penelitian dan Pengembangan PENDIDIKAN FISIKA

Volume 5 Issue 2, December 2019
DOI: doi.org/10.21009/1.052
Abstracting and Indexing:

<table>
<thead>
<tr>
<th>Directory of Open Access Journals</th>
<th>Google Scholar</th>
<th>PKP Index</th>
<th>Crossref</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASE</td>
<td>Sinta</td>
<td>online</td>
<td>Jurnal</td>
</tr>
<tr>
<td>Microsoft Academic Search</td>
<td>OpenAIRE</td>
<td>SciVal</td>
<td>E-ISSN</td>
</tr>
<tr>
<td>Scilit</td>
<td>MORAREF</td>
<td>IPI</td>
<td>Jurnal</td>
</tr>
<tr>
<td>ACADEMIA</td>
<td>ESJI</td>
<td><a href="http://www.ESJIndex.org">www.ESJIndex.org</a></td>
<td>International Scientific Indexing</td>
</tr>
<tr>
<td>Directory of Research Journal Indexing</td>
<td>GARUDA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Development of A Four-Tier Diagnostic Test For Misconception of Oscillation and Waves  
Ridho Adi Negoro, Viga Karina

Gap Analysis and The Potential of Local Wisdom Jambi as Science Learning Resources  
Jufrida Jufrida, Fibrika Rahmat Basuki, Anta Xena, Pretty Pasminingsih

The Effectiveness of Teachers' Use of Lecture Model Combined with Cooperative Learning  
Method for Enhancing Students’ Problem-Solving Skills in Physics  
Rahmi Putri Z, Junadi Jamadi, Ariswan Ariswan, Ratnasari Ratnasari, Depi Oktasari

Mind Mapping Based Creative Problem Solving: Train The Creative Thinking Skills of Vocational School Students in Physics Learning  
Devi Meiarti, Ellianawati Ellianawati

E-Learning Using Wordpress on Physics Materials with The 5E Learning Cycle Strategy  
Dewi Muliyati, Herra Marizka, Fauzi Bakri

Textbooks Equipped with Augmented Reality Technology for Physics Topic in High-School  
Fauzi Bakri, Oktaviani Marsal, Dewi Muliyati

Development of Interactive Physics Mobile Learning Media for Enhancing Students’ HOTS in Impulse and Momentum with Scaffolding Learning Approach  
Erlin Eveline, Suparno Suparno, Tiara Kusuma Ardiyati, Beatrice Elvi Dasilva

Development of Teacher Guidebook for Photoelectric Effects Instructional Using Predict-Observe-Explain Strategy with PhET Interactive Simulation  
Siswoyo Siswoyo

The Impact of Modeling Instruction Based on System Toward Work-Energy Concept Understanding  
Zainul Mustofa, Sutopo Sutopo, Nandang Mufti, Anik Asmichatin

The Validity of Student Worksheet Using Inquiry-Based Learning Model with Science Process Skill Approach for Physics Learning of High School  
Yulkifli Yulkifli, Melia Vivi Ningrum, Widyaningrum Indrasari

The Capability Analysis of High Order Thinking Skills (HOTS) on Dynamic Electricity Material in Junior High School  
Ani Rahmanawati, Nur Lalatini Nisfah, Sentot Kusairi

A Problem Based Learning: Practicing Students' Critical Thinking Skills with Cognitive Style Dependent Fields and Independent Fields  
Wahyu Listiagfiroh, Ellianawati Ellianawati

Integration of Peer Instruction in the Guided Inquiry Learning Model: Practicing Science Literacy through Scratch  
Faikotun Nikmah, Ellianawati Ellianawati

Discovery Learning based on Natural Phenomena to Improve Students' Science Process Skills  
Rudi Haryadi, Heni Puijastuti
Students’ Strategic Thinking Ability Enhancement in Applying Scratch for Arduino of Block Programming in Computational Physics Lecture
Umi Pratini, Dwi Nanto

Group Investigation and Explicit learning Models in Learning Physics at Senior High Schools
I Wayan Santyasa, I Nyoman Kanca, I Wayan Sukra Warna, I Komang Sudarma

Student Cognitive Profile with STEM Based Teaching Material on the Subject of Vibrations and Waves
Rachma Afifah, Ellianawati Ellianawati
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.


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

Jakarta, 31 December 2019
Editor-in-Chief,

Fauzi Bakri
# TABLE OF CONTENTS

Development of A Four-Tier Diagnostic Test For Misconception of Oscillation and Waves  
*Ridho Adi Negoro, Viga Karina*  
69 – 76

Gap Analysis and The Potential of Local Wisdom Jambi as Science Learning Resources  
*Jufrida Jufrida, Fabrika Rambat Basuki, Anta Xena, Pretty Pasminingsih*  
77 – 82

The Effectiveness of Teachers' Use of Lecture Model Combined with Cooperative Learning Method for Enhancing Students' Problem-Solving Skills in Physics  
*Rahmi Putri Z, Jamadi Jamadi, Ariawan Ariawan, Ratnasari Ratnasari, Depi Oktasari*  
83 – 90

Mind Mapping Based Creative Problem Solving: Train The Creative Thinking Skills of Vocational School Students in Physics Learning  
*Devi Meiarti, Ellianawati Ellianawati*  
91 – 100

E-Learning Using Wordpress on Physics Materials with The 5E Learning Cycle Strategy  
*Deni Muliyati, Herya Marizka, Fauzi Bakri*  
101 – 112

Textbooks Equipped with Augmented Reality Technology for Physics Topic in High-School  
*Fauzi Bakri, Oktaviani Marsal, Deni Muliyati*  
113 – 122

Development of Interactive Physics Mobile Learning Media for Enhancing Students’ HOTS in Impulse and Momentum with Scaffolding Learning Approach  
*Erlin Eveline, Saparno Saparno, Tiara Kasuma Ardiyati, Beatrix Elvi Dashita*  
123 – 132

Development of Teacher Guidebook for Photoelectric Effects Instructional Using Predict-Observe-Explain Strategy with PhET Interactive Simulation  
*Siswoyo Siswoyo*  
133 – 144

The Impact of Modeling Instruction Based on System Toward Work-Energy Concept Understanding  
*Zainul Mustofa, Sutopo Sutopo, Nandang Mufti, Anik Asmichatin*  
145 – 154

The Validity of Student Worksheet Using Inquiry-Based Learning Model with Science Process Skill Approach for Physics Learning of High School  
*Yulki Jifi Yulki Jifi, Mba Vivi Ningrum, Widyaningrum Indrassari*  
155 – 162

The Capability Analysis of High Order Thinking Skills (HOTS) on Dynamic Electricity Material in Junior High School  
*Ami Rambawati, Nur Lailatin Nisfah, Sentot Kusairi*  
163 – 168

A Problem Based Learning: Practicing Students’ Critical Thinking Skills with Cognitive Style Dependent Fields and Independent Fields  
*Wahyu Listiagfiroh, Ellianawati Ellianawati*  
169 – 176

Integration of Peer Instruction in the Guided Inquiry Learning Model: Practicing Science Literacy through Scratch  
*Faikotun Nikmah, Ellianawati Ellianawati*  
177 – 182

Discovery Learning based on Natural Phenomena to Improve Students' Science Process Skills  
*Rudi Haryadi, Henri Pujiasmuti*  
183 – 192
Students’ Strategic Thinking Ability Enhancement in Applying Scratch for Arduino of Block Programming in Computational Physics Lecture

Umi Pratiwi, Dwi Nanto

193 – 202

Group Investigation and Explicit learning Models in Learning Physics at Senior High Schools

I Wayan Santyasa, I Nyoman Kanca, I Wayan Sukra Wartala, I Komang Sudarma

203 – 216

Student Cognitive Profile with STEM Based Teaching Material on the Subject of Vibrations and Waves

Rachma Affiah, Ellianawati Ellianawati

217 – 226