

p-ISSN: 1411-2531

e-ISSN: 2685-5488

JURNAL PENDIDIKAN MIPA

Volume 24, Number 1, March 2023

JURNAL PENDIDIKAN MIPA

Published by:

Jurusan Pendidikan MIPA
Fakultas Keguruan dan Ilmu Pendidikan
Universitas Lampung



ISSN 1411-2531 (Print)
ISSN 2685-5488 (Online)

Published by:

Jurusan Pendidikan MIPA
Fakultas Keguruan dan Ilmu Pendidikan
Universitas Lampung

Table of Contents

The Effect of Think Talk Write Strategy toward Students' Information Literacy in Immune System Concept

Lailan Safitri Barus, Universitas Islam Negeri Sumatera Utara, Indonesia

Ummi Nur Afinni Dwi Jayanti, Universitas Islam Negeri Sumatera Utara, Indonesia

01-12

Development of Android-Based Educational Games to Improve Students' Learning Outcomes in Hydrocarbon

Isma Yanti Vitarisma Sukirno Putri, Universitas Negeri Malang, Indonesia

Ridwan Joharmawan, Universitas Negeri Malang, Indonesia

Munzil Munzil, Universitas Negeri Malang, Indonesia

Fasril Vaudhi, SMA Laboratorium Malang, Indonesia

14-27

Development of an Inexpensive Spectrometer Tool with a Tracker to Investigate Light Spectrum

Soni Prayogi, Pertamina University, Indonesia

Fitria Silviana, Medan State University, Indonesia

Saminan Saminan, Syiah Kuala University, Indonesia

28-38

Effectiveness of Interactive Learning and Discovery Learning Models on Student Learning Outcomes and Activities in Environmental Change

Silpian Mohamad, Gorontalo State University, Indonesia

Abubakar Sidik Katili, Gorontalo State University, Indonesia

Dewi Wahyuni Kyai Baderan, Gorontalo State University, Indonesia

39-49

Biodiversity Literacy Skills in Problem-Based Science Lectures: A Grounded Theory Research

Zohra Waty Hiola, Sultan Amai Gorontalo State Islamic Institute, Indonesia

Abubakar Sidik Katili, Universitas Negeri Gorontalo, Indonesia

Ilyas H. Husain, Universitas Negeri Gorontalo, Indonesia

50-58

Relationship between Interest and Independence in Learning toward Physics Learning

Outcomes: A Case of SMA Negeri 2 Gowa

Muhammad Alwi Asmar, Universitas Negeri Makassar, Indonesia

M Sidin Ali, Universitas Negeri Makassar, Indonesia

Kaharuddin Arafah, Universitas Negeri Makassar, Indonesia

59-71

Relationship between Formal Reasoning and Understanding of Physics Concepts for Eleventh Grade Students: A Case of SMAN 3 Wajo

Besse Nadifa Zalzabila, Universitas Negeri Makassar, Indonesia

Kaharuddin Arafah, Universitas Negeri Makassar, Indonesia

Mutahharah Hashim, Universitas Negeri Makassar, Indonesia

72-83

Direct Current Electric Circuit-Visualization Skills Instrument Test (DCEC-VISIT) to Measure High School Student's Visualization Skills

Resti Sundari, Universitas Pendidikan Indonesia, Indonesia

Andi Suhandi, Universitas Pendidikan Indonesia, Indonesia

Achmad Samsudin, Universitas Pendidikan Indonesia, Indonesia

84-97

Using the Saoraja Lapinceng Traditional House as a Media for Local Wisdom Based-Physics Learning on Equilibrium of Rigid Body

Nurul Arsyi, Universitas Negeri Makassar, Indonesia

Muhammad Arsyad, Universitas Negeri Makassar, Indonesia

Pariabti Palloan, Universitas Negeri Makassar, Indonesia

Mutahharah Hasyi, Universitas Negeri Makassar, Indonesia

98-113

Development of Comic-Based Biology Learning Materials on the Topic of Motion Systems in Humans

Nurin Firzanah, Universitas Islam Negeri Sumatera Utara, Indonesia

Rasyida Rasyida, Universitas Islam Negeri Sumatera Utara, Indonesia

114-123

Students' Mathematical Literacy Ability from van Hiele's Theory in Geometry

Septiana Ulul Azmi, Universitas Negeri Semarang, Indonesia

Sukestiyarno Sukestiyarno, Universitas Negeri Semarang, Indonesia

Rochmad Rochmad, Universitas Negeri Semarang, Indonesia

124-134

Implementation of the Guidance and Counseling Services Principles in Mathematics Learning

Sutirna Sutirna, Universitas Singaperbangsa Karawang, Indonesia

Safuri Musa, Universitas Singaperbangsa Karawang, Indonesia

Suprananto Suprananto, Singaperbangsa University Karawang, Indonesia

Intisari Intisari, Indonesia

135-151

Application of Kahoot-Based Digital Assessments in Basic Physics Lectures: The Case of Muhammadiyah Makassar University

Nurlina Nurlina, Universitas Muhammadiyah Makassar, Indonesia

Dewi Hikmah Marisda, Universitas Muhammadiyah Makassar, Indonesia

Nurfadilah Nurfadilah, Universitas Muhammadiyah Makassar, Indonesia

152-160

The Effectiveness of Problem-Based Learning Model to Improve Problem Solving Skills and Concept Understanding in Acid Base Solution

Ricardus Jundu, Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia

Silfanus Jelatu, Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia

Eufrasia Jeramat, Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia

Gabariela Purnama Ningsi, Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia

161-171

Interactive Learning Media using Adobe Animate CC to Improve Students' Learning Motivation and Mathematics Learning Outcomes

Nurfajar Wahyuliana, Universitas Islam Riau, Indonesia

Dedek Andrian, Universitas Islam Riau, Indonesia

Nofriyandi Nofriyandi, Universitas Islam Riau, Indonesia

Indah Widiati, Universitas Islam Riau, Indonesia

172-182

The Effectiveness of the Means-Ends Analysis Learning Model with a Realistic Approach toward Mathematical Creative Thinking Ability in terms of Self -Regulated Learning

Yenatin Novegitasari, Universitas Negeri Semarang, Indonesia

Dwijanto Dwijanto, Universitas Negeri Semarang, Indonesia

Tri Sri Noor Asih, Universitas Negeri Semarang, Indonesia

183-190

Development of Student Worksheets with Contextual Teaching and Learning Approach for Learning Ecosystem

Ravita Sitorus, Universitas Islam Negeri Sumatera Utara, Indonesia

Syarifah Widya Ulfa, Universitas Islam Negeri Sumatera Utara, Indonesia

191-202

The Effect of Attitudes and Habits in Online Mathematics Learning on Cognitive Learning Outcomes of Senior High School Students

Herawati Herawati, Universitas Bengkulu, Indonesia

Agus Susanta, Universitas Bengkulu, Indonesia

Zamzaili Zamzaili, Universitas Bengkulu, Indonesia

203-212

Analysis of PISA Model Problems on Junior High School Mathematics Textbooks Published by Indonesia Ministry of Education in the 2017 Revised Edition

Hafizatul Ardy, Universitas Bengkulu, Indonesia

Agus Susanta, Universitas Bengkulu, Indonesia

Zamzaili Zamzaili, Universitas Bengkulu, Indonesia

Edi Susanto, Universitas Bengkulu, Indonesia

213-224

Improving Science Conceptual Understanding and Science Process Skills in Elementary School using Predict-Observe-Explain Learning Model

Ida Fiteriani, Universitas Pendidikan Indonesia, Indonesia

Laras Dwi Mulyani, UIN Raden Intan Lampung, Indonesia

Sa'idy Sa'idy, UIN Raden Intan Lampung, Indonesia

225-234

Development of Scrapbook Media to Improve Critical Thinking Skills of Junior High School Students in Science Learning

Winda Raina Sari, Universitas Jember, Indonesia

Ulin Nuha, Universitas Jember, Indonesia

235-247

Development of HOTS Problem Oriented Circle Learning E-Module to Improve Problem Solving Ability of Class VIII Students

Putu Winy Srinivasa, Universitas Pendidikan Ganesha, Indonesia

I Nengah Suparta, Universitas Pendidikan Ganesha, Indonesia

I Made Ardana, Universitas Pendidikan Ganesha, Indonesia

248-263

Science Practicum Activities through Freshwater Bioremediation Experiments on Biotechnology Materials in Junior High Schools

Irfan Fathurrohman, Universitas Pendidikan Indonesia, Indonesia

Eka Cahya Prima, Universitas Pendidikan Indonesia, Indonesia

Riandi Riandi, Universitas Pendidikan Indonesia, Indonesia

264-274

The Effect of Mathematical Literacy, Motivation and Student's Independence toward Mathematical Problem Solving Ability

Rina Meilani, UPBJJ Palembang, Indonesia

Saleh Haji, Universitas Bengkulu, Indonesia

Mestika Sekarwinahyu, Universitas Bengkulu, Indonesia

275-290

Development of Augmented Reality Flashcards as an Innovative Learning Media on Linear Motion

Intan Khasana, Universitas Lampung, Indonesia

Viyanti Viyanti, Universitas Lampung, Indonesia

Eko Suyanto, Universitas Lampung, Indonesia

291-297

Problem-Based Learning versus STAD Learning Model for Improving Students' Argumentation Skills in Thermochemistry

Frida Kristining Tyas, Malang State University, Indonesia

I Wayan Dasna, Malang State University, Indonesia

Anugerah Ricky Wijaya, Malang State University, Indonesia

Istri Setyowati, SMA Laboratorium Malang, Indonesia

298-308

A Virtual Lab Activity Combined with a Prediction-Observation-Explanation Model to Improve Students Learning Outcomes in Direct Current Circuit

Adifeti Zega, Universitas Palangka Raya, Indonesia

Theo Jhoni Hartanto, Universitas Palangka Raya, Indonesia

Gunarjo Suryanto Budi, Universitas Palangka Raya, Indonesia

309-320

Development of Guided Inquiry-Oriented Worksheets to Improve Students' Metacognitive Skills on Acid-Base Material

Isti Indra Winarseh, Universitas Negeri Surabaya, Indonesia

Utitya Azizah, Universitas Negeri Surabaya, Indonesia

310-323

Development of Interactive e-Worksheet to Improve Science Process Skills of Junior High School Students

Indah Mayasari, Universitas Lampung, Indonesia

M. Setyarini, Universitas Lampung, Indonesia

Chansyanah Diawati, Universitas Lampung, Indonesia

321-329

Development of Socioscientific Issue-Based Interactive E-Modules to Improve Students Critical Thinking Skills on Global Warming Issues

Ummul Uslima, Universitas Lampung, Indonesia

Sunyono Sunyono, Universitas Lampung, Indonesia

Dewi Lengkana, Universitas Lampung, Indonesia

324-334

Using Macromedia Flash-Assisted PBL and PjBL Learning Model to Improve Acid Base Learning Outcomes

Anna Juniar, Universitas Negeri Medan, Indonesia

Mayloretta Br Barus, Universitas Negeri Medan, Indonesia

335-348

Implementation of STEM-Integrated Problem Based Learning to Improve Students' Problem Solving Skills in Liquid Pressure

Firda Amelia Ramadhani, Universitas Negeri Surabaya, Indonesia

Tutut Nurita, Universitas Negeri Surabaya, Indonesia

349-358

Exploration of the Eleventh Graders Difficulties in Understanding Procedural and Declarative Knowledge in the Laboratory Experiment of Heat Transfer

Muhammad Tawil, Universitas Negeri Makassar, Indonesia

Muhammad Amin Said, Universitas Muhammadiyah Makassar, Indonesia

Kemala Suryansari, SMAN 1 Gowa, Indonesia

359-372

Development of Character Education-Based Modules to Improve Student Learning Outcomes on Ecosystem Material

Pitri Hairani Dongoran, Universitas Islam Negeri Sumatera Utara, Indonesia

Syarifah Widya Ulfa, Universitas Islam Negeri Sumatera Utara, Indonesia

373-383

Development of STEM-Based Interactive Multimedia as an Effort to Increase Student Learning Motivation in Biology Learning

Rafyka Basri, Universitas Islam Negeri Sumatera Utara, Indonesia

Miza Nina Adlini, Universitas Islam Negeri Sumatera Utara, Indonesia

384-392