SUBJECT INDEX

Achievement of Learning **68**, **69**

Affective and Cognitive Assessment 25, 27

- ANEKA 167, 168, 170, 171, 172, 173, 174, 175, 176, 177
- Character 116, 119, 120, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177

Chemical Dynamic 116, 119, 120

- Classroom Action Research 127, 130, 133
- Conceptual Science Knowledge 158, 162
- Conceptual Understanding 105, 107, 110, 111, 112, 113
- Context of Science 60, 62, 63, 64, 65, 66
- Creative Thinking Ability 135, 137, 138, 142, 143, 144, 145, 146
- Dynamic Modeling 1, 3, 5, 9, 10, 11
- Effectiveness 93, 105, 107, 108, 110, 114
- E-learning 167, 168, 169, 170, 175, 177
- Electrochemistry 135, 137, 145
- Environmental Conservation 60, 62, 63
- Guided Inquiry 1, 2, 3, 4, 5, 9, 10, 11, 23, 62, 67, 76, 77, 78, 79, 80, 83, 85, 86
- Indonesian **62**, **63**, **64**, **65**, **87**, **88**
- IPKG-2 14, 18, 19, 22
- Junior High School 158, 160, 161, 162, 163, 164, 165
- Learning Independence 158, 159, 160, 161, 163, 164, 165
- Learning Outcomes 127, 128, 130, 131, 132, 133
- Lightning 89, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102

Local Excellences 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 48, 49

- Local Wisdom of Baduy's Society 60, 62, 63, 67
- Logical Thinking 51, 52, 53, 54, 55, 56, 57, 58, 59
- Logical Thinking Ability 51, 52, 53, 54, 55, 56, 57, 58, 59, 116, 117, 119
- Macro flash Animation Media 68, 70, 72, 73
- Macroscopic Representation 116, 122, 124
- Motion Material 68, 70, 71, 74
- Multimedia 89, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103
- Multiple Intelligences 148, 149, 150, 151, 155, 156, 157
- Open-Ended Problems Model 135, 137, 143, 144, 145,
- Optical Devices 105, 106, 107, 108, 109, 110, 111, 113

PCK 76, 77, 78, 79, 83, 85, 86

Project Based Learning (PjBL) Model 127, 130

Role of Teacher 148, 151, 156,

Scaffolding 51, 53, 54, 55, 57, 58, 59

Schoology 167, 168, 169, 170, 171, 175, 177

Science in Elementary School 35, 40

Science Learning 14, 15, 17, 18, 84, 148, 149, 150, 156

Science Learning Module 14, 17, 18, 19

Science Learning Process 14, 15, 17, 18, 84

Science Literacy 89, 90, 92, 93, 98, 99, 102, 103

Science Teacher Students 60, 61, 62, 63, 64, 65, 66, 76, 78, 79, 80, 81, 83, 85, 86,

Sekolah Peradaban Cilegon 148, 150, 151

Simbolic Representation 116, 124

Smartphone for Learning 158

Static Modeling 1, 3, 4, 5, 9, 17, 11

Submicroscopic Representation 116, 118, 122, 123, 124, 125

Teaching Materials 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49

Thai 60, 62, 63, 64, 65, 66, 67

Virtual Class 51, 53, 54, 55, 57, 58, 59

AUTHOR INDEX

Abdul Fatah 158 Aceng Hasani 158 Aditya Rakhmawan **116** Andhy Romdani 158 Anna Permansari 89 Basuki Wibawa 148 Bibin Rubini 89 Dedi Irwandi 135 Dewi Murni 51 Didi Jaya Santri 35 Dwi Indah Suryani 78 Effendy Effendy 1 Endang Saripudin 68 F. Shoufika Hilyana 167 Fauziyatul Fajaroh 1 Harry Firman 116 Ibadul Hasanah 158 Ika Humaeroh 135 Indah Juwita Sari 68, 158 Indah Langitasari 1 Insih Wilujeng 105 Ira Rahmayuni Jusar 14 Laelatul Mahmudah 127 Laihat Laihat 35 Lukman Nulhakim 148 Lulu Tunjung Biru 78 Mudmainah Vitasari 78 Mukhtar Mukhtar 68 Nanda Saridewi 135 Nengsih Juanengsih 127 Oktama Azarya Nanda 105 Prasart Nuangchalerm 60 Prasetyaningsih Prasetyaningsih 78 R. Ahmad Zaky El Islami 60 Ria Sudiana 51 Riskan Qodar 25 Rona Taula Sari 14 Ruri Ruri 127 Samsiah Samsiah 25 Siti Masfuah 167 Siti Romlah Noer Hodijah 51 Sri Mulyani 116 Sri Redzeki 116 Suratmi Suratmi 35 Tuti Nuriah Erwin 148 Vica Dian Aprelia Resti 78 Winda Yuningsih 89 Zeni Haryanto 25 Zulfiati Syahrial 148

The Writing Format of JPPI (Jurnal Penelitian dan Pembelajaran IPA)

- 1. The manuscript is an original script relating to the development of science and technology in the field of science learning (chemistry, physics, biology, and science) in the form of the research results and has not been published either inside or outside the country. The manuscript is written in Indonesian with 1.5 spaces, 8-20 pages in A4 paper size with the times new roman font 11. The manuscript is submitted to http://jurnal.untirta.ac.id/index.php/JPPI/index or sent to email jppi@untirta.ac.id or jppiuntirta@gmail.com.
- 2. The title of the manuscript describes the subject matter of the essay, written in a briefly and clearly, not more than 12 words with the times new roman font 12.
- 3. The author's name is accompanied by a foot note about the profession and the institution where the author works with the times new roman font 10, bold and the name should not be shortened.
- 4. The abstract of manuscript is typed one space, not more than 200 words in Indonesian and English with the times new roman font 11. The abstract contains the main issues, research objectives, methods/approaches and the research results.
- 5. The Introduction includes background issues as well as benefits and rationalization of activities (research or devotion). The objectives of the activity and problem-solving plan are presented in this section as well as the research which relevant to that manuscript with the times new roman font 11.
- 6. The research method describes the design of activities, scope or objects, materials and main tools, places, the techniques of data collection, operational definitions of research variables, and analysis techniques with the times new roman font 11.
- 7. The results and discussion present the results of the research. The results of the study can be completed with tables, graphs (drawings), and or charts with a maximum number of 6. The discussion section presents the results of data processing, interpreting the findings logically, linking them with reference sources which relevant to that manuscript with the times new roman font 11.
- 8. The conclusion contains a brief summary of the results of research and discussion with the times new roman font 11.
- 9. Suggestion may be written or not, the suggestion is given to the readers which written based on the findings in research.
- 10. Acknowledgment may be written or not, the acknowledgments is the author's gratitude to the promoter team/advisory team, and those who have helped in research and funders.
- 11. The authors are advised to citated at least one article of the article contained in Jurnal Penelitian dan Pembelajaran IPA (JPPI) in the submitted manuscript.
- 12. The writing of references using Harvard Referencing Standard system. Everything listed in the bibliography should be referred to in the manuscript. The updated reference is recommended for the last 10 years with the times new roman font 11 and the list of references used at least 80% is the primary source/journal article. The reference manager is recommended such as mendeley.

A. Books

The 1^{st} author, The 2^{nd} author, etc (Last name, first name is abbreviated) the year of publication, The title of the article, *The title is written in Italics form*, Publisher, Place of Publication.

Example : Sugiyono 2011, *Metode Penelitian Kuantitatif, Kualitatif dan R & D*, Alfabeta. Bandung.

B. Journal Articles

The 1st author, The 2nd author & etc (Last name, first name is abbreviated) the year of publication, 'the title of article', *The journal name is written in Italics form*, vol., no., page number(s)

Example : Tuan, HL, Chin, CC & Shieh, SH 2005, 'The development of a questionnaire to measure students' motivation towards science learning', *Journal of Science Education*, vol. 27, no. 6, pp. 639-54.

C. Proceedings of the Seminar/Conference

Author Surname, Initial(s) year of publication, 'Title of paper', in (Initial and Surname of editors), *Title of published proceedings which may include place held and date*, Publisher, Place of Publication, page number(s)

Example : Wilde, S & Cox, C 2008, 'Principal factors contributing to the competitiveness of tourism destinations at varying stages of development', in S Richardson, L Fredline, A Patiar & M Ternel (eds.), *CAUTHE 2008: Where the 'bloody hell' are we?*, Griffith University, Gold Coast, Qld, pp. 115-8.

D. Thesis

Author (Last name, first name is abbreviated) the year of publication, 'the title', DBA/MBA/PhD thesis. University, City.

Example : El Islami, RAZ 2013, 'Pembelajaran Inkuiri Terbimbing untuk Meningkatkan Literasi Sains dan Kepercayaan Diri Siswa pada Konsep Asam Basa', MPD thesis, Universitas Pendidikan Indonesia, Bandung.

E. The Referral Resources from Website

Author (Last name, first name is abbreviated) the year of publication, the title, Date Accessed, <The Address of Uniform Resources Locator (URL)> Example : Beard, M 2006, The fall of the Roman Republic, viewed 30 January

2011,<http://www.bbc.co.uk/history/ancient/romans/fallofromanrepublic_ar ticle_01.shtml>.

13. The Writing of Formulas, Tables, and Drawings follow the following guidelines:

A. The Writing of Formulas

The mathematical formula is clearly written with Microsoft Equation or other similar applications and is numbered like the following example.

$$C = \sqrt{x^2} \sum_{n=1}^{N} x_n \tag{1}$$

B. The Writing of Tables

The tables are numbered in the order in which they are presented (Table 1, etc.), without the right or left border. The table title is written at the top of the table in alignment with the Table as shown below.

Table 1 The Research Design

Group	Pretest	Treatment	Postest
Experiment	O_1	X_1	O ₂
Control	O_1	X_2	O_2

C. Figures

The images are numbered in the order in which they are presented (Fig. 1, etc.). The image title is placed underneath the image with the center justified position as the following example.

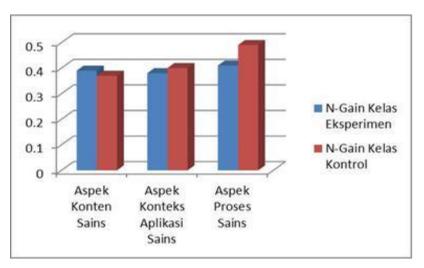


Figure 1 The Comparison of N-Gain's Average Scores on Any Aspect of Science Literacy of Students

ACKNOWLEDGMENT

The Editorial Board of Jurnal Penelitian dan Pembelajaran IPA in this issue Vol.4, No.2, November 2018 expressed the gratitude to the reviewers for their time and active participation in the process of reading the feasibility of the submission to the editor. The reviewers referred to are:

- 1. Assoc. Prof. Chatree Faikhamta, Ph.D, Science Education Division, Kasetsart University, Thailand
- Assoc. Prof. Dr. Ade Yeti Nuryantini, M.Si, Department of Physics Education, Faculty of Tarbiya and Teaching, UIN Sunan Gunung Djati, Indonesia
- Prof. Dr. Sudarmin Sudarmin, M.Si., Department of Science Education, Faculty of Mathematics and Natural Science, Universitas Negeri Semarang, Indonesia
- 4. Assist. Prof. Dr. Aliefman Hakim, M.Si., Department of Chemistry Education, Faculty of Teacher Training and Education, Universitas Mataram, Indonesia
- Assist. Prof. Dr. Yanti Herlanti, M.Pd., Biology Education Program, Faculty of Tarbiya and Teaching Sciences, UIN Syarif Hidayatullah Jakarta, Indonesia
- Assoc. Prof. Dr. Sigit Saptono, M.Pd., Department of Biology Education, Faculty of Mathematics and Science, Universitas Negeri Semarang, Indonesia
- Dr. Ratna Farwati, M.Pd., Chemistry Education Program, Faculty of Teacher Training and Education, Universitas Sriwijaya, Indonesia
- Assist. Prof. Dr. Fahyuddin Fahyuddin, M.Si, Department of Chemistry Education, Faculty of Teacher Training and Education, Universitas Halu Oleo, Indonesia
- 9. Munasprianto Ramli, Ph.D, Chemistry Education Program, Faculty of Tarbiya and Teaching Sciences, UIN Syarif Hidayatullah Jakarta, Indonesia

