



## Judul Artikel (16pt, Center, Bold, Huruf Pertama Kapital, Bahasa Indonesia untuk Artikel Berbahasa Indonesia)

Article Title (16pt, Center, Italic, Capitalized Each Word, in English)

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**Abstract.** The abstract should be concise, informative and completely self-explanatory, provide a clear statement of the problem, the proposed approach or solution, and point out major findings and conclusions so that enables the reader to identify the basic content of a document quickly and accurately, to determine its relevance to their interests, and thus to decide whether to read the document in its entirety. The Abstract should be written in 9pt Cambria, consist of 100 to 200 words in length, without references, and non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

**Keywords:** Maximum of 5 keywords separated by comma (,), written in English and Bahasa Indonesia, 9pt Cambria

**Abstrak.** Abstrak harus ringkas, informatif, sepenuhnya dapat menjelaskan naskah, memberikan pernyataan yang jelas tentang masalah, pendekatan atau solusi yang diusulkan, dan menunjukkan temuan dan kesimpulan utama sehingga pembaca dapat mengidentifikasi konten dasar suatu dokumen dengan cepat dan akurat, untuk menentukan relevansinya dengan minat mereka, dan dengan demikian memutuskan apakah akan membaca dokumen tersebut secara keseluruhan. Abstrak ditulis dalam 9pt Cambria, terdiri dari 100 hingga 200 kata, tanpa referensi, singkatan yang tidak standar atau tidak umum harus dihindari, tetapi jika penting, singkatan tersebut harus didefinisikan pada penyebutan pertama dalam abstrak itu sendiri.

**Kata kunci:** Dibatasi 5 kata, dipisahkan dengan tanda koma, 9pt Cambria

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### INTRODUCTION (10 PT)

(one single space, 10pt)

Authors can submit the article in English or Bahasa Indonesia (optional). The abstract must be written in two languages (English and Bahasa Indonesia) if the author submits the manuscript in Bahasa Indonesia. The main text format consists of a flat left-right columns on A4 paper (quarto). The margin text from the left and top are 2.5 cm, right and bottom are 2 cm. The manuscript is written in Microsoft Word, single space, Cambria 10 pt, and maximum 12 pages for original research article, or maximum 16 pages for review/survey paper, which can be downloaded at the website.

*A title of article should be the fewest possible words that accurately describe the content of the paper. The title should be succinct and informative and no more than about 12 words in length. Do not use acronyms or abbreviations in your title and do not mention the method you used, unless your paper reports on the development of a new method. Titles are often used in information-retrieval systems. Avoid writing long formulas with subscripts in the title. Omit all waste words such as "A study of ...", "Investigations of ...", "Implementation of ...", "Observations on ...", "Effect of.....", "Analysis of ...", "Design of...", "Association ...", "Corelation between ...", etc. Indexing and abstracting services depend on the accuracy of the title, extracting from it keywords useful in cross-referencing and computer searching. An improperly titled paper may never reach the audience for which it was intended, so be specific.*

*The Introduction section should provide: i) a clear background, ii) a clear statement of the problem, iii) the relevant literature on the subject, iv) the proposed approach or solution, and v) the new value of research which it is innovation (within 3-6 paragraphs). It should be understandable to colleagues from a broad range of scientific disciplines. Organization and citation of the bibliography are made in Institute of Electrical and Electronics Engineers (IEEE) style in sign [1], [2] and so on. The terms in foreign languages are written italic (italic). The text should be divided into sections, each with a separate heading. A full article usually follows a standard structure: **1. Introduction, 2. The Comprehensive Theoretical Basis and/or the Proposed Method/Algorithm (optional), 3. Method, 4. Results and Discussion, and 5. Conclusion.***

Penulis dapat mengirimkan naskah dalam Bahasa Inggris atau Bahasa Indonesia (opsional). Abstrak harus dibuat dalam dua bahasa (Inggris dan Indonesia) apabila penulis mengirimkan naskah dalam bahasa Indonesia. Naskah dibuat dalam format kertas A4 (kuarto) dengan margin teks kiri dan atas 2.5 cm, kanan dan bawah 2 cm. Naskah ditulis dalam Microsoft Word (.doc atau .docx), spasi tunggal, huruf Cambria 10pt, maksimal 12 halaman untuk penelitian, maksimal 16 halaman untuk naskah tinjauan sistematis/survei.

Judul artikel harus sesingkat mungkin dengan menggunakan kata-kata akurat yang menggambarkan isi naskah. Judul harus ringkas dan informatif, panjangnya tidak melebihi 12 kata. Penggunaan singkatan dalam judul tidak diperbolehkan dan dilarang menyebutkan metode dalam judul kecuali apabila penulis mengembangkan metode baru. Hilangkan kata-kata yang tidak perlu seperti "Sebuah studi tentang ...", "Investigasi tentang ...", "Implementasi ...", "Observasi pada ...", "Pengaruh dari .....", "Analisis ...", "Desain ...", "Hubungan ...", "Korelasi ...", dll. Layanan pengindeksan dan pengabstraksian bergantung pada keakuratan judul, mengekstrak kata kunci yang berguna dalam referensi silang dan pencarian komputer. Makalah yang diberi judul yang tidak tepat mungkin tidak akan pernah sampai ke audiens yang dituju, jadi buatlah spesifik.

Bagian Pendahuluan harus menyediakan: i) latar belakang yang jelas, ii) pernyataan masalah yang jelas, iii) literatur yang relevan tentang subjek, iv) pendekatan atau solusi yang diusulkan, dan v) nilai baru penelitian yang merupakan inovasi (dalam 3-6 paragraf). Itu harus dapat dipahami oleh rekan-rekan dari berbagai disiplin ilmu. Penulisan referensi dibuat dalam style Institute of Electrical and Electronics Engineers (IEEE) dengan tanda [1], [2] dan seterusnya. Istilah dalam bahasa asing ditulis miring (miring). Teks harus dibagi menjadi beberapa bagian, masing-masing dengan judul terpisah. Artikel lengkap biasanya mengikuti struktur standar: **1. Pendahuluan, 2. Landasan Teoritis Komprehensif dan/atau Metode/Algoritma yang Diusulkan (opsional), 3. Metode, 4. Hasil dan Pembahasan, dan 5. Kesimpulan.**

## **METHOD (10 PT)**

(one single space, 10pt)

Metode dibuat subjudul:

### **Study Design**

(one single space, 10pt)

*This part consist of description of the research design, place, and time of the research.*

Bagian ini berisi uraian mengenai desain penelitian yang digunakan, lokasi penelitian, dan waktu dilakukannya penelitian.

### **Population and Sample**

(one single space, 10pt)

*Population, sample, sampling technique, and sample size should be explained in this part.*

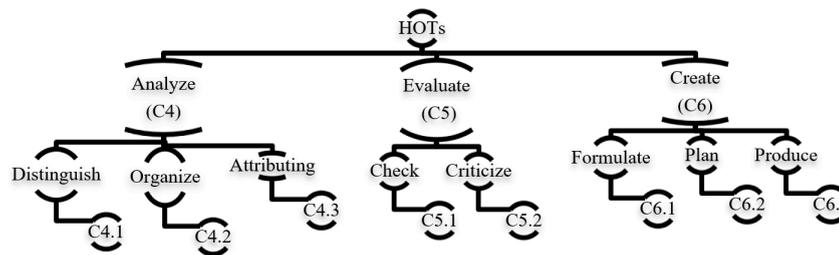
Populasi, sampel, teknik sampling, dan besar sampel harus diuraikan secara jelas pada bagian ini.

**Research Procedure**

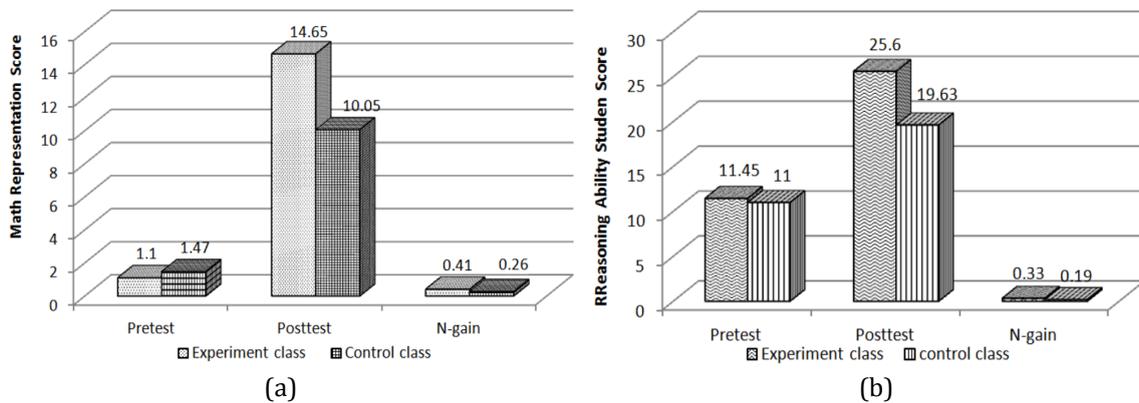
(one single space, 10pt)

This part consist of research procedure [5]–[7]. The description of the course of research should be supported references, so the explanation can be accepted scientifically [3], [4] Figures 1-2 and Table 1 are presented center, as shown below and cited in the manuscript [5], [8]–[13]. Figure 2(a) shown math representation ability students and Figure 2(b) reasoning ability students.

Berisi uraian tentang langkah-langkah atau kegiatan yang dilakukan oleh peneliti selama melakukan penelitian (dalam bentuk algoritma, pseudocode atau yang lainnya). Uraian tentang jalannya penelitian harus didukung dengan referensi sehingga penjelasan dapat diterima secara ilmiah [3], [4] Gambar 1-2 dan Tabel 1 disajikan secara tengah, seperti yang ditunjukkan di bawah ini dan dikutip dalam naskah [5], [8]–[13]. Gambar 2(a) menunjukkan kemampuan representasi matematika siswa dan Gambar 2(b) menunjukkan kemampuan penalaran siswa.



**Figure 1.** Cognitive process dimension



**Figure 2.** Pretest, posttest, and N-gain for (a) math representation ability students and (b) reasoning ability students

**Table 1.** Internal consistency reliability of biology test

| SN | Indicator                                    | Value |
|----|--|-------|
| 1  | Number of Item                               | 60    |
| 2  | Kuder Richardson (KR-20)                     | 0.620 |
| 3  | Cronbach's Alpha Based on Standardized Items | 0.617 |
| 4  | Mean Item Difficulty                         | 0.56  |
| 5  | Mean Item Difficulty                         | 0.4   |

**Instrument**

(one single space, 10pt)

This part explain the measurement tools used to obtain the data. Instruments sourced from previous research should be supported by citations. Author should describe the tools and materials used in the research.

Berisi uraian mengenai alat ukur penelitian yang digunakan dalam pengumpulan data penelitian. Alat ukur yang bersumber dari penelitian terdahulu perlu dicantumkan sumber sitasinya. Uraikan alat dan bahan yang digunakan dalam penelitian.

### **Data Analysis**

(one single space, 10pt)

*Data analysis using any statistical methods used should be described in this section. Uncommon methods should be accompanied by detailed explanations and supported by citations.*

Analisis data dengan metode statistik apapun yang digunakan harus diuraikan pada bagian ini. Metode yang tidak umum harus disertai penjelasan yang rinci dan didukung oleh sumber sitasi.

## **RESULTS AND DISCUSSION (10 PT)**

(one single space, 10pt)

*In this section, it is explained the results of research and at the same time is given the comprehensive discussion. Results can be presented in figures, graphs, tables and others that make the reader understand easily [14], [15]. The discussion can be made in several sub-sections.*

Pada bagian ini diuraikan hasil penelitian disertai dengan pembahasan secara menyeluruh. Hasil penelitian dapat disajikan dalam bentuk gambar, grafik, tabel, dan lain-lain yang memudahkan pembaca memahaminya. Pembahasan dapat dibuat dalam beberapa sub bagian.

### **Sub section 1**

(one single space, 10pt)

*Equations should be placed at the center of the line and provided consecutively with equation numbers in parentheses flushed to the right margin, as in (1). The use of Microsoft Equation Editor is preferred.*

Apabila pembahasan mengandung rumus atau persamaan, maka persamaan harus ditempatkan di tengah baris dan ditulis secara berurutan disertai nomor persamaan dalam tanda kurung yang ditempatkan di margin kanan, seperti pada (1). Sebaiknya gunakan Microsoft Equation Editor dalam penulisannya.

$$E_v - E = \frac{h}{2.m} (k_x^2 + k_y^2) \quad (1)$$

*All symbols that have been used in the equations should be defined in the following text. Semua symbol yang digunakan dalam persamaan harus diberi keterangan definisinya.*

### **Sub section 2**

(one single space, 10pt)

*Proper citation of other works should be made to avoid plagiarism. When referring to a reference item, please use the reference number as in [16] or [17] for multiple references. The use of "Ref [18]..." should be employed for any reference citation at the beginning of sentence. For any reference with more than 3 or more authors, only the first author is to be written followed by et al. (e.g. in [19]). Examples of reference items of different categories shown in the References section. Each item in the references section should be typed using 8 pt font size [20]–[25].*

Kutipan yang tepat dari karya lain harus dibuat untuk menghindari plagiarisme. Saat merujuk ke item referensi, harap gunakan nomor referensi seperti pada [16] atau [17] untuk beberapa referensi. Penggunaan "Ref [18]..." harus digunakan untuk setiap kutipan referensi di awal kalimat. Untuk setiap referensi dengan lebih dari 3 atau lebih penulis, hanya penulis pertama yang ditulis kemudian diikuti oleh et al. (misalnya dalam [19]). Contoh item referensi dari berbagai kategori ditunjukkan pada bagian Referensi. Setiap item di bagian referensi harus diketik menggunakan ukuran font 8 pt [20]–[25].

- **Subsub section 1**

yy

- **Subsub section 2**

zz

## **CONCLUSION (10 PT)**

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*Paper's should be the fewest possible that accurately describe ... (First Author)*

(one single space, 10pt)

*Provide a statement that what is expected, as stated in the "INTRODUCTION" section can ultimately result in "RESULTS AND DISCUSSION" section, so there is compatibility. Moreover, it can also be added the prospect of the development of research results and application prospects of further studies into the next (based on result and discussion).*

Berikan pernyataan terkait apa yang diharapkan, sebagaimana dinyatakan dalam bagian "PENDAHULUAN" pada akhirnya dapat menghasilkan bagian "HASIL DAN PEMBAHASAN", sehingga ada kesesuaian. Selain itu, dapat juga ditambahkan rekomendasi penulis atau prospek pengembangan hasil penelitian dan prospek penerapan penelitian lanjutan ke tahap berikutnya (berdasarkan hasil dan pembahasan).

### ACKNOWLEDGEMENTS (10 PT)

(one single space, 10pt)

*Author thanks ... . In most cases, sponsor and financial support acknowledgments.*

Penulis mengucapkan terimakasih kepada ... .

### REFERENCES (10 PT)

The main references are international journals and proceedings. All references should be to the most pertinent, up-to-date sources **and the minimum of references are 25 entries** (for original research paper) and **50 entries** (for review/survey paper). References are written in **IEEE style**. For more complete guide can be accessed at (<http://ipmuonline.com/guide/refstyle.pdf>). Use of a tool such as **EndNote**, **Mendeley**, or **Zotero** for reference management and formatting, and choose **IEEE style**. Please use a consistent format for references-see examples (10 pt):

#### [1] Journal/Periodicals

*Basic Format:*

J. K. Author, "Title of paper," *Abbrev. Title of Journal/Periodical*, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year, doi: xxx.

*Examples:*

- M. M. Chiampi and L. L. Zilberti, "Induction of electric field in human bodies moving near MRI: An efficient BEM computational procedure," *IEEE Trans. Biomed. Eng.*, vol. 58, pp. 2787-2793, Oct. 2011, doi: 10.1109/TBME.2011.2158315.
- R. Fardel, M. Nagel, F. Nuesch, T. Lippert, and A. Wokaun, "Fabrication of organic light emitting diode pixels by laser-assisted forward transfer," *Appl. Phys. Lett.*, vol. 91, no. 6, Aug. 2007, Art. no. 061103, doi: 10.1063/1.2759475.

#### [2] Conference Proceedings

*Basic Format:*

J. K. Author, "Title of paper," in *Abbreviated Name of Conf.*, (location of conference is optional), year, pp. xxx-xxx, doi: xxx.

*Examples:*

- G. Veruggio, "The EURON roboethics roadmap," in *Proc. Humanoids '06: 6th IEEE-RAS Int. Conf. Humanoid Robots*, 2006, pp. 612-617, doi: 10.1109/ICHR.2006.321337.
- J. Zhao, G. Sun, G. H. Loh, and Y. Xie, "Energy-efficient GPU design with reconfigurable in-package graphics memory," in *Proc. ACM/IEEE Int. Symp. Low Power Electron. Design (ISLPED)*, Jul. 2012, pp. 403-408, doi: 10.1145/2333660.2333752.

#### [3] Book

*Basic Format:*

J. K. Author, "Title of chapter in the book," in *Title of His Published Book*, X. Editor, Ed., xth ed. City of Publisher, State (only U.S.), Country: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx-xxx.

*Examples:*

- A. Taflove, *Computational Electrodynamics: The Finite-Difference Time-Domain Method* in *Computational Electrodynamics II*, vol. 3, 2nd ed. Norwood, MA, USA: Artech House, 1996.
- R. L. Myer, "Parametric oscillators and nonlinear materials," in *Nonlinear Optics*, vol. 4, P. G. Harper and B. S. Wherret, Eds., San Francisco, CA, USA: Academic, 1977, pp. 47-160.

#### [4] M. Theses (B.S., M.S.) and Dissertations (Ph.D.)

*Basic Format:*

J. K. Author, "Title of thesis," M.S. thesis, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

J. K. Author, "Title of dissertation," Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

*Examples:*

- J. O. Williams, "Narrow-band analyzer," Ph.D. dissertation, Dept. Elect. Eng., Harvard Univ., Cambridge, MA, USA, 1993.
- N. Kawasaki, "Parametric study of thermal and chemical nonequilibrium nozzle flow," M.S. thesis, Dept. Electron. Eng., Osaka Univ., Osaka, Japan, 1993.

\*In the reference list, however, list all the authors for up to six authors. Use *et al.* only if: 1) The names are not given and 2) List of authors more than 6. *Example:* J. D. Bellamy *et al.*, *Computer Telephony Integration*, New York: Wiley, 2010.

See the examples: (Lihat contoh berikut)

## REFERENCES

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