

## Education with Class League as A Strategy to Improve Student Learning Metacognition

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### ABSTRACT

This study aims to improve learning outcomes by applying the Education with Class League learning model which can make a major contribution to learning which will make students better understand their own abilities, be more active in asking questions, answering questions, giving responses or opinions, discussing well and being able to understand the concept of subject matter well. In addition, students can find various strategies to monitor and check their understanding. The achievement of the objectives of this study used a research and development model that used class XI students at SMA Negeri 6 Madiun using three different materials. Based on the results of trials that have been done, it can be concluded that the use of this ECL model can improve students' learning metacognition. This can be proven by looking at student learning outcomes that are better than before the use of the ECL model in the learning process. In addition, there was also an increase in the percentage of completeness both from the affective, psychomotor, and cognitive aspects. In the learning process, students also feel motivated and have high enthusiasm for participating in all learning activities, and students can measure their own ability to understand a learning material.

**Keywords:** *Education with class league, metacognition, student learning*

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### Introduction

Formal educational institutions, namely schools which are places where the learning process takes place are designed in such a way as to develop the potential that exists in students and develop scientific thinking concepts to deal with globalization which is increasingly sweeping countries in the world. Learning is a human process to achieve various kinds of competencies, skills, and attitudes (Baharuddin, 2008). Learning achievement will be achieved if the learning is in accordance with the predetermined learning objectives.

Based on observations in the learning process, students have difficulty achieving maximum learning outcomes. At present most students in learning only come, sit down, and go home so that teaching and learning activities will be like that every day if it is not balanced with a learning model that is appropriate to the material being taught and is able to make the learning atmosphere fun and not boring. On the other hand teachers who are more active and students who are passive will cause students in the class to quickly feel bored and busy when being taught so that learning models are also

needed that can activate students (Hernawan, 2010). Besides that, there are also quite basic problems, namely the lack of cooperation in the learning process, especially in completing assignments given by the teacher.

The achievement of learning objectives cannot be separated from optimal learning outcomes, therefore in this study the Education with Class League (ECL) learning model will be used to improve students' learning metacognition. The use of the ECL model is expected to be able to make a major contribution in learning which will make students understand more about their own abilities than their friends, be more active in asking questions, answering questions, giving responses or opinions, discussing well and being able to understand the concept of subject matter well which will improve student learning outcomes themselves. In addition, students can find various strategies to monitor and check their understanding (Anderson, 2010). According to Suprayekti (2012) students will have the motivation to be the best in class and at school and encourage students to learn more and create positive competition in the learning process. Thus it can improve students' ability to achieve learning objectives. Based on this description, this study aims to determine the ECL learning model as an alternative in improving students' learning metacognition.

## **RESEARCH METHODS**

On this occasion the research and development model (Research and Development/R&D) was used, namely a series of processes or steps in order to develop a new product or perfect an existing one so that it can be accounted for (Trianto, 2010). Henceforth, the elaboration of indicators and the implementation of each development component are adjusted to the internal and external carrying capacity they have.

Because this type of research is development research (R&D), the work procedure used refers to the Research and Development (R&D) research development model from Sugiyono, (2008). There are limitations that are owned, made modifications in the planning and implementation. The work procedures in question include: Potential and Problems, Gathering Information, Product Design, Design Validation, Design Improvement, Product Trials, Product Revisions, Usage Trials, Product Revisions, Manufacture of Mass Products.

The steps for learning activities using ECL are as follows:

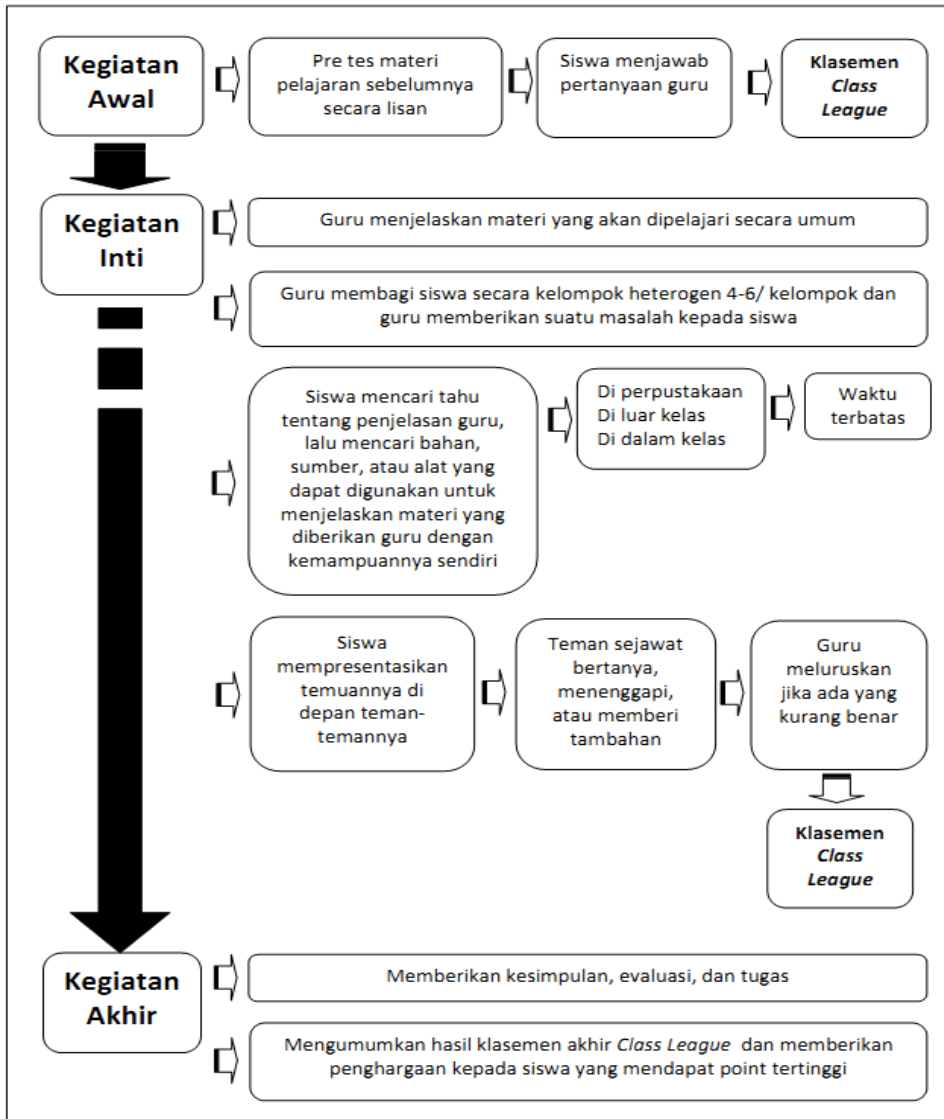


Figure 1. ECL Product Design

## RESEARCH RESULTS

The trial was carried out in three stages using the affective, psychomotor, and cognitive domains.

### 1. The results of the first stage of testing

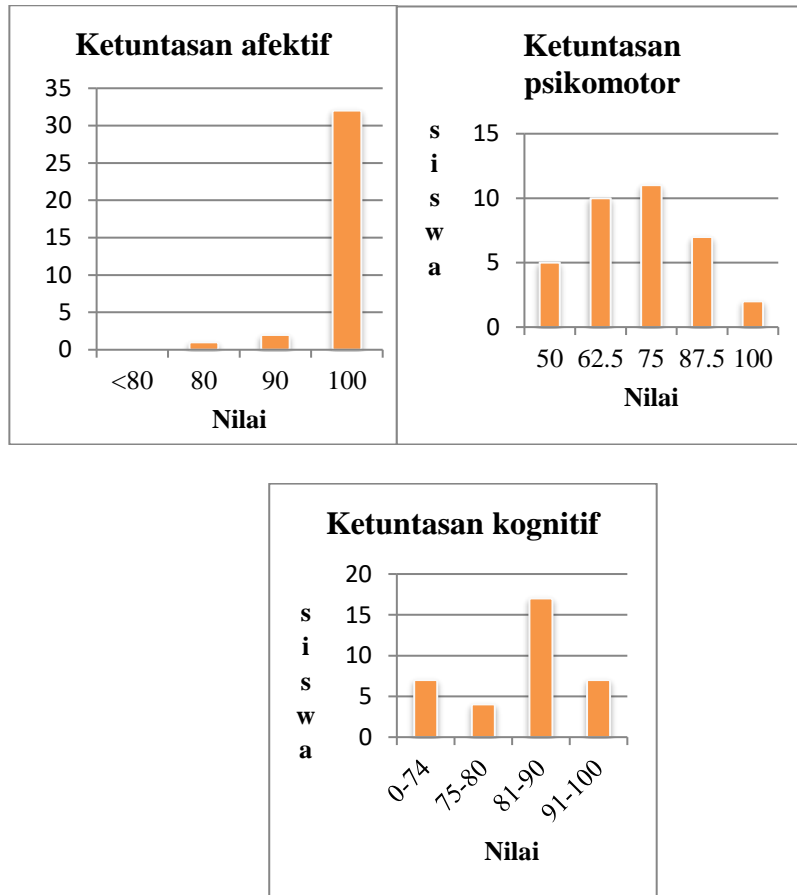


Figure 2. The results of the first stage of testing

The results of the UH value of the first stage of testing

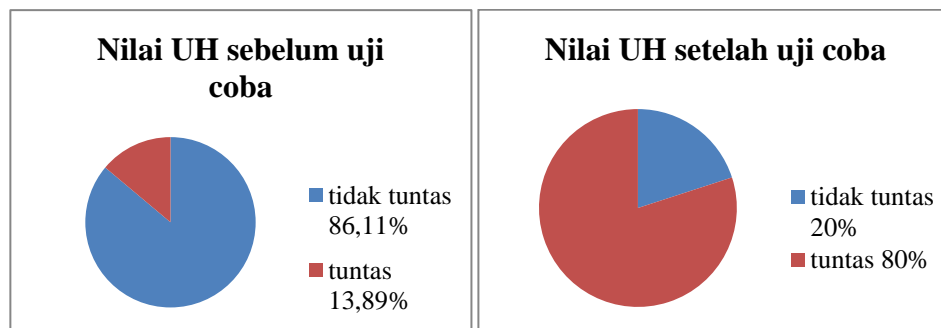


Figure 3. The results of the first stage of the UH test

2. The results of the second stage of testing

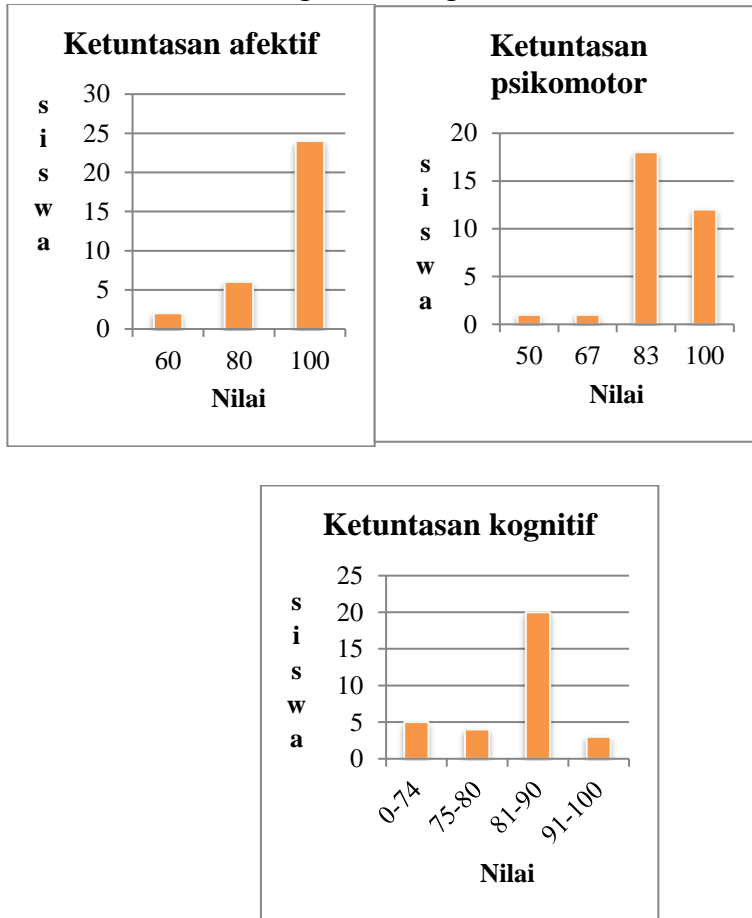


Figure 4. Results of the second stage of testing

The results of the second stage of the UH test

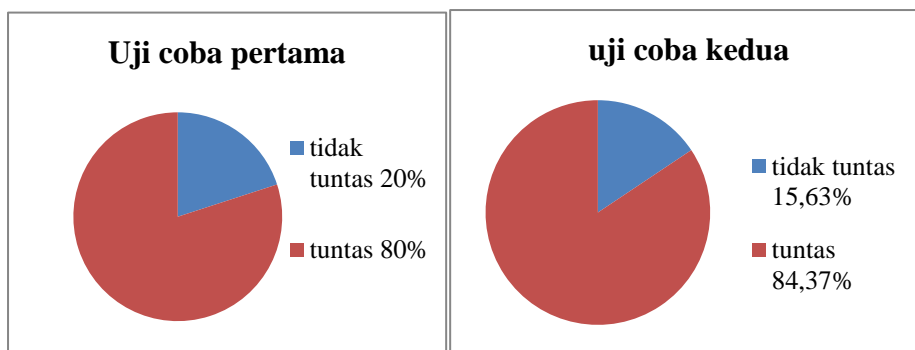


Figure 5. Results of the second stage of the UH test

3. The results of the third stage of testing

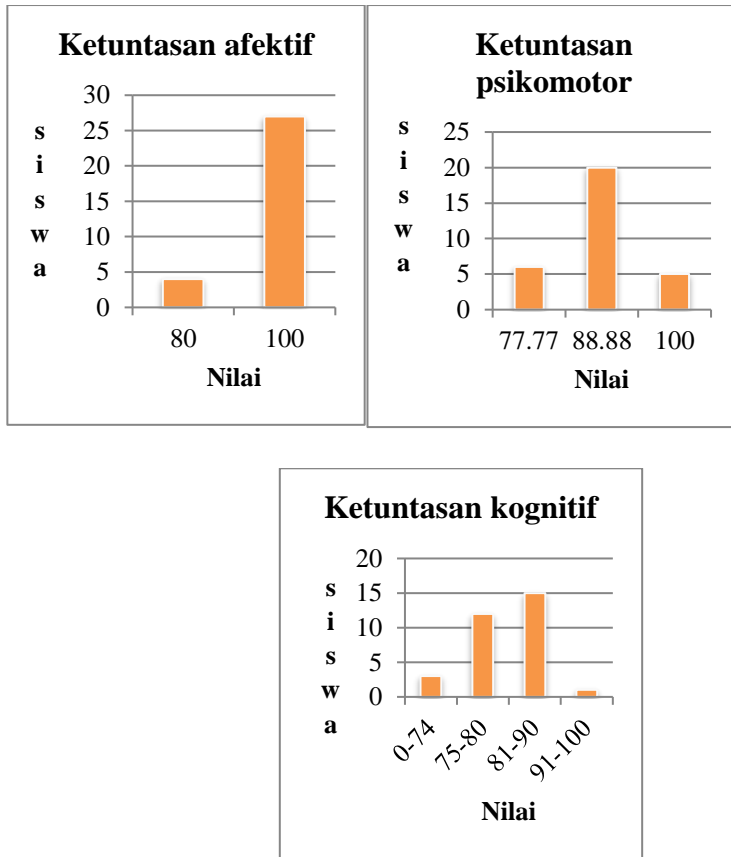


Figure 6. The results of the third stage of testing  
The results of the third stage of the UH test

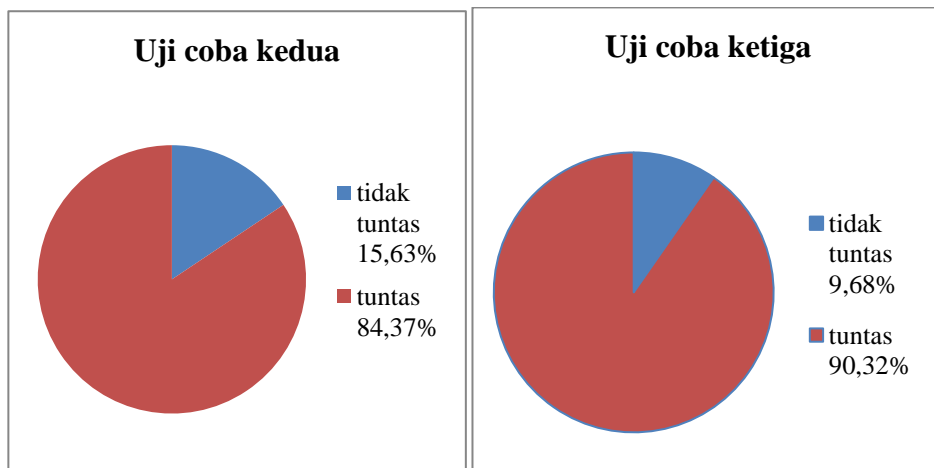


Figure 7. UH value of the third stage of testing

**DISCUSSION**

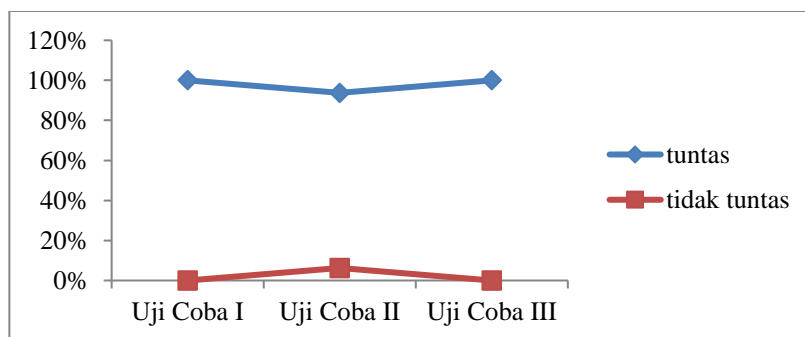
The objectives of using the ECL model include the following: (1) To train students to be more courageous in expressing their opinions in front of the class, (2) To

develop a positive competitive attitude for the advancement of education, (3) To motivate students to be more active in learning , (4) Helping students to more easily understand a subject concept, (5) Helping students to be able to measure how capable they are in processing lesson information and capturing it optimally, (6) Helping teachers to be able to condition students in the classroom.

The results of the first to third trials showed positive results from several aspects, including the following:

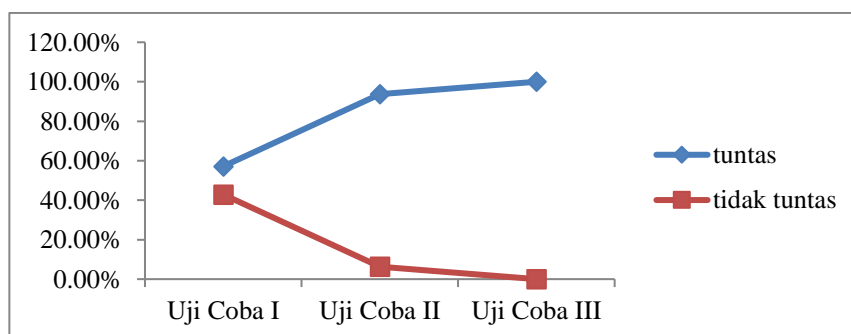
### 1. Affective Realm

Based on the three trials that have been carried out, all of them are declared complete. This shows that the ECL model is able to improve aspects of student attitudes in class, who were initially only passive listeners and often joked while being taught to become more active and become good listeners during the learning process.



### 2. The Psychomotor Realm

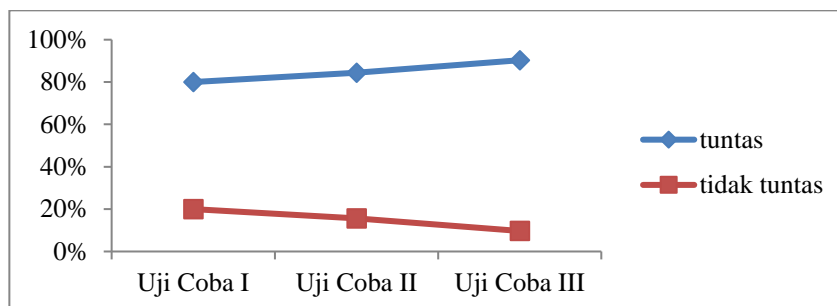
The psychomotor aspect places more emphasis on things, circumstances, and activities that involve the muscles as well as their movements (Shah, 2010). In this case it refers to the observation or information seeking by students of the material being taught by the teacher. According to Sobur (2003) learning based on observation is very important because by observing objects a person uses his various senses to see, hear, touch, taste, and so on.



### 3. Cognitive Realm

This cognitive domain assessment is in the form of an evaluation (post test) which aims to determine the level of student mastery of the material that has been taught (Syah, 2010). The post test was carried out in the form of multiple choice tests

and essays with reference to Bloom's taxonomy in Anderson and Krathwohl (2001), which has perfected the cognitive domain based on six categories of cognitive processes, namely remembering, understanding, applying, analyzing, evaluating, and creating. Testing the ECL model was stated to be quite satisfactory because there was an increase in cognitive value between before and after the implementation of the ECL model.



Increasing students' self-awareness regarding the process of thinking, students can be trained to think consciously about their ability to achieve a material concept and set appropriate learning strategies in order to understand a concept of subject matter. The ECL model is also useful as a strategy for students to control their thoughts by designing, monitoring, and assessing what they learn.

Based on the trials that have been carried out, it can be stated that the use of this ECL model in learning is able to improve students' metacognition of learning, this is evidenced by better student learning outcomes and have a high level of completeness compared to the material before the trial, and students have their own motivation in the classroom so that the learning atmosphere becomes fun and activates students.

## CONCLUSION

Based on the trial results, it was found that there was an increase in completeness both from the affective, psychomotor, and cognitive aspects compared to before the trial was conducted. In addition, students are also able to work in groups, participate actively in learning activities, be good listeners, be able to accept what the teacher explains, and are able to observe or seek information well.

## BIBLIOGRAPHY

- Andayani, dkk. 2009. Materi Pokok Pemantapan Kemampuan Profesional (PKP). Jakarta: Universitas Terbuka.
- Anderson, O.W. & Krathwohl, D.R., (2001). A Taxonomy For Learning, Teaching, and Assessing (A Revision of Bloom's Taxonomy of Educational Objectives). New York: Addison Wesley Longman, Inc.
- Arikunto, S. 2006. Prosedur Penelitian Suatu Pendekatan Praktik. (Edisi Revisi VI). Jakarta : Rineka Cipta.
- Baharuddin. 2008. *Teori Belajar dan Pembelajaran*. Jogjakarta: Ar-Ruzz Media.
- Danial. M. 2010. *Pengaruh Strategi PBL Terhadap Keterampilan Metakognisi dan Respon Mahasiswa*. Jurnal Chemica Vol 11, No 2, 1 – 10.

- Djuroto, T, dan Supriyadi. B. 2003. *Menulis Artikel dan Karya Ilmiah*. Bandung: Remaja Rosda Karya.
- Flavel. J.H. 1979. Metakognition and Cognitive Monitoring: A New Area of Cognitive-Developmental Inquiry. *American Psychologist* 34: 906-911.
- Furchan, A. 2007. *Pengantar Penelitian Dalam Pendidikan*. Yogyakarta: Pustaka Pelajar.
- Ghufron. A. 2011. *Pendekatan Penelitian dan Pengembangan (R&D) Dibidang Pendidikan dan Pembelajaran*. Yogyakarta: Fakultas Ilmu Pendidikan Universitas Negeri Yogyakarta.
- Hayat, B, dan Yusuf. S. 2010. *Mutu Pendidikan*. Jakarta: Bumi Aksara.
- Hernawan. 2010. Materi Pokok Pengembangan Kurikulum dan Pembelajaran. Jakarta: Universitas Terbuka.
- In'am. A. 2009. *Peningkatan Kualitas Pembelajaran Melalui Lesson Study Berbasis Metakognisi*. Vol 12, No 1, Januari – Juni.
- Jusoff, K, dkk. 2010. *Motivating Student Using Project Based Learning (PjBL) Via e-SOLMS Technology*. *World Applied Sciences Journal* 8 (9): 1086-1092, 2010.
- Kamil. M. 2010. Model Pendidikan dan Pelatihan (Konsep dan Aplikasi). Bandung: Alfabeta.
- Khasanah. N. D. 2010. Peningkatan Keterampilan Metakognisi dengan Menggunakan Metode SQ3R pada Pembelajaran Biologi Siswa Kelas VIIA SMP Muhammadiyah 2 Surakarta Tahun Ajaran 2009/2010. Skripsi. Surakarta. Universitas Muhammadiyah Surakarta.
- Marouw. W, M. 2008. *Pembelajaran Cooperative Script Metakognitif (csm) untuk Meningkatkan Hasil Belajar Biologi Siswa SMP di Manado*. Pendidikan Biologi FMIPA Universitas Negeri Manado.
- Maulana. 2008. *Pendekatan Metakognitif Sebagai Alternatif Pembelajaran Matematika Untuk Meningkatkan Kemampuan Berpikir Kritis Mahasiswa PGSD*. *Jurnal Pendidikan Dasar*, No 10.
- Moesono. A, dkk. 2005. Peran Kognitif dan Metakognitif Dalam Proses Pembelajaran bagi Tercapainya Pemahaman yang Optimal. *Jurnal Psikologi Sosial*, Vol 11, No 03, ISSN 0853-3997.
- Nasir. M. 2005. *Metode Penelitian*. Bogor: Ghalia Indonesia.
- Nugrahaningsih. K. 2012. Metakognisi Siswa SMA Akselerasi dalam Menyelesaikan Masalah Matematika. *Jurnal Magistra* No 82, ISSN 0215-9511.
- Putri. W. A., Prasetyo. A. P. B, dan Supriyanto. 2012. *Pengaruh Penerapan Strategi Metakognitif dalam Metode Inquiri Terhadap Hasil Belajar*. *Unnes Journal of Biology Education*. ISSN 2252-6579.
- Quinn, G. P dan Keough, M. J. 2002. *Experimental Design and Data Analysis for Biologists*. New York: Cambridge University Press.
- Rahman. S. Dan Phillips. J, A. 2006. Hubungan antara Kesadaran Metakognisi, Motivasi, dan Pencapaian Akademik Pelajar University. *Jurnal Pendidikan* 31: 21-39.
- Sabur. A. 2003. *Psikologi Umum dalam Lintasan Sejarah*. Bandung: Pustaka Setia.
- Sasrawan. H. (2013). *9 Hal Penyebab Hasil Kerja Kelompok Kurang maksimal*. Tersedia: [file:///E:/bahan proposal & skripsiku hedi sasrawan.htm](file:///E:/bahan%20proposal%20&%20skripsiku%20hedis%20sasrawan.htm). Diunduh tanggal 28 Juli 2013.

- Schraw, G. & Dennison, R.S. 1994. *Assessing metacognitive awareness*. Contemporary Educational Psychology 19: 460-475.
- Schraw, G. (1998). *Promoting general metacognitive awareness*, Instructional Science, 26, 113- 125.
- Setyosari, P. 2010. *Metode Penelitian Pendidikan*. Jakarta: Prenada Media Group.
- Sugiyono. 2008. *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Sumarno. J. 2007. Peningkatan Pemahaman Konsep Matematika Melalui Pembelajaran dengan Strategi Metakognitif. *Widyatama*, Vol 4, No 4.
- Suprayekti. 2012. *Materi pokok pembaruan dan pembelajaran di SD*. Jakarta : Universitas Terbuka.
- Susantini. E. 2009. Pengaruh Kemampuan Siswa terhadap perolehan kognitif dan metakognitif pada pembelajaran biologi. *Berk. Penel. Hayati*. 3E (31-35).
- Syah. M. 2010. *Psikologi Pendidikan dengan Pendekatan Baru*. Bandung: Remaja Rosdakarya.
- Syaiful. 2011. Metakognisi Siswa Dalam Pembelajaran Matematika Realistik di Sekolah Menengah Pertama. *Jurnal Edumatica* Volume 1 No 02 ISSN 2008-2157.
- Tim Pengembang PTK. 2008. *Rancangan Proposal Penelitian Tindakan Kelas*. Kediri: Panitia Sertifikasi Guru.
- Tim Penyusun Kamus Pusat Pembinaan dan Pengembangan bahasa. 2001. *Kamus Besar Bahasa Indonesia*. Edisi Ketiga. Jakarta: Balai Pustaka.
- Trianto. 2010. Pengantar Penelitian Pendidikan Bagi Pengembangan Profesi Pendidikan Tenaga Kependidikan. Jakarta: Prenada Media Group.
- Utaminingsih. F. 2012. Hasil Belajar Kognitif Biologi Diprediksi dari Kemampuan Metakognisi, Kesiapan Belajar, dan Motivasi Berprestasi Siswa Kelas XI IPA SMA Negeri 3 Sukoharjo. Skripsi. Surakarta. FKIP Universitas Sebelas Maret.
- Warouw. M, dan Zusje. W. 2010. Pembelajaran Cooperative Script Metakognitif (CSM) yang Memberdayakan Keterampilan Metakognitif dan Hasil Belajar Siswa. Makalah disajikan dalam Seminar Nasional Pendidikan Biologi, FKIP UNS 2010.
- Widorini. S. 2010. Pengaruh Penggunaan Media LCD dan OHP Terhadap Hasil Belajar Ditinjau Dari Sikap Kewirausahaan Pada Siswa SMK PGRI 3 dan SMK Pawayatan Daha Kota Kediri Tahun Pelajaran 2010/2011. Tesis. Surakarta. Program Pasca Sarjana. Universitas Negeri Sebelas Maret.
- Wiriadmadja, R. 2008. *Metode Penelitian Tindakan Kelas, Untuk Meningkatkan Kinerja Guru dan Dosen*. Bandung: RemajaRosdaKarya.