







"Sang Guru for The Betterment of Education"

# **PROCEEDINGS**



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Universitas Negeri Surabaya's 48th Anniversary

# INTERNATIONAL SEMINAR 'SANG GURU' FOR THE BETTERMENT OF EDUCATION

Universitas Negeri Surabaya, September 8<sup>th</sup>, 2012



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### **ISSAG 2012's Chairperson Welcome Note**

All praised be to The Almighty.

The first International Seminar 'Sang Guru' is held as part of the commemoration of *Universitas Negeri Surabaya's* (Unesa) 48th Anniversary. It will be held annually as part Unesa's committment to contribute to the betterment of education in Indonesia. The main objective of the International seminar is to gather experts, teachers, researchers and other stakeholders in education to share knowledge and research result in the field, which later can be proposed as part of consideration to the government as the main element of structuring policy in education.

The theme 'Sang Guru' or the teacher is selected as the focus of the seminar since the world of education is now becoming more aware on the pivotal role of the teacher to shape the world of education. Teachers hold an essential function to improve the quality of life through educating the people, especially the young generations. As the history noted that the prosperity of a nation is not determined primarily by abundant of natural resources, instead the toughness of the competition and excellence in science and teachnology.

Seeing the strategic role of the teachers, the government passed the law no.14, 2005 which stated that school and higher education teachers as the basics policy to streghten the existence of professional education as parallel to other professions. Due to the changing demands of a global society, teachers are required to be professional in their fields (Education International, 1998: 112). Therefore, improving the quality of teachers to become professional teachers has always been the aim, which was done through the provision of educational qualification, in-service training programs and many other activities.

Being professional teachers, ones must have certain criterias. A professional teacher does not only focus on the curriculum, but also to the development of the potential and the ability of the students. The teacher should also be able to produce students who are resilient in challenges. In other words, teachers play a role in shaping students' good

character. The teacher as a role model can be the source of inspiration for the students. In addition, teachers have a great responsibility in producing a generation with character, cultural, and moral. Human tasks is a transformation, identification, and sense of self which must be implemented together in an organic unity, harmony, and dynamic ways.

From the explanation, it is apparent that teachers, in the development of characters in schools, serves many function; such as, as a catalyst or a role model, inspirator, motivator, mover, and evaluators. As a catalyst, the example of a teacher, is an absolute factor in the development of character education learners, effective, due to its position as a figure or idol who is imitated by learners. As inspiration means a teacher must be able to evoke the spirit of the students to come forward to develop its potential. As a motivator, it implies that every teacher should be able to raise the spirit, work ethic and tremendous potential to self-learners. As a mover, it means that every teacher has the ability to push students toward achievement of goals with great wisdom, patience, agile, intelligent and uphold spirituality. While the role of the teacher as an evaluator hole the meaning that each teacher is required to and always evaluate yourself attitude or behavior, and learning methods used in the development of character education learners, so that they know the level of effectiveness, efficiency, and productivity programs.

In conclusion, the context of the education system in schools to develop character education learners, teachers must be positioned themselves on the real substance, namely: a) teachers as educators, which means that in addition to knowledge transfer, as well as educate and develop personality of students through interaction in the classroom and outside of the classroom b) teachers should be given full (absolute right) in the assessment (evaluation) of the learning process. It is because the teachers are the ones who are aware of the condition and the development of the students , and c) teachers should develop an evaluation system that is more focused on the affective aspect, by using specific assessment tools, such as, assessment essays and interviews. This will be done even better if it is supported by the government as policy makers.

As a final remarks, I would like to express my sincere appreciation for the Minister of Education of Indonesian Republic for opening this International seminar and the Rector of Universitas Negeri Surabaya. We would also like to thank the sponsors for their generous support for the conference: PT. Pelindo III, PT. Semen Gresik Persero Tbk, PT. Bank Jatim, PT. Erlangga, CV. Rosda Karya, PT. Rembaka, Vegan House, PT. Ajinomoto, and other related parties that we could not mention one by one who contribute to the success of this International seminar.

Our gratitude goes to all of the presenters for their outstanding papers. We received 46 papers which will be distributed in one plenary session and 8 panel sessions. Our high appreciation for Professor Bernd Nothofer, Prof. Dr. Mohamed Dahlan bin Ibrahim, Prof. Dr. Satryo Soemantri Brodjonegoro, M.Sc, Dr. Sulistyo, M. Pd and Ir. Wedo Wiroaji for their iluminuos papers.

All in all, the plenary and panel session has been succesfully closing the gap between many teachers and students mindset so as to improve the education in common. We expect that the future conferences will be as stimulating indicated by the contributions presented in this proceedings volume.

Dr. Sri Setyo Iriani, S.E., M.Si. Chairperson of ISSAG 2012 Universitas Negeri Surabaya srisetyo2009@gmail.com

#### **Unesa's Vice Chancellor Welcome Note**

The rapid development of education nowadays has resulted in significant changes on the role of teachers. Nowadays, there has been a new paradigm on teachers as other functions beyond their teaching role in the classroom, such as; a leader, an entrepreneur, and a researcher. Consequently, this issue raises a matter for discussion regarding teachers' professionalism.

According to the law no. 20, 2003 on National Education System, the role of teachers has been elaborated as educator which have qualities as teacher, lecturer, counselor, instructor, facilitator, and other qualities that conform their skills. In addition, the teachers should also take an active role and contribute in the implementation of education. Therefore, Universitas Negeri Surabaya (Unesa) or The State University of Surabaya holds an International seminar 'Sang Guru 'which attempts to bring together teachers, practitioners, researches, and other stakeholders in education to share the research result about teacher in specific and the development of education in general. This event serves as a commemoration of Universitas Negeri Surabaya's 48<sup>th</sup> Anniversary and also as the first International Seminar which will be held annually.

Unesa's vision Excellence in Education and Strong in Science and its motto 'Growing with Character' reflects our utmost attention on improving the quality of education in Indonesia and teacher training in the smaller scope. In line with the vision, this international seminar 'Sang Guru', covers a wide range of topics in teachers and their role, for instance; teacher as a role model of good character for the students, teacher as an entrepreneur and teacher in teacher development for the betterment of education. The main goal of this seminar is giving contribution to the teachers and other stakeholders in education, including to the policy makers in regional and national level.

Finally, I would like to take this opportunity to extend my gratitude to all the organizations, sponsors, and academics that contributed actively to support the success of this international seminar. I also would like to acknowledge prominent figures in the world of education who have been

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our main speakers and reviewers for this event. In addition, our high appreciation goes to Professor Bernd Nothofer, Prof. Dr. Mohamed Dahlan bin Ibrahim, Prof. Dr. Satryo Soemantri Brodjonegoro, M.Sc, Dr. Sulistyo, M. Pd and Ir. Wedo Wiroaji and other experts with their contribution to the International Seminar 'Sang Guru'. Finally, it is a pleasure once again to acknowledge the hard working committee of International Seminar 'Sang Guru' for the success of the event.

I hope this publication will bridge the gaps to meet the requirement of policy makers, teachers, and other stakeholders in the field of education.

Prof. Dr. Muchlas Samani Rector of Universitas Negeri Surabaya

## Acknowledgement

ISSAG is an international seminar for teachers and practitioners in developing their knowledge. Scientific will be more objective when it is read out by experts in their respective fields. On this occasion, we thank you to the following who have provided valuable input to improve this paper. We ask for apologies if a reviewer's name has been omitted from the list or unintentionally misspelled.

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# An Application of Mnemonic Strategy in the Learning of Physics at State Junior High School 7 Palembang

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Abstract -Based on information obtained from teachers who teach science in the classroom VII Junior High School 7 Palembang, that there are still reluctant learners are invited to think analysts in physics learning materials, they seem reluctant to participate in the learning process. This is indicated by the appearance of passivity, silences just listening to the material students are taught by a teacher. Communication that occurs is one-way communication, that the teacher to the student. Besides learning a monotone system causes boredom in students. As well as a lack of meaningful learning system that causes students to forget easily. Based on these encouraging researchers to conduct research on the application of mnemonic strategies in learning physics class VII Junior High School 7 Palembang on Quantities and Units of matter in the first half and hopefully with this strategy researchers can motivate students in learning physics and students can make it easier to remember the lessons so as to enhance learning effectiveness in improving learning outcomes. In this study raise the issue of how the application of mnemonic strategies in teaching physics in class VII School 7 Palembang. Therefore, the goal of researchers is whether or not the application of mnemonics in learning physics strategy VII class in Junior High School 7 Palembang. The variables in this study were student learning outcomes through the application of mnemonic strategies. The populations in this study were junior high school students in grade VII at State Junior High School 7 Palembang graders VII.3 The sample is composed of 19 male students and 21 female students. The method used in this study is descriptive. Data collection was done by using the test. Data obtained from the tests were analyzed by quantitative descriptive.

From the results of research and discussion is done, it can be concluded that the study results after the Mnemonic strategies applied on the subject of quantities and units in Junior High School 7 Palembang at the first meeting of the sub Physics and Measurement of Quantities of material value is an average of 77.27 with a category of students fine. At the second meeting of the International System of Units sub content and presentation of results of measurements an average value of 79.11 with a student either category. Then on the third meeting of the final test(evaluation) the level of students' understanding of matter Quantities and units with an average of 87.07 with the excellent category. This suggests that the success rate of students with an average value of each meeting have increased quite good and the application of mnemonic strategies can be applied in the learning process.

Keywords- application of mnemonic strategy, physics

#### I. INTRODUCTION

Physics is part of the Natural Sciences which is the result of human activity in the form of knowledge, ideas and concepts that are organized around the nature of the experience gained through a series of a series of scientific processes. However. at present science (Physics) is one of the subjects that are considered difficult by most middle school students. This is caused by many physics formulas that require the analysis mathematical calculations and the amount of material that needs to be remembered and understood. In addition most teachers are still present lessons with verbal words and tend to use conventional methods of learning. This raises the exciting impression that physics lesson. Therefore learning physics should be made more interesting and fun. To realize that one of them required learning strategies that can support the learning situation, so that physics lesson to be interesting, understandable and fun.

One strategy that can help students increase the ability to store and recall the mnemonic strategies (Ronis, 2009: 142). According to Santrock (2010:331) if the child needs to learn a list of concepts, strategies, mnemonics can help. mnemonic strategies can make meaningful material by means of rhythmic patterns, associations and so forth. And by using this mnemonic strategy, it can provide a systematic way to record and retrieve the material. Joyce et al (2009:239), the mastery of a simple mnemonic strategies can lead some people to establish the principle, first, that they can control and alter their own mental activity. This embodiment may encourage them to run a experimentation of self-criticism of procedures to learn and memorize the pattern which is also an important part of intellectual development.

The scientists argue that the ability of the brain that we use to remember is still less than 10%. This means that still 90% of the true power of the brain that we use to the maximum.

That's why many of us who have problems with memory, memory and concentration. Therefore, use mnemonic strategies that may help to remember well. Strategy learning with mnemonic strategies is learning strategies to use leverage in memorizing a theoretical or practical knowledge so that learning will be even easier. According Halim, dkk (2012:1) that a mnemonic technique is effective to improve long-term memory in learning

Based on information obtained from teachers who teach physics in the classroom VII Junior High School 7 Palembang, that there are still reluctant learners are invited to think analysts in physics learning materials, they seem reluctant to participate in the learning process. This is evidenced by the appearance of passivity, silences just listening to the material students are taught by a teacher. Communication that occurs is one-way communication, the teacher to the student. Besides learning a monotone system causes boredom in students. As well as a lack of meaningful learning system that causes students to forget easily. Based on this study encourages researchers to organize application of mnemonic strategies in Learning Physics at Junior High School class VII in Palembang semesters 7 and is expected with this strategy researchers can motivate students in learning physics and students can make it easier to remember the lessons that can improve the effectiveness of learning in improved learning outcomes.

Instruction mnemonics refer the instruction or learning strategies specifically to remind the memory. It is intended to modify or change the information that can be learned and aims to connect directly with information in which the learners can immediately find out. While the term is defined mnemonics a lot of them, according to White (2005:77) in his book entitled 27 tips to strengthen your memory. A mnemonic is an art as well as knowledge that could be part of system memory upgrades. According to Buzan (2002) mnemonics are the principles of special memories. And Santrock (2010:331) defines strategy mnemonic memory aid for recalling information. While Joyce, et al(2009:224) argues that mnemonic strategies that aide in memories strategy. The reminders are generally less effective use of the procedure - a procedure that "just memorize" only. They "say" what memorize continuously

without stopping so that they believe that memorize truly embedded in their memory. According to Jensen, et al (2006) defines the following mnemonic: a tool for remembering. While the Oxford Dictionary defines the mnemonic is on order to aid memory." The word mnemonic comes from the name of the goddess of memory Mnemosyne. Manifestation of the ability to remember the Greeks is seen in the offerings to the gods and Sophistication of mnemonic techniques can be found everywhere, but some of the following is a simple mnemonic techniques help to remember and can be used by anyone closely.

Therefore, the mnemonic strategy is a plan that contains a series of activities by using the tools for organizing information in working memory reaches a known pattern such that the information is more easily matched by the pattern of long-term memory scheme. Many people realize that when they apply mnemonic strategies for remembering things. The process will be easier to recall. Mnemonics are always using the principle of association. Methods in the following mnemonic strategy will strengthen our memories with just a little effort. According to Santrock (2010:331) there are four methods in mnemonic strategies are (a) Method of Loci, (b) Methods Rima, (c) Methods Akrostic, (d) Key-word method.

This mnemonic strategy can make a meaningful material by means of rhythmic patterns, associations and so forth. And by using this mnemonic strategy, it can provide a systematic way to record and retrieve the material.

Sternberg (1986) reveals that all information about a person's learning outcomes will be stored in memory for later use. We conclude that efficacy expectations and attributions for memory performance may influence mnemonic training outcomes.

Use of effective encryption, such as sensory information such as pictures or words on paper and then summarized and coded as soon as possible after we detect those things, in other words, students are required to be nimble in receiving information. Teach students to use mnemonic strategies in a way children develop images of an item that will be remembered and the transfer into memory so that when needed

will immediately be able to use it. Application of student centered learning (SCL) through mnemonics method and associated technique in basic Kanji. The research method used was experimental method. Based on the results of this study concluded that sufficient mnemonic helps students to memorize kanji meaning, especially when working on the exam (Rasiban, 2013).

#### II. RESEARCH METHODS

The research method used in this research is descriptive method. Descriptive methods are research methods that do not perform statistical hypothesis testing (Sugiyono, 2007:84). Descriptive method is a descriptive quantitative intended. Quantitative data is data in the form of numbers, or qualitative data (scoring) (Sugiyono, 2007:23). Descriptive research is intended to situations or areas of a particular population in a systematic factual and accurate. This method is used to determine how the application of the mnemonic learning strategy on students' grade VII Junior High School 7 Palembang.

To obtain a student learning outcome data, researchers collected data using the test method. The test is a series of questions or exercises and exercise equipment and other tools used to measure the skills, knowledge, intelligence, ability or talent possessed by individuals or groups (Arikunto, 2006:150). Tests have been developed given the class is taught using mnemonic strategies. The test is administered in the form of formative tests essay tests. Tests given to students one time the post -test at each end of the meeting. to measure the learning ability of students after the completion of the learning process takes place on the subject of Quantities and Units.

#### III. RESULTS AND DISCUSSION

Data obtained from studying the results of the test administration. Giving the test was conducted at each meeting after learning the mnemonic strategies applied physics. At the first meeting with the sub materials and measurement of physical quantities and units is given by 4 questions in essay form. At the

second meeting of the sub material and presentation of an international system of units of measurement results given 3 questions in essay form . The administration of tests conducted at the end of the third meeting which includes all materials have been studied at each meeting by giving a shit 4 is a series of questions-shaped test or exercise as well as other tools used to measure the skills, knowledge, intelligence, ability or aptitude of the individual or group (Arikunto, 2006:150). The tests were conducted to determine student learning outcomes for mnemonic strategies applied. Test questions are given in the form of an essay consists of four questions. Test questions and the weighting of each score. The tests were conducted one time at each end of the meeting. To get a real picture of the results of the test, the students made the list of frequency distributions are used to determine the value of the average student at each meeting.

Learning outcomes that have been implemented on SMP VII.3 grade 7 Palembang in resolving a matter of physics in the form of an essay on the quantity of matter Physics and Measurement And Its units get good learning results. It can be seen from analysis of data on student learning outcomes during the learning mnemonic strategies applied physics. The number of students increased learning outcomes at every meeting, and some are decreased. Where the first meeting of the students scored an average of 77.27 is good. At the second meeting students' grades by an average of 79.11 an increase of learning outcomes at the first meeting. This is because students receive encouragement and motivation of researchers to continue to learn and discover knowledge through learning activities both International System of Units sub content and presentation of measurement results. At the end of the test results of data analysis (evaluation) obtained from the mean - average of 87.07 students from the average value - shows that the average student learning by using mnemonic strategies is very good by the standards of thoroughness and individuals in the Junior High School 7 Palembang with 39 students has been completed and one student was not finished. From the test questions given there were 25

students who scored very well, 12 students got good grades, two students scored quite well as a people are getting less value. Of the four questions given the final test, students are able to basically do all of these questions well, but on questions 3 there are some students that cannot be answered with either because they are still difficulties in converting units. The list of the student learning outcomes can be seen in the table below:

TABLE I. STUDENTS LEARN THE VALUE OF LIST

Meeting	I	II	Evaluation
Average	77,27	79,11	87,07

From the table above can be seen that the learning outcomes of students continues to increase each meeting. From the end of the test data obtained by classical completeness percentage of 97.5% of students means that students can follow the process properly learning using mnemonic strategies in solving the problem, because these mnemonic strategies can make a meaningful material by means of rhythmic patterns, associations and so forth. And by using this mnemonic strategy, it can provide a systematic way to record and retrieve the material.

#### III. CONCLUSION

The results of research and discussion can be concluded that the study results after the mnemonic strategies applied on the subject of Quantities and Units in Junior High School 7 Palembang showed that the success rate of students with an average value of each meeting have increased quite good and the application of mnemonic strategies can applied in the learning process.

#### **REFERENCES**

- [1] Arikunto, S. 2006. Prosedur Penelitian Suatu Pendekatan Praktik, Jakarta: Rineka Cipta.
- [2] Buzan, Tony.2002. Use your perfect memory.Teknik Optimalisasi Daya Ingat.Terjemahan Basuki Heri Winarno. Ikon terelitera. Yogyakarta.

- [3] Halim, dkk. 2012. *A mnemonic technique is effective to improve long-term memory in learning.* Jurnal Ilmiah Psikologi Candrawijaya. Vol 1, No 2 (2012).
- [4] Joyce, Bruce; Weil, Marsha; dan Calhoun Emily. 2009. *Model-Model Pengajaran*. Yogyakarta: Pustaka Belajar.
- [5] G. W., & Balcerak, L. J. (1989).Memory self-efficacy and performance differences in young and old adults: The effect of mnemonic training. *Developmental Psychology*, 25(5), 714-721. http://dx.doi.org/10.1037/0012-1649.25.5.714.
- [6] Jensen, E. (2006) Enriching the Brain. Jossey-Bass, a Wiley Imprint. San Francisco, CA.
- [7] Rasiban, Rina Meilia. Penerapan Student Centered Learning (SCL) Melalui Metode Mnemonik Dengan Teknik Asosiasi Pada Mata Kuliah Kanji Dasar. Jurnal Pendidikan. Vol 13, No 2 (2013).
- [8] Ronis, Diane. 2009. *Pengajaran Matematika Sesuai Cara Kerja Otak*. Jakarta:PT Indeks.
- [9] Santrock W John. 2010. Psikologi Pendidikan. Jakarta: Kencana.
- [10] Sugiyono.(2007).Metode Penelitian pedidikan pendekatan kuantitatif,kualitatif, dan R&D.Bandung: ALFABETA
- [11] White, Kay. 2005. 27 *Kita Memperkuat Daya Ingat*, Bandung; Nuansa.