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# THE EFFECTIVENESS OF MASTERY LEARNING TECHNIQUE ON IMPROVING STUDENTS' ABILITY IN COMPLETING ENGLISH NATIONAL EXAMINATION

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## Abstract

This research is aimed at finding the effectiveness of mastery learning technique on improving students' ability in completing the English National Examination. This study was done at Bimbingan Belajar Gereja HKBP Sutotoyo, Jakarta. The research method used was quantitative research with "pre and post-test design", using two groups of research subjects. The population of the study 88 students consisted of Primary School (23 people) and Senior High School Students (62 persons), and the sample of the students was the Junior High School Students which was divided into group namely experimental group (33 persons) and control group (32 persons) which were selected using clustering sampling. The instrument of the research was a set of English Final Examination. The finding of the research is that the t-value is greater than t-table (4.323> 2,000) and the significance value is smaller than the significance level of 0.05 (0.000 <0.05). Then it is concluded that mastery learning technique significantly affects the students' ability in completing the English National Examination at Bimbingan Belajar HKBP Sutoyo, Jakarta. So, it is suggested that mastery learning technique should be implemented to improve the students' ability in completing the English National Examination.

***Keywords:*** Mastery Learning Technique; National Examination; Completing, Ability; Effectiveness.

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## 1. Introduction

English National Examination (*UN*)[1] has become one of the most widely used English language measurement tests in Indonesia. *UN* is used as the main requirement for continuing master's and

[1] UN stands for "Ujian Nasional" is a nationally standardized test made by the government of Indonesia that is going to measure a student's ability at the sixth, ninth, and twelfth year of school.

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doctoral levels of education, even today *the UN* is needed to get a prestigious job. Based on these demands, it can be imagined how difficult it would be if a university graduate with a *UN* score below the standard [1;2;3]. Although no systematic and sustainable data had been obtained, it is estimated that the *UN* results among students studying at *Bimbingan Belajar HKBP Sutoyo, Jakarta*. The preliminary results of *UN* ever held at *Bimbingan Belajar HKBP Sutoyo, Jakarta* for students' primary school and junior high school students shows an average result of between 50-75 (79%).

The low *UN* results are expected due to weaknesses in English learning strategies and techniques. This weakness is found at every level of education, ranging from primary to senior high school, even the weakness of teaching in English is continuing at the school level. Weaknesses in teaching English have been recognized from the beginning [4;5;6]. The government, in this case, the Ministry of National Education, is continuously improving curriculum and teaching materials in the field of English studies. The existence of RSBI is intended, among other things, to stimulate the interest of students to learn English better [7;8]. Therefore, it is hoped that this research will contribute to choosing effective learning strategies and techniques to improve English language skills, especially the *UN* results.

## 2. Theoretical Review

A complete learning approach or "mastery learning" was introduced since the 1960s. Caring and concerns about the effectiveness and efficiency of schools, including universities continue to grow. As a result, stakeholders in education including policymakers and education practitioners are trying to find appropriate ways to reduce the gap between the quality of education achieved and the quality of education expected [9;10;11;12]. Mastery learning departs from an optimistic philosophy that every teacher/lecturer can help each student to achieve special academic achievement quickly and confidently: a teacher can help students who are stupid, slow and weak motivated, as great as students which is "smart, fast and motivated" [13;14;15]. The concept of mastery learning can also be studied from another perspective, namely as learning strategies and techniques that are usually called "individualized instruction", which are teaching techniques that consistently help students, in general, to achieve high, fast and confident learning outcomes by helping students when and where they face learning difficulties, provide sufficient time for them to learn, and inform them clearly and decisively about the criteria for complete study. Students will be successful in learning a task or study material depending on how much time he uses to learn the task or learning material [16;17]. In practice, for educators who seek to apply the concept of mastery learning, they must begin by defining precisely what is meant by complete learning. This definition must include details or specifications of long-term and short-term learning outcomes, and concrete evidence of learning outcomes achieved. Therefore, the test - pretest activities that are followed by diagnostic teaching and ended with a post-test are characteristic of learning strategies and techniques that are prominent [18]. Pretest and posttest are objective ways to identify essential and critical or important learning outcomes. Such a test is also intended to measure the level of student learning achievement and to assess thoroughly the quality of student learning outcomes. In increasing the *UN* score, a certain approach can be taken in increasing the *UN* score of students, such as through collaborative methods, this is in line with [19;20;21]. Then the development of score scores can also be investigated because the ability of the *UN* also affects the initial ability of students in line with.

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## 3. Research Method

The design or research design that is considered adequate for this study is the "pre-post test design", using two groups of research subjects [22;23]. To determine whether the changes that occur in student learning outcomes are caused by treatment/experimental conditions, a balanced research design was used in this study, through the following steps: The students at *Bimbingan Belajar HKBP Sutoyo, Jakarta* were divided into two groups: the experimental group and the control group. Each group is taught by two different English teachers who teach topics and subjects as well as learning material related to the material used in the *UN*. The experimental group was taught using mastery learning technique and the control group was treated using the traditional technique. Both the teachers, in general, have relatively equal qualifications and abilities [24;25]. The total number of students at *Bimbingan Belajar HKBP Sutoyo, Jakarta* is 88 which is consisted of 65 Junior High School and was divided into two classes and 23 primary students. The sampling technique used was cluster sampling, where the two classes at the junior high school level were taken as the sample of the study. The student sample is then divided into two groups: the experimental group and the control group. Thus it is hoped that these two groups are homogeneous. Homogeneity of variance tests is carried out to ensure this. There are two major groups at the centre of this research: Process Variable and Out-come Variable (see also Dunkin and Biddle, 1974). Pre-sage variables consist of a student background which includes: Process Variables consisting of research treatments, namely: (1) pre-test and post-test; (2) Focus group interviews; (3) peer tutorials; and (4) teaching diagnostic. Outcome Variables consist of post-test scores and gain scores, which are the difference between the post-test and pre-test scores. Outcome Variables may consist of total scores and scores for each competency measured in the *UN*.

This research was conducted at *Bimbingan Belajar HKBP Sutoyo, Jakarta* and lasted for six months from February to July. Pre-tests were conducted before the first session took place, inter-session tests were given before and after first, second, third and fourth sessions took place, and post-test is given shortly after all sessions were completed or two days after the fourth inter-session test is finished. Processing data. Data about the UN, because everything is in the form of multiple-choice, makes it possible to process it using the available answer key, or can also use the "perforated cardboard marking key". If all has been transferred to the data sheet and stored in a retrievable and modifiable file. Coding guidelines for processing student background data and focus group interview results were prepared. Both the coding results are also included in the coding sheet and stored in a separate file.

Several data analysis techniques are used to answer the research questions and hypotheses as noted above. Descriptive statistics to see the distribution of frequencies, percentages and proportions, and measures of central tendencies such as mean, median, mode, range, and standard deviation [26]. To see the interrelation between variables used correlational analysis techniques. To test whether there is a difference in the *UN* results between the experimental and control groups the T-test analysis was used.

## 4. Results and Discussion

Pre-test data of the Control Group showed that the minimum value was 55, the maximum value 79, mean 65.61, median 68, mode 54, and standard deviation 7.04. Based on these results the

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control group (pre-test) was mostly in the moderate category of 21 students (70.0%) and at least in the low category of 3 students (10.0%). While the Experimental Group Pre-test data shows that the minimum value is 60, the maximum value 88, mean71.77, median72, mode72, and standard deviation 7.79. This shows that most of the medium category is 19 students (63.3%) and at least in the low category of 5 students (16.7%).

Control Group's post-test data showed that the minimum value was 68, the maximum value was 92, mean 78, 13, median 76, mode76, and standard deviation 6.70. Based on the results of the distribution concluded that most of the medium category is 23 students (76.6%) and at least in the low category that is 2 students (6.7%). while the Experimental Group Post-test Data showed that the minimum value was 76, the maximum value95, mean85.13, median84, mode84, and standard deviation 5.81.

Based on these results, the distribution of post-test results is that most of the medium category is 16 students (53.3%) and at least in the low category of 5 students (16.7%). is the Kolmogorov-Smirnov normality test results in each group shows that the significance value (p) of pretest and posttest data is greater than the significance level of 0.05 (p> 0.05), so it can be concluded that the research data are normally distributed? while the homogeneity test results show that the pretest data has an F count <F table (0.011 <4.00) with a significance value (p) greater than the significance level 0.05 (0.915> 0.05) and the posttest data has an F count <F table (0.317 <4.00) with a significance value (p) greater than the significance level of 0.05 (0.576> 0.05). Based on these results it can be concluded that both the pretest and posttest data from the control group and homogeneous experiments. From the results of the T-test, it was found that the t count obtained was equal to 4,323 with a significance value of 0,000. The t value is greater than t table (4.323> 2,000) and the significance value is smaller than the significance level of 0.05 (0.000 <0.05). Then it is concluded that mastery learning technique significantly affects the students' ability in completing the English National Examination at *Bimbingan Belajar HKBP Sutoyo, Jakarta*. This is evidenced from the average post-test scores of *UN* Learning for groups taught using the complete learning approach (experimental group) higher than the *UN* learning scores of post-test groups taught by conventional approaches (Group control).

This is supported by the mean value of the experimental group being 85.13 while the value of the control group is 78.13. From the differences in the two values, it can be seen that the achievement of students taught with a complete learning approach is higher than the achievement of students taught by using a conventional teaching approach with a difference of 7 points. Before being given teaching, treatment using a complete learning approach, the *UN* learning scores of students from the experimental group did not differ statistically significantly. This can be seen from the difference in the mean pre-test values of 71.63 for the experimental group and 71.77 for the control group. From the results of the T-test, it was concluded that there was a difference in the final ability of English (post-test) between the control group (conventional) with the experimental group (mastery learning) of *Bimbingan Belajar HKBP Sutoyo, Jakarta*. The results of the analysis are supported by the mean results (mean) in each group which is much different, namely 78.13 with a value in the control group and 85.13 in the experimental group. The difference in the mean of the final ability of English (post-test) of students which is far different (7.00) shows that statistically the final ability (post-test) of *Bimbingan Belajar HKBP Sutoyo, Jakarta* there are differences.

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In this study, the treatment given by the researcher to the control group taught by using this complete learning approach is to convey each material in-depth in a way that suits the needs of the sample. Besides, the instructor also ensures that each student understands each subject before proceeding to the next discussion. To find a way that suits the needs of the sample, the teacher conducts Focus Group Discussions at the beginning of every four meetings. Total FGDs conducted during the study were two times. Through the FGD the researchers concluded that bringing the appropriate strategy for learning *UN* was through Peer Tutoring.

## 5. Conclusion

Based on the results of the analysis and discussion it can be concluded that: 1) Teaching *UN* using diagnostic teaching methods with a thorough learning approach gives better results in increasing student *UN* scores; 2) Based on the analysis of the results of the answers, it was found that three subjects were considered to be difficult. These include; sound confusion and inference on accounts, negative questions on the reading. Based on the results of the study, several suggestions are considered useful both for *UN* instructors or for subsequent researchers, these suggestions include: 1) For lecturers who teach *UN* suggested to use a complete learning approach with diagnostic teaching methods; 2) In this *UN* teaching, there are at least three subjects that must be given more attention by lecturers namely; sound confusion, inference and negative questions; 3) For further research to be able to also control background variables and use video recordings to analyze the teaching methods of each group and the FGD process descriptively.

## References

[1] Zimmerman, B. J., & Dibenedetto, M. K. (2008). Mastery learning and assessment: Implications for students and teachers in an era of high-stakes testing. Psychology in the Schools, 45(3), 206-216.
[2] Juknevičienė, R., & Šeškauskienė, I. (2014). The national examination of English in Lithuania: searching for evidence of CEFR criteria achievement levels. Studies About Languages, 25, 88-96.
[3] Ilc, G., & Stopar, A. (2015). Validating the Slovenian national alignment to CEFR: The case of the B2 reading comprehension examination in English. Language Testing, 32(4), 443-462.
[4] Wayne, D. B., Butter, J., Siddall, V. J., Fudala, M. J., Wade, L. D., Feinglass, J., & McGaghie, W. C. (2006). Mastery learning of advanced cardiac life support skills by internal medicine residents using simulation technology and deliberate practice. Journal of general internal medicine, 21(3), 251-256.
[5] Boggs, S., Shore, M., & Shore, J. (2004). Using e-learning platforms for mastery learning in developmental mathematics courses. Mathematics and Computer Education, 38(2), 213.
[6] Butter, J., McGaghie, W. C., Cohen, E. R., Kaye, M., & Wayne, D. B. (2010). Simulation-based mastery learning improves cardiac auscultation skills in medical students. Journal of general internal medicine, 25(8), 780-785.
[7] Orosco, M. J. (2010). A sociocultural examination of the response to intervention with Latino English language learners. Theory into Practice, 49(4), 265-272.
[8] Sweeney, P. D., & McFarlin, D. B. (2004). Social comparisons and income satisfaction: A cross-national examination. Journal of Occupational and Organizational Psychology, 77(2), 149-154.
[9] Chemiron, K. E. (2015). Effects of English language proficiency on performance of physics in national examination in west Pokot County in Kenya (Doctoral dissertation, Thesis. Graduate Program of University of Nairobi).

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Index Copernicus Value (ICV 2018): 86.20
DOI: 10.5281/zenodo.3692571

[10] Cheng, L., & Qi, L. (2006). Description and examination of the national matriculation English test. Language Assessment Quarterly: An International Journal, 3(1), 53-70.
[11] Cleveland, M., Rojas-Méndez, J. I., Laroche, M., & Papadopoulos, N. (2016). Identity, culture, dispositions and behaviour: A cross-national examination of globalization and culture change. Journal of Business Research, 69(3), 1090-1102.
[12] Cohen, E. R., Barsuk, J. H., Moazed, F., Caprio, T., Didwania, A., McGaghie, W. C., & Wayne, D. B. (2013). Making July safer: simulation-based mastery learning during intern boot camp. Academic Medicine, 88(2), 233-239.
[13] Eppich, W. J., Hunt, E. A., Duval-Arnould, J. M., Siddall, V. J., & Cheng, A. (2015). Structuring feedback and debriefing to achieve mastery learning goals. Academic Medicine, 90(11), 1501-1508.
[14] Guskey, T. R. (2010). Lessons of mastery learning. Educational leadership, 68(2), 52.
[15] McGaghie, W. C. (2015). Mastery learning: it is time for medical education to join the 21st century. Academic Medicine, 90(11), 1438-1441.
[16] McGaghie, W. C., Issenberg, S. B., Barsuk, J. H., & Wayne, D. B. (2014). A critical review of simulation-based mastery learning with translational outcomes. Medical education, 48(4), 375-385.
[17] Wambugu, P. W., & Changeiywo, J. M. (2008). Effects of Mastery Learning Approach on Secondary School Students' Physics Achievement. Eurasia Journal of Mathematics, Science & technology education, 4(3).
[18] Wayne, D. B., Barsuk, J. H., O'Leary, K. J., Fudala, M. J., & McGaghie, W. C. (2008). Mastery learning of thoracentesis skills by internal medicine residents using simulation technology and deliberate practice. Journal of Hospital Medicine: An Official Publication of the Society of Hospital Medicine, 3(1), 48-54.
[19] Craig, H. K., Zhang, L., Hensel, S. L., & Quinn, E. J. (2009). African American English–speaking students: An examination of the relationship between dialect shifting and reading outcomes. Journal of Speech, Language, and Hearing Research.
[20] Cyders, M. A., Littlefield, A. K., Coffey, S., & Karyadi, K. A. (2014). Examination of a short English version of the UPPS-P Impulsive Behavior Scale. Addictive behaviours, 39(9), 1372-1376.
[21] Liu, D. (2011). The most frequently used English phrasal verbs in American and British English: A multicorpus examination. Tesol Quarterly, 45(4), 661-688.
[22] Naibaho, L. (2016). Improving Students' Essay Writing Ability through Consultancy Prewriting Protocol at the Christian University of Indonesia.
[23] Naibaho, L. (2019). Teachers'roles in English Language Teaching: A Students Centered Learning Approach. International Journal of Research-Granthaalayah, 7(4), 206-212.
[24] Naibaho, L. The Integration of Group Discussion Method Using Audio-Visual Learning Media Toward Students'learning Achievement On Listening.
[25] Sormin, E., Julianti, K., Nadeak, B., & Naibaho, L. (2019). Use of Construction Inquiry Learning Model to Improve the Interest of Learning Students Grade Xi SMA Angkasa 2 in Colloid Materials. PEOPLE: International Journal of Social Sciences, 5(2).
[26] Nadeak, B., & Naibaho, L. (2019, November). Investigating the effect of learning multimedia and thinking style preference on learning achievement on anatomy at Universitas Kristen Indonesia. In Journal of Physics: Conference Series (Vol. 1387, No. 1, p. 012116). IOP Publishing.
[27] Alas, E., & Liiv, S. (2014). Assessment literacy of national examination interviewers and raters–experience with the CEFR. Eesti Rakenduslingvistika Ühingu aastaraamat, 10, 7-22.

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