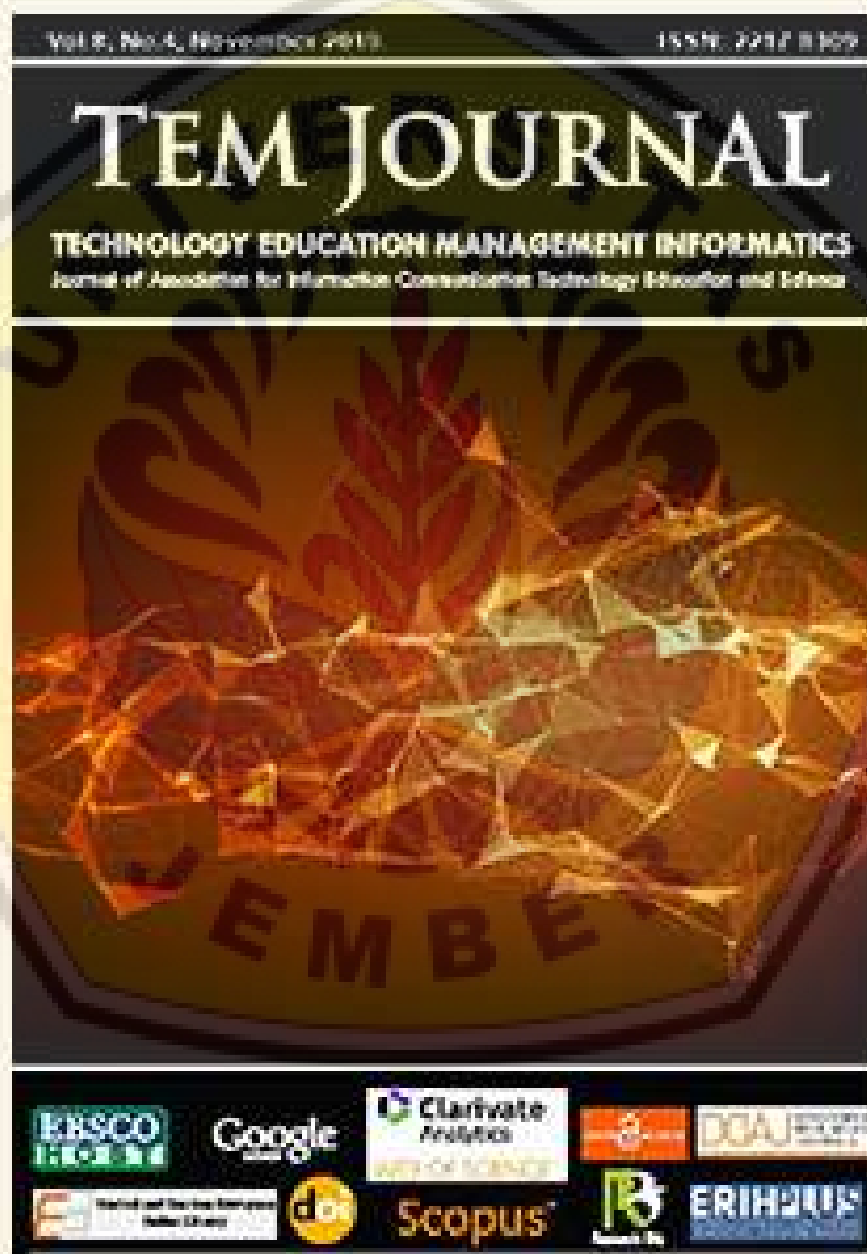


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Reducing Main Problem of Proposals Undergraduate Research through Research-Based Learning Activity Students

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Abstract – The making of thesis proposal is not easy to do. The main obstacle is the difficulty of finding the literature in the appropriate journal form. This problem becomes important, because it will affect the continuity regarding the study period of students, and it will affect the college and future students concern as well. Therefore, a learning model that is oriented to review the journal as the main activity needs to be applied, while the appropriate model is Research based learning. Thus optimization of journal review on the learning activities can assist students in completing the thesis proposal.

Keywords – Time to degree, bachelor's student, bachelor's thesis, research problem, research proposal, research based learning activity students.

1. Introduction

The efforts are to be taken in order to obtain a degree before writing the final report of research or even carry out research activities that are each student is required to write a thesis proposal that aims to determine the feasibility of his research [1].

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At the stage of the proposal, [2] asserted that this stage is an easy stage. This is similar to [3] which states that designing research proposals become obstacles in the thesis course

[4] asserted that the main source of the completion of the thesis is located in the student concern. Specifically, [5] explained that the obstacle in making research proposal lies in the length of time in making the title and slow in fulfillment of revision. [3] add that difficulties in determining research topics and lack of literature also have contributed proposal-making. On the other hand, there are other factors such as financial problems, poor communication between students and supervisors as well as distance of the distant home [6]. Based on these various obstacles, [7] said that the highest percentage achievement that influences the making of proposal besides feeling lazy lies in difficulty in finding supporting journal.

Based on the main obstacles that have been known, then the necessary treatment in order to reduce these constraints is to be carried out. To reduce the difficulty of making a thesis proposal can be accomplished by increasing the intensity in reviewing relevant journals [8], [9], [10]. In addition to these activities, there is also a need to do research activities independently [11].

Furthermore, in order to implement the activity of reviewing the journal as the main activity, a learning model has to assist and facilitate optimally the activity. The lesson that will be applied is learning that adheres the paradigm of Student Centered Learning instead of Teaching Centered Learning, because the learning process prioritizes the development of creativity, capacity, personality, needs of students, and develops independence in finding and finding knowledge [12].

[12] states that there are at least ten different models of Student Centered Learning (SCL) learning, among others (1) small group discussion, (2) role-play & simulation, (3) case study (4) discovery learning, (5) self-directed learning, (6)

cooperative learning, (7) collaborative learning, (8) contextual instruction, (9) project based learning and (10) problem based learning and Inquiry. The model that can be used by each lecturer may be chosen as one (flexible) out of ten learning models, or even can develop their own learning model with the note of some elements consisting of students, teaching materials or study materials, as well as facilities and learning media support.

Furthermore, the application of appropriate learning model in an effort to make journal review activity the main activity, is research based learning. Implementation of the learning model intends to make a demand by which students are able to find and explore, all of which aims at solving problems encountered while testing the truth of knowledge [13]. This is in accordance with [14] which emphasizes that the basis of higher education is directed to education oriented to learning activities through research activities that contain opportunities for students to find problems, find solutions to answer problems scientifically, formulate a standard method and they are capable of producing a research report.

2. Overview

The treatment of the main constraint reduction in writing the research proposal becomes important, because it becomes the yardstick of completion time of the thesis. There are two elements that will feel the impact of the length of time completion of the thesis. The first element is the college, [15] states that the lack of students who can graduate will cause the decline in quality and the quality of a college. The second element is the student concerned, [16] mentions that the length of the study became the benchmark for success of students. On the other hand, students who pass beyond the standard study their time limit will have a lower selling value when compared to students who graduate on time [17], [18], [19]. Therefore, the students will potentially are issued, to take the study period which has already been determined [15].

[20] states that the writing of the essay plays an important role, so it can-not be replaced by other teaching methods. Through the thesis, it can be seen that the ability of students in a comprehensive manner [21], and assist students in order to obtain academic degrees in different fields [22], [23] and different colleges [24], [25], [26].

3. Evolution Research Based Learning to Reduce Main Problem of Proposals Undergraduate Research

[27] provides several strategies for integrating learning and research. The following strategies are used to achieve successful research based learning- (1) describing personal research in the existing course, (2) placing the latest research into the classroom teaching process, (3) designing learning activities among current research issues, (4) teaching explicit research, technique and skills models on practical classes, (5) building research activities in small groups of undergraduate students, (6) involving students in research grants, (7) motivating students to become part of the existing research grant in the department or in the KBK scale, (8) inculcate the learning process with the meanings as a researcher. Based on the strategies that have been presented, the next step is given the development of research-based learning in order to reduce the main obstacles in writing the research proposals at the undergraduate level which is applied in Indonesia.

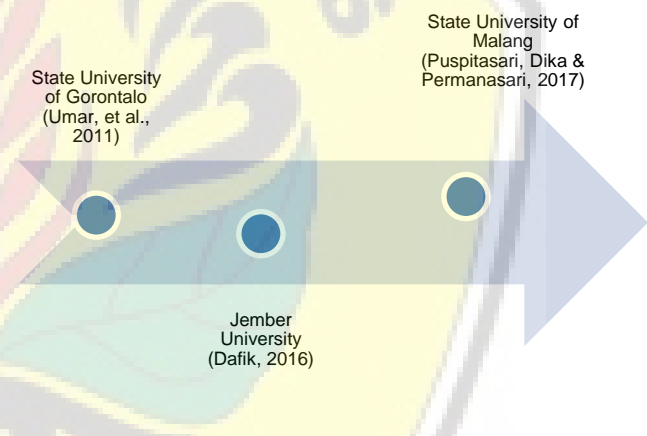


Figure 1. The Development of Research Based Learning

4. Research Based Learning by State University of Gorontalo

Here are the results of the development of research-based learning model on Physics Education Study Program at Faculty of Mathematics and Natural Sciences at State University of Gorontalo.

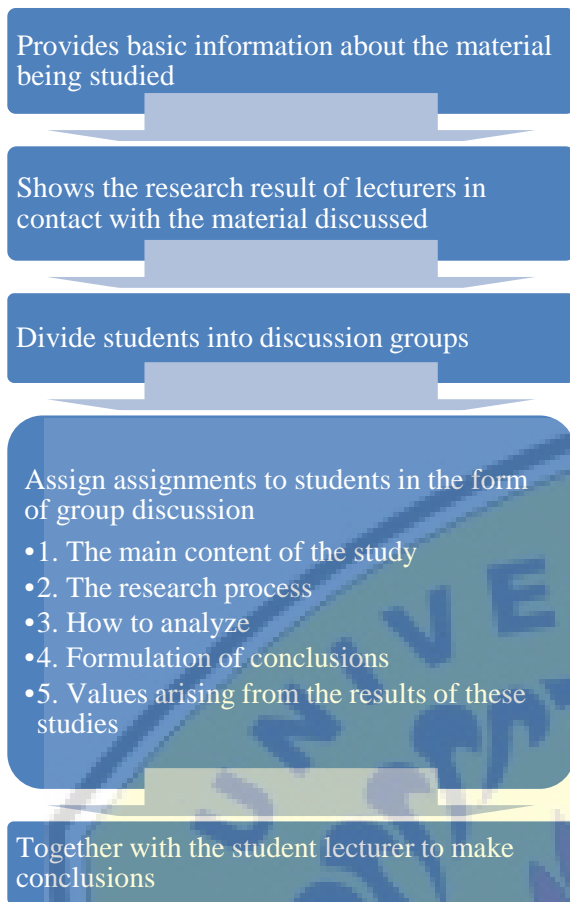


Figure 2. Research Based Learning Activities at the State University of Gorontalo [28]

5. Research Based Learning by Jember University

The following is the implementation of research based learning scheme in Jember University.

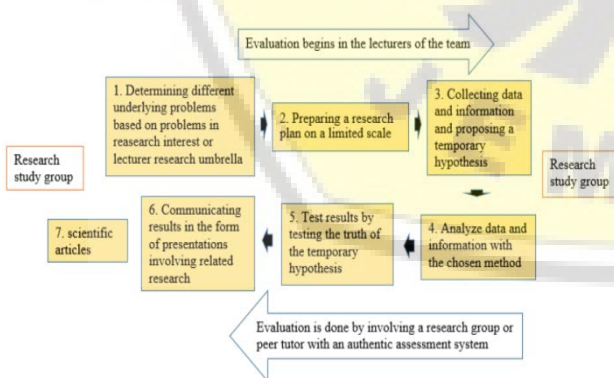


Figure 3. Research Based Learning Activities at Jember University [29]

From Figure 2 and 3, it is known that the application of research based learning is still within the scope of material understanding through the research results of lecturers, and it ends in making the scientific articles.

6. Research Based Learning by State University of Malang



Figure 4. Research Based Learning Scheme at State University of Malang [30]

Based on Figure 4, it is known that the activities undertaken to emphasize the needs of students in order to prepare research proposals. The application of research-based learning activities is aimed at exploring the research idea which is then converted into the title of the thesis, and the scheme receives a very high percentage agreement [30].

7. Discussion

Figure 4 shows that there are 5 stages that have to be done in getting the elements needed for making the thesis which is then packed with the birth of the title of thesis. The five stages consist of (1) identifying research journals, (2) tracking the development of research topics, (3) reviewing research journals, (4) review discussions and (5) formulating research topics. From the five stages of the scheme it is known that the research based learning activities conducted by the students consist of (1) recognizing the concept of research journal, (2) obtaining reputable journal and up to date in accordance with the field, (3) research journal surgery, 4) guided discussion of journal surgery result, and (5) problem formulation for research idea.

Optimization of journal review as the main activity in research based learning can help students in preparing thesis proposal. This is supported by [31] asserting that there are 79,63% assist in finding research idea, 55,56% as reference material or source of literature, 77,78% to assist in preparing proposal, 62,96% conducting research process, and 70.37% assist the preparation of activity reports.

Implementation comprising the reduction of major constraints in making research proposals at the undergraduate level is aimed at breaking the emerging facts, namely the need for time to earn a bachelor degree that continued to increase over the last 30 years [32], [33], [34]. This is based on [18] assertion that it takes more than 5 years to study programs which confirm that graduates graduate on time (4 years) at a leading university - 27% and non-

eminent university - 16% with an average time to earn a degree for 4.9 years.

[35] states that with the implementation of research based learning on students it is able to make or contribute in order to meet the indicators that have to be met in making research proposals. This can be seen from the percentage amount of 55.5% of students who have met the criteria of a good research proposal over a period of 5 months. Not only limited to students who have conducted research proposal seminars only, but also there are students who have reached the stage of writing research results and achieve the publication of scientific papers in the journal indexed by google scholar.

8. Conclusions

Research based learning activity applied on students makes journal review activity the main activity. The benefit felt by students enables them to overcome the major obstacles in writing proposals. The activities consist of (1) recognizing the concept of research journal, (2) obtaining reputable journal and being up to date in accordance with a field, (3) dissertation of research journal, (4) guided discussion of journal result, and (5) problem formulation for research ideas.

References

- [1]. Owens, A. (2009). *A Guide to Writing a Senior Thesis in Sociology*. Harvard: Harvard College.
- [2]. Pietersen, C. (2014). Content issues in students' research proposals. *Mediterranean Journal of Social Sciences*, 5(20), 1533-1541.
- [3]. Wang, X., & Yang, L. (2012). Problems and strategies in learning to write a thesis proposal: A study of six MA students in a TEFL program. *Chinese Journal of Applied Linguistics*, 35(3), 324-41.
- [4]. Fulwiler, Tobi. (2002). *College Writing: A Personal Approach to Academic Writing*. Portsmouth: Boynton/Cook.
- [5]. Rohmah, F. A. (2006). Pengaruh diskusi kelompok untuk menurunkan stres pada mahasiswa yang sedang Skripsi. *Humanitas: Jurnal Psikologi Indonesia*, 3(1), 50-62.
- [6]. Kangai, C., & Mapolisa, T. (2012). Factors that affect students' progress and the completion rate in the research project: A case study of research students and their supervisors at the Zimbabwe Open University. *International Journal on New Trends in Education and Their Implications*, 3(1), 83-94.
- [7]. Zuriati, D. (2017). Kesulitan Menulis Proposal Penelitian oleh Mahasiswa STIBA Persada Bunda Pekanbaru. *Menara Ilmu*, 11(74).
- [8]. Manchishi, C. P., Ndhlovu, D., & Mwanza, S. D. (2015). Common mistakes committed and challenges faced in research proposal writing by University of Zambia postgraduate students. *International Journal of Humanities Social Sciences and Education*, 2(3), 126-138.
- [9]. Kivunja, C. (2016). How to Write an Effective Research Proposal for Higher Degree Research in Higher Education: Lessons from Practice. *International Journal of Higher Education*, 5(2), 163-172.
- [10]. Ahmed, F., & Mahboob, U. (2016). An Analysis of Research Proposals and Challenges Faced by Postgraduate Trainees in Internal Medicine and Allied Disciplines During Fellowship Training Program: A Qualitative Study. *Khyber Medical University Journal*, 8(2), 82-87.
- [11]. Çetiner, R., Özgüven, K., & Parlak, Z. (2012). A study on trends for student research preferences. *Bilgi Ekonomisi ve Yönetimi Dergisi*, 7(1), 127-136.
- [12]. Tim kurikulum dan Pembelajaran Direktorat Pembelajaran dan Kemahasiswaan Direktorat Jenderal Pendidikan Tinggi Kementerian Pendidikan dan Kebudayaan. (2014). *Buku Kurikulum Pendidikan Tinggi*. Jakarta.
- [13]. Wardoyo, S. M. (2013). *Pembelajaran Berbasis Riset*. Jakarta: Akademia Permata.
- [14]. Hamdi, A. S., & Bahrudin, E. (2015). *Metode penelitian kuantitatif aplikasi dalam pendidikan*. Deepublish.
- [15]. Suciati, H., & Adnan, F. (2016). *Aplikasi Berbasis Sistem Pakar Untuk Memprediksi Ketepatan Waktu Kelulusan Mahasiswa Dengan Pendekatan Case Based Reasoning*. Semarang: Universitas Dian Nuswantoro
- [16]. California Postsecondary Education Commission. (2006). *California Higher Education Accountability: Goal, Student Success: Measure, Full-time/part-time Enrollment Ratio*. California Postsecondary Education Commission.
- [17]. Bailey, T., & Cho, S. W. (2010). *Developmental education in community colleges (Issue Brief prepared for the White House Summit on Community Colleges)*. New York, NY: Community College Research Center, Teachers College, Columbia University.
- [18]. Shapiro, D., Dundar, A., Wakhungu, P. K., Yuan, X., Nathan, A., & Hwang, Y. (2016). *Time to Degree: A National View of the Time Enrolled and Elapsed for Associate and Bachelor's Degree Earners. (Signature Report No. 11)*. National Student Clearinghouse.
- [19]. Proudfit, A. H. (2014). *A national longitudinal study of the influence of federal student aid on time to associatedegree attainment*. (Doctoral dissertation, The University of Toledo).
- [20]. Han, Y. (2014). An Analysis of Current Graduation Thesis Writing by English Majors in Independent Institute. *English Language Teaching*, 7(1), 120-127.
- [21]. Liu, L. (2015). A study of graduate thesis writing course for English undergraduates. *Journal of Language Teaching and Research*, 6(4), 836-841.

- [22]. Paltridge, B. (2002). Thesis and dissertation writing: An examination of published advice and actual practice. *English for Specific Purposes*, 21(2), 125-143.
- [23]. Sadeghi, K. & Khajipasha, A. S. (2015). Thesis writing challenges for non-native MA students. *Research in Post-Compulsory Education*, 20(3), 357-373.
- [24]. González-Chordá, V. M., Mena-Tudela, D., Salas-Medina, P., Cervera-Gasch, A., Orts-Cortés, I., & Maciá-Soler, L. (2016). Assessment of bachelor's theses in a nursing degree with a rubrics system: Development and validation study. *Nurse education today*, 37, 103-107.
- [25]. Silén, M., & Johansson, L. (2016). Aims and theoretical frameworks in nursing students' Bachelor's theses in Sweden: A descriptive study. *Nurse education today*, 37, 91-96.
- [26]. Odena, O., & Burgess, H. (2017). How doctoral students and graduates describe facilitating experiences and strategies for their thesis writing learning process: a qualitative approach. *Studies in Higher Education*, 42(3), 572-590.
- [27]. Green, A. (2016). *Research-Based Learning Strategies for successfully linking teaching and research*. Griffith University.
- [28]. Umar, M., Yusuf, M., Uloli, R., Abjul, T., & Ntobuo, N. E. (2011). *Pengembangan Pembelajaran Berbasis Riset di Program Studi Pendidikan Fisika FMIPA Universitas Negeri Gorontalo*, (November), Hasil Penelitian. Laporan Hasil Penelitian Lemlit.
- [29]. Dafik. (2016). *Pengembangan PBR (Pembelajaran Berbasis Riset) Dalam Mata Kuliah*. In FGD PBR untuk bahan penyusunan Pedoman Implementasi PBR di Lingkungan Universitas Jember. Universitas Jember
- [30]. Puspitasari, P., Dika, J. W., & Permanasari, A. A. (2017, September). The research-based learning development model as a foundation in generating research ideas. In *AIP Conference Proceedings* (Vol. 1887, No. 1, p. 020035). AIP Publishing.
- [31]. Rushendi (2010). Persepsi Peneliti Balai Penelitian Tanaman Obat Dan Aromatik Terhadap Jurnal Elektronik. *Jurnal Perpustakaan Pertanian*, 19(2), 58-65.
- [32]. Knight, W. E., & Arnold, W. (2000). *Towards a Comprehensive Predictive Model of Time to Bachelor's Degree Attainment*. AIR 2000 Annual Forum Paper.
- [33]. Knight, W. E. (2002). Toward a comprehensive model of influences upon time to bachelor's degree attainment. *AIR Professional File*, 85(1), 15.
- [34]. Bound, J., Lovenheim, M. F., & Turner, S. (2012). Increasing time to baccalaureate degree in the United States. *Education Finance and Policy*, 7(4), 375-424.
- [35]. Prahmana, R. C. I., Kusumah, Y. S., & Darhim, D. (2016). Keterampilan mahasiswa dalam melakukan penelitian pendidikan matematika melalui pembelajaran berbasis riset. *Beta: Jurnal Tadris Matematika*, 9(1), 1-14.