



## Comparing Problem-based Learning and Experiential Learning on Civil Servant Training Program

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### Abstrak

Pembelajaran berbasis masalah dan berbasis pengalaman merupakan pendekatan pembelajaran yang sudah banyak dikenal dan sering disebut mampu memfasilitasi praktik pembelajaran secara optimal, namun mana di antaranya keduanya yang paling efektif dalam memfasilitasi program pelatihan PNS? Artikel ini menggambarkan one-shot case study yang fokus hanya pada satu program pelatihan PNS tanpa membandingkannya dengan program lain. Program pelatihan ini dilakukan oleh Badan Pengembangan Sumber Daya Manusia (BPSDM), Provinsi Jawa Tengah, pada Maret 2018. Dengan menggunakan pendekatan penelitian kuantitatif dapat dilihat bahwa hasil program pelatihan menunjukkan tidak terdapat perbedaan yang signifikan antara pembelajaran berbasis masalah dan pembelajaran berbasis pengalaman. Dalam hal ini, hasil pembelajaran dari pendekatan berbasis pengalaman sedikit di atas hasil pembelajaran yang menggunakan pendekatan pembelajaran berbasis masalah.

### Abstract

*Problem-based learning and experiential learning are well-known learning approaches and often referred as powerful on facilitating learning practices, but which one is the most effective on facilitating civil servant training program? This article illustrates a one-shot case study in which focus on one civil servant training program only without comparing it to other programs. The training program was conducted by human resource development agency, Central Java Province, in March 2018. By employing quantitative research approach, this research found that the result of the training program indicated: there are no significant differences between problem-based learning and experiential learning approaches. In this case, the learning result from experiential learning approach is slightly above problem-based learning approach's result.*

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## INTRODUCTION

Badan Pengembangan Sumber Daya Manusia Daerah/Regional Human Resources Development Agency (BPSDMD) is one of the Central Java Province's institutions that carry out education and training for adults. It already achieves a favorable accreditation in administering either education or training which numbers to 100 activities per year. The education and training have been well implemented starting from the preparation, implementation, and evaluation as many supporting factors exist.

BPSDMD is located on Jl. Setiabudi No. 201 A Semarang, Srandol Kulon, Banyumanik, Semarang City, Central Java Province. Procedurally, BPSDMD of Central Java Province is assigned to assisting the Governor in carrying out the supporting functions of government affairs in the field of Human Resources Development of Civil Servants which are the Region's authority and the task of assistance assigned to the Region.

BPSDMD of Central Java Province carries out several functions including (1) preparing of technical policies for the development of civil servant resources; (2) implementing the technical support tasks of developing civil servant resources; (3) monitoring, evaluating, and reporting the implementation of the technical support tasks of developing civil servant resources; (4) implementing and fostering administration as well as secretariat to all work units within the Agency; and (5) implementing other functions provided by the Governor, following his duties and functions ("BPSDMD Provinsi Jawa Tengah," n.d.).

BPSDMD of Central Java Province is a provincial level agency; thus, the activities done are intended to central java civil servants. However, the agency remains to provide excellent quality education and training services as seen from the facilities and infrastructure that support the implementation of education and training. The facilities and infrastructure include (1) administration hall (Graha Widya Praja), (2) meeting hall (Sasana Widya Praja), (3) Merapi exclusive education campus, (4) Merbabu education campus, (5) Muria education campus, (6) Sindoro education campus, and (7) Sumbing education campus. In addition to the following core buildings, BPSDMD is also equipped with various spaces that support education and training including a computer laboratory, language laboratory, Merapi dormitory, Sumbing dormitory, Sindoro dormitory, Muria dormitory, banquet

hall, and fitness room.

BPSDMD has 255 employers coming from various groups and consists of several divisions, they are (1) quality assurance; (2) three divisions of education and training administration (technical competence, managerial competence, and functional competence); (3) finance; and (4) general administration. The diverse programs of BPSDMD are held under the three divisions of education and training administration that has its respective purposes

Furthermore, one type of education and training done by BPSDMD is the in-service training aiming to improve the knowledge and skills of civil servants (Gerhantara & Samopa, 2013). One important element that influences the process and results of the training and education is the trainers, who are often referred to as Widyaiswara. Widyaiswara's job is to become a trainer, facilitator, or mentor of a training program organized by BPSDMD. The abilities that must be possessed by Widyaiswara include developing a training program, implementing and managing a training program, and assessing the learning outcomes of training participants.

The task of Widyaiswara is certainly not easy since they often deal with older participants having diverse characters and sometimes unwillingness to learn seriously. Therefore, Widyaiswara must always improve their pedagogical abilities (Hartono, 2013 & Suprihatin, 2015). One appropriate approach used by Widyaiswara in carrying out the Education and Training program in the BPSDMD environment is adult education, or what is familiarly called Andragogy which refers to theories and methods to describe optimal learning conditions for adults (Merriam, 2001; Trotter, 2006).

Samlowski (2011) suggested that the term andragogy is used to describe adult learning assumptions, including readiness for their learning, self-activity, active participation in learning, and solution-centered learning. Almost all adult learning uses these elements. Moreover, adult education has several goals to be achieved, including general, educational, and specific goals. In this case, adults have their specificities in developing their own learning processes; thus, it is necessary to build their own approaches, programs and even learning methods. Theoretically, andragogy supports this issue (Rakhman & Elshap, 2016).

Two learning models that can be used in adult learning are Problem-Based and Experien-

tial Learning. Both models have their theoretical assumptions. Hmelo-Silver (2004) stated that problem-based learning aims to develop flexible knowledge, the ability to solve problems effectively, learn independently, collaborate effectively, and increase intrinsic motivation. On the other hand, the experiential learning model developed by Dewey et al. assumes the need for a learning cycle that involves the dialectics of action/reflection and experience/abstraction. This learning model can be carried out at the individual, group, or institutional level (Kolb & Kolb, 2009).

Based on the description, this article illustrates the effectiveness of the use of the Problem-Based Learning with Experiential Learning model for adult learning outcomes in the BPSDMD of Central Java Province during their participation in the Education and Training program. This research contributes to providing additional information about the differences between the two learning models, especially in the Education and Training program which, in the field of educational technology studies, is included in the domain of managing staff (see Januszewski & Molenda, 2008).

## METHOD

This is a pre-experimental design study using the One-Shot Case Study model with quantitative data analysis. According to Sugiyono (2016, pp. 11-12), experimental is a research method used to look for the effect of certain treatments. The pre-experimental method is implemented by conducting experiments on the experimental group, for each experimental group is subjected to certain treatments with uncontrollable conditions.

Furthermore, the One-Shot Case Study model is a pre-experimental research model that is accomplished without a comparison group nor a preliminary test. In this research, there are 2 x One-Shot Case Study models, namely the first class with the Experiential Learning learning model, hereinafter abbreviated as EL and the second class with the Problem-Based Learning model which is then abbreviated as PBL. This study focuses more on knowing the responses of the training participants in both classes using the PBL and EL model. Participants were given a questionnaire to fill in, then the results were analyzed.

The independent variable of this study was the learning models symbolized as X with

indicators of the implementation of Problem Based Learning learning with the Experiential Learning learning model. The dependent variable was the participants' learning outcomes denoted as Y with indicators of training materials mastery, efforts to develop creative thinking abilities and learning outcomes. The training program lasted for approximately 6 months from November to April 2017-2018. During the time of learning, there have been 94 classes of pre-service training conducted. The researchers took samples using the simple random sampling technique and selected class 83 and class 84 which were held on March 19-27 2018. The purpose of this experimental research is to find out the effect of treatment on improving learning outcomes.

The informants of this research were all the participants in a Pre-Service Training for Special Appointment which consisted of about 10 batches and was held for one month. The participants responded to the learning models used through questionnaires and then assessed using a Likert scale. The data were obtained by changing the qualitative scores into quantitative scores, i.e. transforming scores obtained from learning motivation sheets into numbers or grades. The conclusions of the study are presented in the form of analysis with mathematical formulas. Verification of the results was obtained by looking at the measurement results and the significant degree of influence between one treatment and another.

The hypothesis testing employed the simple linear regression to solve hypothesis 1 and 2, and a Z testing to find out the hypothesis of the existence of differences between the PBL and EL. The measurement calculated the final test scores and learning outcomes of the participants experiencing the PBL and EL.

## RESULT AND DISCUSSION

This section consists of three topics, namely a brief description of the implementation of Education and Training involving two classes with different learning models, responses from participants on the learning model they experienced, and an assessment of their learning outcomes.

### A. The Training Implementation

The class 83 (dynamic groups) and 84 (civil servant management) as the research subject respectively applied the EL and PBL model du-

ring the education and training activities. Class 83 served as the experimental class I and class 84 served as the experimental class II.

In the PBL-based class, Widyaiswara provided videos related to the current civil servant. The videos emerged problems that must be solved by the participants in the discussion session. Widyaiswara gave problems as the starting point of the activities for the participants to know and describe the issues. Any other way, the EL-based class was asked to create a tree of hope by considering the experience during their tenure.

### B. The Assessment of The Participants

The researchers spread the questionnaires of responses to the applied model whose results are presented as follows.

**Table 1** The participants' responses to the EL model

Indicator	Percentage	Category
Critical thinking	78,42%	Good
Be passionate about learning	81,90%	Excellent
Satisfaction in learning	81,33%	Excellent
Have a diverse point of views	77,28%	Good
Conducive learning atmosphere	80,45%	Excellent
Average	79,88%	Good

**Table 2** The participants' responses to the PBL model

Indicator	Percentage	Category
Critical thinking	73,85%	Good
Be passionate about learning	81,61%	Excellent
Satisfaction in learning	79,23%	Good
Have a diverse point of views	72,71%	Good
Conducive learning atmosphere	80,22%	Excellent
Average	77,53%	Good

Based on the tables, the participants' responses to the PBL and EL model applied in the two classes had not too much difference. The average result of the participants in the EL was higher than the PBL class. Respectively, the EL class' average was 79.88% while the PBL class' average was 77.53%.

### C. The Assessment of The Learning Results

The Z test resulted in the distribution of the participants' learning outcomes in both classes. The outtakes revealed that the two models have a significant influence on the learning results evidenced by the final test scores which brought on a significance score of 2.54 or greater than 2.195. as a result, the  $H_0$  was rejected and the initial hypothesis was accepted, meaning that the two learning models applied have a remarkable influence on the participants' learning results.

Other than that, further analysis in determining the more effective model than another concluded that the experiential learning model is said to be more impressive than the problem-based learning model in adult education. This claim is strengthened by the final test score average in which the experimental class I with EL got 76.19 and the experimental class II with PBL got 72.137.

The experimental class I participants' higher score happened due to its characteristics that include the experience of each participant. This made them motivated to joining the learning activities as they could relate their acquaintance which encouraged them to actively tell their stories. This is parallel with Wayne Au (2012), one of the curriculum experts, in one of his teaching experiences also said that students' personal and social experiences are important to increase their engagement with the material being studied.

Furthermore, this research is limited to the implementation of experiential learning which was applied partially as formulated in the concept by Kolb and Kolb (2009). Experiential learning needs to be done by actually experiencing what is being learned in a cycle that involves action/reflection and experience/abstraction. On the other hand, this research employed the participants' opinion in assessing the two learning models that the researchers wish to be augmented in the future primarily by paying attention to the process to generate more reasonable results.

### CONCLUSION

Based on the results of the research and discussion that has been presented, it is concluded that the application of the Problem Based Learning and Experiential Learning model prevailed different learning outcomes during the

Pre-Service Training for Special Appointment at BPSDMD Central Java Province. The PBL class' final test score average was 72.137 and the EL class' final test score was 76.19, which showed that the EL model was more effective than the PBL model in adult learning.

## REFERENCES

- Au, W. (2012). *Critical Curriculum Studies: Education, Consciousness, and the Politics of Knowing*. New York: Routledge.
- BPSDMD Provinsi Jawa Tengah. (n.d.). Retrieved February 3, 2020, from BPSDMD Jawa Tengah website: <https://bpsdmd.jatengprov.go.id/v2/web/>
- Gerhantara, R., & Samopa, F. (2013). Pembuatan Sistem Informasi Pendidikan dan Pelatihan Dalam Jabatan Berbasis Web Pada Bagian Pengembangan Pegawai Direktorat Jenderal Perbendaharaan. *Jurnal Teknik Pomits*, 2(2), 376-380.
- Hartono, R. (2013). *Ragam Model Mengajar yang Mudah Diterima Murid*. Yogyakarta: Diva Press.
- Hmelo-Silver, C. E. (2004, September). Problem-based learning: What and how do students learn? *Educational Psychology Review*, Vol. 16, pp. 235-266. <https://doi.org/10.1023/B:EDPR.0000034022.16470.f3>
- Januszewski, A., & Molenda, M. (Eds.). (2008). *Educational Technology: A Definition with Commentary*. New York: Taylor & Francis Group.
- Kolb, A. Y., & Kolb, D. A. (2009). Experiential learning theory: A dynamic, holistic approach to management learning, education and development. In *The SAGE Handbook of Management Learning, Education and Development* (pp. 42-68). <https://doi.org/10.4135/9780857021038.n3>
- Merriam, S. B. (2001). Andragogy and Self-Directed Learning: Pillars of Adult Learning Theory. *New Directions for Adult and Continuing Education*, 2001(89), 3-14. <https://doi.org/10.1002/ace.3>
- Rakhman, A., & Elshap, D. S. (2016). Implementasi Kekuatan Motivasi Belajar Dalam Pendekatan Andragogi. *Jurnal Empowerment*, 5(2), 1-12.
- Samlowski, M. (2011). *Adult education for decent jobs and better lives*. Roland Schwartz: dvv international. Roland Schwartz: DVV International.
- Seyoum, Y., & Basha, G. (2017). Andragogical Methods to Sustain Quality Adult Education in Ethiopia. *Internasional Journal of Instruction*, 10(3), 47-62.
- Sugiyono. (2016). *Metode Penelitian Pendidikan*. Bandung: Alfabeta.
- Suprihatin, S. (2015). Upaya Guru dalam Meningkatkan Motivasi Belajar Siswa. *Jurnal Pendidikan Ekonomi UM Metro*, 3(1), 73-82.
- Trotter, Y. D. (2006). Adult Learning Theories: Impacting Professional Development Programs. *Delta Kappa Gamma Bulletin*, 72(2), 8-13.
- Wachrodin. (2017). Peningkatan Kemampuan Pemecahan Masalah dan Keaktifan Siswa Melalui Model Problem Based Learning (PBL) dengan Penugasan Berstruktur. *Jurnal Penelitian Pendidikan*, 34(1), 85-94.