

ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

EFFECTIVENESS OF RADEC-BASED ON IMPROVING LEARNING PLANNING SKILLS AT ELEMENTARY SCHOOL

Anugrah Ramadhan Firdaus^{1*}, Wahyu Sopandi², Jajang Bayu Kelana³, Linda Hania Fasha⁴, Ida Fiteriani⁵, Yusup Maulana⁶

> ^{1,3,4}Institut Keguruan dan Ilmu Pendidikan Siliwangi, Cimahi, Indonesia ²Universitas Pendidikan Indonesia, Bandung, Indonesaia ⁵Universitas Islam Nusantara Raden Intan, Lampung, Indonesia ⁶Universitas Pendidikan Indonesia, Bandung, Indonesaia *anugrah@ikipsiliwangi.ac.id

EFEKTIVITAS RADEC BERBASIS PENINGKATAN KETERAMPILAN PERENCANAAN PEMBELAJARAN DI SEKOLAH DASAR

ARTICLE HISTORY

ABSTRACT Abstract: Teachers are professional educators with the main task of educating, teaching,

Submitted: 19 Juni 2022 19th June 2022 guiding, directing, training, assessing, and evaluating students in every teaching and learning process in schools. In the learning process, various skills are needed for the continuity of the learning process, one of which is the skill of making lesson plans. The skill of a teacher in making lesson plans determines the learning outcomes that will be accepted by students. This study aims to analyze the effect of RADEC-based workshop activities in improving the skills of elementary school teachers to make good lesson plans. This study uses the One Group pretest posttest method with a sample of elementary school teachers in Purwakarta Regency. The instrument used is the result of adaptation of the assessment of the learning implementation plan in the PPG program. There are seven indicators used in the instrument used. The results showed that the RADEC model had an impact on teachers in developing learning planning skills. The average n-gain score obtained from this study was 58 which was categorized as quite effective.

Keywords: RADEC, lesson plan, elementary teacher

Accepted: 12 April 2023 12th April 2023

Abstrak: Guru adalah pendidik profesional dengan tugas utama mendidik, mengajar, membimbing, mengarahkan, melatih, menilai, dan mengevaluasi peserta didik pada setiap proses belajar dan mengajar di sekolah. Dalam proses pembelajaran diperlukan berbagai keterampilan untuk keberlangsungan proses belajar, salahsatunya adalah keterampilan membuat rencana pembelajaran. Keterampilan seorang guru dalam membuat rencana pembelajaran menentukan hasil belajar yang akan diterima oleh siswa. Penelitian ini bertujuan untuk menganalisis pengaruh dari kegiatan workshop berbasis RADEC dalam meningkatkan keterampilan guru sekolah dasar untuk membuat rencana pembelajaran yang baik. Penelitian ini menggunakan metode One Group pretes postest dengan Sampel guru sekolah dasar di Kabupaten Purwakarta. Instrumen yang digunakan merupakan hasil adaptasi dari penilaian rencana pelaksanaan pembelajaran pada program PPG. Ada tujuh indikator yang digunakan dalam instrumen yang digunakan. Hasil penelitian menunjukan bahwa Model RADEC memberikan dampak bagi guru dalam mengembagkan keterampilan merencanakan pembelajaran. Rata-rata skor n-gain yang diperoleh dari penelitian ini sebesar 58 yang masuk

Published: 27 April 2023 27th April 2023

Kata Kunci: RADEC, rencana pembelajaran, guru sekolah dasar

CITATION

dalam kategori quite effective.

Firdaus, A, R., Sopandi, W., Kelana, J, B., Fasha, L, H., Fiteriani, I., & Maulana, Y. (2023). Effectiveness Of Radec-Based On Improving Learning Planning Skills At Elementary School . Primary: Jurnal Pendidikan Guru Sekolah Dasar, 12 (2), 560-567. DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018.



ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

INTRODUCTION

In an effort to improve the quality of education, students must have skills, independence, and personality that can be realized through the teaching and learning process. In this regard, the role of an educational advisor is important in providing changes to improve quality in accordance with national education goals. In accordance with the functions and objectives of national education as contained in the Law of the Republic of Indonesia No. 14 of 2005 Chapter IV Article 8 concerning teachers which reads: "Teachers are required to have academic qualifications, competence, educator certification, physically and mentally healthy, and have the ability to realize goals. National Education".

The government is trying to improve the quality of education, one of the efforts made is to evaluate the existing and then give birth to the 2013 curriculum. The most important thing in this case is the factor of educators. Because matter no sophisticated the curriculum and no matter how great the education system is without good quality educators, it will not produce maximum results. Therefore, educators are expected to have the necessary competencies to carry out their duties and functions effectively and efficiently (Susanti et al., 2022). Competence is one of the most important teacher qualifications. If this competence does not exist in an educator, then he will not be competent in praising and the results will not be optimal.

The competencies developed are a curriculum design that is developed based on a certain set of competencies, this set of competencies will ultimately describe a complete and observable competency profile (Depdiknas, 2003). In addition to the competencies possessed by an educator, the role of service learning tools is a process of human development in the implementation of

education. In the learning process, the main role is played by a teacher in the classroom where the teacher is the designer or designer of learning as well as the manager or implementer of learning(Dewi & Primayana, 2019).

For an educator the first stage is preparing the learning process, so preparation before teaching is very important to plan and implement the learning process so that the learning process can accelerate and observe well. From several things in the learning process, the first is about planning the learning process for teachers of physical education, sports, and health. In the learning planning includes **Syllabus** process the Implementation Plan (RPP) which contains the identity of the subject, Competency Standards (SK), Basic Competencies (KD), competency competency indicators, learning objectives, time allocation, learning methods, learning activities, learning outcomes, and Learning Resources. And an educator ordered not to make an lesson Plan before carrying out the learning process, as stated in Government Regulation (PP) Number 19 of 2005 Chapter IV article 20 which reads that: "Planning the learning process includes the syllabus, RPP which contains all at least learning objectives, teaching materials, teaching methods, learning resources, and learning outcomes".

Lesson plan is made through the elaboration of the syllabus which is expected to be able to direct students' teaching and learning activities towards achieving Basic Competence (KD) according to their level. Therefore, teachers are required to be able to make RPP completely and in accordance with the systematic writing of RPP. It is hoped that learning process can take place interactively, inspiring, fun, challenging, motivating students to participate actively, and providing sufficient space for initiative, creativity, and independence in accordance with the talents, interests, and physical and psychological development of students. Then



ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

in compiling the RPP, you must take every KD that is on the syllabus according to the teaching material, which is then carried out in one or more meetings. And the teacher must design several lesson plans for several meetings with a schedule that is adjusted to the education unit.

From the results of the interview, one elementary school teacher explained that there are still many teachers who feel they understand enough in the process learning, but there implementing are difficulties in making learning designs, especially if they are combined with various variables that need to be developed, such as additional character education combined with the learning carried out. in the learning process, the main role is played by a teacher in the classroom where the teacher is the designer or designer of learning as well as the manager or implementer of learning(Nuryana, 2017). In addition, teachers often use learning plans that already exist on the internet, while good learning plans are authentic, where the content of the plans must be adapted to the conditions of students, facilities and infrastructure, learning resources and media that are suitable for the school environment (Putra & Suniasih, 2015). Therefore, we need a training model that is able to provide a different and deeper impact for teachers in order to understand how the process of making a good lesson plan is.

The problems above indicate the need for solutions in the form of learning model innovations that are not too difficult for teachers to understand, the syntax is according to needs and has the ease of application in online learning so that teacher skills can improve. The learning model that can be one of the solutions is the RADEC (Read-Answer-Discuss-Explain-Create) learning model. The RADEC model is one of the innovative models. This model provides learning encouraging students to develop 21st century skills and master the learning concepts learned (Pratama et al., 2020). With all the advantages, adapted to be this model was then implemented in the form of a workshop for

teachers. Teachers are invited to read first in exploring knowledge and then answer based on thinking skills, followed by collaborative discussions, presenting and finally creating something (Sopandi, 2017).

Several factors that support the application of the RADEC learning model are as follows: First, the current curriculum requires a learning process that allows the development of all students' potentials needed for a better life (spiritual and social attitudes, knowledge, and skills). Second, many sources of information are currently available in the form of textbooks, supplement books and other available sources of information such as videos, compact disks, and the internet. This can support the success of this learning because it provides many reading options at the Read stage. According to Tembang et al., (2017) innovative learning models also require quite a long time in one lesson. So that teachers tend to use more lecture method learning which is considered practical and fast, the impact is that classroom activities are dominated by assignments and memorization which shows that students' thinking skills are low in involvement in learning. while learning that is able to improve high order thinking skills is learning where students are required to develop solutions that they think can be applied in a learning with a flow that they think is correct (Firdaus & Rahayu, 2019), not following the stages of learning provided by teacher.Based on the background description above, further research is needed regarding the application of the RADEC Model adapted in workshop activities for teachers to improve teacher skills in making good lesson plans in elementary schools.

METHOD

In accordance with the objectives to be achieved, The research method used is quasi-experimental (Creswell, 2012). The research design used was One-Group Pretest-Posttest Design. The design of this research is in one class before being given treatment, students are given a pretest (initial test) which aims to find



ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

out the initial state of each student in the learning process. Then the teacher was given treatment using a workshop based on the RADEC learning model and after that was given a posttest (final test) which was to determine whether there was a difference in learning planning skills. Data collection is carried out to obtain information related to certain phenomena, conditions, or variables and is not intended to test hypotheses. In this study, it describes how the teacher's ability to make lesson plan in Curriculum 2013. This study used a sample of 21 primary school teachers in Purwakarta Regency.

Instruments are measuring tools used to collect research data (Maksum, 2018). In this study, the instrument used was in the form of an observation that could assess the skills of

teachers in making lesson plans for the 2013 curriculum and an instrument for assessing the implementation of learning at the elementary school level. The research instrument is using the Learning Implementation Plan (RPP) instrument and the learning implementation assessment instrument adopted from the Teacher Professional Development Program.

RESULTS AND DISCUSSION

In this section, the results of the research based on indicators adapted from the PPPG assessment will be discussed. The score obtained is then interpreted based on the interpretation of the gain score according to Hake (1999). The following are the results of the learning planning skill scores based on the subjects studied which can be seen in Table 1.

Table 1. Average Score of Teacher Learning Planning Skills

No	Name	Pretest	Posttest	n-Gain	Interpretation
1	S1	2,86	4,00	53	Less Effective
2	S2	2,86	3,86	47	Less Effective
3	S3	3,00	4,43	71	Quite Effective
4	S4	2,86	4,43	73	Quite Effective
5	S5	2,71	4,00	56	Quite Effective
6	S6	2,86	3,71	40	Not Effective
7	S 7	2,57	4,71	88	Effective
8	S 8	2,86	4,00	53	Less Effective
9	S 9	2,71	4,00	56	Quite Effective
10	S10	2,86	3,86	47	Less Effective
11	S11	3,29	3,86	33	Not Effective
12	S12	3,29	4,57	75	Quite Effective
13	S13	2,71	4,14	63	Quite Effective
14	S14	3,14	4,29	62	Quite Effective
15	S15	3,00	3,71	36	Not Effective
16	S16	3,00	4,29	64	Quite Effective
17	S17	2,29	3,86	58	Quite Effective
18	S18	3,57	3,71	10	Not Effective
19	S19	3,43	4,57	73	Quite Effective
20	S20	3,14	4,71	85	Effective
21	S21	2,86	4,00	53	Less Effective

Based on the data above, it can be seen that this research has different influences on teachers. Of the 21 teachers studied, the results obtained with a gain score below 40 or the ineffective category were four people, then the results with a score between 40-55 or the less effective category were five people, then the

results with a score between 56-75 or quite effective category were as many as ten people and the results with a score above 76 or the effective category are two people. Then from these results, when viewed based on the measured indicators, the results can be seen in Table 2 as below.



ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

Table 2. Average Score of Learning Planning Skills Indicators

Agnost	Score		
Aspect	Pretest	Posttest	
Clarity of Formulation of Goals	3,00	3,90	
Selection of Teaching Materials	2,76	4,14	
Organization of Teaching Materials	3,05	4,10	
Selection of Learning Resources and Media	3,05	4,05	
Learning Scenario	2,67	4,33	
Learning Steps	3,05	4,24	
Assessment Instruments	3,00	4,14	

The data above is the average score of elementary school teachers who attended the workshop based on the measured indicators. Based on the results of table 2, it can be seen that the smallest indicator during the pretest is an indicator in the learning scenario. These results illustrate how most teachers do not write down the stages of coherent learning. This is because many teachers feel they have memorized what they are going to teach, so they don't feel the need to fill out the detailed learning stages.

In this study, it was also found that teachers still had difficulty making learning objectives that contained ABCD elements. According to Uno (2007), what is meant by audience (A) are students, students, and other students' targets, behavior (B) is behavior that can be observed as a result of learning and is shown through operational verbs, condition (C) is a requirement that must be met. needs to be met so that the expected behavior can be achieved, and degree (D) is an acceptable level of performance. Some education experts do not require that learning objectives must contain elements of ABCD.

After carrying out the RADEC-based workshop, a change in teacher skills was seen in making lesson plans. This can be seen from the average posttest value which increases from the pretest score. Through RADEC-based workshops, there are many things that can be explored during the activities. Before the day of the workshop, teachers were asked to perform several stages in order to improve the final result of the workshop activities. In the

Read (R) activity, teachers are given the opportunity to enrich their knowledge before they take part in the workshop activities. The teachers are given the opportunity to build their own knowledge so that when they carry out the workshop activities, their focus is no longer on reading or listening to the material but can directly discuss more deeply about how to make a good lesson plan with additional components. The results of the interviews showed that teachers felt more motivated to look for reading material after they were given the initial reading stimulus. They are more curious about the topic that will be given, then independently look for more comprehensive reading sources. After the reading stage, the teacher enters the Answer (A) stage where the teacher is given several pre-learning questions that are useful for monitoring the reading results in the previous stage.

After the two stages are passed, the teacher then enters the third stage where this stage is the Discuss stage (D). This stage begins on the day of the workshop, where at this stage there is a presentation followed by a discussion. For teachers who do stages R and A well, at this stage the teacher stands out by asking in-depth questions related to the topic being discussed. At this stage, it is also interspersed with filling out the LKPD which supports the process of obtaining results to make it more optimal. After these activities, continued with the Explain (E) stage. This stage ensures that the teachers who act as participants have understood the material



ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

presented on developing lesson plans. The last stage is the Create stage (C). This stage is the stage where the teacher tries to make a good learning design by adding components such as creative thinking, critical thinking and character development to the lesson plan. After going through various stages of RADEC. teachers get various learning resources and activities to improve their skills. As a result of experience, teachers seem to have developed a rich and well-organized knowledge base that allows them to easily draw on their past experiences (Beijaard et al., 2000).

The results indicate that teachers need to be more aware of the importance of writing detailed learning stages and making learning objectives that contain ABCD elements. These findings suggest that teacher training programs should focus more on helping teachers to understand the essential elements of effective lesson planning, which can improve the quality of teaching and learning. The RADEC-based workshop can be a model for teacher training programs in developing countries, as it provides an effective way to improve teacher skills through a structured and systematic approach.

The study also highlights importance of motivation and curiosity in teacher learning. The RADEC-based workshop provides an opportunity for teachers to enrich their knowledge before they participate in the workshop activities. The results of the interviews showed that teachers felt more motivated to look for reading material after they were given the initial reading stimulus. They were more curious about the topic that will be given, then independently look for more comprehensive reading sources. This finding implies that teachers need to be encouraged to explore and seek new knowledge to improve their teaching skills continually.

In conclusion, the study provides valuable insights into the effectiveness of RADEC-based workshops in improving

teacher learning planning skills. The findings indicate that teachers need to be more aware of the essential elements of effective lesson planning and motivated to seek new knowledge continually. The RADEC-based workshop can be an effective model for teacher training programs, as it provides a structured and systematic approach to improving teacher skills. The study contributes to the development of teacher education and highlights the importance of continuous professional development for teachers.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data above, it can be concluded that the teacher's skills increased after participating in the RADEC-based workshop. The results of the N-Gain calculation from the average pretest and posttest scores obtained the number 58, which means that the RADEC-based Workshop Implementation is quite effective in improving the skills of teachers in making lesson plans.

Based on the findings discussed in the article, it is recommended that schools and educational institutions conduct workshops to improve the learning planning skills of their teachers. The RADEC-based workshop, as demonstrated in the study, can be an effective method to enhance teacher skills in creating coherent lesson plans and learning objectives. The workshop provides opportunities for teachers to enrich their knowledge and through reading, skills pre-learning answering questions, engaging in activities that promote critical thinking and problem-solving. It is also suggested that schools and educational institutions provide continuous professional development opportunities for their teachers to keep them up-to-date with the latest teaching methodologies and strategies. This can be achieved through regular workshops, seminars, and training programs. By doing so, teachers can continue to improve their skills and



ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

competencies, which will have a positive impact on their students' learning outcomes. Furthermore, it is important to recognize the importance of effective lesson planning in achieving high-quality education. Teachers must have a deep understanding of the learning needs of their students and be able to create learning objectives and lesson plans that are coherent, engaging, and effective in promoting student learning. Schools and educational institutions can provide support to their teachers by providing them with resources and tools to help them in the lesson planning process, such as templates and guides.

ACKNOWLEDGMENT

We would like to thank Postgraduate of the Indonesian Education University, IKIP Siliwangi and the government of Purwakarta Regency for supporting this research. We are very grateful to Dr. H. Purwanto, M.Pd. as the Head of the Purwakarta Education Office who has allowed the RADEC workshop to be held.

REFERENCES

- Beijaard, D., Verloop, N., & Vermunt, J. D. (2000). Teachers' perceptions of professional identity: An exploratory study from a personal knowledge perspective. Teaching and Teacher *16*(7). 749–764. Education. https://doi.org/10.1016/S0742-051X(00)00023-8
- Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. In Educational Research (4 ed., Vol. 4). Pearson. https://drive.google.com/file/d/1d5Zzl gJuCrwAyLpdBeK5dhKMZTpE2HNb /view
- Depdiknas. (2003).Sistem Pendidikan Nasional Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional. https://peraturan.bpk.go.id/Home/Detai

- ls/43920/uu-no-20-tahun-2003#:~:text=UU-,Nomor,-20 Tahun 2003
- Dewi, P. Y. A., & Primayana, K. H. (2019). Effect of Learning Module with Setting Contextual Teaching and Learning to Increase Understanding of Concepts. International Journal of Education Learning, 1(1),19–26. https://doi.org/10.31763/ijele.v1i1.26
- Firdaus, A. R., & Rahayu, G. D. S. (2019). Effect of STEM-based Learning on the Cognitive Improvement. Skills Mimbar Sekolah Dasar, 6(2), 198. https://doi.org/10.17509/mimbarsd.v6i2.17562
- Hake, R. (1999). Analyzing change/gain score. https://doi.org/10.24036/ekj.v1.i1.a10
- Maksum, A. (2018). Metodologi Penelitian dalam Olahraga. Unesa University
 - https://scholar.google.co.id/citations?vi ew op=view citation&hl=id&user=iS Lvh-
 - kAAAAJ&citation_for_view=iSLvhkAAAAJ:u5HHmVD uO8C
- Nuryana, Z. (2017). Curriculum 2013 and the Future of Islamic Education in Indonesia. 257-270. https://drive.google.com/file/d/0BwlH-50t138uTXRQMDJmTzFIeXc/view
- Pratama, Y. A., Sopandi, W., Hidayah, Y., & Trihatusti, M. (2020). Pengaruh model pembelajaran **RADEC** terhadap keterampilan berpikir tingkat tinggi siswa sekolah dasar. JINoP (Jurnal Inovasi Pembelajaran), 6(2), 191–203. https://doi.org/10.22219/jinop.v6i2.12 653
- Putra, I. M., & Suniasih, N. W. (2015). Kemampuan Merancang Dan Melaksanakan Pembelajaran Sesuai Kurikulum 2013 Melalui Kaji Tindak Pembelajaran. Jurnal Pendidikan dan Pengajaran, 48(1-3), 80-86.



ISSN: 2303-1514 | E-ISSN: 2598-5949

DOI: http://dx.doi.org/10.33578/jpfkip.v12i2.9018 https://primary.ejournal.unri.ac.id/index.php/JPFKIP

https://doi.org/10.23887/jppundiksha.v 48i1-3.6921

Sopandi, W. (2017). The quality improvement of learning processes and achievements through the read-answer-discuss-explain-and create learning model implementation. *Proceeding 8th Pedagogy International Seminar 2017: Enhancement of Pedagogy in Cultural Diversity Toward Excellence in Education*, 8(229), 132–139.

Susanti, S., Harapan, E., & Kesumawati, N.

(2022). The Teaching Quality of Teachers in a Learning Process. 3(1), 18–21.

Tembang, Y., Sulton, & Suharjo. (2017).

Peningkatan Motivasi Dan Hasil
Belajar Melalui Model Pembelajaran
Think Pair Share Berbantuan Media
Gambar Di Sekolah Dasar. *Jurnal Pendidikan: Teori Penelitian, dan Pengembangan*, 2(6), 812–817.

http://journal.um.ac.id/index.php/jptpp
/%0AEISSN: 2502-471X