Blended Learning Method to Accelerate Human Resource Capacity Development Program for Spatial Planning in Indonesia: Challenge and Opportunity

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Keywords: human resource competency, spatial planning, training, blended learning.

SUMMARY

The Strategic Plan of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN) has set a target of 2,000 Detailed Spatial Plans (RDTR). However, until July 2021, only 116 RDTRs have been established. ATR/BPN requires approximately 8,000 Human Resources, who are able to understand and/or develop the RDTR. One of the strategies to accelerate the preparation of RDTR is to establish competency standards for RDTR compilers through certification of expertise for human resources in the field of spatial planning. This Covid-19 pandemic does not limit ATR/BPN to continue to increase the capacity of human resources in the field of spatial planning, both internally and externally, so that they are able to prepare RDTR in accordance with applicable regulations. ATR/BPN organizes basic and intermediate RDTR preparation training using blended learning methods, a combination of e-learning and face-to-face/distance learning. Intermediate RDTR trainees must have passed basic RDTR training. The implementation of blended learning is supported by modules and learning media, integrated into the Learning Management System (LMS), bridging and studio assignments using the Spatial Plan Builder application, and competency tests using the Computer Based Test (CBT). The blended learning method allows flexible but still scheduled, synchronous training time, measurable competency tests and saves budget. The implementation of blended learning has challenges, namely the lack of participant motivation, high routine workloads and an unstable internet network. This paper argues that the training for the preparation of the Basic and Intermediate RDTR using the blended learning method will improve the competence of human resource for spatial planning in supporting the acceleration of RDTR preparation and maintaining the quality of RDTR in Indonesia.

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1. INTRODUCTION

The limited space, the human population is increasing, unrestricted human activity, the lack of space for animals and plants needed by controlling the activities, and the neighbourhood being disaster-prone under construction cause the need for space. Spatial planning is meant to create harmony between the natural environment and the built environment, create coherence in the use of natural resources and resources artificially combined with human resources, and realize the function of protection by preventing the negative impact on the environment due to the usage of space.

The Job Creation Law and Government Regulation No. 21 of 2021 are strategic steps by the government to overcome investment and job creation problems, one of which is due to overlapping spatial arrangement arrangements. Before the Job Creation Law and Government Regulation Number. 21 of 2021 were published, spatial planning products (RTR) were only owned and stored by the government in physical form (hard copy), so spatial planning seems to hinder investment. People and investors who want to access RTR information must come directly to government offices and go through a long and complicated administrative process. The process of issuing permits seeks to be complicated and not transparent, resulting in many cases of overlap in space use. With the Job Creation Law and Government Regulation Number. 21 of 2021, the problem can be resolved because RTR products have been published by the government through various platforms so that the public and related parties can utilize RTR information online. The RTR product platform is also connected to the licensing service portal, so that the business and non-business licensing processes become faster and more transparent. Business licensing that has been issued is a consideration in improving the quality of RTR.

The strategy for accelerating the completion of the RDTR is outlined in the draft Strategic Plan of the Directorate General of Spatial Planning for 2020 - 2024. The target for completing the RDTR is a total of 2,000 RDTR, with one of the breakthroughs carried out being the breakthrough in strengthening human resources in the field of spatial planning. Strengthening human resources includes quality and quantity, and to achieve the target of completing the RDTR requires approximately 8,000 human resources who are able to understand and or be able to compile the RDTR. The acceleration of the process of preparing RDTR and maintaining the quality of RDTR is carried out by establishing the competency standards of RDTR constituents through certification of HR expertise with Basic RDTR and Intermediate RDTR training.

The Corona Virus Disease 2019 (Covid-19) pandemic has made major changes to daily activities. The existence of a policy direction to do social and physical distancing causes government and private offices to not operate and employees are asked to work at home, or better known as Work From Home" (WFH). With conditions like now, it does not limit the movement of the Ministry of Agrarian Affairs and Spatial Planning / National Land Agency (ATR / BPN) to continue to increase the capacity of human resources (HR) in the field of spatial arrangement, both from the central and regional State Civil Apparatus (ASN), academics, and practitioners, in order to be able to understand and compile quality and timely Spatial Detail Plan (RDTR) products by participating in basic RDTR building basic training that uses proven methods. E-learning and Intermediate RDTR with blended learning methods.

As required by the regulations of the technical team, RDTR drafting participants must take two levels of basic and intermediate RDTR training. At basic level training, participants will be trained to understand the content and procedures for preparing RDTR in accordance with the applicable provisions. And at the intermediate level, it is expected that after participating in this training, participants will be able to compile the RDTR concept properly and correctly so that it can help accelerate the completion of the Regency / City RDTR by each participant.

2. METHODOLOGY

The research method used in this study is qualitative descriptive. Qualitative description aims to describe the nature or characteristics of a symptom, event, or event that occurred today (Jonah, 2010). This research focuses on the implementation of an accelerated program for human resource capacity development in the field of spatial planning in Indonesia using blended learning methods.

Research data comes from primary data on participant evaluation results, evaluation of training implementation, and teacher evaluation. In addition, primary data is sourced from field observations. While the secondary data obtained is in the form of attendance lists of participants, documentation of activities.

The data analysis technique used is a qualitative and quantitative descriptive data analysis technique. A qualitative description to describe the implementation of the program to accelerate human resource capacity development in the field of spatial planning in Indonesia using blended learning methods. The data from the evaluation of participants, implementation, and teachers is further processed in the form of tabulation and presented in the form of graphs.

3. RESULTS AND DISCUSSION

3.1 Blended Learning Method

The term Blended Learning was originally used to describe e-learning combined with additional training solutions such as job assistance, on-the-job training, or mentoring. Blended Learning generally means the application of two or more methods or solutions for learning needs.

Blended Learning allows training providers to meet learning needs in the most appropriate way for the needs of learning targets according to current situations and conditions. Blended Learning provides an alternative to classroom training that makes it possible for students who are not physically present in class to have access to learning.

According to Thorne (2003), the existence of blended learning is basically a response to the existence of advances in online technology with traditional learning best practices. He stated that blended learning is an opportunity to integrate the advancements in innovation and technology offered online with the interaction and participation offered in traditional learning (Thorne, 2003).

Watson (2008) explains that blended learning is a convergence between online learning and face-to-face learning. He explicitly stated that "blended learning is learning that combines the best components of online learning and face-to-face learning" (Watson, 2008, p. 4). The same thing was also expressed by Bonk & Graham (2006) who defined blended learning as a combination of learning from two historically different teaching-learning process models, namely between the traditional learning system (face-to-face) and the distributed learning system (distributed learning system).

Distributed learning systems occur because of the utilization of the extraordinary potential of electronic technology, especially computers and the internet so that it allows anyone to learn anytime and anywhere. Khan, explains blended learning from a broader perspective. He stated that blended learning is a combination of strategies to deliver the right material in the right format to the right people at the right time. Blended learning combines a variety of delivery media that are designed to complement each other and encourage an optimal learning process (Khan, 2005).

Thus, in designing blended learning, it is important to choose the right combination of delivery media in both traditional and online learning settings. Where, the main focus is the occurrence of optimal learning. In addition, Khan stated that blended learning includes a combination of various activities including face-to-face in class, live e-learning, and independent learning. Everything is a combination of traditional learning (guided by a teacher/mentor), synchronous online learning, asynchronous independent learning and structured learning based on the experience of the learner and mentor (Khan, 2005).

Blended learning has two learning settings, namely asynchronous learning and synchronous learning. Synchronous learning is a learning process that occurs simultaneously at the same time between the learner and the tutor/supervisor, although it does not have to occur in the same place (Littlejohn & Pegler, 2007).

Synchronous learning consists of two types. The first type is face-to-face learning in the classroom (Smaldino, et al., 2008). Khan termed it as physically synchronous learning (synchronous physical format) (Khan, 2005). The synchronous type of direct face-to-face or physically synchronous occurs simultaneously at the same time in the same place. Examples are face-to-face learning in class, research in the laboratory, field trips, presentations and group discussions in class, and all other traditional learning methods. The second type is synchronous online), or also called synchronous virtual collaboration (Staley, 2007) such as audio/video conferencing, chatting, live online learning, instant messengers and others. Asynchronous learning is

a learning activity that allows different learners to experience the same teaching material at different times and places (Smaldino, et al., 2008).

Staley (2007) classifies asynchronous learning activities into two categories, namely collaborative asynchronous (such as online discussion forums, mailing lists, e-mail, etc.) and independent asynchronous (such as simulations, online tests, searching materials, materials in the form of pdf, doc, html, videos, animations, etc.)

3.2 Efforts to Improve Competence of Human Resources in the Field of Spatial Planning

The target for completion of the RDTR is a total of 2,000 RDTR, with one of the breakthroughs being promoted is the breakthrough in strengthening Human Resources in the field of Spatial Planning. This strengthening of Human Resources includes both quality and quantity, where to achieve the target of completing the RDTR, approximately 8,000 human resources are needed who are able to understand and/or be able to prepare the RDTR. The acceleration of the RDTR preparation process and maintaining the quality of the RDTR is carried out by establishing competency standards for RDTR compilers through certification of HR expertise with Basic RDTR and Intermediate RDTR training. The breakthrough of HR in the field of Spatial Planning with training in the preparation of Basic and Intermediate RDTR can be seen in Figure 1 below:

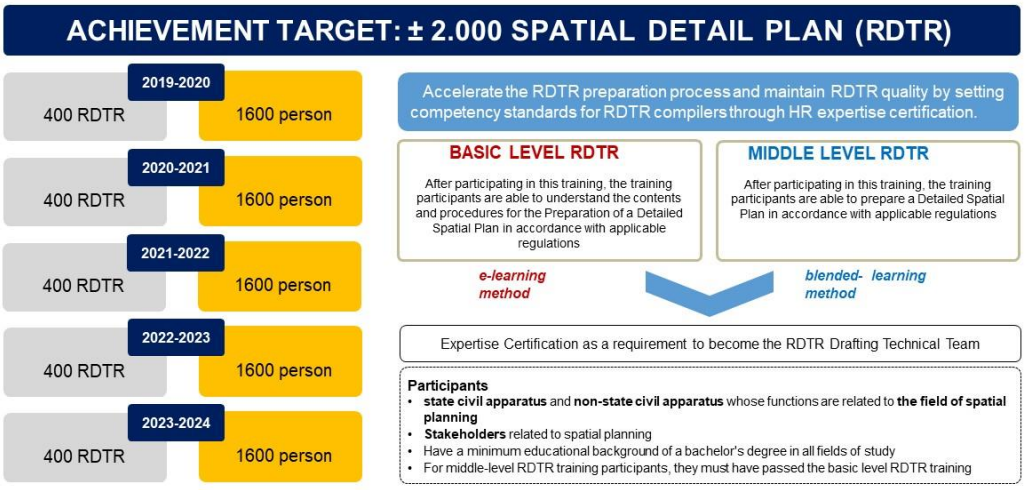

Figure 1. Breakthrough of human resources in the field of Spatial Planning with Training in the preparation of detailed spatial plans at the elementary and middle levels (adopted from the Directorate General of Spatial Planning, 2021)

3.2.1 Training for Preparation of Spatial Detail Plan (RDTR) Basic Level with Blended Learning Method

1. Objectives, Targets, and Criteria of Training Participants

   This training is held for human resources in charge of spatial planning at the central and regional levels, both from the state civil apparatus (ASN), practitioners (future plans), and academics (ASPI). So it is hoped that through this training it can provide a consistent understanding of spatial planning, especially in the preparation of RDTR. The criteria for basic level RDTR training participants are as follows::

   a. State civil apparatus whose functions are related to the field of spatial planning;
   b. Stakeholders related to the field of spatial planning;
   c. Have a minimum educational background of a bachelor's degree.

2. Training Curriculum

   The Basic Level RDTR Training Curriculum can be seen in the following table:

Table of the Basic Level Detail Spatial Plan (RDTR) Training Curriculum

No.	Training Course	E-learning Lesson Hours	Synchronous Lesson Hours
1.	Introduction RDTR	2	2
2.	Introduction of Loads and Procedures RDTR	10	2
3.	Compilation Analysis RDTR	8	2
4.	RDTR Map dan Database	18	2
5.	Capita Selecta Land	3	2
6.	Lecture on Institutional Substantive Technical Content (Introduction to Spatial Planning)	-	2
7.	Training Policy Overview	-	2
8.	Computer Based Test Exam	3	-
	Total	44	14

(ATR/BPN Human Resource Development Center, 2019)

3. Training Implementation

   Basic level RDTR training was carried out with the condition that there was still a COVID-19 pandemic. With these conditions, it is necessary to carry out a prevention protocol so that there is no transmission between participants and the committee so that the Basic RDTR Training in 2021 will be carried out using the blended learning method. Learning with this blended learning method combines two learning methods, namely learning through e-learning and face-to-face or distance learning.

   Learning the blended learning method in training uses the Learning Management System (LMS) platform at https://ppsdm.atrbpn.go.id. On the platform, training programs are presented in accordance with the stages contained in the implementation guidelines, program design and training

curriculum. In the implementation of e-learning, online meeting sessions are held using the zoom application. Competency test using the Computer Based Test platform at the address https://cbt.atrbpn.go.id/.

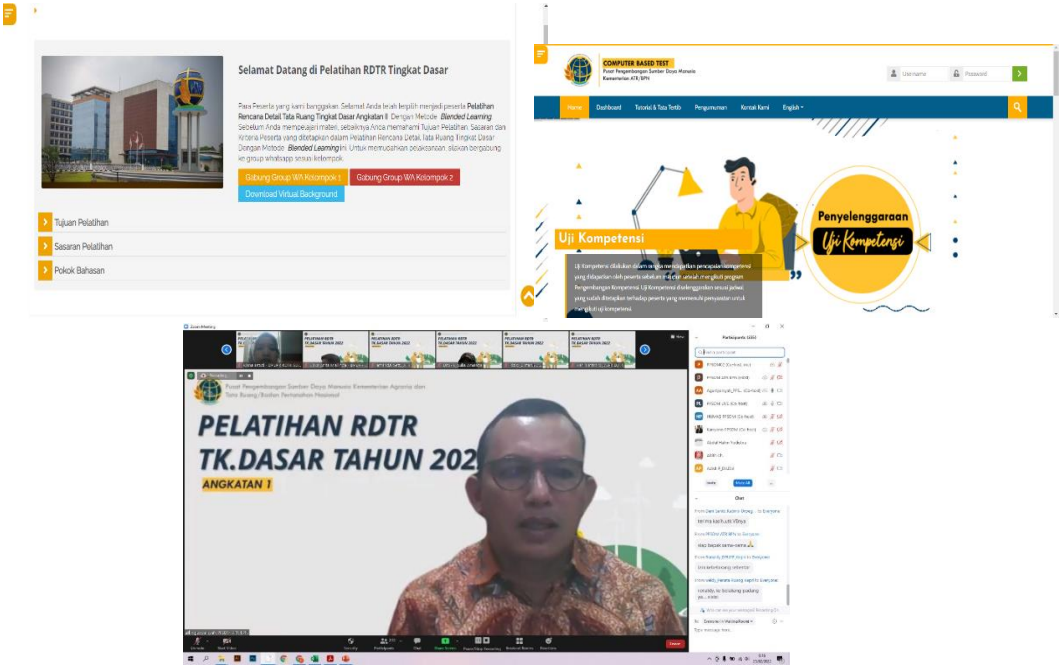

Figure 2. Platform View LMS, Online discussion and Basic RDTR Training CBT platform (adopted from PPSDM ATR/BPN,2021)

4. Training Evaluation

Participants who get a final score of ≥70 are declared to have passed the competency test and received a certificate of passing the competency test. The results of the evaluation of the Basic Level RDTR training participants can be seen in the following chart:

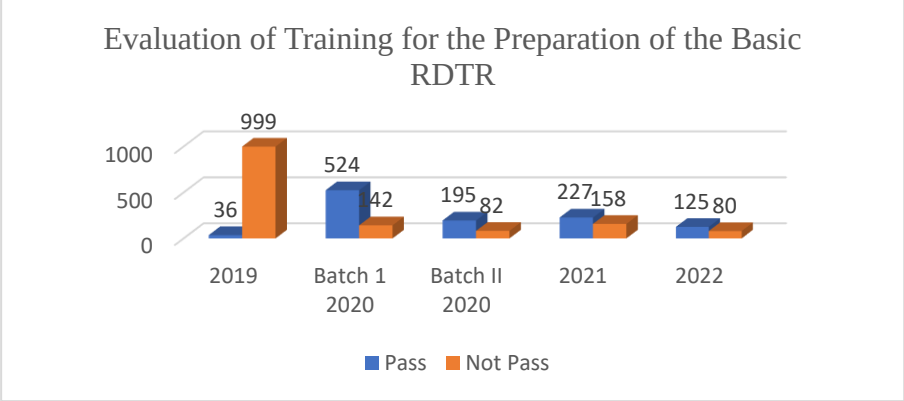

Figure 3 . Evaluation of Basic Level RDTR Training Participants

This data shows that the graduation rate in 2019 (3.5%), lower than in 2020 (class I 78.7% and batch II 70.4%), in 2021 58.96% and in 2022 60.98%. This shows that the synchronous e-learning method can increase the graduation of participants in basic level spatial planning details.

In evaluating the implementation of Basic level RDTR Training, the inhibiting factors include:

a. Participants who are less than optimal in self-study are caused by poor time management with routine work and unstable network conditions;
b. The level of understanding of participants is low because there are no synchronous activities in the context of rounding up the material;
c. Lack of intense communication between participants and committee (no whatsapp group);
d. The case study discussion was not carried out.

Solutions to overcome these obstacles include:

a. The committee ensures the motivation of participants in participating in the training;
b. The level of understanding of participants is high because there are synchronous activities in the context of rounding up the material for each training subject;
c. Communication between participants and the committee went smoothly with the WA and Chat groups on the LMS application;
d. A case study discussion was conducted.
e. The development of LMS and CBT makes it easier for participants to follow the learning

3.2.2 Intermediate (Spatial Detail Plan) RDTR Preparation Training with Blended Learning Method

1. Objectives, Targets, and Criteria of Training Participants

   This training is held for human resources in charge of spatial planning at the center and regions, both from ASN, practitioners (future plans), and academics (ASPI). The purpose of this training is for participants to be able to formulate the RDTR concept properly and correctly so that it can help accelerate the completion of the Regency/City RDTR for each participant. The criteria for the Intermediate RDTR training participants are as follows

   a. Have attended Basic Level RDTR Training or training related to RDTR or;
   b. Have to experience in the preparation of Detailed Spatial Plans for at least 2 years;
   c. Minimum education is a bachelor degree.

2. Training Curriculum

Training Curriculum for Intermediate (Spatial Detail Plan) RDTR Preparation Training with Blended Learning Method can be seen in the following table:

Curriculum Table Intermediate (Spatial Detail Plan) RDTR Training

No.	Training Course	*E-learning* Lesson Hour	*Distance Learning* Lesson Hour		Total Lesson Hour
			Learning Bridging	Face-to-face	
1.	Introduction to Intermediate RDTR	3	2	-	5
2.	RDTR Data Collection and Compilation	4	5	-	9
3.	RDTR Data Processing and Analysis	10	20	30	60
4.	RDTR Concept Formulation	10	5	40	55
5.	Finalization of RDTR	1	4	-	5
6.	Building Learning Commitment	3	-	-	3
7.	Lecture on Institutional Substantive Technical Content (Introduction to Spatial Planning)	-	-	3	3
8.	Training Policy Overview			2	2
	Total	31	36	75	142

(ATR/BPN Human Resource Development Center, 2019)

3. Training Implementation

Intermediate (Spatial Detail Plan) RDTR Preparation Training training in 2021, while still in the COVID-19 pandemic, is carried out by learning the blended learning method in training using the Learning Management System (LMS) platform at the address https://ppsdm.atrbpn.go.id. On the platform, training programs are presented under the stages contained in the implementation guidelines, program design, and training curriculum. In the implementation of distance learning, a meeting session is held using the Zoom application. Bridging and studio assignments using the RTR Builder app. Implementation of the competency test using the Computer Based Test platform at the address https://cbt.atrbpn.go.id/

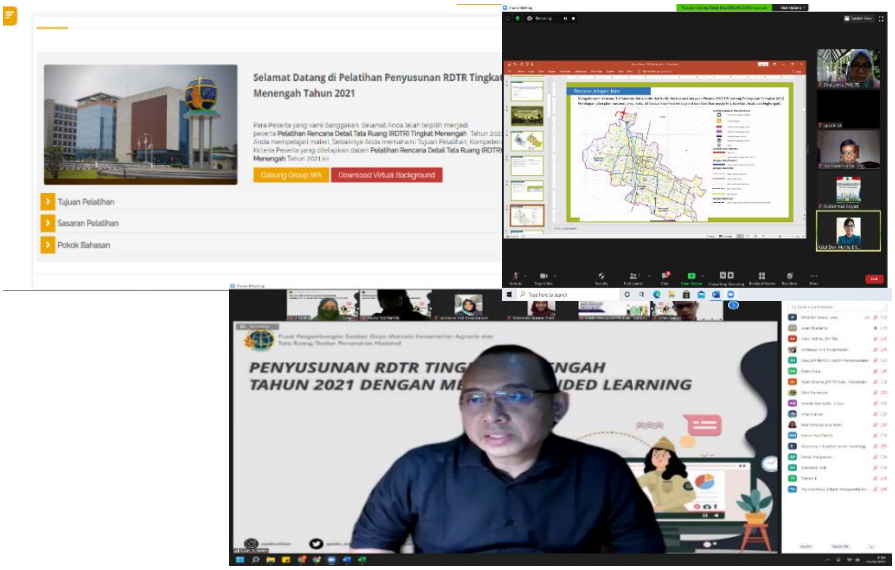

Figure 4 . Platform View LMS and Online discussion and CBT platform of Intermediate (Spatial Detail Plan) RDTR Training (*adopted from PPSDM ATR/BPN,2021*)

4. Training Evaluation

The proportion of assessments in the evaluation of participants in the Intermediate RDTR training includes behavioral attitudes, e-learning (material evaluation), e-learning bridging, and studio assessments. The proportion of the assessment can be seen in the following figure:

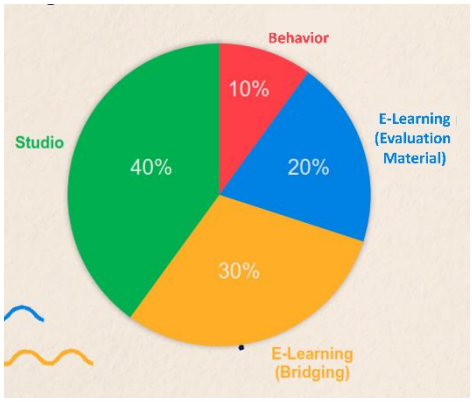

Figure 5 . Proportion of evaluation of Intermediate (Spatial Detail Plan) RDTR Training (*adopted from PPSDM ATR/BPN,2019*)

Participants who get a final score of 70 are declared to have passed the competency test and received a certificate of passing the competency test. In 2019 the evaluation results showed a graduation rate of 25 participants (100%), in 2020 the evaluation of training participants was 37 participants with 35 participants passing (95%) and 2 participants failing (5%). In 2021 the

evaluation results of 39 participants with 22 (56.41%) participants passing and 17 (43.59%) failing participants the evaluation results of Intermediate (Spatial Detail Plan) RDTR training participants can be seen as follows:

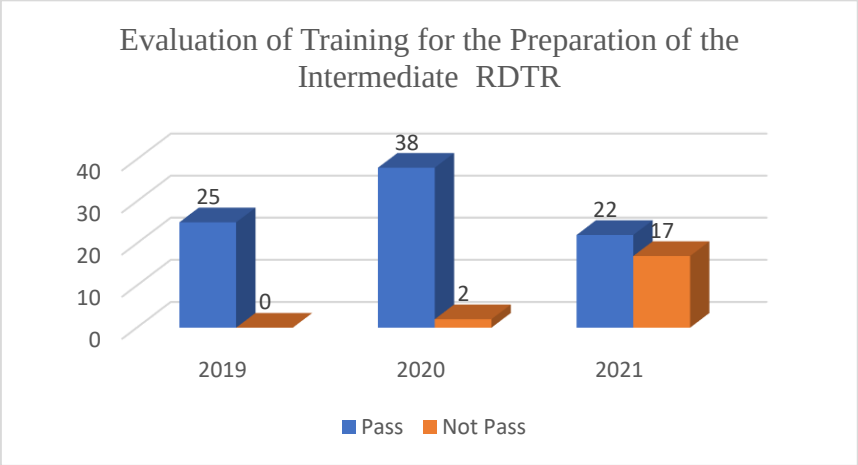

Figure 6. Evaluation of Intermediate (Spatial Detail Plan) RDTR Training

In evaluating the implementation of the Intermediate (Spatial Detail Plan) RDTR Preparation Training, the inhibiting factors include:

a. Learning materials have not been updated with the latest guidelines and legislation;
b. Learning materials delivered through modules, videos, instructors and LKP are not yet in sync with the RTR builder;
c. The structure of the learning material is not following the learning objectives;
d. Still burdened with routine office work;

Solutions to overcome these obstacles include:

a. Modules and learning media are reviewed so that it is easier for participants to understand the existence of these interactive learning modules and media;
b. Learning materials in modules and media need to be updated with the latest guidelines and laws so that the material remains relevant;
c. The preparation of the module needs to involve experts or practitioners in the field of spatial planning so that the learning materials are more comprehensive and of high quality;
d. The development of the LMS Pinter and PPSDM CBT makes it easier for participants to follow the lessons;
e. Need to be freed from routine office work.

4. CONCLUSION

In realizing the targets of the Strategic Plan of the Directorate General of Spatial Planning for the Year 2020-2024, there are 3 approaches, one of which is about human resource breakthroughs. This breakthrough in human resources was carried out by accelerating the process of preparing the RDTR and maintaining the quality of the RDTR by establishing competency standards for RDTR compilers through certification of human resource expertise. The HR expertise certification is carried out by conducting basic RDTR and intermediate RDTR training with the blended learning method.

With the condition of the Covid-19 pandemic, the strategy for implementing blended learning can answer these conditions and situations, so that learning to increase human resource capacity, especially those related to RDTR, is not disturbed by this phenomenon which can be implemented through the WFH mechanism, even participants can focus more on learning considering the available time is more likely. E-learning and blended learning methods, it has the advantage that they can be carried out at home and even anywhere. So to the ongoing phenomenon of the spread of COVID-19 where there are rules for large-scale social restrictions, with this method, it is very possible to carry out learning and even carry out exams at the homes of each training participant. The purpose of the basic level RDTR training is that after participating in this training participants can understand the content and procedures for preparing RDTR by applicable regulations and the objectives of the Intermediate Level RDTR Training are expected after participating this training, participants can develop the RDTR concept properly and correctly so that it can help accelerate the completion of the Regency RDTR /City of each participant. For 2022, it is planned to organize training on the preparation of 4 batches of Basic RDTR and 1 batch of Intermediate RDTR using blended learning methods (E-learning and face-to-face).

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BIOGRAPHICAL NOTES

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