

# How a Crisis Can Change Training Design: A Case Study on Principal Preparation Training in Indonesia

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## Abstract

This case study aims to explore the currently utilized design, identify barriers, and factor contributed to the preparation training (PPT) improvement during the COVID-19 (Corona Virus) pandemic. A participant observation, an online questionnaire and an in-depth interview used in the study, in which a total of 304 prospective school principals participated in the first PPT cohort in online modality. The analysis results show that the PPT improved knowledge, skill, and motivation. However, there are several barriers in the new PPT concerning 1). Lack of ICT literacy in operating LMS Moodle and making video for online exhibition; 2). Poor internet connection because of bad weather, electricity problem, and living in remote area; 3). Slow learning in ICT utilization, because most of participants were in between 48-55 years old, and 4). Duration of synchronous meeting is too long. The proposed improvement of this study are time management, human capacity improvement, regrouping participants based on learning need, reducing synchronous meeting, modifying assignments, providing internet package and hotspot area. The results of this study may become a baseline for improving quality of the PPT in Indonesia. For further research, it is important to highlight that the data were obtained in the Indonesian training context and in online modality. Consequently, further study is encouraged in different contexts and different modalities.

## Keywords

Education and training; prospective school principal; assessment; online learning

## 1. Introduction

The World Health Organization (WHO) declared a global pandemic due to the widespread of the COVID-19 in 2020. Public lockdowns also declared for all institutions, included institutions of learning. Consequently, for all education and training, learning process became home-based as educators or instructors and participants worked from their own places (Zhang, Wang, Yang, & Wang, 2020 ). The spread of this virus is creating an unprecedented disruption in training managements. Many training centers were caught unprepared (Gupta, Jankie, Pancholi, Talukdar, Sahu, & Sa, 2020). Instructors and training personnel do not have sufficient competencies in conducting distance learning and assessments (Lake & Olson, 2020); (Sasere & Makhasane, 2020).

One of the most important indicators of an efficient educational system is to achieve permanence in implementations that meet qualified principal need in any schools (Shofwan et al. 2021). While, meeting the need for qualified principals depends on successful training of the prospective principals (Özbaş & Mukhatayeva, 2020). The importance of training has been confirmed by many studies. Kirkpatrick & Kirkpatrick revealed that training is an effective way to equip human resources with certain competencies; knowledge, skills, and attitudes, to improve job performance (Kirkpatrick & Kirkpatrick, 2006). Principal preparation training is a process aims at equipping potential teachers with school principal competencies. Training is almost found in all principal preparation programs as a process to transfer managerial and leadership competencies (Thody, Pashiardis, Johansson, & Papanoum, 2007); (Shantal, Halttunen, & Pekka, 2014); (Ng, 2010).

Indonesia is a country with large number of schools. The primary school in Indonesia is about 148,244, junior high schools 38,960, and senior high schools 13,495 (<http://statistik.data.kemdikbud.go.id>). Annually, Education Authorities have to calculate the need of school principal because of retirement age, promotion, or school regrouping (ACDP, 2016). As a consequent, principal preparation training (PPT) must be carried out every year to recruit

prospective school principal based on school-based placement. Indonesia was facing an increasingly severe challenge of recruiting enough participants to PPT to meet growing school principal demand.

In the years prior to 2020, the PPT in Indonesia was only in face-to-face mode with In-On-In training design. In-On-In training design consists of three phases, In-Service Training (IST) 1, On-Job Training (OJT), and In-Service Training (IST) 2. The first phase is when instructors meet participants in face to face to transfer managerial and leadership concept. The second phase is when participants return to their school to do their action plan in school managerial and leadership. The last phase is when participants meet their instructors to report the action plan implementation (Juwita & Siswandari, 2018). But in 2020, the PPT suddenly stopped due to the widespread of the COVID-19. All training centers are shuttered, and the face-to-face training mode is strictly prohibited. As a result, the shortage of school principal becomes a serious problem in many districts in Indonesia (LPPKSPS, 2020).

Rhythmic, year-round, the schedule of PPT is difficult to implement but there is a valuable opportunity to mitigate lost learning by increasing training opportunity. It is very challenging when The Ministry of Education and Culture start thinking through what steps can be taken immediately to serve participants in PPT. To manage training termination, The Ministry of Education and Culture formulated guidelines for alternative design of PPT implementation. There are at least three modalities which Education Authority can choose in this pandemic year; face to face, online, or blended learning. The Education Authority from green zone may use those three modalities, while who are from orange or black zone can only choose the online one (KPCPEN, 2020).

The new PPT begin with technical training of Moodle, a learning platform chosen by The Ministry of Education and Culture to help instructors create effective online learning for the PPT participants (LPPKSPS, 2020). This one-day training designed to help participants identify and utilize facilities in Moodle, e.g., courses, chat, forum, and wiki. Not only to equip participants with certain skill, but also to ensure that participants have sufficient computer devices and internet connection for online learning. There should be a preparation training to implement any learning platform used before the real class begin to increase readiness in online learning (Octaberlina & Muslimin, 2020); (Koçoğlu & Tekdal, 2020); (Kisno, Turmudi, & Fatmawati, 2020). The participants with sufficient knowledge and skill in utilizing learning platforms will find no difficulties in the real online class. Individuals learn best when they are physically, mentally and emotionally ready (Schunk, 2013) and have the adequacy of existing capacity in relation to some instructional objective (Baharudin, 2007); (Slameto, 2003).

The PPT is redesigned in June-July and disseminated in August-November 2020. In-On-In training design of PPT shifted to On-In-On-In which is begin with On-Job Training that allow the participants read training material and identify their own training need with instrument namely AKPK (*Analisis Kebutuhan Pengembangan Keprofesian-need analysis of professional development*). Shifting OJT to the first phase of training is in alignment with flipped classroom concept, which learners' study instructional material before class and apply the learning material during class. The flipped classroom is very popular during the last decade, and it has been implemented in a wide variety of educational contexts (Bergmann & Sam, 2012). In flipped classroom, the learners are able to control the viewing frequency of the instruction material before class (Abeysekera & Dawson, 2015). As a result, cognitive load could be reduced and segmentation effect of learning occurred (Clark, Nguyen, & Sweller, 2005).

The Ministry of Education and Culture has been reviewing and redesigning the PPT as a respond to Covid-19 pandemic. However, there was a wide gap between the desired program and its implementation. In the first implementation, The Ministry of Education and Culture is still struggling to convert to a fully online platform due to issues of server capacity, internet connectivity, a lack of computer devices and resources for online learning management systems. The study on PPT conducted in 2017 found that more than half (59%) of PPT participants were between 51 and 55 years old, 35.9% were in 41–50-year-old range, and 5.1% were 31-40 years of age. The PPT participants between the ages of 41–50 rated as rather high compared to the following group aged 51–60 in managerial skill, especially in information and communication technology (ICT) literacy (Juwita & Siswandari, 2018). The lack of a self-directed learning also affected the participants left behind their peers. According to Gupta, the most critical problem in online learning is the misalignment between resources and the needs for learning (Gupta, Jankie, Pancholi, Talukdar, Sahu, & Sa, 2020).

## 2. Literature Review

### 2.1 The Framework of Training Design

Training design is an instructional design used by trainers to prepare all types of instruction (e.g. courses presented in the classroom, through workbooks, and online). Although many associate training design with the arts of training delivery or assessment, the true purpose of training design is problem solving. Training design is a solution for determining which behaviors need to be changed, the skills and knowledge that learners to be developed, and the motivators that would encourage or discourage learners from adopting those behaviors on the job (Carliner, 2003). Enlart, in (Clotu, 2017) proposed a triangle in training design (figure 1). The triangle consists of three poles: context, contents, and learners with conception of training as a center. A training designer should interact with these poles in balance. He should understand the context of the learners, communicate with person in charge, identify the need of learners, and organize the curriculum or training materials based on that need.

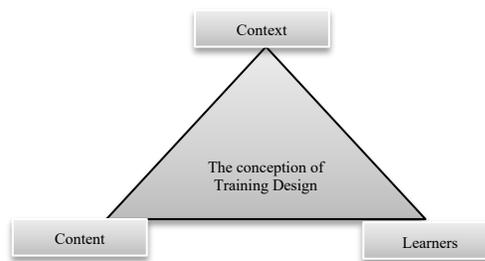


Figure 1. Enlart's conception of training design

There are at least 10 factors should be carefully considered when designing and implementing a training program (Kirkpatrick & Kirkpatrick, 2006): 1). Determining needs, 2). Setting objectives, 3). Determining subject content, 4). Selecting participants, 5). Determining the best schedule, 6). Selecting appropriate facilities, 7). Selecting appropriate instructors, 8). Selecting and preparing audiovisual aids, 9). Coordinating the program, 10). Evaluating the program. If training programs are going to be effective, first of all, they must meet the needs of participants. To identify the needs, participants, bosses, and others can be asked in interviews or by means of a survey. Once the needs have been identified, objectives are necessary to be set. At least, the objectives should answer the question what knowledge, skills, and attitudes are needed to achieve the desired behaviors. The answer will be useful to guide training designer in forming the training program curriculum. At last, evaluation must be done to determine the effectiveness of a training program. Finally, it can be highlighted that training design is a plan to solve problem of discrepancy of current and desired competencies by interrelation between context, contents, and learners.

Training designer must respond to pandemic challenge when context, content, and learners' need are extremely changes. Not only training delivery, but also training material and assessments should be composed in the context of pandemic situation (Al-Mamari, Al-Zoubi, Bakkar, & Al-Mamari, 2020); (Noor, Isa, & Mazhar, 2020). Online or blended learning is a possible modality to mitigate training termination. It is considered online learning when any training delivered through the digital format. In the past, online learning is implemented by international training corporations for their employee training due to time, distance and travel expense considerations (Das, Yost, & Krishnan, 1999). Nowadays, online learning becomes a powerful tool for education and training their students/trainees who are staying at home for isolation (Tseng & Chen, 2020). UNESCO stated that online learning enables educators meet the unmet educational needs (Indrajit, 2016). Online learning is defined as a process that takes place using a computer connected to the internet as a tool for communication and learning (Hockly & Clandfield, 2010). In online learning, teacher can conduct a course partially or entirely through the internet (Ko & Rossen, 2010)

### 2.2 The Design of PPT In Indonesia

The first step of being school principal is meeting all administrative requirements. The Regulation of the Minister of Education and Culture No. 06 year 2018 states that administrative requirements for being a school principal in Indonesia are: have a bachelor's degree, have managerial experience, have a minimum III/c grade, have 5 years' teaching experience, have teaching certification, and maximum of 56 years old on first appointment. Only those who

meet all the requirements will pass the administrative selection and will then undertake potential leadership assessment in the academic selection process.

Potential prospective principals who meet the administrative and academic requirements then take part in principal preparation training (PPT) for 300 hours. In the year prior 2020, the training consists of three phases (In-On-In): in-service training 1; on-job training; and in-service training 2. As a comparison, the Swedish principal preparation program, which in general is followed by teachers with master’s or doctoral degrees in subjects appropriate for the program. The course covers themes including 1) legislation on schools and the role of exercising the functions of authority; 2) management by goals and objectives; 3) school leadership; and 4) supervision (Norberg, 2018). In Hong Kong, they are required to have five years’ teaching experience and the leadership skills needed for education development in the 21st century. The principal preparation program contains three parts: 1) a needs analysis to ascertain the strengths and weaknesses of the participants; 2) a 72-hour course designed to equip participants with leadership competences; and 3) presentation of career highlights in the form of a reflective journal (Ng, 2010). It can be highlighted that all the PPT began with administrative and academic selection and continued by training program combined with practical fieldwork.

In early 2020, all training centers shuttered for PPT implementation due to the spread of COVID-19 virus. The Ministry of Education and Culture face a big challenge for finding out the new form of PPT. The Ministry of Education and Culture begin to formulate guidelines for alternative design of PPT implementation. Finally, The Ministry of Education and Culture recommend three alternative modalities in PPT; face to face, online, and blended learning. The online learning is the most recommended modality during a crisis.

The new PPT in online modality begins with one day technical training. This training aims to help participants identify and utilize facilities in online class. The online class uses Moodle as a learning platform. Moreover, the training wants to ensure that participants have sufficient computer devices and internet connection for online learning. This is in align with studies which found that there should be a preparation training to implement any learning platform used before the real class begin (Octaberlina & Muslimin, 2020); (Koçoğlu & Tekdal, 2020); (Kisno, Turmudi, & Fatmawati, 2020).

The PPT is redesigned from In-On-In to On-In-On-In. The new PPT begins with on-job training phase where the participants read the materials and find out the gap between their prior knowledge and the desired one. If they find out problems, they could share and discuss with their mentors (the existing principal). Shifting on-job training to the first step of PPT aims to reduce face to face meeting with instructors/trainers in in-service training phase. The flipped classroom concept is implemented here. In term of flipped classroom, Abeysekera & Dawson found that the learners are able to control the viewing frequency of the instruction material before class (Abeysekera & Dawson, 2015). As a result, cognitive load could be reduced and segmentation effect of learning occurred (Clark, Nguyen, & Sweller, 2005).

The PPT is designed in 300 hours, which consist of 20 hours for on-job training 1, 50 hours for in-service training 1, 200 hours for on-job training 2, and 30 hours for in-service training 2. It means, the participants are given more time to learn and work in their home base rather than to listen lectures in synchronous meeting with the trainers. The new PPT design is illustrated in Figure 1.

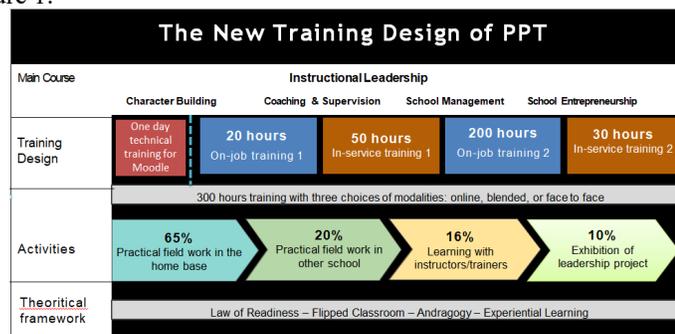


Figure 1. Training Design of PPT in Indonesia

### 3. Methods

Qualitative case study is used in this research to enable researcher to conduct an in-depth exploration of current design training and identification the barriers faced by the PPT participants in Indonesia. Case study method is chosen to gather enough information about a particular person, social setting, event, or group to permit the researcher to effectively understand how it operates or functions (Berg, 1998). Case study aims to explores a bounded system (a case), or multiple bounded systems (cases) over time, through details, in-depth data collections involving multiple sources of information (Cresswell, 2007). The study population consisted of aspiring principals who joined the first PPT cohort in 2020. From this population, based on the random sampling technique, 304 trainees were chosen to be respondents.

### 4. Data Collection

The data collected by participant observation, questionnaire, and in-depth interview. Participant observation aims at learning about the activities of the participants in the natural setting through observing and participating in those activities (DeWalt & DeWalt, 2002). Researcher observes the PPT online activities through LMS Moodle, zoom meeting recording, and trainers' WhatsApp Group in five months from October 2020 to February 2021. In this observation process, researcher becomes a PPT trainer in three months from October to December 2020. This observation enables researcher to become a part of the group to the extent that the members themselves include the observer in the activity and turn to the observer for information about how the group is operating (Kawulich, 2005)

The online questionnaire used as it allows researcher to reach huge samples in limited time, since the research purpose was to collect updated information on an ongoing and continuously changing situation. The questionnaire was sent through *WhatsApp Group* of the first PPT cohort and 304 of them filled the questionnaire. The questionnaire was made of multiple-choice questions and a few open questions. It was structured in three areas of framework as follows (see Table 1).

Table 1. Indicators of Training Design

Training Design Framework	Indicators
A solution for determining which behaviors need to be changed (Carliner, 2003)	<ol style="list-style-type: none"> <li>1. Improving knowledge of principalship</li> <li>2. Improving leadership skill</li> <li>3. Improving managerial skill</li> <li>4. Improving self motivation</li> </ol>
Training is designed in a triangle concept: context, learners, and content (Enlart in Clotu, 2017)	<ol style="list-style-type: none"> <li>5. Understanding the context of the learners</li> <li>6. Communicating with person in charge</li> <li>7. Identifying the need of learners</li> <li>8. Organizing the curriculum or training materials based on the need</li> </ol>
The factors should be carefully considered when designing and implementing a training program (Kirkpatrick & Kirkpatrick, 2006)	<ol style="list-style-type: none"> <li>9. Determining subject content</li> <li>10. Determining the best schedule</li> <li>11. Selecting appropriate facilities</li> <li>12. Selecting appropriate instructors</li> <li>13. Selecting and preparing audiovisual aids</li> <li>14. Coordinating the program</li> <li>15. Evaluating the program</li> </ol>

In-depth interview in this study involves direct, one-on-one engagement with individual participants over the phone. This interview gives opportunity to ask follow-up questions and probe for additional information (Kvale, 1996). Semi-structured interview is used to encourage participants talk in depth about the strength and weakness of current design of PPT, especially in online modality. The data collected through participants observation questionnaires, and in-depth interviews were analyzed using qualitative data analysis techniques. This technique starts from the activities of sorting, classifying, and interpreting data (Neuman, 2016).

### 5. Results and Discussion

A total of 304 PPT respondents answered the online questionnaire, and the resulting data presented a very interesting profile of them. The respondents were composed of 182 female (59.8%) and 122 male (40%) participants. The respondents had worked as teachers for 8 to 38 years; the majority (60.8%) had between 10-20 years, 38% up to 20

years, and only 3% under 10 years teaching experience. The sample is dominated by participants from primary school (57%), as the number of primary schools is bigger than other school level. The demography of 304 respondents illustrated in Table 2.

Table 2. The demography of respondents

Gender	Male	122 (40%)
	Female	182 (59.8%)
Teaching experience	> 20 years	116 (38%)
	10-20 years	185 (60.8%)
	< 10 years	3 (1%)
School level	Kindergarten	10 (3%)
	Primary School	174 (57%)
	Junior High School	54 (17.7%)
	Senior High School	42 (13.8)
	Vocational High School	24 (7.8)
Total		304 (100%)

### 5.1 Finding 1: The implementation of current design of PPT

In the years prior to 2010, prospective school principal in Indonesia were not required to finish any training programs. Since 2010, The Ministry of Education and Culture conducted a pilot project for PPT, to improve the knowledge and skills of prospective school principals. A certificate of principalship is given to who completed the program as a proof that they have met leadership and managerial requirements before assuming the role of principalship. However, just a small number of prospective school principals have been able to join the program due to political and financial problems (ACDP, 2016).

The PPT is preceded by administrative and academic selection. The available modality of PPT in that time was only face to face modality. From 2010 to 2020, the training consists of three phases (In-On-In): in-service training 1; on-job training; and in-service training 2. In June-July 2020, the PPT is redesigned to respond a new vision of the Minister of Education and Culture, and the outbreak of Covid-19. There are at least three available modalities in the new PPT; online, blended, and face to face. This is a smart solution for mitigating training termination during a crisis and a call for “stay at home” movement.

The sudden online teaching approach was greeted with diverse responses from different governments across the globe. For instance, in Finland, a Finish Virtual University was established in early 2000 where students, not only participated in e-learning, but carried out practical and research in virtual laboratories (Kess, 2003); (Tatli & Ayas, 2020) In Thailand, web-based teaching has become a powerful tool for large-scale service corporations for employee education and training during the COVID-19 pandemic (Tseng & Chen, 2020). Even though, there are three modalities, but online learning is the most favorite modalities in PPT 2020.

The training become more contextual, as learning process begin with on-job training phase that aims at identifying individual needs for professional development and school need for learning improvement. In the previous, the PPT began with in-service training phase where the trainers taught a big load of leadership and managerial content that made participants complained due to time constraints. Juwita & Siswandari found that the PPT participants need better time management that enables them to have enough time to read, understand, collaborate, report and perform their tasks (Juwita & Siswandari, 2018). The finding in align with the current PPT design that shifted on-job training phase from the second phase to the first one. One of on-job training activities is reading training materials in character building, supervision, managerial, and entrepreneurship. This activity aims at equipping participants with initial knowledge and skill in principalship before class (in-service training). The concept of flipped classroom is implemented in the current PPT. The flipped classroom has been implemented in a wide variety of educational contexts (Bergmann & Sam, 2012). In flipped classroom, the participants are able to control the viewing frequency of the instruction material before class (Abeysekera & Dawson, 2015). As a result, cognitive load could be reduced and segmentation effect of learning occurred (Clark, Nguyen, & Sweller, 2005).

Table 3. The PPT Design Changes

	The Previous PPT	The Current PPT
Modalities	Face to face learning	Online, blended, and face to face learning
Training Design	In-On-In	On-In-On-In
Duration	In (70 hours), On (200 hours), In (30 hours)	On (20 hours), In (50 hours), On (200 hours), In (30 hours)
Activities	face to face learning with trainers (100 hours), practical field work (200 hours)	face to face learning with trainers (50 hours), exhibitions of leadership project (20 hours), practical field work (220 hours)
Learning Orientation	Content oriented	Contextual oriented

The changes of PPT design, illustrated by Table 3, shows that The Ministry of Education and Culture has quick steps to serve participants in pandemic situation. The changes also found in Illinois when National Institute for Learning Outcomes Assessment (NILOA) launched a survey to capture a snapshot of delivery and assessment changes made in response to the sudden shift to remote learning. The finding shows that 97% of respondents made changes response to COVID-19. The changes included modifying delivery system, assignments and assessments, flexibility in assignment deadlines, shifting to pass/fail, and modifying assessment reporting deadlines (Jankowski, 2020). However, the change from face-to-face to online teaching practice influences teaching norms, professional role, and the teaching strategies. The online delivery and assessment system is a big challenge and new experience for most of educators/trainers. Students/trainees are therefore facing difficulties in using to the online mode of teaching due to their limited expertise (Noor, Isa, & Mazhar, 2020). This challenge also faced by trainers and trainees in the first PPT cohort when they implement the new design of PPT.

## 5.2 Finding 2: The barriers of current PPT design

The resulting data from online questionnaire presented very interesting information about the barriers of current PPT design. Before presenting the barriers, researcher wants to report the positive effects of the new PPT design. According to Carliner, training design is a process of problem solving for determining the skills and knowledge to be developed and the motivators that would encourage or discourage learners from adopting the desired behaviors on the job (Carliner, 2003). Based on the data illustrated in Table 4, more than a half of respondents (85.4%) stated “strongly agree” and 14.6% stated “agree” that the new PPT improve their knowledge in principalship. In term of managerial and leadership skills, 73.6 and 68.8% of respondents stated “strongly agree” that PPT improved those skills. 68.8% of respondents confirmed “strongly agree” that their motivation is increased after PPT implementation, 30.6% confirmed “agree”, and other 0.6% confirmed “disagree”.

Table 4. Respondents’ Views on the Current PPT Design  
 (Likert scale: 1=“ strongly disagree”; 4=“ strongly agree)

Items	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	St. Dv.
1. The PPT improved my knowledge of principalship	85.4%	14.6%	-	-	3.85	0.36
2. The PPT improved my leadership skill	73.6%	26.4%	-	-	3.73	0.44
3. The PPT improved my managerial skill	68.8%	31.2%	-	-	3.68	0.47
4. The PPT improved my self-motivation	68.8%	30.6%	0.6%	-	3.67	0.48
5. The assignments in PPT is related to the context of the learners	77.1%	22.9%	-	-	3.77	0.42
6. My mentor (a senior principal) is always available for assistance	70.4%	29.6%	-	-	3.70	0.46
7. My friends always help me when I found difficulties	70.4%	29.6%	-	-	3.46	0.54
8. My trainers always ready for answering my questions	70.5%	28.9%	0.6%	-	3.38	0.57
9. Content of PPT meets my need	70.5%	28.9%	0.6%	-	3.69	0.48
10. The PPT is implemented in best schedule	13.3%	68.3%	14.9%	3.4%	2.91	0.65
11. Online modality is more effective than face to face modality	1.6%	30.5%	53%	14.9%	2.18	0.70
12. Internet connection is not my big deal in online learning	2%	14%	40%	44.1%	1.73	0.77
13. Moodle technical training improves my readiness	75.9%	23.8%	0.3%	-	3.75	0.44
14. My trainer is very competent	80%	19.4%	0.6%	-	3.79	0.42
15. My grade describes my competencies	53.7%	44.4%	1.8%	-	3.51	0.55

According to Enlart, a training designer should pay attention to a triangle in training design: context, learners, and content (Clotu, 2017). A good training designer should understand the context of the learners, communicate with person in charge, identify the need of learners, and organize the curriculum or training materials based on that need. The new PPT design tried to accommodate all these three poles in balance. About 77.1% of respondents confirmed “strongly agree” with statement that all assignments are related to their need, and other 22.9% confirmed “agree”. The PPT encouraged interactive communication between participants, mentors, and trainers. It is proven by approximately 70% of respondents stated “strongly agree” with that statement.

The surprising finding is illustrated in items 10, 11, and 12. Kirkpatrick & Kirkpatrick found that among 10 factors, there are three important factors concerning best schedule, appropriate modality, and sufficient infrastructures in training implementation (Kirkpatrick & Kirkpatrick, 2006). About 14.9% of respondents confirmed “disagree” and 3.4% of respondents confirmed “strongly disagree” with the statement “The PPT is implemented in best schedule”. It means, about 18% of respondents confirmed that the new PPT is not implemented in the best schedule, and it may be rearranged in the beginning of semester or in accordance with school activities in the academic calendar.

More than a half of respondents (53%) appointed “disagree” and other 14.9% appointed “strongly disagree” with the statement “Online modality is more effective than face to face modality”. Even though they stated that the new PPT improve their knowledge, skill, and motivation, but most of them confirmed that online modality is not an effective modality. They prefer the face-to-face learning rather than the online one. Referring back to respondent demography illuminated in table 2, it clearly shows that the majority (60.8%) had between 10-20 years, 38% up to 20 years, and only 3% under 10 years teaching experience. It means most of respondents were approximately 48-55 years old. This is in consonance with the findings of Juwita & Siswandari, that more than half (59%) of PPT participants were between 51 and 55 years old. The PPT participants between the ages of 51–60 rated as rather low compared to the group aged 41–50 in managerial skill, especially in information and communication technology (ICT) literacy (Juwita & Siswandari, 2018).

In term of internet connection, more than a half (53%) of respondents confirmed “disagree” and 14.9% of them confirmed “strongly disagree” with the statement that internet is not a big deal in online learning. This interesting data shows that most of respondents found a serious problem in internet connections. Respondents who stay in remote areas need to move to a place where internet access is available, e.g. schools, education authority offices.

The result of in-depth interviews confirmed the same problems in online learning.

*“P.I.17: I feel upset and down during synchronous meetings. Zoom meeting duration is too long, while my internet connection sometimes disconnected because of bad weather or electricity”*

*“P.I.276: I live in remote area, I have to go to school in town to access the internet, so I come home late at night every day”*

*“P.I.286: I have difficulty using the LMS Moodle, I also have difficulty making videos for exhibitions at the IST 2 stage, because I realize that I don’t have sufficient skill in ICT”*

From those responses, the most quoted issues and challenges were as follows:

- Lack of ICT literacy in operating LMS Moodle and making video for online exhibition.
- Poor internet connection because of bad weather, electricity problem, and living in remote area.
- Slow learning in ICT utilization, because most of participants were in between 48-55 years old
- Duration of synchronous meeting is too long

Trust & Whalen reported that overall, participants felt overwhelmed and unprepared to follow online learning due to the problem of unreliable internet access and changing personal needs (Trust & Whalen, 2020). Sasere & Makhasane revealed that the lacked the requisite technical know-how and proficiency for virtual program delivery and assessment is a serious challenge in developing countries (Sasere & Makhasane, 2020). However, online delivery and assessment remain an ongoing challenge, as Asian internet users is the highest in the world (see Figure 2).

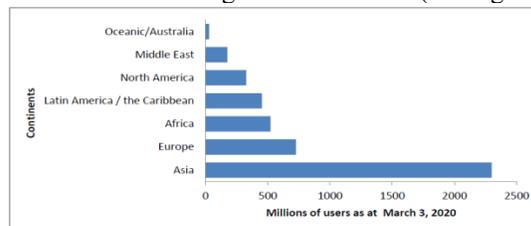


Figure 2. Internet Users in the world by continent

Note. Adapted from, Internet World Stats, 2019 Internet Users estimated in ,March 2020. Copyright©, 2020, Miniwatts Marketing Group

A few open questions in questionnaire illustrated surprising finding (see Figure 3). When the respondents asked about the phase, they like the most, 55.2% of them answered “on-job training 2”. It was the same answer when they asked about the hardest phase. About 41.6% of respondents confirmed that on-job training 2 is the hardest phase.

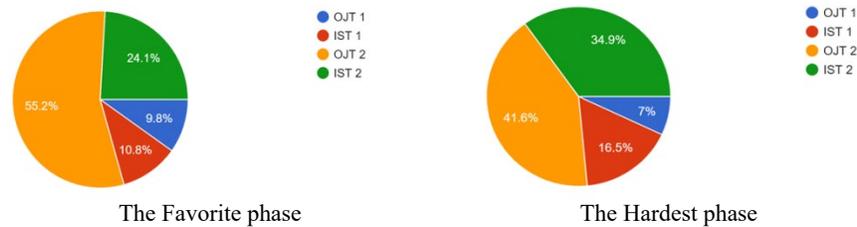


Figure 3. The favorite and hardest phase of PPT

On-job training 2 is the favorite phase because it gives real experiences for respondents in the practical fieldwork. It is a phase where the action plans implemented in the real situation. On-job training also found in the PPT of Finland that provides a training qualification in the form of short-term training in school administration, leadership, and legislation, combined with practical fieldwork (Ministry of Education, 2007). The following responses indicate the importance of on-job training phase in PPT.

*“P.Q.1: I like OJT 2 because it involves hard skills and soft skills in real work situations and directly guided by mentors (senior school principal)”*

*“P.Q.16: Because OJT 2 is a phase which full of challenges and problems, so we are required to manage everything and overcome problems that arise and face them with great seriousness”*

*“P.Q.70: ... we discuss a lot, observe, and analyze the strengths and weaknesses of the school”*

On-job training 2, in the same time, become the hardest phase in PPT. On-job training hours is the longest hours in PPT. It takes 200 hours to complete the phase. Participants have to manage their time to do practical fieldwork in two places: their home base school and other surrounding school. Every participant has to direct and manage the teamwork in action plan implementation. It is a big challenge for the participants to drive other teachers to involve in his project, as he is not a real school principal. The following responses indicate the difficulties of on-job training phase in PPT.

*“P.Q.14: I found difficulties in teachers’ coordination, because they are my peers, and I’m not their leader”*

*“P.Q.45: Composing OJT reports is very time-consuming, especially in making videos as evidence of practical fieldwork”*

*“P.Q.63: I don’t have enough time to complete OJT 2 assignments, because my school is in green zone, so I have to do daily job as teacher in offline mode and in the same time, I have to implement my action plan as prospective school principal”*

The responses on PPT phases imply recommendation in time management, task management, and technical support in order to complete the whole tasks in on-job training phase.

### 5.3 Proposed Improvement in the PPT Design

Based on the findings there are several proposed improvements in five areas: time management, capacity improvement, participants management, media selection, and internet connection (see Figure 4). PPT training designers have to adjust training schedule at the right time. In on-job training phase, participants have to complete many tasks, while they have to do their daily job as teachers. Some of participants in green zone have to go to school for teaching at 07.00-13.00 every day. Consequently, they start to do on-job training tasks after teaching time. The participants in green zone felt overwhelmed in this phase. Kirkpatrick & Kirkpatrick stated that programs should be scheduled to meet the convenience and needs of the participants (Kirkpatrick & Kirkpatrick, 2006). If the participants are doing the tasks at a bad time as far as they are concerned, their attitude toward the entire program might be negative.

The second area of proposed improvement is human capacity improvements. Participants and trainers need training and retraining in ICT literacy. As ICT literacy is a key of success in this online modality. There was consensus among scholars that virtual program delivery and assessment requires a new set of pedagogical skills (Adnan, 2018). Trainers have to select appropriate media for virtual training delivery and assessment. It is also a big challenge for trainers to arrange and manage online classroom in learning management system. Technical assistance and 24 hours help desk is highly needed for helping participants in operating features in online classroom.

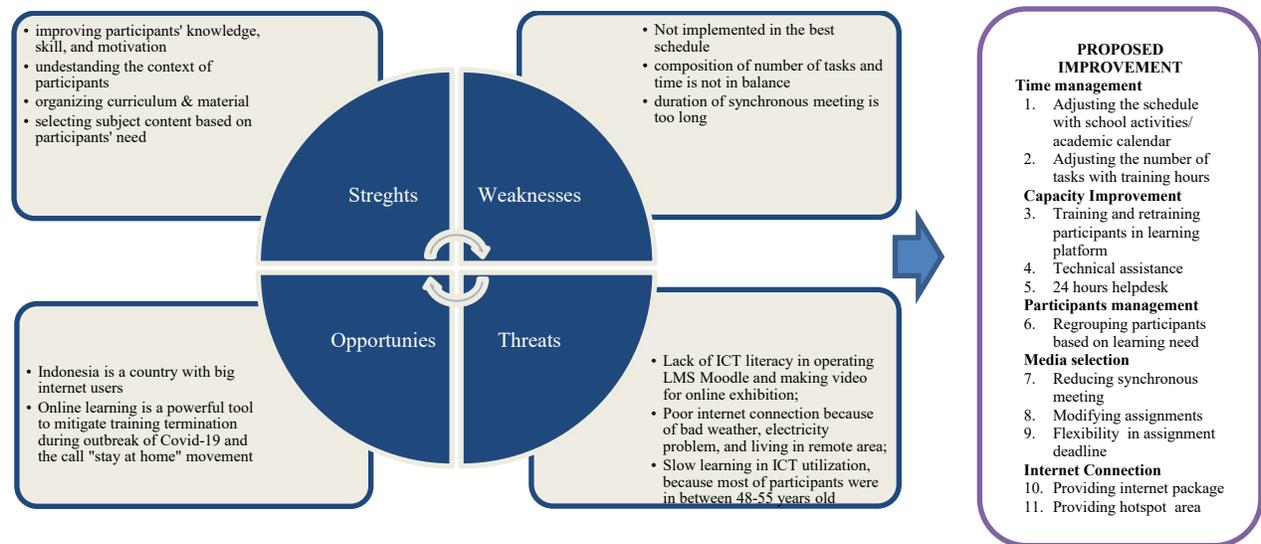


Figure 4. The framework of proposed improvement

The PPT designers have to think about regrouping participants based on their learning need. As in online modality there are fast learners and slow learners that have to be treated according to their own speed. In term of selecting media, the PPT designers have to select appropriate media that all participants can utilize. Synchronous meeting needs a stable network. Arranging long synchronous meeting in insufficient network connection is not an effective way. The PPT designer should rearrange, in balance, between synchronous and asynchronous hours according to participants need. As Ko & Rossen stated that in online learning, teacher can conduct a course partially or entirely through the internet (Ko & Rossen, 2010). The PPT designer also can modify activities or assignments between online and offline activities. Jankowski (2020) found that 97% of respondents made changes response to COVID-19. The changes included modifying delivery system, assignments and assessments, flexibility in assignment deadlines, shifting to pass/fail, and modifying assessment reporting deadlines.

Lack of internet connection in online learning is confirmed by many studies (Lake & Olson, 2020); (Sasere & Makhasane, 2020); (Noor, Isa, & Mazhar, 2020). Participants in remote area have special need in internet connection. Training centers may cooperate with Education Authority to allocate the budget for internet package and hotspot area. Stronger partnerships between training centers and participants in remote districts have the potential to bring significant benefits in providing internet connection. This in align with an idea that the success of digital/virtual education is determined by learners' readiness, especially in mental and material readiness.

## 6. Conclusion

Training design is an art of problem solving in determining which behaviors need to be changed, the skills and knowledge to be developed, and the motivators that would encourage or discourage learners from adopting those behaviors on the job. The purpose of the PPT in Indonesia is to equip participants with knowledge, skill, and motivation in school leadership and management. To respond the change of The Ministry Education and Culture vision and the outbreak of Covid-19 pandemic, the PPT is redesigned. The new PPT design is implemented in three alternative modalities: online, blended, and face to face, but the most recommended modalities is the online modality as it a powerful tool to deliver training materials during pandemic. The PPT is shifted from In-On-In to On-In-On-In design to allow participants to read the materials and analyze their need before class. Shifting on-job learning to the first phase reduced cognitive load in the next phase.

The new PPT is proved very potential in improving participants' knowledge, skill, and motivation in principalship. However, there are at least four barriers in the new PPT: 1). Lack of ICT literacy in operating LMS Moodle and making video for online exhibition; 2). Poor internet connection because of bad weather, electricity problem, and living in remote area; 3). Slow learning in ICT utilization, because most of participants were in between 48-55 years old, and 4). Duration of synchronous meeting is too long.

The proposed improvement of this study is divided in five areas. Time management could be done by adjusting the schedule with school activities/ academic calendar and adjusting the number of tasks with training hours. Human capacity can be improved by training and retraining participants in learning platform. Technical assistance and 24 hours helpdesk also highly needed to help participants in blank area hotspot, low internet connection, or lack of sufficient ICT literacy. The participant management can be done by regrouping participants based on learning need. In term of media selection, the PPT designer can reduce synchronous meeting, modify assignments, and give flexibility deadline in assignment. For internet connection problem, training centers should cooperate with Education Authority in providing internet package and hotspot area.

The results of this study may become a baseline for improving quality of the PPT in Indonesia. Regarding the limitations of the study, it is important to highlight that the data were obtained in the Indonesian training context and in online modality. Consequently, further study is encouraged in different contexts and different modalities.

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