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In-Service Teacher's Response to The Professional Development Training and Workshop in Indonesia

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Abstract— Teacher professionalism is an essential factor in managing quality education as a critical factor in the civil society movement. The Indonesian government has been improving teacher professionalism through the teacher certification program. The implementation of teacher certification has been carried out since 2007 through the Decree of Ministry of Education Number 18 of 2007 concerning certification for in-service teachers. The government carries out training and workshops for three months to increase professionalism. This study revealed the essential factors influencing the success of this program based on the responses of participants. The method used was descriptive quantitative and qualitative. The research samples were 90 teachers who participated in this program. The instrument used for data collection was the critical incident questionnaire (CIQ) consisting of 5 questions. Data were processed using affinity diagrams and Pareto chart analysis. From these results, there would be determinant factors in the success of implementing teacher professionalism programs. Some essential strategies to improve teacher professional development are revising the learning strategy to involve participants in learning, conducting the learning monitoring to ensure all participants able to reach the competencies. These results are used as a consideration for improving the management of teacher certification programs.

Keywords— civil society, education quality, teacher certification, teacher evaluation, teacher professionalism, teacher reforms

I. INTRODUCTION

Education is an essential factor in developing the competitiveness of a nation. Efforts to hold the education reform are carried out by various countries to ensure the sustainability of the nation's competitiveness with quality human resources [1, 2]. Multiple efforts are carried out to improve the quality of teachers [3]. The standardization of the teacher's quality will make it possible for students to get equal education accesses in different areas [4, 5]. Thus, to ensure sustainable quality education, the study on how to improve the teacher's quality equally becomes very important [6-8].

A study on the relation between the access gap of qualified teachers and the students' achievement shows that the bigger access gap of qualified teachers, the bigger gap of the students' achievement [2, 9]. Another study on the relationship between teacher's salary and national achievements showed that countries with the higher average salary for experienced teachers tend to have higher national

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achievements; but, the national average salary for fresh graduate teachers do not relate to the national achievement level [10, 11]. To ensure qualified teachers, it is essential to have government policies focusing on the teacher's quality improvement [12]. Countries that strengthen the policies on the teacher's quality tend to give a significant influence on the national student's achievement [13, 14].

Education in Indonesia should be enhanced in supporting the nation's competitiveness; because in some aspects are decreased (skills of graduates, digital skills among the population) [15]. Various efforts have been carried out to improve education in Indonesia; one of them is by improving the quality of the teachers. Currently, the Indonesian government manages 3.1 million teachers who teach at public and private schools (see <http://statistik.data.kemdikbud.go.id/>). One aspect considered as a factor in improving the quality of the teachers is teacher professionalism standardization. Therefore, since 2017 Indonesian government issued the policy of in-service teacher certification. This program is supported by the incentive policy for teachers who have met the qualification standard as professional teachers. As many countries experience the professional teacher will improve the student achievement [16-18].

One of the Indonesian government efforts is by implementing professional teacher certification. Professional teachers are required to have relevant academic qualifications with subjects he/ she teach and master the competencies as required by the law [19, 20]. Teacher acknowledgment as a professional educator is proven with an educator certificate received from a systematic process called certification [13, 21]. In-service teacher certification as one of the efforts to improve the teacher's quality is expected to improve the education quality in formal educational unit sustainably [22, 23]. In-service teachers who met the requirements can attend certification through the professional development training and workshop for teachers (PLPG) or Teacher Profession Education (PPG). The implementation of PLPG in 2016 facilitated the mastery and the capacity of the certification participants in implementing the Curriculum of 2013 through student-centered learning.

The participants of PLPG are teachers appointed as homeroom teachers, subject teachers, and in-service education unit supervisor teachers who choose PLPG certification scheme, portfolio scheme but do not pass the initial test or portfolio evaluation, or portfolio document verification. Participants who are invited to attend PLPG

must have references and relevant data with the specialization. Homeroom teachers and subject teachers must bring curriculum, books, texts, samples of the lesson plan, and laptop. In-service education unit supervisor teachers must bring books, references, examples of academic activity plan, monitoring activity plan, samples of supervision report, relevant data and laptop.

Participants who do not attend PLPG for reasonable matters may attend PLPG on the next invitation in the current year as PLPG is still held. Participants who do not attend call twice without consistent issues are considered resigning. If until the end of the PLPG implementation period, participants could not participate in the invitation for reasonable matters, participants may attend PLPG in the next year without changing the participant's number. Participants, who could not finish PLPG for consistent things, may continue PLPG in the next year.

Even though the program has been running for a plenty long time, there has not yet evaluation related to the effectiveness of PLPG from the perspective of teachers as participants. This research aims to find out the essential factors influencing the success of professional development training and workshop for teachers. The result of the study could be referenced for making policies related to the improvement of PLPG implementation.

II. METHOD

A. Research Design

This research is research with mix-method model sequential explanatory. The number of participants in certification training and workshop was 90. All participants were samples in this research. The phases of teacher certification training and workshop covered material preparation and workshop implementation.

B. Training and Workshop Phases

1) PLPG Material Preparation

The phase of PLPG material preparation is the development of pre-condition phase in 2016 when participants are required to learn learning resources based on their specialization before PLPG. This preparation phase is carried out structurally and with the explicit requirement. Material preparation aims at preparing participants with adequate knowledge especially pedagogic and professional competencies before they attend PLPG at LPTK (Teacher Education Institute). The format of material preparation is that official participants in the quota are assigned to independently learn two learning resources those are pedagogic learning resources and specialization before face-to-face activities at PLPG.

Material preparation was carried out with the following provisions:

- Participants independently learned two learning resources, academic, and specialization, according to subjects/specialty of the teachers.
- Learning resources for material preparation activities could be downloaded via website www.sertifikasiguru.id.

- The duration for material preparation was 2-3 months before PLPG.
- Every participant received mentoring from an instructor as the mentor from LPTK (Rayon/ sub-rayon LPTK)
- Mentor of PLGP material preparation was determined by Rayon/sub-rayon LPTK with ratio one mentor accompanies one group of 10 participants. One mentor may attend a maximum of 2 groups.
- During the PLPG material preparation, every participant was required to write a progress report to mentor for four times with a particular report format.
- The progress report was sent online via Teacher Certification Application (ASG). For participants living in an area without internet network or electricity, the mentoring process could be carried out via email from the closed area with internet network or face-to-face meeting with a minimum frequency of twice.
- The instructor gave suggestions and carried out an evaluation (formative) towards every progress report online via ASG application. For particular participants as previously mentioned who sent the report via email, the instructor also gave suggestions via email, and for a face-to-face meeting, the recommendations were also provided directly during the meeting.
- Participants were required to write a report of material preparation result as the final report based on the format and submit it on the registration site at PLPG location.

2) Implementation of PLPG Workshop

In the application of PLPG 2017, PLPG learning load was 100 hours for 11 days covering the report presentation of the preparation result, material enrichment, workshop, peer teaching/ peer counseling/ peer guidance), and PLPG final exam. Preparation result report was presented by each participant to find out participants' initial mastery of learning resource materials of pedagogic and specialization. Material enrichment was implemented by active learning. The workshop was held to develop and package learning devices. Teaching practices were held through peer teaching/ peer counseling/ peer guidance. PLPG final exam covered LPTK written test and performance test. Participants who passed the PLPG final exam could attend Teacher Competency Test (UKG)/ National Written Test (UTN)

C. Instrumentation

The Critical Incident Technique (or CIT) is a set of procedures used for collecting direct observations of human behavior that have critical significance and meet methodically defined criteria [23, 24]. These observations are then kept track of as incidents, which are then used to solve practical problems and develop broad psychological principles. A critical incident can be described as one that contributes—either positively or negatively—to an activity or phenomenon. Critical incidents can be gathered in various ways, but typically respondents are asked to tell a story about

an experience they have had using the Critical Incident Questionnaire (CIQ). CIT is a flexible method that usually relies on five major areas [25]. The first is determining and reviewing the incident, then fact-finding, which involves collecting the details of the event from the participants. When all of the facts are obtained, the next step is to identify the issues. Afterward, a decision can be made on how to resolve the questions based on various possible solutions. The final and most important aspect is the evaluation, which will determine if the solution that was selected will solve the root cause of the situation and will cause no further problems.

On the Moodle learning management system, there is a Critical Incidents Questionnaire—A five-question survey asking students to describe their experience with a specific event in class when a forum is connected to the event.

- At what moment in this program were you most engaged as a learner?
- At what moment in this program were you most distanced as a learner?
- What did action that anyone in the room took this week you find the most affirming or helpful?
- What action that anyone in this program took did you find most puzzling or confusing?
- What surprised you most about the class during the program?

D. Analysis Technique

1) Affinity diagram

An affinity diagram is a business tool used to organize ideas and data. [7] is one of the Seven Management and Planning Tools. People have been grouping data into groups based on natural relationships for thousands of years; however, the term affinity diagram was devised by Jiro Kawakita in the 1960s and is sometimes referred to as the KJ Method [26].

The tool is commonly used within project management and allows large numbers of ideas stemming from brainstorming to be sorted into groups, based on their natural relationships, for review and analysis. It is also frequently used in contextual inquiry as a way to organize notes and insights from field interviews. It can also be used for holding other freeform comments, such as open-ended survey responses, support call logs, or other qualitative data.

The affinity diagram organizes ideas with the following steps:

- Record each idea on cards or notes.
- Look for ideas that seem to be related.
- Sort cards into groups until all cards have been used.

Once the cards have been sorted into groups, the team may classify large clusters into subgroups for easier management and analysis. Once completed, the affinity diagram may be used to create a cause and effect diagram.

In many cases, the best results tend to be achieved when the activity is completed by a cross-functional team,

including key stakeholders. The process requires becoming immersed in the data, which has benefits beyond the tangible deliverables.

2) Pareto Chart Analysis

On this chart, individual values are represented by blocks in the descending order, and [15]es represent the cumulative total number. The objective of the Pareto chart is to clarify the most important factor (or the biggest) from the elements existed. In quality control, this often represents the most frequent problem source faced, the most frequent type of problem occurs, or the most frequent reasons occur when there are complaints from participants and other similar matters [27].

III. RESULT AND DISCUSSION

A. Result

From the data of training and workshop participants, by using diagram affinity technique, open question grouping based on CIQ was obtained. The effect of the cluster is shown in Table I.

TABLE I. PARTICIPANTS RESPONSE TO THE CRITICAL INCIDENT QUESTIONNAIRE

Factors/ Aspects	Freq.
At what moment in this program were you most engaged as a learner?	
1. Developing learning material	12
2. Peer-teaching	11
3. Q & A	5
4. Presentation	26
5. Discussion	16
6. Workshop	20
At what moment in this program were you most distanced as a learner?	
1. Pedagogy subject	4
2. Task assignment	8
3. Sleepy	13
4. Examination	3
5. Low temperature	2
What did action that anyone in the room took this week you find the most affirming or helpful?	
1. Presentation	9
2. Developing learning media	16
3. Task assignment	7
4. Discussion	10
5. Peer-teaching	6
What action that anyone in this program took did you find most puzzling or confusing?	
1. All student open to others	3
2. Failed on exam	4
3. Using local language	3
4. Task assignment	6
5. Asking irrelevant subject	2
What surprised you most about the class during the program?	
1. There is failed-student	10
2. Passed the exam	27
3. Peer-teaching	3
4. To many assignments	6
5. Graduation announcement	2

Table I shows that each factor has different response distributions. Next, every response on each question could be sequenced with Pareto diagram technique from the most frequent to the least frequent. The most frequency shows the activity that needs to be maintained. Meanwhile, the least

frequency is the activity that needs to be improved in the implementation process. The result of the Pareto diagram is shown in Fig. 1 to Fig. 5.

B. Discussion

From Table I, a more in-depth analysis of each question on CIQ could be done. From this analysis, the supporting and inhibiting factors in the PLPG implementation could be found out.

1) At what moment in this program were you most engaged as a learner?

Responses of PLPG participants on "what moments in this program were you most engaged as a learner" are shown on Fig. 1. This figure shows that the activity most in need of improvement are developing learning material.

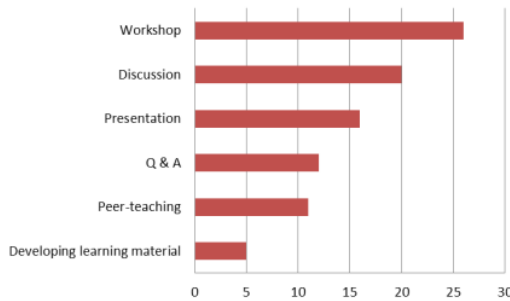


Fig. 1. The response on at what moment in this program were you most engaged as a learner

On the learning activity related to developing learning material, participants tend to feel less motivated. Some possibilities why participants are less motivated are because this activity is carried out independently and different material understanding of participants makes many participants feel less capable. Meanwhile, another activity encourages interaction among participants, so it motivates them more. An alternative that could be done is to change the developing learning material activity from an independent activity to a group activity. Cooperative learning approach can encourage knowledge sharing process among participants.

2) At what moment in this program were you most distanced as a learner?

Fig. 2 shows participants' responses on the question at what moment in this program was you most distanced as a learner. The figure shows that when participants receive learning related to pedagogy material, they feel least intensively engaged in education compared to other activities.

All activities shown in Fig. 2 are activities related to the learning environment. The instructor's capability in managing learning that actively engages all participants becomes very important. Pedagogy materials are required to be mastered by participants. Incapability of instructor in delivering these materials will result in the low competency achievement of participants. The learning tendency at the classroom with direct lesson approach and only delivering materials make participants feel less engaged in understanding teaching materials. It needs to be emphasized

that student-centered learning implementation is necessary. Generally, adult participants need more appropriate learning approaches, so they feel more comfortable in learning. Adult learning approach where they can interact with each other can be used to create comfort in learning.

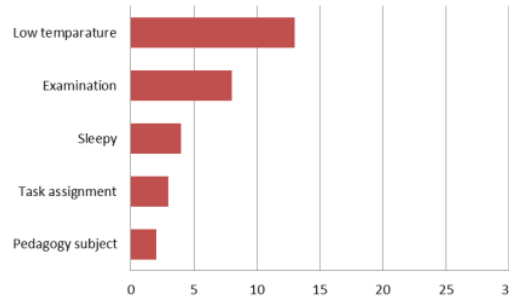


Fig. 2. The response on at what moment in this program was you most distanced as a learner

3) What did action that anyone in the room took this week you find the most affirming or helpful?

Participants' responses on the question of what action that anyone in the room took this week did you find the most affirming or helpful is shown in Fig 3. This figure shows that presentation activities are activities that participants find the least affirming or useful both from the instructor and other participants. While peer-teaching activities are activities that participants get the most help from other participants.

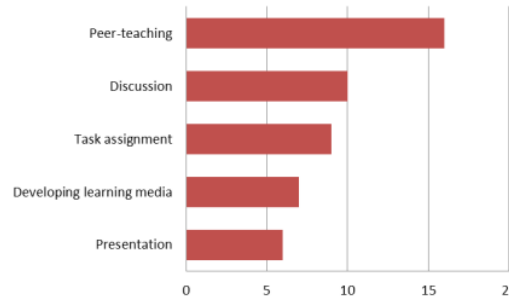


Fig. 3. The response on what action that anyone in the room took this week did you find the most affirming or helpful

In the presentation activity, participants are given independent assignments to deliver a particular idea. The inexistence of a group assignment makes participants busy with their assignment, and they have no chances to see other's work intensively. Since each participant focuses on their work, they could not give feedback well when other participants are presenting their ideas or practices. Also, the instructor also relatively gives less input because of the load for observing a lot of presentations from all participants. This condition can be improved by changing the learning strategies used. Participants grouping will lessen the products that need to be given feedback and encourage interaction among participants. On group presentation session, other groups can have more chances to provide feedback to another group presenting. With this strategy, at the same time

duration, the activities are more attractive and involve high interaction.

4) *What action that anyone in this program took did you find most puzzling or confusing?*

Fig. 4 shows the result of participants' responses on the question of what action anyone in this program took did you find most puzzling or confusing. From this figure, it appears that participants often give problems that are irrelevant to the learning activities held.

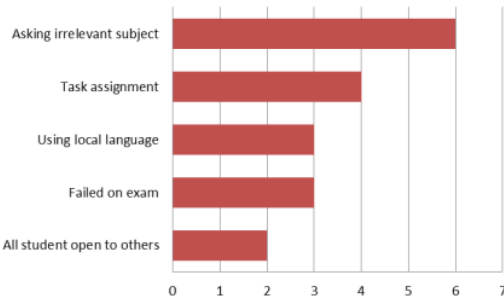


Fig. 4. The response on what action that anyone in this program took did you find most puzzling or confusing

What quite interesting is participants feel they can be open to each other. However, if seeing responses to other questions, it can be found out that participants could not give feedback on particular learning activities. This condition shows that the learning situation built is less appropriate with participants' state. The suitability of the learning objectives or competencies to achieve and the methods used by the instructor in managing learning needs to be re-observed. The relevance will make an active learning process.

5) *What surprised you most about the class during the program?*

The highest response on the question of what activity that surprised you most about the class during the program is graduation announcement as shown in Fig. 5. The exciting thing is the second activity which is too many assignments. On the graduation announcement, the responses are positive while on too many tasks, the reactions are adverse.

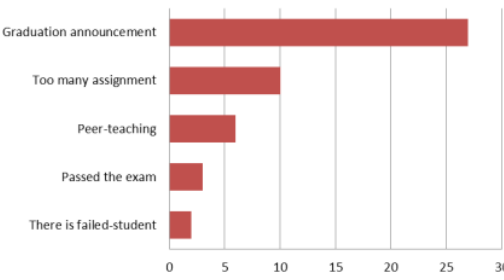


Fig. 5. The response on what surprised you most about the class during the program

The connection of two contradictive answers shows that even though participants got a lot of assignments that they

predicted the passing level would be low, but they could finish the program well. Seeing the overall plan, this program has a lot of assignment activities, but there is a tendency that the assignments are individual ones and relatively less in group assignments. In one side, this program motivates the learning independence of the participants, but less encourages the collaborative competency development. Whereas, a critical competency for teachers is helping collaborative skill of students they teach at the school.

IV. CONCLUSION

From the data obtained with CIQ and the analysis on each question, it can be found out that an essential factor to be implemented in PLPG is the choice of learning strategies. Participants, who are generally adult and have experienced as teachers, need to be approached with adult learning. Giving chances to share experiences, giving more profound authority to determine the way of learning, involving all participants in group activities are several strategies that can be implemented in this teacher training. The level of openness among participants that is low can be anticipated through learning strategies that encourage interaction among participants such as cooperative learning, project-based learning, and others. As the objective of this program which is to certify the teacher competencies, the program management needs to create mechanisms to give fair chances for participants to get successful in this program, for example by developing learning process monitoring mechanism and not only providing a final exam at the end of the program.

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