Original Research

Searching for Enabling and Constraining Arrangements for Better Teaching Practices: EFL Teachers' Narratives

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Article Info	Abstract
	Teachers' teaching practices shape and are shaped by the arrangements in their site of practice. Such arrangements, consisting of the (cultural-discursive) "sayings", (material-economic) "doings", and (social-political) "relatings" of the actors involved in and the environment of the practice site, can be defined as "Practice Architectures" (Kemmis, 2019). The practice site that this study focuses on is the teaching practicum activity within a three-month in-service teacher professional education program held jointly by the Indonesian Government and a Higher Education Institution (HEI) (Program Profesi Guru Dalam Jabatan/PPG). Using the framework of Practice Architectures, the study aims to identify the arrangements that occurred and/or were provided by the program in enabling or constraining the program's standard teaching practicum practices. Through thematic analyses of the teachers' narratives of their teaching practicum experiences, the results show that these arrangements shaped teachers' practices in teaching practicum, particularly in the design of the PPG program and the requirements of the assessments. The findings call for the government and HEIs to these arrangements in designing teacher professional development programs, such as the PPG program, to improve future teaching practicum experiences in the program that enable standardised and better teaching practices.

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1. Introduction

Teacher professional development in Indonesia has been intensively done by the government to ensure and improve the teachers' competences. To achieve the objective, the government has employed at least two approaches. The first one is by steering, controlling, and influencing actors in specific sectors of society to decide and act according to the government's objectives and using the instruments provided by the government (Gornitzka & Maassen, 2000; Van Vught, 1995). Another approach is by steering higher education through policies that set the general evaluation system and the general standards but leave the specifics of the standards and the means to achieve them in the hands of higher education (Neave, 1988; 1998).

The latter approach has been manifested in the Ministry of Education and Culture Regulation 38/2020 about the requirement of teacher professional development *(Program Profesi Guru Dalam Jabatan/* PPG) for in-service teachers. In this case, the government collaborates with around 130 higher teacher education institutions to run this program. The government sets the core standards of the program, and the higher education institutions work with the specifics of the standards. The goal is to improve teachers' competencies based on teacher qualification standards (pedagogy, personalities, social, and professional standards). The program is also claimed to be a direct response to the problems of teachers' under qualification and low competence as well as the challenge of Industrial Revolution 4.0, in which teachers must have the competence to teach in innovative and fun ways by integrating critical thinking, problem-solving,

communication, collaborative skill, creativity, information and communication technology literacy, contextual learning skill, and information and media literacy (Directorate General of Teachers and Educational Staff of the Ministry of Education and Culture, 2021).

The drive toward the standardisation of teacher competences through certification is proven to have a very positive correlation between the status of teachers as certified and thus expert with students' learning outcomes and understanding of concepts (Darling-Hammond, 2000 and Hattie, 2003). Despite the positive correlation, it somehow promotes only a minor impact on students' achievement (Fahmi et al., 2011). Another concern with such a teacher certification program for improving teachers' competencies is centred on the problems that can influence the achievement of the program objective (Utami, 2015 & 2018).

If the government would like to see teachers producing specific competences, it is therefore essential to consider factors influencing the effectiveness and ineffectiveness of such a certification program. As known, teachers taking such a professional practice through the PPG program are likely situated within some sites of practice (i.e., teaching practicum, assessment, material development). Kemmis and Grootenboer in Mahon et al. (2017, p. 9) urged that "Being social and situated, such practices are not just shaped by the experiences, indentations, dispositions, habitus, and actions of individuals, but also shaped and prefigured by arrangements that exist beyond each person as an individual agent or actor." The arrangements can become challenges for teachers when performing a professional practice to improve their professional identities or qualifications. Therefore, it is crucial to consider the contextual knowledge and experiences surrounding teachers that shape their professional identities.

The present study aims to identify the arrangements in the teacher certification program (PPG) that enable or constrain in-service EFL teachers to do their teaching practicum. The identification of arrangements used the theory of practice architectures. The rationale for this choice is that it "takes a site-based approach to explore practices" (Kemmis et al. in Sjølie & Østern, 2021). In the present research, the teacher certification program is attended by teachers from all around Indonesia. The practice in one site, of course, shapes and is shaped by particular enabling and constraining arrangements that differ from those in different sites. The site-based approach is then powerful to achieve the research objective.

The data were analysed through thematic analyses of the teachers' narratives of their teaching practicum experiences. The findings will become the basis of recommendations to the higher teacher education institutions that run the teacher certification program and the government that sets the standard for in-service EFL teachers to provide arrangements that enable standardised and better teaching practices. By doing so, they can grow professionally and craft the expected competences.

2. Literature Review

2.1 Theory of Practice Architecture

In the theory of practice architectures, practice is defined as human activities involving utterances and forms of ideas or understanding (saying), particular actions (doings), and ways in which people relate to one another and the world (relatings). The activities are comprehensible when the combination of saying, doing, and relatings entangled in the project of practice as the combination of cultural-discursive, material-economic and social-political arrangements that enable and constrain how a practice can unfold. The cultural-discursive arrangements include the resources that set and enable particular sayings in a practice as to constrain and/or enable the relevance and appropriateness of things to be said or thought in discussing, interpreting, justifying, or performing the practice. These arrangements are manifested in the language and the discourses used in and about a practice.

The material-economic arrangements include the resources that are available in the sites, e.g., the physical environment, financial resources, human and non-human actors, schedules, and divisions of labour that enable and/or constrain the doings of the practices by influencing what, when, how, and by whom the practice can be done. The social-political arrangements include the resources related to relationships between people in the practice, e.g., social rules, hierarchies, organisational relationships, power relations, etc., that can enable and constrain the relatings in the practice (Kemmis, 2019; Mahon et al., 2017).

2.2 Teacher Certification Program in Indonesia

The teacher certification program for in-service in Indonesia is regulated by the Ministry of Education and Culture regulation 38/2020. The program is *Program Profesi Guru* (teacher professional development program). The program is held in teacher training and education institutions appointed by the government.

It consists of three phases of training: 1) reviewing pedagogical theories and concepts (13 working days), 2) designing learning experiences (14 working days), and 3) conducting teaching practicum (31 working days). The study load of all three phases consists of 36 credit points.

Table 1. Pedagogical Theories and Concepts Reviewed in the First Phase of PPG

No	Topics	Contents
1	Pedagogy	Basic Concepts of Pedagogy, Students Characteristics, Learning Theories, and Curriculum
2	The Role of Teachers in 21st Century Learning	21st Century Learning Characteristics, Profile and Competences of 21st Century Teachers, Teachers' Tasks and Functions, and Strategies for Sustainable Teacher Professional Development
3	Innovative Learning	STEAM (Science, Technology, Engineering, Arts, Mathematics) Learning, Neuroscience Learning, Digital Learning, and Blended Learning
4	Designing Innovative Learning	Concepts of Innovative Learning, High Order Thinking-Oriented Learning, Designing STEAM Learning, Designing Blended Learning, Designing Project-based Learning
5	Subject Knowledge (English subject, genre-based)	English for Public Information, English for Personal Communication, English for Social Communication, English for Entertainment, English for Practical Use, English for Academic Context

In the first phase, teachers refreshed and updated their pedagogical knowledge through independent study, synchronous lectures, and asynchronous activities. The topics covered in the first phase are pedagogy, the Role of Teachers in 21st-century learning, (designing) innovative learning, and subject Knowledge (English subject, genre-based). In the second phase, the teachers need to employ the pedagogical knowledge into the skills in designing learning experiences; and producing lesson plans, materials, and assessments for their students. The last phase is for applying the teaching material design to real classroom practices. Here, the teachers teach their students three times in a teaching practicum situation in their respective schools. The present study focuses on the last phase of the program, i.e., teaching practicum.

Over and above that, the program employed a problem-based analysis approach in all phases, in which teachers are required to analyse the training topics, design, and practicum experiences based on the problems they encounter, come up with solutions, and reflect on the whole process.

2.3 Narrative for Teacher Professional Development

Teachers' narratives allow teachers to write about substantial teaching experiences and incidents from which they can better understand the teaching issues described as well as themselves as a teacher. The idea of narrative inquiry was initiated by Dewey's educational philosophy (1916), arguing that "we are all knowers who reflect on the experience, confront the unknown, make sense of it, and take action." In the realm of teacher professional development (i.e., teacher education), narrative has been put centre stage as both a method and an object of inquiry. This kind of inquiry is believed to enable teachers to organise, articulate, and communicate what they know and believe about teaching and who they have become as teachers.

A critical reflective narrative is one that can move beyond looking for simple answers and quick solutions. It theorises their work as they organise, articulate, and communicate what they have come to understand about themselves and the activity of teaching. Working on this kind of critical narrative allows them to reflect on their perspectives, understandings, and experiences that guide their conceptions of teaching and their practice and that simultaneously change how they make sense of new experiences (Johnson & Golombek, 2002, pp. 1-7).

3. Method

3.1 Context of the study

The practice site in this study was the teaching practicum activity within a three-month in-service teacher professional education program (*Pendidikan Profesi Guru/* PPG), Batch 4, Academic year 2021. The teaching practicum was facilitated by HEI lecturers from a private university and mentors from local secondary schools in Salatiga, Central Java, Indonesia. Due to the COVID-19 pandemic, the program was offered online through synchronous and asynchronous modes. Similarly, the lecturers and the mentors, whereas the other two sessions were recorded and curated into a 20-minute video to be submitted to the lecturers and the mentors for assessments. Following the policy of the government during the pandemic, the teaching practicum was done online. The teacher-participants were required to deliver their teaching online to at least ten students to demonstrate their competences in handling classes in the pandemic situation, which required schools to hold only online classes, except when circumstances constrained online delivery.

Upon finishing the teaching practicum, the teachers were required to produce a report as a reflection of their teaching practicum experiences, focusing on the problems that they encountered during the practicum, the solutions that they took to solve the problems, and their reflections on the whole experiences which resulted on suggestions for improving the practicum experiences. This kind of narrative made this context of study suitable for the research that employed narrative inquiry to reveal arrangements that enable or constrain the in-service EFL teachers to do their teaching practicum.

3.2 Participants

Table 2 provides the summary of the participants' profiles based on their level of schools, location in Indonesia and gender.

Table 2. Summary of Participants' Profiles

Participant Number	School	Location in Indonesia	Gender
Participant 1	Junior High School	East	Male
Participant 2	Junior High School	Central	Female
Participant 3	Senior High School	East	Female
Participant 4	Senior High School	East	Male
Participant 5	Vocational Senior High School	West	Female
Participant 6	Junior High School	West	Female
Participant 7	Junior High School	West	Female
Participant 8	Junior High School	West	Female
Participant 9	Junior High School	West	Female
Participant 10	Senior High School	Central	Male
Participant 11	Senior High School	West	Female
Participant 12	Junior High School	Central	Male
Participant 13	Junior High School	West	Female
Participant 14	Junior High School	Central	Female
Participant 15	Junior High School	West	Female

This study involved fifteen participants, consisting of eleven female and four male teachers. Five of them taught at senior high schools, and the rest were at junior high schools. The teachers are located in various places in Indonesia, within the traditional categories of west, central, and east Indonesia. However, teachers from western parts of Indonesia are dominant (n=8), followed by the central (n=5) and the east (n=3). It is generally accepted that the western parts of Indonesia are more advanced, considering that this area is located closer to the centre of the government, and thus are usually more superior in terms of infrastructures and facilities. Because of the pandemic, the teaching practicum site took place in their own school, and they taught their own students.

3.3 Research Methodology

This study employed a narrative inquiry as one of the qualitative research approaches. It narratively inquiries into individuals' experiences and events over time and in context that undermine the identities they currently claim. In its fullest sense, narrative inquiry requires going beyond the use of narrative as a rhetorical structure that tells stories to an analytic examination of the underlying insights and assumptions that the

story illustrates (Tavakoli, 2012, p. 390). This study inquired about in-service EFL teachers' teaching experiences, incidents, problems, and strategies to cope with the problem during their teaching practicum. The teachers' narratives were used to examine their underlying insights on arrangements that enabled and constrained them in doing their teaching practicum.

3.2 Data Collection

The data collected in this study is teachers' narrative reports on their teaching practicum. The report was collected after they finished their teaching practicum. The teachers expressed clear permission for the researchers to use the reports for this study. To protect their privacy, the teachers agreed to be identified by numbers. The results of the study bear no consequences nor influences on their professional status. This ethical stipulation is necessary to be expressed to the participants, as the researchers were both in the position of their former lecturers and supervisors in the program and thus may bear the implication of an imbalance in power. Although the program had been over by the time the data collection and analysis were conducted, the researchers feel strongly that the research ethics need to be observed and assured.

3.3 Data Analysis

Thematic analysis is chosen for this study. It means that the analysis is conducted to understand the participants' ways of making meaning within a specific research context (King & Brooks, 2019). This study employed six phases of thematic analysis: familiarising with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun & Clarke, 2006).

In this study, the researchers firstly familiarise themselves with the data by reading all reports produced by the participants. From the reading, it was found that the reports focus on the problems during the three teaching practicum sessions, the solutions to these problems, and the participants' reflections on the sessions to provide suggestions for better teaching practicum practices. In generating the initial codes, a mind mapping technique was employed to organise the data into a comprehensible format for analysis, i.e. 1) the problems and the solutions, and 2) the suggestions. From this coding process, it was found that the data tended to cluster around the actors who were involved in the teaching practicum site. And thus, in searching for themes, the data were categorised under different actors, both human and non-human ones (student, teacher, technology, time, learning materials, and environment) (See Figure 1, 2, and 3).
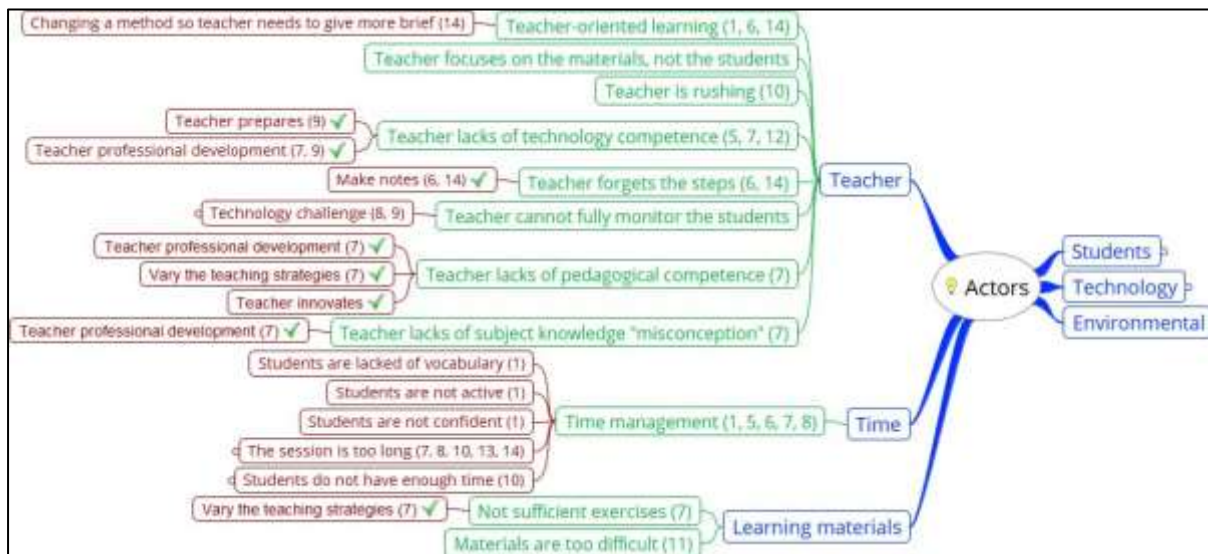

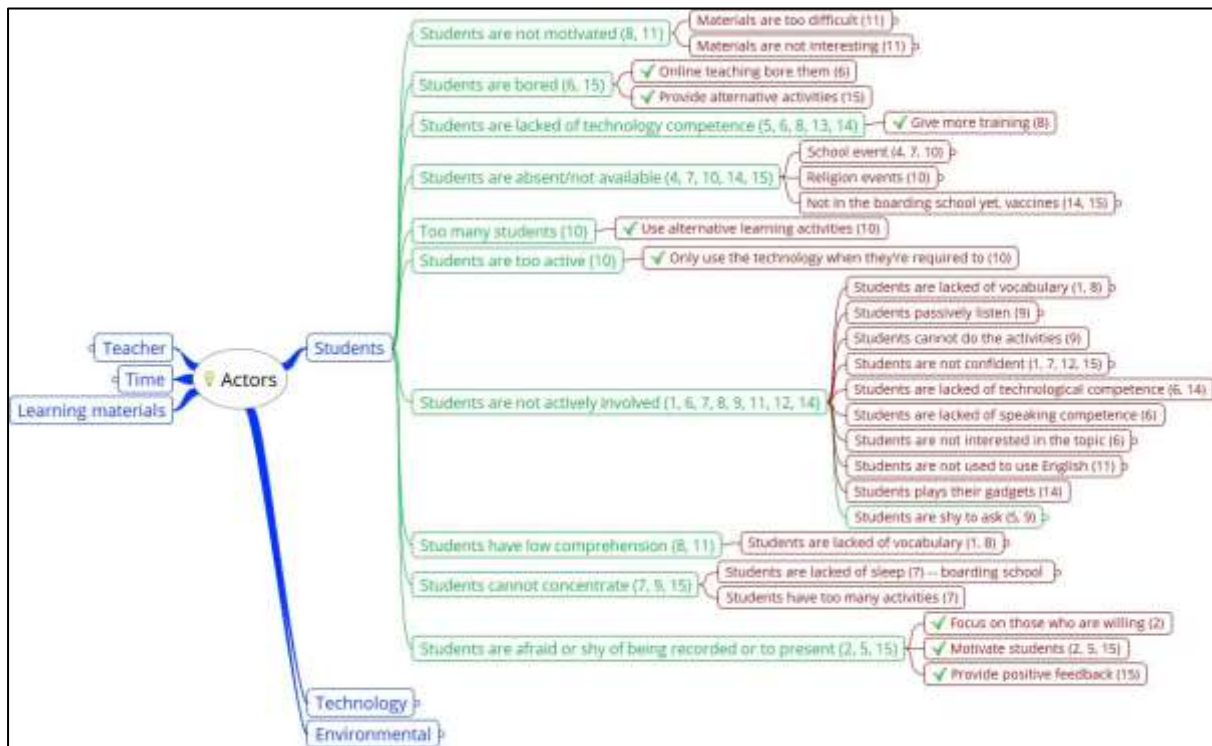Figure 1. Themes Categorised by Actors: Teacher, Time and Learning Materials

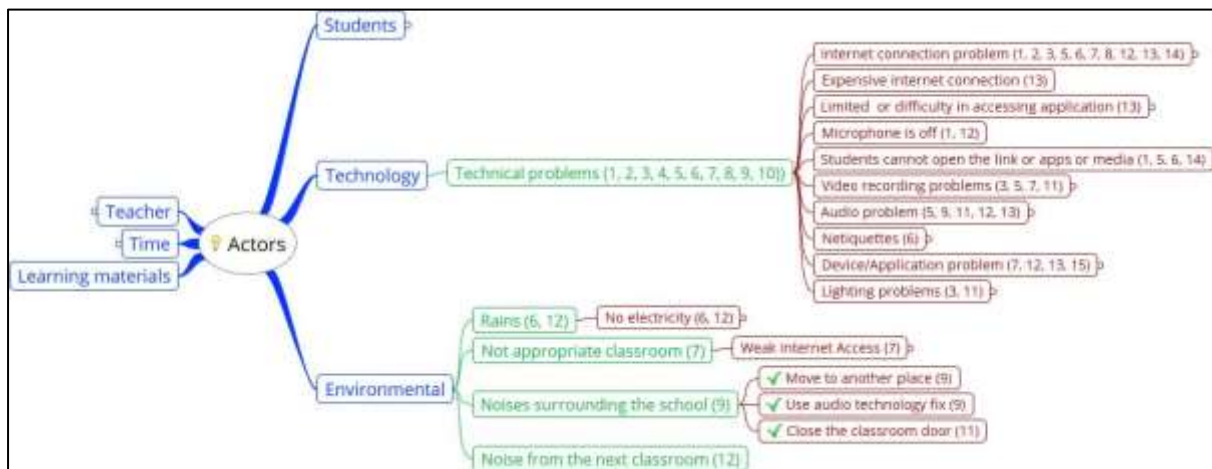Figure 2. Themes Categorised by Actors: Students

Figure 3. Themes Categorised by Actors: Technology and Environmental

The themes identified in the mind maps were then reviewed, by further categorising them by arrangements in the site based on the Practice Architectures framework, i.e. cultural-discursive, material-economic, and social-political arrangements, resulting on a table with themes that were defined and named according to the arrangements (See Appendix 1). The last stage of the thematic analysis is reporting the results and analysis of the study.

4. Results

In presenting the results, only excerpts from selected participants' teaching practicum reports (TPR) are presented, particularly those that succinctly illustrate the relevant issues of arrangements and, in retrospect, the requirements of a number of words limitation imposed in reporting the study. The results of the data analysis show that the occurrences of arrangements consisting of cultural-discursive, material-economic, and social-political arrangements that enable or prohibit the participants' teaching practicum practices. These arrangements are found in both human and non-human actors involved in the teaching practicum, i.e. teacher, students, technology, time, learning materials, and environment.

4.1 Cultural-Discursive Arrangements

The data shows that there are cultural-discursive arrangements that are imposed on the participants from the design of program phases: pedagogical theories and concepts and problem-based approach. These discourses can shape the sources of identifying participants' problems as a teacher. In this case, they found themselves lacking in pedagogy (participant 7), technology (participant 5, 7, 12), and subject knowledge (participant 7) competence. To illustrate, participant 7 listed in her teaching practicum report the following factors related to the pedagogical, technology, and subject knowledge competence, that contributed to the problems she encountered in her three teaching practicum cases:

2.1 Contributing factors in Teaching Practicum Case 1
1. *Not conducive teaching practicum site*
2. *Limited memory capacity for storing the videos [cultural-discursive: technology]*
3. *The teacher was still not competent in using IT [cultural-discursive: technology]*

2.2 Contributing factors in Teaching Practicum Case 2
1. *School situation was not conducive for video recording*
2. *The teacher did not understand how to set up the equipment [cultural-discursive: technology]*
3. *Lack of exercise items in the teaching practice*

2.3 Contributing factors in Teaching Practicum Case 3
1. *The teacher did not use interesting teaching methods to motivate students to learn [cultural-discursive: pedagogical]*
2. *The teacher misunderstood the concepts [cultural-discursive: subject knowledge]*

Figure 4. List of Factors from Participant 7's Teaching Practicum Report

Additionally, the fact that they still employed teacher-centred learning was viewed as another limitation (Participants 1, 6, and 14), and thus, it became the source of identifying participants' problems dealing with their students during their teaching practicum. The cluster of problems revolves around students' lack of active involvement in the learning activities (participant 1, 6, 7, 8, 9, 11, 12, 14), manifested in either the students being unable to do the activities (participant 1, 5, 6, 8, 9, 13, 14), having low confidence in doing the tasks (participant 1, 7, 12, 15), having low motivation in engaging in the activities (participant 5, 6, 8, 9, 11, 15). The reports from Participants 9 and 11 illustrate these problems with students.

"In the first teaching practicum cycle, there were a few problems; among a few, some students could not state the structure of text correctly, students only listened and seemed to be not active in the question-and-answer activity." — **P9/TPR**

"The problem that occurred is students were not active in learning, for instance, they didn't respond to the teacher's questions or didn't understand the material given […] Students were not enthusiastic in following the lesson […] The material presented on present tense was not interesting for students because they found it difficult. They lacked understanding on past tense sentences; therefore they were not interested in doing the assignment that I gave and they were reluctant to ask about the assignment." — **P11/TPR**

4.2 Material-Economic Arrangements

The material-economic arrangements are found in the data in the form of both human and non-human actors, the physical environment, time management, and financial resources. These arrangements shape the teaching practicum practices that the participants conducted.

As the program required the participants to deliver their teaching online and to submit the evidence of their teaching practicum activities in a 20-minute video for assessment, technology-related problems emerged as the first arrangement in the data across participants' reports. For instance, almost all participants reported that they had internet connection problems (participants 1, 2, 3, 5, 6, 7, 8, 12, 13, 14), either the connection was unstable or costly. This problem affects the delivery of the teaching or the limitation of access using devices or learning apps (Participants 1, 5, 6, 7, 12, 13, 14, 15). The following excerpts from Participant 1 illustrate the internet connection problems that affected the delivery of the teaching:

"The cause of network errors in the Wi-Fi facility was due to students running out of Internet quota credit, and hence, there was a delay in the online learning activities. […] The teacher could not share his screen which may have been due to instability in the network, and thus the teacher faced difficulties in showing students' answers. […] The students frequently entered and exited the meeting because they didn't have stable network connection in their homes, and thus they could not follow the activities well." — **P1/TPR_material-economic: technology**

Other material problems are related to the recording of the teaching, such as failures to record video (participants 3, 5, 7, 11) or audio (participant 1, 5, 9, 11, 12, 13), or the quality of lighting (participant 3, 11).

Time management is the second material-economic arrangements expressed by the participants. They either had problems finishing the teaching session on time or filling the session with enough learning activities (participant 1, 5, 6, 7, 8, 10, 11, 13, 14). In the case of lack of time, this problem was because of an excess of the internet connection problem. When the internet connection was unstable or lost, the participants had to deal with this problem first, be it by moving to another place or changing the Internet provider to ensure that the Internet connection was stronger, or providing alternative learning activities that could be done with minimum or no Internet. These efforts to alleviate the Internet problems cost time. The difficulty level of the materials has also been expressed as the culprit of the course extending beyond the allocated time, as it took more time to finish the materials. Participant 13, for instance, described this time management problem as follows:

> "The internet connection loss happened all so sudden and we did not anticipated it because during the first teaching practicum session, I did not have any problems with the internet network. The lost internet connection caused the learning activities in Google Meet stopped because almost all students exited the Google Meet room, with the exception of one student. At that time, we assumed that the recording process since the beginning of the session was stopped as well. [...] Therefore, when the internet connection was resumed, [...] the learning activities resumed. But because of our assumption that the previous recording was stopped, we decided to continue the learning activities and added more recording time to compensate the time lost before the connection was cut. Consequently, the learning activities were longer than our plan, which was about 116 minutes in total." — **P13/TPR_material-economic: time management**

In the case of having too much time at hand to finish the teaching session, it is usually due to other material-economic arrangement problems (e.g. uninteresting teaching materials, the necessity to let students to have Friday prayer break), or cultural-discursive arrangement problems (e.g. the participants' lack of classroom management or teaching techniques, the students' lack of competences in using the language or the technology) (participant 7, 8, 10, 13, 14). For participant 8, the necessity to have a break for Friday prayer is illustrated as follow:

> "During the first teaching practicum, it was on a Friday and the time of the session fell during the required Islamic Friday prayer for male students. Therefore, there was an extra time in the session because there was a break during the prayer time. It was difficult to coordinate students to come back to the meeting room and it required more time to make all students come back to the meeting room." — **P8/TPR_ material-economic: students' availability**

The third problem in the material-economic arrangement is the environment where the participants conducted the teaching (participant 6, 7, 9, 12). The environment in this case was not conducive for delivering the course online or for getting quality recording. For instance, the locations of the sessions did not have stable or strong Internet connection due to signal reception or rainy weather, or the locations were noisy or did not have good lighting, as participant 6 and 9 describe below:

> "In the second teaching practicum session, it was conducted online. The problem was that it was during rainy season in the practicum site and thus it was prone to blackouts." — **P6/TPR_ material-economic: environment**

> "During the second teaching practicum session, I still found some problems. Among those problems are the noises of chickens and birds in the neighbourhood of the practicum site. For a few minutes I could not hear students' voices." — **P9/TPR_ material-economic: environment**

The fourth problem in the material-economic arrangement is students' availability (participant 4, 7, 10, 14, 15). There are various reasons why students were absent, ranging from being sick, having no access to the internet, or the necessity to attend other school/community events or vaccination drives on the day. These cases were recorded in the teaching practicum reports as follow:

> "The problem that occurred during the second teaching practicum session was that some students could not attend the session because there was a school activity. Also, this school activity occupied the students' attention and thus they could not concentrate during the learning activities." — **P4/TPR_material-economic: students' availability**

> "There were 11 students who did not attend the session (3 were sick, 6 were excused for various reasons, 2 were without excuses), and thus the process of keeping data was disrupted because I still had to give substitute tests." — **P10/TPR_material-economic: students' availability**

> "The session occurred in concurrent with the schedule of second phase of vaccination and thus some students could not attend the session because they were required to take the vaccines." — **P15/TPR_material-economic: students' availability**

4.3 Social-Political Arrangements

The social-political arrangements consist of the resources related to relationships between people in the practice, e.g., social rules, hierarchies, organisational relationships, power relations, etc., that can enable and constrain the relatings in the practice. In this study, relationships between the stakeholders in the school as the teaching practicum site signified the socio-political arrangement.

The relationships between the stakeholders in the school emerge as the solution to some of the aforementioned problems. When facing the problems of recording, some of the participants resolved with the help of colleagues and students, asking them to handle the job of recording (and even in curating the video) (Participants 3, 5, 7). Although this solution did not always work perfectly on the first attempt, the good relationship that the participants had with their colleagues enabled the participants to get things done. As for asking the students for help, this showcases the power relations between the teacher and his/her students, in which the teacher exercised his/her power over his/her students to get things done. The following excerpt from Participant 3 illustrates how such power play occurred in the field:

> "In the first teaching practicum session, the factor that caused the problem was that the support team for the first session was still lacking in their knowledge and skills on G-meet that was being used to showcase the offline session and that there was only one android device used to capture my students' and my voice, and thus the lecturer and the mentor teacher could not hear clearly. In addition, the student who used the android device for recording the G-meet session recorded the session in landscape mode and this has caused the lecturer and the mentor teacher had to turn their devices to be able to watch my practicum session. This was also due to the student's lack of skills in using the device. […] For this problem, the alternative solution that I took is to take notes on the problems that occurred and then did a simulation before the session. In addition, I also prepared additional android devices to connect to the G-meet which were able to clearly captured my students' and my voice, replacing the previous support team members with those who were more adept in IT so that they could monitor the android that was connected to the lecturer and the mentor teacher." — **P3/TPR_social-political: power play**

The use of the relationship between the participants and the school principals to arrange and facilitate the practicum sessions is displayed in the reports by the mentions of the school principals in the acknowledgement part for all participants. Support also came from beyond the participants' schools, as one participant mentioned the emotional support and practical advice that she received from her colleagues in the program in the acknowledgement part of the reports.

> "[Anonymous] as the principal of [Anonymous] junior high school, who has given the opportunity to do the teaching practicum, as well as giving support and motivation. […] Colleagues from the PPG program Batch IV for all cooperation, support, and motivation." — **P14/TPR_social-political: support**

> "Friends from the teaching practicum in PPG who always give support, spirit, motivation, as well as knowledge sharing." — **P15/TPR_social-political: support**

5. Discussions

The design of the PPG program implies certain arrangements that shape and are shaped by the participants. The arrangements consist of cultural-discursive, material-economic, and social-political arrangements that enable or prohibit the participants' teaching practicum practices. The data analysis by actors, both human and non-human ones, shows that such arrangements can influence the practices manifested in either problems, solutions, or suggestions of improvements.

In terms of **cultural-discursive arrangements,** there are certain discourses that the participants were exposed to and established as the appropriate thoughts and sayings to discuss, interpret, justify, or perform their teaching practices (Mahon et al., 2017, p. 9). The first discourses are certain pedagogical theories and concepts learned in the first phase of the program (as described in Table 1), which were then applied for material design in the second phase and implemented in the third phase, i.e. teaching practicum.

The participants admitted their lack of pedagogical, subject knowledge, and technology competence demands much attention since the competences are emphasised in the program and stated as teacher qualification standards (the Ministry of National Education regulation 16/2007). The practice of teacher-centred learning is also interesting to discuss, especially when it is confronted with the idea of learner-centeredness and learner autonomy in the 21st-century learning characteristics that a teacher should employ. In the case of technology competence, the results match those observed in earlier studies (Ersin, Atay, & Mede (2020); Evagorou & Nisiforou, 2020) that pre-service teachers struggled with the use of technology for delivering teaching materials due to lack of competence and experience. Kadir & Aziz (2021) emphasised

that the lack of technology competence has become the main challenge of the pre-service teachers getting involved in an online teaching practicum.

To cope with the problems, the participants seem to agree that teachers need more and continuing teacher professional development (TPD). Some of the TPD programs that can be provided are HOTs and TPACK (Technological Pedagogical Content Knowledge) as prescribed by the curriculum of the program. Technically, they suggested teachers start changing the teacher-centred method and employed teaching strategies that are more innovative. Regarding the limitation of technology competence, they thought of having enough preparation with the technology used for teaching.

The second discourse is the use of a problem-based analysis approach in the program. It was instilled in the participants since Day 1 of the program and repeatedly reinforced throughout the whole period of the program, and hence, the participants were used to seeing problems in their practices and the solutions to the problems. These two discourses become the expected competencies that participants need to attain and one of the indicators of their success in meeting the standards of the government and passing the program.

The problem-based learning established as a discourse in the program allowed the participants to reflect on their problems dealing with their students as the basis of designing teaching material and applying the materials in their teaching practicum. The identification of problems surrounding students becomes prominent in almost every report because the program, in the first phase (see Table 1), emphasised the importance of understanding students' characteristics and how these may inform the design of learning experiences. The solutions to these problems seem to be always connected to the discourses that they reviewed in the first phase, such as conducting need analysis, motivating students, or providing alternative or additional activities that are project-based, HOTs-oriented, or involving technology.

In the case of **material-economic arrangements**, the data in the form of both human and non-human actors show the arrangements of the physical environment, time management, and financial resources. (Mahon, et al., 2017, p. 10) that oftentimes prohibit the teachers from doing the teaching practicum successfully. Teachers in the teaching practicum experienced technology-related problems, particularly in meeting the requirement of submitting a 20-minute-long video. The success of recording this video is instrumental for the participants as the video was submitted as a part of their assessment, and thus, it would determine their standing in the government standards of quality and professional teachers. The inability to have a stable internet connection is linked with the financial ability of students/teachers in providing internet quota, paired with the time management of the teacher in meeting the 20-minute requirement for the video, as well as having a quiet environment for ensuring good audio recording.

As the program put a specific number of students that the participants were required to teach (minimum of ten students), this arrangement shapes the practices, and thus not meeting the required number is a problem. Although it is not mentioned in the reports, the problem of scheduling the practicum sessions and meeting the number of students was expressed during the preparation of the sessions when the researchers were in the capacity of the participants' supervisors. The delivery of the program that ran concurrently with their job responsibilities created a situation where the practicum sessions were ad-hoc and even, in some sense, disruptive to daily school life.

In the case of **social-political arrangements**, the data shows the resources related to relationships between people in the practice, e.g., social rules, hierarchies, organisational relationships, power relations, etc., that can enable and constrain the relatings in the practice (Mahon et al., 2017, p. 10). Particular to the relatings between the stakeholders in the teaching practicum, the data highlights the organisational relationship between the participants and their colleagues in school, the power relations between the participants with their students and their school principals, as well as the social relationship between the participants with their colleagues in the program.

When facing the problems of recording the teaching practicum session, the organisational relationship between some of the participants and their school colleagues was utilised by asking colleagues to record (and even curate the video). Although this solution did not always work perfectly on the first attempt, the good relationship that the participants had with their colleagues enabled the participants to get things done. They also forced the students to help record the session, reflecting the dominant power of the participants as the teachers upon their students, in which the teacher exercised his/her power over his/her students to resolve the problem of recording.

The school principal had a very powerful role in allowing the participants to conduct the practicum in addition to their normal responsibilities in school. In one specific case, only with the permission of the school principal were the students were allowed to use the devices used in the session, as the school was a boarding school where students not allowed to have access to mobile phones or laptops. In a program that leaned heavily on the discourse of using technology in teaching, the permission was instrumental in ensuring that this participant was able to run the practicum sessions within the standards and requirements of the program.

It may be safe to say that the camaraderie among the teachers attending the program enables the participants to avoid the pitfalls in conducting the teaching practicum and to seek advice to solve their problems, as the teachers in the program would share and discuss their teaching practicum session among colleagues after each session, which is a part of the design of the program. This practice bears a resemblance to the practice of collegial or peer mentoring discussed in Langelotz (2017). It enabled the teacher-participants to put their teaching problems "on the table," and they strived to look at the problem as a collective issue and together found the solution to the problem. Over and above that, it was found to promote teachers' personal and professional development.

6. Conclusions

The findings of the study corroborate that there are certain arrangements that shaped teachers' practices in teaching practicum, particularly in the design of the PPG program and the requirements of the assessments. These arrangements manifested in the actors involved in the program, both the human ones (the participants, the students, the colleagues, the school principals) and the non-human ones (the technology, the time management, the environment). In terms of cultural-discursive arrangements, the focus of the program on certain pedagogical theories and concepts has resulted in the use of terms, perspectives, or discourses within these theories and concepts in identifying and describing the problems, solutions, and suggestions in their teaching practicum sessions. In regards to the material-economic arrangements, the requirements of the assessments have shaped the teaching practicum practices, as displayed in the efforts that the participants put in ensuring the technological resources, the scheduling, the time, and the environment can fully support their practices and thus meet the requirements. In ensuring the success of their teaching practicum practices, the participants also sought to utilise their social-political arrangements by negotiating or asking permission from their superior by involving their colleagues and students to aid them in recording their video submission for their assessments in the practices or by seeking for advice from colleagues within the program when problems arose.

As this study showcases the importance of practice architectures in the forms of cultural-discursive, material-economic, and social-political arrangements, it is only logical for the government to consider these arrangements in designing teacher professional development programs, such as the PPG program. One of the serious implications of the arrangements is in selecting which standards to be imposed on the teachers, as this selection will determine the discourses that will be communicated in the program and how such discourses will be truly applied in practices. The consideration of the contexts in which the teachers work is another implication of the study findings. As contexts, in the form of material-economic and social-political arrangements, can make a difference in whether the teachers can perform the expected practices, efforts must be taken to ensure that the design of the teacher professional program can accommodate the varieties of contexts where the teachers work.

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Appendix

Appendix 1. Data Categorised by Practice Architectures Arrangements

Actor	Problems	Root of Problems	Solutions	Practice Architectures Arrangements		
				Cultural-Discursive	Material-Economic	Social-Political
Teacher	Teacher-oriented learning (1, 6, 14)		Changing a method so teacher needs to give more brief (14)	x		
	Teacher focuses on the materials, not the students			x		
	Teacher is rushing (10)				x	
	Teacher lacks of technology competence (5, 7, 12)		Teacher prepares (9)	x		
			Teacher professional development (7, 9)			
	Teacher forgets the steps (6, 14)		Make notes (6, 14)		x	
	Teacher cannot fully monitor the students	Technology challenge (8, 9)	Check on students one by one (8)		x	
			Teacher professional development (7)			
	Teacher lacks of pedagogical competence (7)			x		
			Vary the teaching strategies (7) Teacher innovates			
	Teacher lacks of subject knowledge "misconception" (7)		Teacher professional development (7)	x		
Time	Time management (1, 5, 6, 7, 8)				x	
	Students are lacked of vocabulary (1)			x		
	Students are not active (1)			x		
	Students are not confident (1)			x		
	The session is too long (7, 8, 10, 13, 14)	Friday prayer break (8)	Use stopwatch (8)		x	
	Students are too excited to use technology (14)			x		
	Students do not have enough time (10)		Use alternative learning activities (10)		x	

Actor	Problems	Root of Problems	Solutions	Practice Architectures Arrangements		
				Cultural-Discursive	Material-Economic	Social-Political
Learning Materials	Not sufficient exercises (7)		Vary the teaching strategies (7)	x		
	Materials are too difficult (11)			x		
Students	Students are not motivated (8, 11)	Materials are too difficult (11)	Do need analysis on the students (11)	x		
			Classroom management (11)		x	
		Materials are not interesting (11)	Link the materials with students' life (8, 11)	x		
			Give alternative activities (11)			
	Students are bored (6, 15)	Online teaching bore them (6)	Provide alternative activities (15)	x		
	Students are lacked of technology competence (5, 6, 8, 13, 14)		Give more training (8)	x		
	Students are absent/not available (4, 7, 10, 14, 15)	School event (4, 7, 10)	Ask other students (4)		x	
		Religion events (10)	Give recording and alternative learning activities (10)			
		Not in the boarding school yet, vaccines (14, 15)	Working in groups, rearrange the groups based on level of competence (14)			
			Provide alternative means of communication (15)			
	Too many students (10)		Use alternative learning activities (10)		x	
	Students are too active (10)		Only use the technology when they're required to (10)		x	
	Students are not actively involved (1, 6, 7, 8, 9, 11, 12, 14)	Students are lacked of vocabulary (1, 8)	Use more/other apps (1)	x		
			Give more exercises (8)			
			Add another activity (1)			
		Students passively listen (9)	Motivate the students (9)			
		Students cannot do the activities (9)	Use more/other apps (1)			
		Students are not confident (1, 7, 12, 15)	Personal approach (7)			

Actor	Problems	Root of Problems	Solutions	Practice Architectures Arrangements		
				Cultural-Discursive	**Material-Economic**	**Social-Political**
			Motivate the students (12)			
		Students are lacked of technological competence (6, 14) Students are lacked of speaking competence (6) Students are not interested in the topic (6)	Motivate the students (6) Give more HOT-oriented activities (6) Give rewards (6)			
		Students are not used to use English (11) Students plays their gadgets (14) Students are shy to ask (5, 9)	Use English as instructions (11) Motivate the students (5, 9)			
	Students have low comprehension (8, 11)	Students are lacked of vocabulary (1, 8)	Give more exercises (8)	x		
	Students cannot concentrate (7, 9, 15)	Students are lacked of sleep (7) -- boarding school Students have too many activities (7)	Praise the students (7)		x	
	Students are afraid or shy of being recorded or to present (2, 5, 15)		Focus on those who are willing (2)	x		
			Motivate students (2. 5, 15) Provide positive feedback (15)			
Technology	Technical problems (1, 2, 3, 4, 5, 6, 7, 8, 9, 10))	Internet connection problem (1, 2, 3, 5, 6, 7, 8, 12, 13, 14)	Change the Internet provider (2, 13)		x	x
			Move to another spots (5, 7, 12) Ask another teacher to help (5) Joint use of technology (13)			
		Expensive internet connection (13)			x	
		Limited or difficulty in accessing application (13)	Use alternative devices (13)		x	
			Joint use of technology (13)			
		Microphone is off (1, 12)			x	

Actor	Problems	Root of Problems	Solutions	Practice Architectures Arrangements		
				Cultural-Discursive	Material-Economic	Social-Political
		Students cannot open the link or apps or media (1, 5, 6, 14)	Train the students (6)		x	x
			Group work/mentoring (6) Use alternative learning techniques (10, 14) Use simpler technology (9, 14)			
		Video recording problems (3, 5, 7, 11)	Re-brief the documentation team (3) Ask another teacher to help (3, 7) Concurrent school event (7)		x	x
		Audio problem (5, 9, 11, 12, 13)	Use alternative technology/device (5, 11)		x	
		Netiquettes (6)	Train the students (6)	x		
		Device/Application problem (7, 12, 13, 15)	Use alternative technology/device (7, 13) Prepare better (12)	x		x
			Ask another teacher to help (7) Joint use of technology (13)			
		Lighting problems (3, 11)	Nothing can be done (11)		x	
Environmental	Rains (6, 12)	No electricity (6, 12)	No online teaching (6)		x	
	Not appropriate classroom (7)	Weak Internet Access (7)	Maximise the use of the classroom (failed) (7)		x	
	Noises surrounding the school (9)		Move to another place (9)		x	
	Noise from the next classroom (12)		Use audio technology fix (9)		x	
			Close the classroom door (11)			