



## Initiating formulaic design to increase teachers professional development (TPD) for 21<sup>st</sup> Century teaching



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### Abstrak

Dalam menghadapi perubahan kebutuhan siswa pada pembelajaran bahasa Inggris di abad ke-21, guru bahasa Inggris harus melakukan pengembangan cara penilaian dan memeriksa kembali persiapan praktek pembelajaran di kelas. Penelitian ini bertujuan untuk menginisiasi rumusan desain dalam rangka meningkatkan pengembangan profesi guru bahasa Inggris pada pembelajaran abad ke-21. Penelitian dilakukan melalui deskriptif kualitatif dengan subjek guru SMP bidang studi bahasa Inggris sebanyak 20 orang. Instrumen penelitian yang digunakan adalah kuesioner terbuka dan lembar wawancara tidak terstruktur. Hasil penelitian menunjukkan bahwa: 1) guru bahasa Inggris masih kesulitan dalam mengintegrasikan keterampilan mengajar berbasis Information and Communication Technologies (ICT); 2) pengembangan profesi guru model-ganda dapat memberikan kontribusi sebagai bagian pelatihan yang dilakukan secara konvensional yang dilanjutkan melalui program e-Learning; 3) program Pengembangan Profesi Guru (PPG) model Ganda sebagai inisiatif model PPG dapat dilakukan secara konvensional dan e-Learning karena bermanfaat untuk melaksanakan pelatihan dalam jumlah besar dan ekonomis.

### Abstract

*To face the changing needs of students in the 21<sup>st</sup> century of teaching and learning, English as a Foreign Language (EFL) teachers have to pursue professional development. EFL Teachers have to do this by assessing and reexamining their teaching preparation and practices. This study aimed to initiate a formulaic design to increase TPD for 21<sup>st</sup>-century teaching. The data were obtained through the open-form questionnaire with 20 English teachers and the unstructured interview. It was found that teachers still face difficulties dealing with 21<sup>st</sup>-century skills and Information and Communication Technology (ICT) Integration. Dual-mode of TPD could contribute as part of the training conducted in conventional ways, and the rest is delivered through the e-learning programs. A dual-mode TPD program as an initial TPD model can be conducted both in conventional ways and through e-learning programs because it is beneficial to accommodate larger numbers of EFL teachers and more economical.*

### Keywords:

21<sup>st</sup> Century teaching  
Dual-mode  
Formulaic design  
Teacher professional development

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## Introduction

Nowadays, teachers of English as Foreign Language (EFL) are encouraged to leave the conventional ways of teaching (Arkhipova et al., 2018; Intarapanich, 2013). In other words, teachers are required to facilitate the students with teaching practices based on the advancement of the globalization era (Kampylis & Berki, 2014). Globalization affects educational transformation and the changes in Information and Communication Technology (ICT) usages (Bautista & Ruiz, 2015). Thus, the process of teaching and learning should maintain the integration of teaching strategies and critical thinking (McCrum, 2017), creativity (Lin, 2011), communication (Shaaruddin & Mohamad, 2017), collaboration (Miharja et al., 2020), and ICT (Isaacs, 2012). The aspects mentioned are the characteristics of 21<sup>st</sup> Century skills (Dwyer et al., 2014; Hussin, 2018; Lai, 2011). These areas, in turn, require the EFL classroom to be space capable of addressing the increasing multiplicity and integration of different modes of meaning-making, where the textual relates to the visual, the audio, the spatial, and the behavioral (Jelyani et al., 2014; Mathews-Aydinli & Elaziz, 2010; Shih & Reynolds, 2015).

However, not all EFL teachers in Indonesia are fully aware of the new demands of 21<sup>st</sup>-Century skills, and many of them are teaching conventionally (Hidayati, 2012; Mattarima & Hamdan, 2011; Sulistiyo, 2016). EFL teachers in Indonesia admit that they face many difficulties over the vast range of English language and academic levels and that they received limited professional development (PD) or in-service training on how to access EFL (Roekel, 2008). Furthermore, it is necessary to initiate and promote the proper PD which meet the characteristic of 21<sup>st</sup> Century skills.

The most recent professional development initiated by the Indonesian government is teacher professional education (TPD) or *pendidikan profesi guru (PPG)* (Peraturan Pemerintah Republik Indonesia Nomor 74 Tahun 2008 Tentang Guru, 2008; UU Sistem Pendidikan Nasional, 2003). The specific purposes of this program are to develop professionalism periodically and continuously, produce teachers who have various competencies in the implementation and design of teaching, assess learning evaluations, provide guidance and training to students when conducting research, and finally follow up on the results of the assessment of ongoing learning activities (Pedoman Penyelenggaraan Pendidikan Profesi Guru, 2017). However, following the other TPD that had been applied, some pros and cons arise in the PPG program. The results of a survey conducted by researchers have identified four weaknesses of TPD in teaching practice, namely: (1) there are several programs, but involve only a limited number of teachers, (2) the program usually focuses more on theory and too far from solving teaching practice problems, (3) participating in the programs makes the teachers leave their school and classes, and (4) the lack of sufficient supports for teachers from school to implement the innovations they learned during TPD (Kurniawan, 2016; Slameto, 2014).

According to Young and Castetter (2004), there are five models of TPD that institutions need to consider to enhance individual guided staff development, observation, assessment, involvement in a development or improvement process, training, and inquiry. Based on the five TPD models mentioned, the training model is a development model mostly carried out by educational institutions. In educational institutions, a popular way to develop teachers' professional abilities is to conduct upgrading (in-service training) both in the context of reinforcement and training. Another way is through the TPD, which can be conducted either alone (informal) or in a group, such as on the job training, workshops, seminars, panel discussions, meetings, symposia, or conferences (Widodo et al., 2011).

Workshop is one of the most common and useful models of professional development activities usually held by an institution for teachers (Widodo et al., 2011). By attending the workshop, teachers are expected to learn the particular issues in English language teaching such as curriculum, teaching materials, methods that can be applied in the classroom, etc. However, the TPD programs held by the institution are not always given positive impacts to the teachers. Research conducted by Fresko and Alhija (2015) about seminars and workshops as professional training shows that teachers expressed dissatisfaction because the TPD programs mainly

focused on the group in general, and the topics were not always relevant to teachers' main problems.

Widodo et al. (2006) found a similar result when conducting a study with science teachers at three districts in West Java Province. It was found that only 50% of teachers implemented innovation they got from joining TPD, and 27% implemented it for more than a year. The initiative to adopt the Japanese TPD model called Lesson Study has been applied since 2006. It is considered helpful for developing teaching activities and student success in learning (Firman, 2010). Moreover, Firman (2010) warned against a backwash phenomenon. Innovations will not be sustained without sufficient support from the school and the supervisors. Hence, adaptations are recommended before simply used it for the Indonesian context. For example, according to Widodo et al. (2010), two models of Lesson Study adopted from Japan and introduced in Bandung and Sumedang (two districts in West Java Province), have been found unsuccessful when applied in Borneo, where schools are isolated, and transportation is an issue.

Research on dual-mode delivery for TPD is still limited. Studies show that dual-mode TPD is a viable model for TPD (Matzat, 2013) (Owston et al., 2008), but they also suggest more research is needed to examine the impact of blended TPD on students' learning. Positive results on the application of Dual-mode delivery have been reported. It creates a positive learning climate and enhances students' performance expectations (Wu, Tennyson, & Hsia, 2010), understanding (Kavadella et al., 2012; Olympiou & Zacharia, 2012) and mathematical thinking (Kashefi et al., 2012).

Considering the above previous studies, it can be highlighted that there have been many types of TPD applied and delivered for teachers. The success of TPD cannot be determined since each teacher has a different way to integrate his knowledge after attending TPD. Thus, this study is aimed at several formulaic types of TPD that produce the conventional way of teaching and ICT based teaching. Previous studies about TPD have been conducted (1) in terms of its feasibility in training the teachers (Matzat, 2013; Owston et al., 2008), (2) the application of Dual-mode TPD model in the learning process (Wu et al., 2010), (3) the effects of 'dual' mode' TPD model on student's understanding (Olympiou & Zacharia, 2012) and students learning related to mathematical thinking (Kashefi, Ismail, & Yusof, 2012), meanwhile the TPD study on the 21st-century learning and the proposed models for EFL teachers have not been found. However, the highlight of this study is different from the previous studies because this present study is intended to initiate a model of TPD that meets 21st-century skill demands, particularly for EFL teachers at Junior High School, which has not been found in the previous research on TPD. The results of this present study will help the training institutions or in-service training policymakers present an appropriate TPD model, which can improve teacher's professionalism in teaching in accordance with the 21<sup>st</sup> century-based teaching.

## Method

The qualitative research design was used in this study since it was intended to initiate formulaic design as descriptive data to increase teachers' professionalism. The data investigated on qualitative mainly aimed to describe human activities and attributes such as ideas, customs, mores, and beliefs. The data were obtained through an open-form questionnaire and an unstructured interview. The respondents use their own words to answer the questions and validated by the experts in professional development. It gives the respondents the freedom to repeat their opinion and attitude. Meanwhile, the unstructured interview was used mainly to confirm the irrelevant data obtained from the questionnaire.

The population of this study was the Junior High School teachers who had been certified based on the PPG program and lived in East Java. The samples were twenty English teachers of Junior high school in East Java province who were chosen purposively. The teachers were selected based on four criteria, namely (1) having experiences in participating four to five TPD models (2) having been teaching English for more than ten years, (3) teaching at junior high school, and (4) holding professional teaching certificate. The data obtained were analyzed using a content analysis procedure and calculated using simple statistical in the form of a percentage

(%). In other words, the subjects' responses for each question were added together to find the highest frequency of occurrence (i.e., the teachers' awareness and the use of ICT in teaching). These responses to the questions, which are quantified, are then presented in percentage forms. This analysis is presented in tabular form. The researcher used tables containing a variable and, in some cases, combines two or more variables in a single table.

## Results and Discussion

The demands of teachers to become professionals to make the students gain success in learning have to face much effort. The result of the open-form questionnaire showed that 20 teachers (100%) were fully aware of the importance of attending TPD programs (Table 1). There were various types of TPD attended by the teachers, such as workshops, seminars, and even conducted classroom action research. However, the programs were limited, occasional, and unequally distributed among teachers. Teachers perceive these formal, externally provided TPD to bring little learning to them because they mainly focus on making teaching documents such as the syllabus, lesson plans, or student worksheets required by the government (Widodo et al., 2010, 2011).

Among the TPD, which has been provided by the government and institutions to help develop teaching, teachers admit that they prefer professional learning to develop their teaching (Pedoman Penyelenggaraan Pendidikan Profesi Guru, 2017). Teacher awareness to develop their skills can be pursued in several ways. Richard and Farrel (2005) divided teachers-self TPD into three: teachers' self-monitoring, keeping a teaching journal, and action research. Self-monitoring refers to private activity to document and record someone's teaching to be reviewed and evaluated. It is necessary to collect the data about teachers' strengths and weaknesses in the classroom, and the result does not need to be shared with the others (Christ et al., 2017; Shernoff et al., 2017).

The results showed that by professional development, teachers discover the importance of 21<sup>st</sup> Century skills in teaching (Table 1). However, 80% of teachers found difficulties because they only know the concept of 21<sup>st</sup> Century skills but still challenging to implement it in class. It was supported by the fact that there was no official TPD program in Indonesia that introduce 21<sup>st</sup> Century skills for them. Besides, the teachers knew that the four C's of 21<sup>st</sup> Century skills are: critical thinking, creativity, collaboration, and communication (4C) and integrating the teaching process based on digital technology or ICT without the limitation of place and time (100%). The detailed data regarding the TPD, which has been joined by the EFL teachers, can be seen in Table 1.

**Table 1.** The results of the open questionnaire regarding TPD program attended by the teachers

Attended TPD programs	Number of respondents	Percentage (%)
Teachers' awareness about the importance of attending TPD	20	100
Models of TPD joined by the teachers (workshop, seminars, CAR)	20	100
The training model of TPD (formal training)	20	100
Awareness of 21 <sup>st</sup> Century skills	20	100
Teaching skills in the 21 <sup>st</sup> century is difficult	16	80
Understanding the concept of 21 <sup>st</sup> Century skills	20	100

Mastering the use of ICT was not an easy task for the teachers since they are accustomed to teaching in conventional ways. It means that teachers were seldom integrating ICT into their teaching process. The habitual factor of teaching without ICT indicated that the teachers were neglected the importance of providing 21<sup>st</sup> Century skills. Teachers assume that it would be helpful if they attend TPD, which trains them to use ICT through guidance. Besides, the teachers continuously learn from online learning by web-browsing (35%), reading articles (10%), downloading materials (30%), modifying and using teaching materials they found on the internet (25%). Their learning engagement via the internet was mostly for gaining knowledge with some sharing of their own knowledge or resources. However, the teachers still expect that

school principals and government as policymakers create a program that trains the teachers based on 21<sup>st</sup> Century skills and the use of ICT in the teaching-learning process.

A possible solution to these current problems is to use ICT for TPD. In recent years teachers have been encouraged to use ICT when their schools have supported the teaching-learning process with ICT facilities. Although the utilization of e-learning in schools is not as intensive as in higher education (Ballis, 2009), some initiatives employ e-learning in schools. This study reported that ICT-based learning improves students' understanding and facilitates their creative thinking skills (Binkley et al., 2012), motivation, and learning outcomes. The potential use of ICT in TPD is substantial (100%). It can be proved that in 2008, the internet usage in Indonesia was 10.5% of the total population, with the number of users growing to 11.50% (Higgins, 2001). Table 2 illustrates the percentage of teachers in mastering ICT in teaching.

**Table 2.** The results of the open questionnaire regarding the teacher's initiatives on self-professional development

The use of ITC in teaching	Number of respondents	Percentage (%)
Online learning by web-browsing	19	95
Reading articles	9	45
Downloading materials	18	90
Modifying and using teaching materials found on the internet	14	70
The potential use of ICT in TPD	20	100

The use of ICT for TPD is not as common as its use for pre-service teacher training (Sorensen et al., 2007). Based on the interview results, it was shown that some teachers prefer to train using online training because it enables them to overcome the problems of time and space (65%). However, they also found that a few teachers prefer to choose face-to-face training because it allows them to have direct interaction and experience (35%). Indonesian universities acknowledge that teachers of the future should be skillful in teaching using ICT because its use will be widespread in schools, and ICT-based TPD is likely to become a familiar model of TPD. Although ICT will become more influential in TPD, it will never be the only solution to current problems. Face-to-face training will continue to play an important part (Noh et al., 2004).

The dual-mode TPD program has four advantages. First, in dual-mode TPD, teachers do not need to leave their classes when courses are conducted online. Second, teachers have the flexibility to choose attendance times that suit their schedules. Third, since the internet is accessible almost everywhere in Indonesia, geography should not hinder dual-mode TPD. Finally, dual-mode TPD allows teachers to share their teaching problems with other teachers and consult experts via the internet (95%). The use of the internet may open teachers' minds to the importance of improving their professional skills and encourage them to participate in TPD programs (Yumuk, 2002). The results from the interview in the form of percentage can be seen in Table 3.

**Table 3.** The results of the interview about the design of TPD

The design of TPD	Number of respondents	Percentage (%)
Teachers' preference using online training	13	65
Teachers' preference using face to face training	7	35
Teachers' agreement about dual-mode TPD program	19	95

The ultimate goal of TPD is to support teachers in classrooms facing the daily realities of formal education systems to do their best to improve student achievement. To sum up, TPD programs should provide learning opportunities that create changes in teachers' disposition about teaching and learning, leading to changes in classroom practice and improved student achievement. Therefore, providing teachers with the necessary skills, knowledge, and focus on



engaging in meaningful inquiry about their professional practice will enhance this practice and bring positive changes to the learning community's educative goals.

## Conclusion

The design of future TPD programs should reduce some TPD's weaknesses and allow as many teachers as possible to participate without distancing them from their classrooms. An alternative TPD should also facilitate teachers to share their problems and experiences as well as helping them to get expert professional support when necessary. To sum up, TPD should create opportunities for teachers to take control of their learning, deepen their subject knowledge, construct knowledge from previous knowledge and experiences, and develop intellectual community with colleagues.

This study aimed to promote a dual-mode TPD program as part of the training conducted in conventional ways, and the rest is delivered through e-learning programs. Changing teacher habits requires extra effort because it is not an easy task. Government policy on teacher education of teachers' certification can motivate new teachers to seek TPD continuously and become professionally independent. Also, rather than budgeting to support relatively small numbers of teachers in face-to-face TPD, the government can collaborate with universities and other training centers to set up dual-mode training programs that educate larger numbers more economically.

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