



Vocational Pedagogical Decisions of Malaysian and Indonesian Non-Engineering TVET Teachers

Jailani Md Yunos^{1*}, Siti Nur Kamariah Rubani², Maizam Alias³, Hashima Hamid⁴, Faizal Amin Nur Yunus⁵, Fahmi Rizal⁶, Sri Sumarwati⁷

^{1,2,3,4,5,7}Faculty of Technical and Vocational Education, University Tun Hussein Onn Malaysia, Parit Raja, Batu Pahat, Johor, 86400, MALAYSIA

⁶Fakultas Teknik, Universitas Negeri Padang, INDONESIA.

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Abstract: A teacher's pedagogical decisions determine the quality and effectiveness of the teaching and learning process while academic content (practical or theories), as well as teachers cultural background (as indicated by teacher's nationality), can influence teachers' decision makings. Thus, the aim of this study was to identify the dominant pedagogical decisions as practiced by non-engineering TVET teachers in two countries namely Malaysia and Indonesia. A survey was conducted on 312 Malaysian Vocational College (VC) and 200 Indonesian Vocational Senior Secondary School (VSSS) teachers. A questionnaire consisting of 33 items on pedagogical decisions was used to gather data on teacher's pedagogical decisions. Descriptive analysis conducted on the data indicate that the findings indicate that there are similar in vocational pedagogical decisions used by Malaysian-Indonesian respondents based on "Role of Teacher", "Nature of Knowing", "Organization of Time", "Content of Curriculum", "Organization of Space", "Approach to Task" and "Visibility of Processes". In addition, this study found that Malaysian non-engineering TVET teachers are more likely to use student-centered teaching to deliver "theory". While Indonesian non-engineering TVET teachers are more likely to use teacher-centered teaching to deliver "theory".

Keywords: pedagogical decisions, secondary vocational education, learning content, workshop learning

1. Introduction

In the era of rapid globalization, there is a growing demand for human resources with knowledge and skills as required by the current job market. This is because human resources are highly skilled and knowledgeable have an important role in improving the capabilities of an organization in competitive in the market (Cania, 2014). Technical Vocational Education and Training (TVET) refers to an educational institution that aims to produce students who have the knowledge and diverse skills base for improving the quality to become skilled workers when venturing into the working world. Thus, the strengthening of the TVET in producing graduates who meet the needs of the industry is increasingly needed (Ayonmike, Okwelle & Okeke, 2015). Malaysia and Indonesia have established their TVET systems that aspire to cater to the needs of each nation. Malaysia and Indonesia are two developing countries that are taking serious efforts and initiatives to improve the quality of their human resources to achieve the status of developed nation goals. In Malaysia, Vocational Colleges (VC) play an important role in producing the skilled and technical workforce while in Indonesia; graduates who are ready to Facilitative the world of work are produced by their Vocational Senior Secondary Schools (VSSS) (Biden & Kamin, 2013; Sutijono, 2016). PTV field has a great responsibility to realize various educational transformation policies towards producing quality human capital needed for economic development. The transformation

*Corresponding author: jailani@uthm.edu.my

of vocational education is an attempt to engineer the existing vocational education system to build a new vocational education system that contributes to the transformation agenda as a high-income nation (Ministry of Education, 2011).

The effectiveness of teaching and learning are determined by a teacher's vocational content knowledge as well as pedagogical decisions. Technical vocational education and training (TVET) teachers need to have skills to make the right pedagogical decisions so that the purpose of teaching and learning activities can be achieved. The pedagogical decisions taken by teachers during the teaching and learning process may be focused on the evaluation of effectiveness or transfer of knowledge to students whether to achieve the objectives set or not. So important is the ability to make good pedagogical decisions that it is mandated in the professional practice of teachers (Prachagool et al. 2016). A study by Kipkoech and Chesire (2011) on secondary schools teachers showed that the level of teachers' pedagogical decision was low. According to Cassidy (2004), secondary schools teachers state that it is not easy to create effective learning. Su-Hua and Kae (2002) found that experienced teachers produce better results compared to novice teachers. However, experience alone does not ensure good skills on the pedagogical decision in all situations as shown by Pettigrew (1989) who found that teachers' experiences did not help teachers to improve their ability to predict students' learning preferences which is an essential knowledge for designing effective learning. In fact, Felder and Spurlin (2005) found that mismatch between teaching method (the result of the pedagogical decision) and student learning style associated with low achievements among students. In other words, pedagogical decisions taken by a teacher determines the quality and effectiveness of the teaching and learning process.

To improve the quality of human resources in these two nations, the teaching and learning processes of both VC and VSSS must be enhanced where the balance needs to be achieved between the teaching and learning of practical courses and theoretical courses. This is one of the current challenges in Malaysia, where the over-emphasis on the development of workshop skills over theoretical understanding is making students less interested in mastering the underlying theories of their practice which negatively impacts the development of knowledge and skills among students (Abdul Rahman et al., 2015). A balance between knowledge and skills acquisition are needed to enhance the ability of individuals to engage effectively in the workplace (Ayonmike, Okwelle & Okeke, 2015). Indonesian VSSS are also facing a similarly great challenge in providing the appropriate training of their TVET teachers, as VSSS are lacking in teachers that possess the necessary quality, teachers are sometimes asked to teach outside their field of vocational expertise (Sutijono, 2016). As a consequence, these teachers may not demonstrate the appropriate pedagogical decisions that are necessary for the effective training of vocational students. Thus, the aim of this study was to identify the dominant pedagogical decisions as practiced by non-engineering TVET teachers in two countries namely Malaysia and Indonesia.

1.1 Malaysian Human Resource Development Practitioners (MHRDP) Competency Model for Workplace Learning and Performance (WLP)

- i. To identify the dominant vocational pedagogical decisions practiced by Malaysian non-engineering TVET teachers.
- ii. To determine the dominant vocational pedagogical decisions practiced by Indonesian non-engineering TVET teachers.
- iii. To identify differences in vocational pedagogical decisions between Malaysian and Indonesian non-engineering TVET teachers.

2.1 Secondary Vocational Education in Malaysia and Indonesia

Transformation Program in Malaysia include the introduction of the principle of Vocational Education (PVE) and the Ministry has improved the TVET system by transforming the Vocational Secondary School (VSS) into Vocational College (VC) (Biden & Kamin, 2013). To expand access to vocational education, as many as 80 Vocational Secondary School in the rising stage into College Vocational (VC). Public sector cooperation and private sector cooperation is also encouraged to improve the quality of vocational education, especially from the industry recognition aspect. Skills trends offer the Malaysian Skill Certificates (MSC), while the vocational stream offers the Malaysian Vocational Certificate and Malaysian Vocational Diploma (Dason, Hamzah & Udin, 2010). The VC transformation in Malaysia aims to upgrade the Technical Vocational Education and Training (TVET) system to produce a skilled workforce with knowledge, skills, competitiveness, and high mobility (Minghat et al., 2012). There are 14 states in Malaysia, namely Johor, Melaka, Negeri Sembilan, Selangor, Pahang, Terengganu, Kelantan, Perak, Kedah, Pulau Pinang, Perlis, Sarawak, Sabah, and Wilayah Persekutuan. The total number of Vocational College in Malaysia is 80, where Perak is the state with the highest VC of 10 VC and Perlis have at least VC ie only 2 VC.

In Indonesia, the Vocational Senior Secondary School (VSSS) is one form of formal education that provides vocational education at the secondary school level. VSSS prioritizes the development of the ability and skills of students to carry out certain types of work (Sutijono, 2016). VSSS has the goal of preparing students to enter the work field and develop a professional attitude. VSSS is an educational institution that provides graduates who are ready to face the world

of work. Indonesian government seeks to expand the VSSS graduates to prepare highly competent human resource that is ready to compete and have a high quality (Sutijono, 2016). Indonesia is divided into 34 provinces and there are 13,236 VSSS in all provinces of Indonesia. Jawa Barat is the province that has the highest number of VSSS which is 2,705 and the province of Kalimantan Utara record the smallest which is 28 VSSS only. VSSS curriculum is made so that students are ready to go straight to work in the related. VSSS in Indonesia is an educational institution that prepares graduates to have the knowledge, expertise, and skills that will be equipped after completing education. Learners can choose the areas of expertise they are interested in VSSS. VSSS curriculum is made so that learners are ready to work in the world of work. The curriculum content in VSSS is prepared in such a way as to fit the needs of the industry. This matter conducted so that learners no difficulty when entering the world of work. With a study period of about three or four years, VSSS graduates are expected to be able to work in accordance with skills that have been learned when following the teaching and learning process in VSSS

2.1 Pedagogical Decisions

In order to improve the quality of the students, TVET teachers need to make appropriate pedagogical decisions related to the teaching and learning activities. Teaching and learning are one of the important aspects that affect the vocational pedagogy process (Tóth, 2012). Classroom practices will be effective if the teachers can make appropriate pedagogical decisions (Husbands & Jo Pearce, 2012). Teaching and learning process conducted by the teacher can be effective when the student respond positively during the learning process, are more communicative, are actively involved, and understand the content presented by the teacher. Pedagogical decisions are the processes of thinking that form the basis of justification in relation to teacher's professional practice to achieve meaningful and effective learning for the students (Rajendran et al., 2008). The right pedagogical decision taken by the teacher either during or after activity in the classroom will bring change of learning outcome towards positive improvements (Lucas, 2014). Pedagogical decisions that are made by a TVET teacher are related to activity planning, implementation and evaluation of learning in delivering the content of teaching. Pedagogical decisions consist of the role of teacher, nature of activities, means of knowing, attitude to knowledge, organization of time, content of curriculum, organization of space, approach to task, visibility of processes, proximity to teacher and role of learner. Various pedagogical decisions can be made by teachers in an active role in controlling the implementation of teaching and controlling the learning environment. Lucas, Spencer, and Claxton (2012) and Lucas (2014) argued that pedagogical decision is very important in the concept of vocational pedagogy, because it plays a role in determining the direction of teaching and learning process which will be conducted by the teacher. In addition, pedagogical decisions taken by teachers after classroom completion of activities are useful in improving future teaching and learning processes. Furthermore, elements of pedagogical decisions are described in Figure 1.

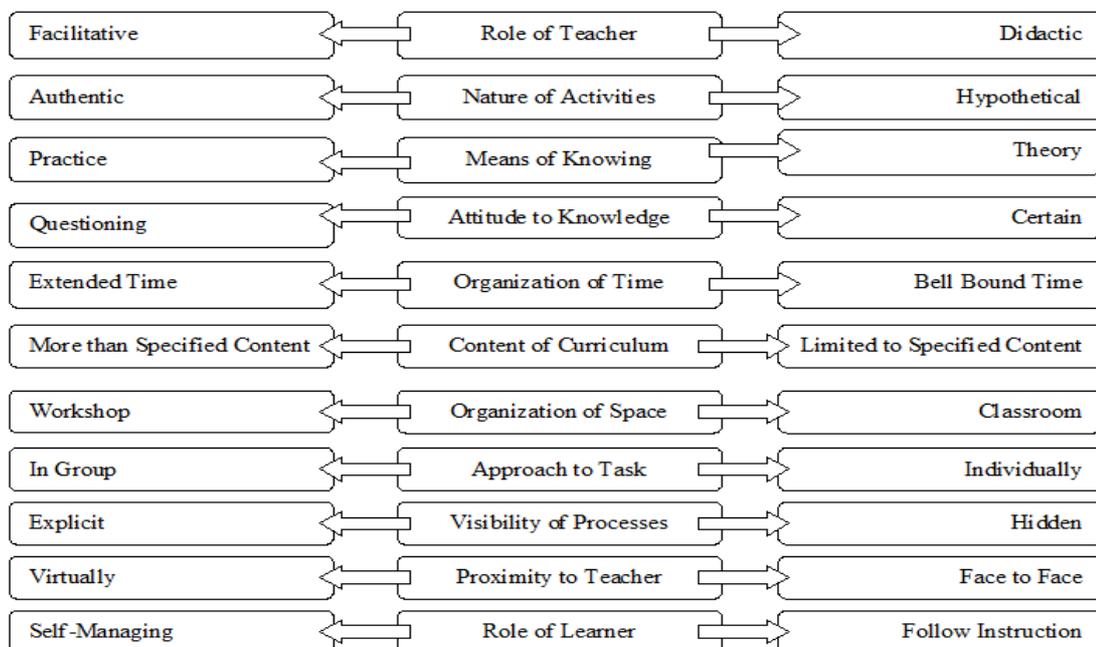


Fig. 1 - Elements of pedagogical decisions (Lucas, 2014)

Experience, knowledge, skills, and thinking will influence teachers' pedagogical decisions towards student learning process. Teachers need to make the right decisions to encourage students to explore a whole range of new learning

experiences and to improve their skills while following the teaching and learning process. A teacher is a role model for students. Hence, various learning-related decisions become important because it is the basis of the activities implemented to achieve learning objectives. Teachers should ensure that teaching and learning activities can produce highly skilled and independent learners (Healey et al., 2005). Non-engineering TVET teachers have a great responsibility; one of them is to ensure that students can have the skills needed by students after graduation. These skills are important to support their careers. Therefore, students are required to be more independent and to improve their skills. Therefore, the right pedagogical results can make the teaching and learning objectives achievable as planned.

3 Methodology

A quantitative research was conducted using the survey method. Before the survey was conducted, a discussion on the literature review was carried out. The quantitative data in this study was obtained by distributing the instruments to the respondents of the study. The research instrument is a questionnaire consisting of 33 items on pedagogical decisions. The population of this study is all non-engineering TVET in Malaysian VC and Indonesian VSSS. The study samples which is part of the population (has the same characteristics as the population) were selected using the random sampling method, where each non-engineering KV teacher had the same opportunity to be selected as a VSSS teacher. Samples for the study consisted of 312 Malaysian VC teachers and 200 Indonesian VSSS teachers. The Malaysian participants come from VC (ERT) Setapak, VC Kuala Selangor, VC Tengku Ampuan Afzan, VC (ERT) Puteri, VC Temerloh, VC Sultan Ahmad Shah, VC Kluang, VC Jasin, VC Dato 'Undang Haji Muhammad Sharip, VC Muar, VC Trade JB, VC Agriculture Chenor. The Indonesian participants were SMK teachers come teachers from VSSS in Padang, Payakumbuh, Bukittinggi, Batam, Riau, South Sumatra, North Sumatra, and DKI Jakarta. Questionnaires were distributed to research assistants who were teachers from the respective schools who were then distributing them to the participants. Research assistants were briefed on the procedure and the questionnaires were personally collected from the research assistants or posted to the researchers within two weeks.

4 Findings

Malaysian respondents consist of 190 (60.9%) female and 122 (39.1%) male, which is 137 (43.9%) non-engineering TVET teachers are less than 30 years old, while the total respondents were at least 16 (5.1%) people aged 51 and above. Indonesian respondents consist of 148 (74%) female and 52 (26%) male respondents, of which 61 (30.5%) non-engineering TVET teachers are 41-50 years old and the lowest respondents are 30 (15%) people less than 30 years old.

4.1 Vocational Pedagogical Decisions Practiced by Malaysian Non-Engineering TVET Teachers

Figure 2 illustrate vocational pedagogical decisions used by Malaysian non-engineering TVET teachers based on the “theory”.

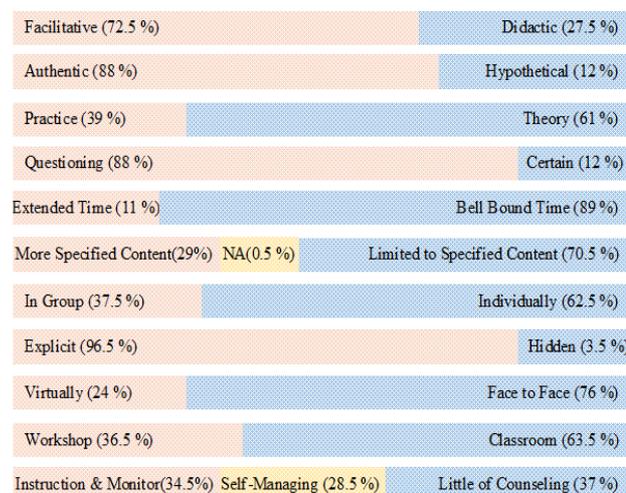


Fig. 2 - Vocational pedagogical decisions used by Malaysian non-engineering TVET teachers (theory)

The findings shown in Figure 2, show that Malaysian non-engineering TVET teachers more choose “facilitative”, “authentic”, “practice”, “questioning”, “bell-bound time”, “limited to specified content”, “individually”, “explicit”, “face to face”, “workshop” and “instruction and monitor”.

4.2 Vocational Pedagogical Decisions Practiced by Indonesian Non-Engineering TVET Teachers

Figure 3 illustrate vocational pedagogical decisions used by Indonesian non-engineering TVET teachers based on the “theory”.

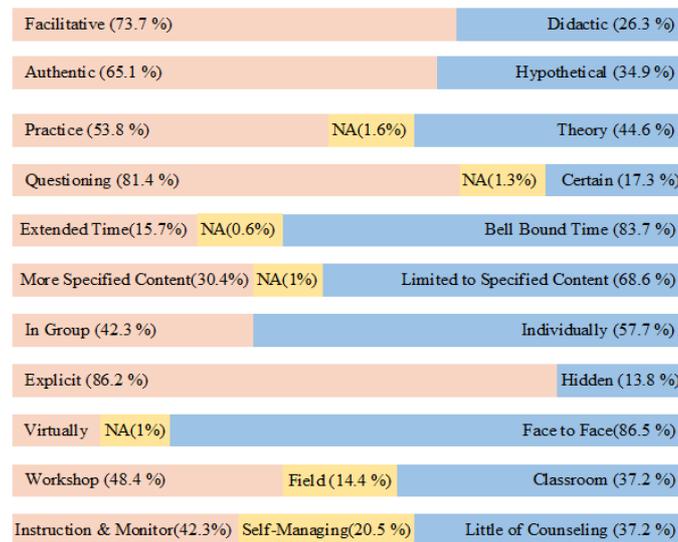


Fig. 3 - Vocational pedagogical decisions used by Indonesian non-engineering TVET teachers (theory)

The findings shown in Figure 3 show that Indonesian non-engineering TVET teachers more choose “facilitative”, “authentic”, “theory”, “questioning”, “bell-bound time”, “limited to specified content”, “individually”, “explicit”, “face to face”, “classroom” and “little of counselling”.

4.3 Differences in Vocational Pedagogical Decisions Between Malaysian and Indonesian Non-Engineering TVET Teachers

Figure 4 illustrate vocational pedagogical decisions used by Malaysian-Indonesian non-engineering TVET teachers based on the “theory”.

The findings shown in Figure 4 show that:

- i. Based on the "Role of Teacher" Malaysian and Indonesian respondents have the same thing that they prefer using "facilitative" rather than "didactic".
- ii. Based on the "Nature of Activities" Malaysian and Indonesian respondents have the same choice to use "authentic" rather than "hypothetical".
- iii. Based on "Means of Knowing" Malaysian and Indonesian respondents have the same choice to use "questioning" rather than "certain".
- iv. Based on "Organization of Time" Malaysian and Indonesian respondents have the same choice to use "bell bound time" instead of "extended time".
- v. Based on "Content of Curriculum" Malaysian and Indonesian respondents have the same choice to use "limited to specified content" rather than "more specified content".
- vi. Based on the "Organization of Space" of Malaysian and Indonesian respondents have the same choice to use "individually" instead of "in group".
- vii. Based on "Approach to Task" Malaysian and Indonesian respondents have the same choice to use "explicit" rather than "hidden".

- viii. Based on "Visibility of Processes" Malaysian and Indonesian respondents have similarities that prefer to use "face to face" rather than "virtually".
- ix. Based on "Attitude to Knowledge" Malaysian and Indonesian respondents have differences that Malaysian respondents prefer to "practice" while Indonesian respondents prefer to "theory".
- x. Based on "Proximity to Teacher" Malaysian and Indonesian respondents have a difference where Malaysian respondents prefer to use "workshops" rather than "classroom" and "field" while Indonesian respondents prefer to use "classroom" rather than "workshops".
- xi. Based on "Role of Learner" Malaysian and Indonesian respondents have the difference that Malaysian respondents prefer to use "instruction & monitor" rather than "self-managing" and "little of counseling" while Indonesian respondents prefer "little of counseling" rather than "instruction & monitor" and self-managing".

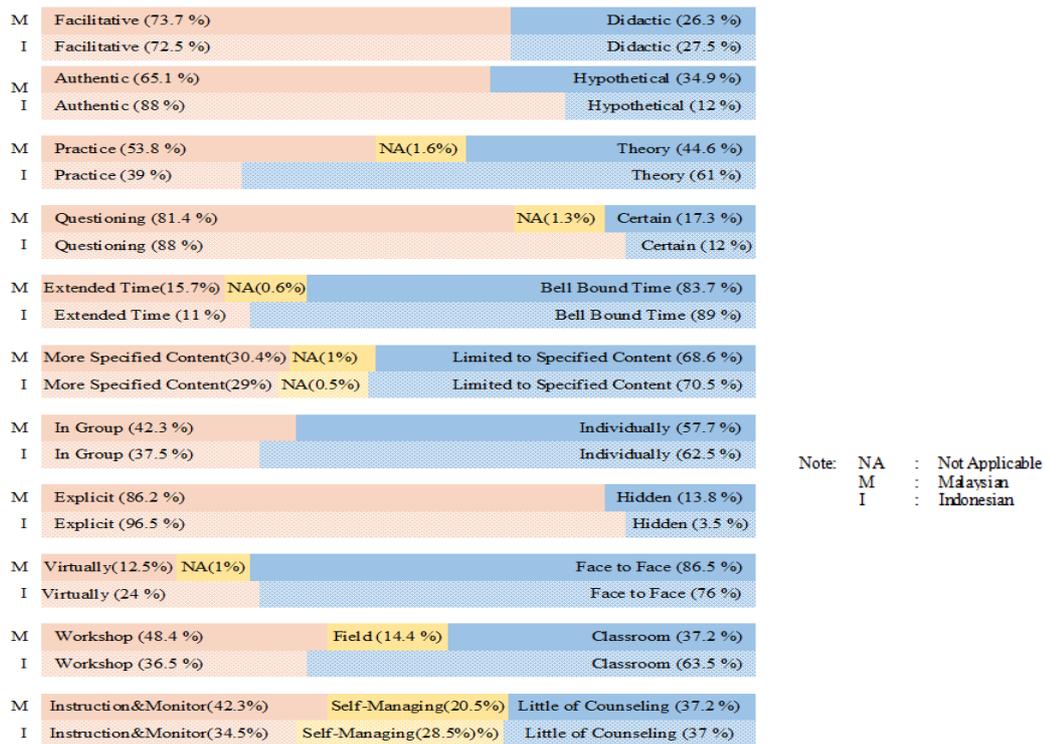


Fig. 4 - Vocational pedagogical decisions used by Malaysian-Indonesian non-engineering TVET teachers

5 Discussion and Conclusion

Good pedagogical decisions depend on the quality of pedagogical knowledge which is owned by the teacher. Professional learning has a strong or very strong impact on student achievement (Killion, 2012). Pedagogical knowledge is a special knowledge that teachers have to create an environment that supports teaching and learning to improve the knowledge and skills of students (OECD, 2013). Various pedagogical decisions can be made by teachers in an active role in controlling the implementation of teaching and controlling the learning environment. Pedagogical strategies is one important aspect of the consistently claimed promotion of self-regulated learning in classrooms (Kistner et al., 2015). The findings of this study show that vocational pedagogical decisions used by Malaysian-Indonesian non-engineering TVET teachers based on the theory have the same thing that they prefer using "facilitative", "authentic", "questioning", "bell bound time", "limited to specified content", "individually", "explicit" and "face to face". In teaching and learning activities, a teacher needs to have the ability to make informed and effective pedagogy of how to balance "didactic" and "facilitative" (Niess, 2015). The study of Noordin and Mad Matar (2010) found that teachers lacked knowledge from pedagogical aspects so teachers were more likely to deliver direct. The findings support the research of Hamdan and Ayop (2010) that find time management and limited time has caused teachers to deliver the contents of the lesson by "bell-bound time". This result supported by Myllymaki (2012) i.e teaching theoretically is an organized and orderly process in the development of knowledge so that students do not deviate from the original objective and purpose of a practical subject. In addition, the findings of this study show that vocational pedagogical decisions used by Malaysian and Indonesian respondents have a difference based on "Attitude to Knowledge", "Proximity to Teacher" and "Role of Learner". This difference exists, probably caused because of differences in teaching and learning culture between

Malaysia and Indonesia. In addition, Malaysian respondents prefer "practice", "workshops" and "instruction & monitor", indicating that Malaysian non-engineering TVET teachers are more likely to use student-centered teaching to deliver "theory". While Indonesian respondents prefer "theory", "classroom" and "little of counselling", it is concluded that Indonesian non-engineering TVET teachers are more likely to use teacher-centered teaching to deliver "theory".

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