

ANALYSIS OF TAX EDUCATION AND TAX KNOWLEDGE: SURVEY ON UNIVERSITY STUDENTS IN INDONESIA

BERNARDUS BAYU RYANTO PRAKOSO PUTRO* AND CHRISTINE TJEN**

ABSTRACT

This study consists of qualitative research and quantitative research. This study conducts qualitative research by using interviews with the Indonesian Directorate General of Taxation ('DGT') to analyse the tax inclusion programs and perceptions of the DGT regarding public tax knowledge and public tax education. According to the DGT, public tax knowledge is still lacking. In terms of tax education, the DGT has said that tax education is still unstructured. To overcome this problem, the DGT will implement a tax inclusion program for the next 30–45 years. In addition to qualitative research, this study also conducts quantitative research, namely questionnaire survey methods on university students in Indonesia, with the aim to ascertain whether there is a significant difference related to the level of tax knowledge, student perceptions regarding the importance of tax education, and student perceptions regarding the need for tax education among those students who have received tax education and those students who have not received tax education. In line with the hypothesis, the results show that there is a significant difference between students who have received tax education and students who have not received tax education in terms of the level of tax knowledge possessed. Furthermore, with respect to the perception regarding the need for tax education, there is a significant difference between students who have received tax education and those who have not received tax education.

Keywords: tax education, tax knowledge, tax perceptions, tax inclusion

* Accounting Department, Faculty of Economics and Business, Universitas Indonesia. Email: ryantobayu1@gmail.com.

** Accounting Department, Faculty of Economics and Business, Universitas Indonesia. Email: indivara_devi@yahoo.com.

I INTRODUCTION

The low tax ratio in Indonesia, compared to regional standards, cannot be separated from the taxation system used in Indonesia which is a self-assessment system. This system allows the community to be disobedient as it requires that the public understand the concept of taxation.¹ In other words, in a self-assessment system, to improve tax compliance, taxpayers are expected to have tax knowledge in order to calculate tax debt correctly.²

The level of tax literacy is influenced by the tax education received.³ The higher the level of tax education, the higher the level of tax literacy will be. Further research has also found that taxation knowledge from students who have completed tax-related subjects — both in the form of full-time and extramural study programs — tends to be higher.⁴ In the form of a full-time study program, Follow-up Masters students are significantly better than undergraduate students.

Taxation knowledge has a significant impact on tax compliance, even though the level of taxation knowledge of respondents varies.⁵ Relevantly, a study conducted in Africa found that tax compliance was influenced by tax knowledge.⁶ In other words, tax education can shape tax knowledge so that tax education can improve tax compliance indirectly.

Generally, tax education itself is only taught in accounting, taxation or business majors, and only at the tertiary level. This leads to lower student taxation knowledge from non-accounting, non-taxation or non-business backgrounds. A study of non-accounting faculty students in Malaysia found that only 23.7 per cent of respondents had a high level of taxation knowledge.⁷ On the other hand, a study conducted on taxation students in Prague, Czech Republic, suggests that more than 50 per cent have understood taxation, including students who only undertook basic taxation classes.⁸ Accordingly, this indicates that the level of student tax knowledge without tax education tends to be low, and that basic tax education can increase student tax knowledge.

¹ Natrah Saad, 'Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers' View' (2014) 109 *Procedia – Social and Behavioral Sciences* 1069.

² Anis Barieyah Mat Bahari and Lai Ming Ling, 'Introducing Tax Education in Non-Accounting Curriculum in Higher Education: Survey Evidence' (2009) 7(1) *Journal of Financial Reporting and Accounting* 37.

³ Michaela Moučková and Leoš Vitek, 'Tax Literacy' (2018) 66(2) *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis* 553.

⁴ Beáta Blechová and Šárka Sobotovičová, 'Analysis of Tax Education in a Business School: A Case Study' (2015) 24(2) *Periodica Polytechnica Social and Management Sciences* 113.

⁵ Mohd Rizal Palil, 'Tax Knowledge and Tax Compliance Determinants in Self Assessment System in Malaysia' (PhD Thesis, University of Birmingham, 2010).

⁶ Zelalem Berhane, 'The Influence of Tax Education on Tax Compliance Attitude' (MSc Thesis, Addis Ababa University, October 2011).

⁷ Bahari and Ling (n 2).

⁸ Moučková and Vitek (n 3).

Although tax knowledge among students without tax education tends to be low, it was found that around 62 per cent of research respondents who are non-accounting students have medium-high tax knowledge.⁹ In addition, another study found no significant difference between students in extramural study programs who had completed tax-related courses and those who had not yet completed tax-related subjects.¹⁰ This implies that there is a possibility that the tax knowledge of students who have received tax education and those who have not received tax education does not differ significantly.

Furthermore, although students who have never received tax education tend to have lower tax knowledge, it has been found in previous studies that the majority of respondents who have not received tax education have a positive perception of taxation itself. Relevantly, a study conducted by Bahari and Ling found that 64 per cent of respondents who are non-accounting faculty students have the desire to study taxation.¹¹ In addition, the majority of respondents thought that tax education must be taught at the undergraduate level. In one study of accounting and non-accounting students in Malaysia, it was found that more than 90 per cent of the respondents thought that tax education was important and relevant, and should be introduced at the undergraduate level.¹² However, students' perceptions from business majors towards the importance of tax education tend to be higher than students' perceptions from non-business majors, as regards the importance of tax education¹³.

Tax knowledge can be obtained through self-learning, taking formal education and/or taking informal education. Unfortunately, not everyone wants to learn about taxation. Most people consider taxes as a burden that should be avoided.¹⁴ In Indonesia, tax knowledge is still low. This can be seen from the lack of education concerning taxation being conducted early on. This lack of taxation knowledge can affect Indonesia's tax ratio. The level of tax knowledge and tax education is very important to ensure good tax administration.¹⁵ Therefore, to increase Indonesia's tax ratio, the DGT is trying to implement the Tax Awareness Inclusion program.

The Tax Awareness Inclusion program is one of the long-term programs that has been implemented by the DGT since 2014. This program aims to increase tax awareness for many parties, such as students at primary, secondary and higher education levels,

⁹ Halim et al, 'Understanding and Attitudes Towards Self-Assessment Taxation System: The Case of Malaysian Non-Accounting Undergraduates Students (2015) 6(2) *Global Review of Accounting and Finance* 110, 110–112.

¹⁰ Blechová and Sobotovičová (n 4).

¹¹ Bahari and Ling (n 2).

¹² Mohd Amran Mahat and Lai Ming Ling, 'Featuring Tax Education in Non-Accounting Curriculum: Survey Evidence' (Conference Paper, ZBW - Leibniz Information Centre for Economics, 2011).

¹³ Rini Hastuti, 'Tax Awareness and Tax Education: A Perception of Potential Taxpayers' (2014) 5(1) *International Journal of Business, Economics and Law* 83.

¹⁴ Ibid.

¹⁵ Mohd Rizal Palil, Mohd Rusyidi Md Akir and Wan Fadillah Bin Wan Ahmad, 'The Perception of Taxpayers on Tax Knowledge and Tax Education with Level of Tax Compliance: A Study the Influences of Religiosity' (2013) 1(1) *ASEAN Journal of Economics, Management and Accounting* 118.

including teachers and lecturers. In other words, the program's target is all levels of education. Tax inclusion will be carried out by integrating tax awareness material into four main aspects, namely: curriculum, learning, book and student activities. The purpose of the Tax Awareness Inclusion program is to improve the quality of tax education and tax knowledge of students, especially university students. University students, as potential taxpayers, are expected to have a broader perspective in considering the importance of taxation.¹⁶

The focus of this study is to determine the differences in the level of tax knowledge between students who have received formal or non-formal tax education, and students who have never received tax education. In addition, another focus of this study is to ascertain students' perceptions regarding the importance of tax knowledge and students' perceptions regarding the need to learn taxation. The perception of the DGT regarding tax knowledge and tax education in the community is also an area of focus in this research.

Against this background, the objectives of this study are detailed below.

1. To analyse the DGT's tax inclusion program and its perception of the existing level of public tax knowledge and tax education.
2. To analyse the differences in the level of tax knowledge between students who have received formal or non-formal tax education, and students who have not received formal or non-formal tax education.
3. To analyse the differences in the level of perception regarding the importance of tax education between students who have received tax education both formally or informally, and students who have not received tax education both formally or informally.
4. To analyse the differences in the level of perception regarding the need for tax education between students who have received tax education both formally or informally, and students who have not received tax education both formally or informally.

In light of the foregoing discussion, the next part of this paper will proceed to contextualise relevant literature in the context of this study.

II THEORETICAL REVIEW

This part briefly reviews some relevant literature and studies concerning tax education, tax knowledge and literacy, and tax perceptions before outlining the hypotheses of this study.

¹⁶ Hastuti (n 13).

A Tax Education

Tax education is one of the most effective tools to encourage taxpayers to be more tax-compliant.¹⁷ If taxpayers can understand taxation concepts, they will be more tax-compliant.¹⁸

Education, in general, is divided into three categories, i.e. formal education, non-formal education, and informal education.¹⁹ In the context of this study, formal tax education is regarded as tax education that a person receives in primary, secondary and/or higher education. Non-formal tax education is then tax education that a person receives through taxation courses. Informal tax education is tax education that is received outside of formal and non-formal education. The tax education used in this study is only limited to formal and non-formal tax education and therefore, students who receive informal tax education are not considered to have received tax education.

B Tax Knowledge

According to United Nations Educational, Scientific and Cultural Organization, 'literacy' is the ability to identify, understand, interpret, make, communicate and count, using printed and written materials related to various contexts.²⁰ The basic definition of literacy is important for the emergence of tax literacy, in other words the ability to read and write are crucial to understanding taxation.²¹ Tax literacy has two goals: first, to provide tax-related information; and secondly, to provide an explanation regarding taxation in the domestic, regional and international scope, and the effect of tax on those who have information.²² 'Tax literacy' can be defined as knowledge that needs to be possessed in order to effectively manage issues related to personal taxation.²³ Relevantly, Blechová and Sobotovičová in their research on tax knowledge, measured tax knowledge by asking questions related to personal income tax, such as tax rates, tax credits, and tax allowances. In addition to questions related to individual taxes, questions related to consumption tax (environmental tax) and environment (environmental tax) are also

¹⁷ Chang-Gyun Park and Jin Kwon Hyun, 'Examining the Determinants of Tax Compliance by Experimental Data: A Case of Korea' (2003) 25 *Journal of Policy Modeling* 673.

¹⁸ Mohamad Sakarnor Bin Deris, Norkhazimah Bt Ahmad and Marziana Bt Hj Mohamad, 'Perceptions of Taxpayers with Level of Compliance: A Comparison in the East Coast Region' (2010) 1(1) *Journal of Global Business and Economics* 241.

¹⁹ Sarah Eaton, 'Formal, Non-Formal and Informal Learning: What are the Differences?' (Newsletter, Spring Institute of Intercultural Learning, 2010).

²⁰ United Nations Educational, Scientific and Cultural Organization, 'Education for All Global Monitoring Report: Understandings of Literacy' (Report, 2006) 147-159 <http://www.unesco.org/education/GMR2006/full/chapt6_eng.pdf>.

²¹ Dajana Cvrlje, 'Tax Literacy as an Instrument of Combating and Overcoming Tax System Complexity, Low Tax Morale and Tax Non-Compliance' (2015) 4(3) *The Macrotheme Review* 156.

²² A Waris and H Murangwa, 'Utilising Tax Literacy and Societal Confidence in a State: The Rwandan Model' (2012) *University of Nairobi Law Journal*.

²³ Puneet Bhushan and Yajulu Medury, 'Determining Tax Literacy of Salaried Individuals - An Empirical Analysis' (2013) 10(6) *IOSR Journal of Business and Management* 76.

given but are only limited to general knowledge related to certain products.²⁴ Bahari and Ling measured the level of tax knowledge of research subjects by providing 10 questions related to respondents' understanding of the Malaysian self-assessment system and knowledge related to personal taxation, such as relief and rebates.²⁵ Moučková and Vitek surveyed the level of tax knowledge by providing two questionnaires; the first questionnaire contained questions related to personal income tax and the second contained questions related to value added tax.²⁶ The questions focused on practical knowledge and abilities.

Based on several previous journals mentioned above, in this study, respondents' tax knowledge will be measured by giving questions related to basic tax knowledge, such as knowledge related to the Indonesian self-assessment taxation system and individual taxes. The questions will use the basis of statutory regulations related to general provisions on taxation and income tax. The questions given are related to the material in the textbook issued by the DGT in the Tax Awareness Inclusion program.

C Tax Perception

'Perception' means a vision, response, or understanding.²⁷ Perception, in psychology, is the process of transforming environmental stimuli into one's experience.²⁸ This study examines student perceptions of the importance of tax education, and student perceptions regarding the need for tax education.

D The Tax Awareness Inclusion Program

Referring to the DGT's *edukasi.pajak.go.id* website, the DGT stated that the Tax Awareness Inclusion program is an effort undertaken by the DGT and the ministries in charge of education to increase the tax awareness of students, teachers and lecturers. This program is carried out by integrating tax awareness material into the curriculum, learning process, and relevant books. In other words, the Tax Awareness Inclusion program aims to improve the quality of tax education and public tax knowledge. Relevantly, the Tax Awareness Inclusion program has four strategies, namely strategies in the curriculum, strategies in books, strategies in learning, and strategies in student activities.

E Hypotheses

Berhane found that respondents had a higher level of tax knowledge when they had received tax education, rather than when they had not received tax education.²⁹ Blechová

²⁴ Blechová and Sobotovičová (n 4).

²⁵ Bahari and Ling (n 2).

²⁶ Moučková and Vitek (n 3).

²⁷ John M Echols and Hassan Shadily, *English-Indonesian Dictionary* (PT Gramedia Pustaka Utama, 1975).

²⁸ Wiwien Dinar Prastiti and Susantyo Yuwono, *Psikologi Eksperimen: Konsep, Teori, dan Aplikasi* (Universitas Negeri Muhammadiyah, 2018).

²⁹ Berhane (n 6).

and Sobotovičová found that tax knowledge possessed by full-time study program students who had completed tax-related courses tended to be higher than tax knowledge possessed by students who have not completed tax-related courses.³⁰ Mohamad et al in their research concluded that the level of undergraduate accounting tax knowledge is different from the level of non-accounting student tax knowledge.³¹

There are several studies that have found that tax knowledge from students who have not received tax education is not low. Halim et al, in their study where the respondents were non-accounting graduates, found that the majority of research respondents (38 per cent) had a low level of tax understanding. Even so, 62 per cent of respondents had a level of tax knowledge that fell into the middle and high level of knowledge groups.³² In addition, research from Blechová and Sobotovičová found no significant difference between students in extramural study programs who had completed tax-related courses and those who had not yet completed tax-related subjects.³³ Based on previous studies, the first hypothesis of this study is:

H1. The level of tax knowledge of students who have received tax education is different from the level of tax knowledge of students who have not received tax education.

In addition to examining the differences between tax-educated and non tax-educated students, this study also examines differences in tax knowledge levels between male and female students who have received tax education. Relevantly, Fallan found that, in general, there is a significant difference in the level of tax knowledge among male and female students.³⁴ Based on this, the second hypothesis of this study is:

H2. The level of tax knowledge of male students who have received tax education is different from the level of tax knowledge of female students who have received tax education.

Kamaluddin and Madi found that geographical factors such as city location and infrastructure could be some factors that influence tax literacy.³⁵ Relevantly, Kamaluddin and Madi conducted a study related to the tax literacy of income-earning individuals in the Malaysian states of Sabah and Sarawak. The study found that there is a significant difference in tax literacy between individuals in these two regions. In addition, they also found that there is a relationship between the level of tax literacy and the work area.

³⁰ Blechová and Sobotovičová (n 4).

³¹ Marziana Mohamad et al, 'Accounting vs Non-Accounting Majors: Perception on Tax Knowledge, Fairness and Perceived Behavioural Control' (2013) 3(9) *International Journal of Asian Social Science* 1887.

³² Halim et al (n 9) 110–112.

³³ Blechová and Sobotovičová (n 4).

³⁴ Lars Fallan, 'Gender, Exposure to Tax Knowledge, and Attitudes Towards Taxation; An Experimental Approach' (1999) 18 *Journal of Business Ethics* 173.

³⁵ Amrizah Kamaluddin and Nero Madi, 'Tax Literacy and Tax Awareness of Salaried Individuals in Sabah and Sarawak' (2005) 3(1) *Journal of Financial Reporting and Accounting* 71.

Similar research was also conducted by Madi et al in 2010.³⁶ The results of the study by Madi et al stated that there was a significant difference between individuals in the Sabah and Sarawak regions. As for Indonesia, Java island is considered the most developed island compared to the region outside Java, in terms of its technology, internet access, infrastructures and facilities. Therefore, the third hypothesis of this study is:

H3. The level of tax knowledge of students who have received tax education and whose university is in Java, is different from the level of tax knowledge of students who have received tax education and whose university is outside of Java.

Based on research conducted by Bahari and Ling, the majority of research respondents who were non-accounting students stated that they wanted to learn about taxation.³⁷ The same thing also appears in the research of Mahat and Ling.³⁸ Halim et al stated that the majority of respondents agreed that taxation subjects needed to be taught in the non-accounting curriculum.³⁹

Hastuti researched the differences in the perceptions of business and non-business students regarding the importance of tax education and the need for tax education at the higher education level.⁴⁰ The results showed that there was a significant difference between business and non-business students in terms of their perceptions of the importance of tax education and student needs for tax education. Accordingly, the next two hypotheses of this study are:

H4. The perception of the importance of tax education between students who have received tax education and students who have not yet received tax education is different.

H5. The perception of the need for tax education between students who have received tax education and students who have not yet received tax education is different.

III RESEARCH METHODOLOGY

Part III of this paper proceeds to detail the methodology adopted in this study. Accordingly, it begins by discussing factors related to the population and sample before turning to outline the data collection methods, variables and data processing methods adopted.

A Population and Sample

The population selected in this study were university students located in Indonesia. University students were chosen as the subject of this research because they are one of

³⁶ Nero Madi et al, 'Tax Literacy Among Employees: Sabah and Sarawak's Perspective' (2010) 2(1) *International Journal of Economic* 218.

³⁷ Bahari and Ling (n 2).

³⁸ Mahat and Ling (n 12).

³⁹ Halim et al (n 9).

⁴⁰ Hastuti (n 13).

the potential taxpayers who are the closest having to complete and/or engage with tax obligations. The sampling process used a non-probability sampling sample design model. In non-probability sampling, elements do not have a definite opportunity to be chosen as a subject.⁴¹ This research succeeded in obtaining 655 respondents, of which 90 respondents were not students. In other words, the relevant data obtained was 565 respondents. Furthermore, this study obtained respondents from 21 provinces located throughout Indonesia.

B Data Collection Method

The data collection method used to collect quantitative data in this study was a questionnaire and the research strategy adopted was a survey. Questions used in survey instruments are usually arranged in the form of questionnaires that need to be completed by respondents themselves, in either paper or electronic form.⁴² Relevantly, the questionnaires were administered in the form of Google Forms and were distributed online. The questionnaire consisted of 5 parts, namely: (1) personal data; (2) tax education background; (3) level of tax knowledge; (4) perception of the importance of tax education; and (5) perception of the need for tax education.

In section (3) of the questionnaire there were 10 questions used to measure the level of tax knowledge, based on previous studies and based on teaching material in books issued by the DGT. In reference to the research of Madi and Kamaluddin,⁴³ respondents were classified into three groups based on their score on section (3) of the questionnaire. The groups are depicted in Table 1 below.

TABLE 1: TAX KNOWLEDGE LEVEL⁴⁴

| CATEGORY | QUESTIONNAIRE SCORE (SCORE) | DESCRIPTION |
|-----------------|------------------------------------|---|
| Illiterate | 24–49% (2.5–4.9) | The ability is relatively low and unable to understand the terms used in the annual tax return. |
| Literate | 50–74% (5–7.4) | Having a standard understanding of taxes but still needs help in determining tax debt. |
| Very Literate | 75–100% (7.5–10) | Very familiar with tax issues. Have a high level of knowledge related to taxation terms and can calculate their own tax debt. |

Sections (4) and (5) of the questionnaire, had 1 question each to measure the level of perception regarding the importance of tax education, and to measure the level of perception regarding the need for tax education.

For qualitative data collection, this study used structured interviews. In addition, the interview process was carried out through face-to-face interviews so that researchers

⁴¹ Uma Sekaran and Roger Bougie, *Research Methods for Business: A Skill Building Approach* (John Wiley & Sons, 7th ed, 2016).

⁴² Ibid.

⁴³ Kamaluddin and Madi (n 35).

⁴⁴ Ibid.

could adapt to the interview process. Interviews were conducted with three speakers from the Directorate of Counseling, Services and Public Relations, the DGT, who could help to analyse the Tax Awareness Inclusion program, tax education and tax knowledge.

C Variable Operationalisation

TABLE 2: VARIABLE DESCRIPTION

| VARIABLE | DESCRIPTION |
|---------------------------------|--|
| SCORE | The respondents' tax knowledge level is measured based on the questionnaire's multiple choice section answers. |
| PIMP (Perception of Importance) | The level of the respondents' perception regarding the importance of tax education. Measured based on the results of the questionnaire answers using a Likert scale. |
| PNEED (Perception of Need) | The level of the respondents' perception regarding the need for tax education. Measured based on the results of the questionnaire answers using a Likert scale. |
| EDU | Respondents' tax education. Respondents were grouped into respondents who had received tax education (' <i>EDUCATED</i> ') and respondents who had never received tax education (' <i>NON-EDUCATED</i> '). |
| GEN | Respondents' gender. Respondents were grouped into respondents with male gender (' <i>MALE</i> ') and female gender (' <i>FEMALE</i> '). |
| REG | The origin area of the respondents' university. Respondents were grouped into respondents from Java (' <i>JAVA</i> ') and those from outside Java (' <i>NON-JAVA</i> '). |

D Data Processing Method

In processing quantitative data, hypothesis testing was conducted using the independent sample t-test method. Relevantly, if the t-statistics value was below the level of significance, then H₀ was rejected and H₁ was accepted.⁴⁵ On the other hand, data from the interview was to be written and summarised to enable further analysis.

IV RESEARCH RESULTS AND DISCUSSION

This part of the paper presents the results of the questionnaires administered in this study and discusses findings relevant to the surveys and interviews that were conducted.

⁴⁵ Damodar N Gujarati and Dawn C Porter, *Basic Econometrics* (McGraw-Hill/Irwin, 2008).

A Interview Results and Discussion

Based on the interviews conducted, the Tax Awareness Inclusion program is one of the long-term programs that has been implemented by the DGT since 2014. This program aims to increase tax awareness for many parties, such as students at the primary, secondary and higher education levels, including teachers and lecturers. The Tax Awareness Inclusion program stems from the awareness of the importance of taxation, which is the backbone of the State budget. Although taxes are important, the level of tax compliance in Indonesia remains low. Relevantly, the Sub Directorate Head of Taxation Counseling, Ms Aan Almaidah Anwar, said that:

‘The level of tax compliance in Indonesia [is] still low. The community considered this problem to be the result of low tax education given by the government early on. Therefore, by recognising these problems and the importance of taxes, [the] DGT wants to instil the value of tax awareness starting from the education world.’

The main target of the Tax Awareness Inclusion program is the ‘education world’ — all levels of education are the target of the Tax Awareness Inclusion program, from elementary schools, junior high schools, high schools, and higher education. Interviewees said that the process of making relevant teaching materials uses the help of a psychologist so that the material delivered for each level of education can be more appropriate and more understandable to that cohort or group of student. However, according to the Chairperson of the Counseling Section, Taxation Counseling Sub Directorate, Mr Ary Festanto:

‘It will be difficult for the teaching staff to participate in tax inclusion programs if there are no instructions from the ministry. Therefore, [the] DGT can also contact ministries directly related to education.’

The Head of the Sub Directorate for Cooperation and Partnerships, Mr Yeheskiel mentioned that:

‘The [Tax Awareness Inclusion] program is encouraging tax education to change from counseling to educating. However, because many people do not understand taxation, the tax education process is still inclusive. The [Tax Awareness Inclusion] program has a long-term road map. The program is divided into 3 (three) periods, i.e. 2017–2030 is the educational period, 2030–2045 is the awareness period, and 2045–2060 is the period of glory. In 2016, [the] DGT successfully collaborated with the Ministry of Research, Technology, and Higher Education to incorporate taxation materials into general compulsory subjects. In 2017–2018 [the] DGT has successfully cooperated with the Ministry of Education and Culture and has succeeded in submitting taxation materials to Elementary School books. In 2019, the DGT planned to include taxation material in books at the junior and senior high school level. The reference books can also be downloaded [from] the DGT website. In addition, [the] DGT has also held several events that are part of the [Tax Awareness Inclusion] program, such as the national taxation seminar and scientific paper competition. The DGT is also trying to issue regulations related to this program so that this program can be implemented throughout Indonesia.’

In its implementation of the Tax Awareness Inclusion program, there were several obstacles faced by the DGT. One of the biggest obstacles concerns human resources because the target of the Tax Awareness Inclusion program covers all of Indonesia’s provinces. Cooperation from various parties is needed, especially from the community

and other ministries. Another obstacle to the Tax Awareness Inclusion program concerns the budget.

Based on the interviews, the DGT views that public tax knowledge remains low. This could be seen from the low level of tax compliance in Indonesia. Relevantly, the Head of the Sub-Directorate of Cooperation and Partnerships said that:

‘Many people still consider that tax is hard to be understood. In addition, the lack of a good administrative system in Indonesia also makes taxation more complicated ... people treat that tax as if tax is only a matter of payment and reporting, many do not understand the value and the importance of taxes. The University students’ tax knowledge is quite dependent on their faculty background. Students who come from taxation backgrounds tend to have better tax knowledge compared to students without taxation backgrounds. Nevertheless, students who have good tax knowledge still have shortcomings in the aspect of technical knowledge. This might occur because of curriculum mismatches. Tax education has been around for a long time, but tax education is still unstructured. Deficiencies still exist in the curriculum in all level[s] of education which have led to technical knowledge gaps. Therefore, [the] DGT is trying to restructure the curriculum so that it could be more structured and measurable. [The] DGT feels that tax education is still very important and is needed by the community.’

In the end, the Tax Awareness Inclusion program is a large-scale program and is prioritised by the DGT given the low level of public tax knowledge. This long-term program requires cooperation from various parties in order to operate smoothly. The DGT hopes that with the Tax Awareness Inclusion program, public tax knowledge can increase so that Indonesia’s tax ratio will increase, especially in 2030 where there will be a large demographic bonus. In addition, the DGT also hopes that with the program, more people will be interested in taxation so that there will be more tax-related events and activities.

B Questionnaire Survey Results and Discussion

Table 3 below presents the results of the survey questionnaire.

TABLE 3: HYPHOTHESIS TEST – TAX KNOWLEDGE LEVEL (SCORE)

| | CATEGORY | N | MEAN | STD. DEVIATION | STD. ERROR MEAN | INDEPENDENT SAMPLE T-TEST |
|-------|-----------------|-------------------|-------|----------------|-----------------|---------------------------|
| SCORE | EDUCATED | 337 | 5.733 | 2.2625 | .1232 | 0.000 |
| | NON-EDUCATED | 228 | 3.513 | 1.8043 | .1195 | |
| | EDUCATED_MALE | 120 | 5.525 | 2.3189 | .2117 | 0.210 |
| | EDUCATED_FEMALE | 217 | 5.848 | 2.2278 | .1512 | |
| | EDUCATED_JAVA | 292 | 5.805 | 2.2367 | .1309 | |
| | | EDUCATED_NON-JAVA | 45 | 5.267 | 2.3970 | .3573 |

$\alpha = 5\%$

INFORMATION:

SCORE: respondents’ tax knowledge level; EDUCATED: respondents who have received tax education; NON-EDUCATED: respondents who have not received tax education; EDUCATED_MALE: male respondents who have received tax education; EDUCATED_FEMALE:

female respondents who have received tax education EDUCATED_JAVA: respondents from universities located in Java and who have received tax education; EDUCATED_NON-JAVA: respondents from universities located outside of Java and who have received tax education

Based on Table 3, the average group of students who have received tax education ('*EDUCATED*') is 5.73, which is within the literate level of tax knowledge (see Table 1 above). On the other hand, the average level of tax knowledge from a group of students who have not received tax education ('*NON-EDUCATED*') is 3.51, which is the level of tax knowledge that falls within the illiterate group. The average level of tax knowledge of students who have received tax education tends to be higher by 2.2, compared to the average level of tax knowledge of students who have never received tax education. Based on the results of the Independent Sample t-test among students who have received tax education ('*EDUCATED*') and who have not received tax education ('*NON-EDUCATED*') in Table 3, it can be seen that the value of $p = 0.000$ or in other words $p < 0.05$. Therefore, there is a significant difference in the level of tax knowledge between groups of students who have received tax education, and groups of students who have never received tax education. This result is in accordance with the first hypothesis (i.e. H1), and further accords with previous studies.⁴⁶

Based on Table 3, the average group of women with tax education ('*EDUCATED_FEMALE*') is 5.848, while the average group of men with tax education ('*EDUCATED_MALE*') is 5.525. The difference between the two groups is not very large, at around 0.3. Furthermore, both groups fall within the literate level of tax knowledge. Moreover, the results of the Independent Sample t-test between the '*EDUCATED_MALE*' and '*EDUCATED_FEMALE*' groups in Table 3, state that the value of $p = 0.21$, means $p > 0.05$. In other words, the second hypothesis (i.e. H2) is rejected and there is no significant difference related to the level of tax knowledge among male and female students who have received tax education.

The average group of students with tax education from universities located in Java ('*EDUCATED_JAVA*') is 5.805 which means that this group has a literate level of tax knowledge. On the other hand, the group of students with tax education from universities located outside of Java ('*EDUCATED_NON-JAVA*') has a mean of 5.267 which means that this group also has a literate level of tax knowledge. Relevantly, there is a difference of approximately 0.6 between the two groups. Based on the results of the Independent Sample t-test related to the '*EDUCATED_JAVA*' and '*EDUCATED_NON-JAVA*' groups in Table 3, it can be seen that the value of $p = 0.137$, in other words $P > 0.05$. Because $P > 0.05$, the third hypothesis (i.e. H3) is rejected and there is no significant difference in the level of tax knowledge between groups of students with tax education from universities located in Java and groups of students with tax education from universities located outside of Java. The average level of tax knowledge of respondents with tax education from universities located within Java tends to be higher than the average group from universities located outside of Java.

Table 4 (below) shows the results of the Independent Sample t-test on the 'EDU' independent variable for each question ('Qn'). There are 2 questions that have a value of

⁴⁶ Mohamad et al (n 31).

$p > 0.05$, namely Q1 regarding tax identification numbers ('TIN') and Q3 related to the extension of annual tax report reporting time. In other words, there is no significant difference between students who have received tax education and those who have not received tax education related to TIN issues and the extension of income tax return reporting time. Despite this, there is a significant difference between the two groups in the other 8 questions.

TABLE 4: INDEPENDENT SAMPLE T-TEST QUESTION

| QUESTION | EDU | N | MEAN | STD. DEVIATION | STD. ERROR MEAN | INDEPENDENT SAMPLE T-TEST |
|---|--------------|-----|------|----------------|-----------------|---------------------------|
| Q1 – Those who are required to have TIN are ... | EDUCATED | 337 | .680 | .4674 | .0255 | .592 |
| | NON-EDUCATED | 228 | .658 | .4755 | .0315 | |
| Q2 – The reporting date limit for Annual Personal Tax Returns is ... | EDUCATED | 337 | .792 | .4063 | .0221 | .000 |
| | NON-EDUCATED | 228 | .434 | .4967 | .0329 | |
| Q3 – Taxpayers can extend the period of Annual Income Tax Return submission for ... months | EDUCATED | 337 | .320 | .4674 | .0255 | .178 |
| | NON-EDUCATED | 228 | .268 | .4437 | .0294 | |
| Q4 – Penalty sanctions for late reporting of Annual Personal Tax Returns are amounted to ... | EDUCATED | 337 | .614 | .4875 | .0266 | .000 |
| | NON-EDUCATED | 228 | .408 | .4925 | .0326 | |
| Q5 – The interest penalties for late tax payment is amounted to ... | EDUCATED | 337 | .724 | .4477 | .0244 | .000 |
| | NON-EDUCATED | 228 | .421 | .4948 | .0328 | |
| Q6 – The amount of tax relief for individuals who are married and do not have children (K/0) is ... | EDUCATED | 337 | .448 | .4980 | .0271 | .000 |
| | NON-EDUCATED | 228 | .132 | .3388 | .0224 | |

| | | | | | | |
|---|--------------|-----|------|-------|-------|------|
| Q7 – Personal income tax rates' and corporate income tax rates' type are ... for personal income and ... for corporate income | EDUCATED | 337 | .682 | .4662 | .0254 | .000 |
| | NON-EDUCATED | 228 | .395 | .4899 | .0324 | |
| Q8 – The lowest personal income tax rate is ... | EDUCATED | 337 | .742 | .4383 | .0239 | .000 |
| | NON-EDUCATED | 228 | .386 | .4879 | .0323 | |
| Q9 – The deadline for taxpayers to make corrections on annual tax returns that have been reported is ... | EDUCATED | 337 | .228 | .4205 | .0229 | .004 |
| | NON-EDUCATED | 228 | .132 | .3388 | .0224 | |
| Q10 – Complementary document in the form of an identification number required by the Taxpayer to report the Annual Personal Tax Return is ... | EDUCATED | 337 | .501 | .5007 | .0273 | .000 |
| | NON-EDUCATED | 228 | .303 | .4604 | .0305 | |
| $\alpha = 5\%$ | | | | | | |

INFORMATION:

Qn: Questionnaire question number n (n = 1–10); EDU: respondents' tax education status; EDUCATED: respondents who have received tax education; NON-EDUCATED: respondents who have not received tax education

Based on the average value, for all questions, the average value of the group of students with tax education is higher than the average value of students without tax education, in other words, the tax knowledge of students with tax education, generally, is higher. In addition, the average value of students without tax education for Q2–Q10 is below 0.5. In other words, the majority of students who have not received tax education are still unable to understand the general provisions of taxation and personal income tax, except for the TIN. This implies that the material contained in the DGT textbook on the Tax Awareness Inclusion program, which is one of the references in making this research questionnaire, is still not widely understood by students so the Tax Awareness Inclusion program itself is important to overcome these problems.

TABLE 5: HYPHOTHESIS TEST – PERCEPTION REGARDING THE IMPORTANCE OF TAX EDUCATION (PIMP)

| | EDU | N | MEAN | STD. DEVIATION | STD. ERROR MEAN | INDEPENDENT SAMPLE T-TEST |
|------|--------------|-----|-------|----------------|-----------------|---------------------------|
| PIMP | EDUCATED | 337 | 5.567 | .6830 | .0372 | 0.452 |
| | NON-EDUCATED | 228 | 5.522 | .7114 | .0471 | |

$\alpha = 5\%$

INFORMATION:

PIMP: level of perception regarding the importance of tax education; EDU: respondents' tax education status; EDUCATED: respondents who have received tax education; NON-EDUCATED: respondents who have not received tax education

In Table 5, it can be seen that there is no major difference in perception of the importance of tax education among students who have received tax education ('*EDUCATED*') and those who have not received tax education ('*NON-EDUCATED*'). The difference between these two groups is only around 0.04, where students who have received tax education have a higher level of perception.

Based on Table 5, the value of $p = 0.452$ and shows that the value of $p > 0.05$, and it can be concluded that there is no significant difference related to the perception of the importance of tax education between groups of students who have received tax education and groups of students who have not received tax education. This conclusion is not in accordance with the fourth hypothesis (i.e. H4) and also with the research of Hastuti⁴⁷ and Mahat and Ling.⁴⁸ Nevertheless, both groups have the perception that tax education is important.

TABLE 6: HYPHOTHESIS TEST – PERCEPTION REGARDING THE NEED OF TAX EDUCATION (PNEED)

| | EDU | N | MEAN | STD. DEVIATION | STD. ERROR MEAN | INDEPENDENT SAMPLE T-TEST |
|-------|--------------|-----|-------|----------------|-----------------|---------------------------|
| PNEED | EDUCATED | 337 | 5.531 | .6985 | .0380 | 0.004 |
| | NON-EDUCATED | 228 | 5.329 | .9762 | .0647 | |

$\alpha = 5\%$

INFORMATION:

PNEED: level of perception regarding the need for tax education; EDU: education status of the respondent's tax; EDUCATED: respondents who have received tax education; NON-EDUCATED: respondents who have not received tax education

Based on the results of the Independent Sample t-test in Table 6, the value of $p = 0.004$. In other words $p < 0.05$ and the fifth hypothesis (i.e. H5) is accepted. There is significant difference related to the need for tax education between groups of students who have received tax education and groups of students who have not received tax education. There is an average difference of 0.2 between these two groups where the groups already

⁴⁷ Hastuti (n 13).

⁴⁸ Mahat and Ling (n 12).

have higher tax education. Despite significant difference between the two groups, the majority of respondents from both groups assumed that they needed tax education.

V CONCLUSIONS AND SUGGESTIONS

Based on the results of the interviews, the DGT said that knowledge of public tax in Indonesia is still low. In terms of tax education, according to the DGT, tax education already exists but is still not structured. To overcome this, the DGT is implementing a Tax Awareness Inclusion program, which aims to improve the quality of tax education in the hope to increase the tax ratio for the next 30–45 years. This program has gained several goals, including the publication of textbooks for various levels of education, which are also a reference in the process of making this research questionnaire.

In addition, the results of the study also shows that there is a significant difference between students who have received tax education and students who have not received tax education, in terms of their level of tax knowledge. This finding is in accordance with previous studies.⁴⁹ However, there is no significant difference between students with tax education from universities located in Java and those from universities located outside Java, and there is also no significant difference between male and female students who have received tax education.

Regarding students' perceptions regarding the importance of tax education, there is no significant difference among students who have received tax education and those who have not received tax education. This result does not accord with previous studies. In terms of perceptions related to the need for tax education, there is a significant difference between students who have received tax education and those who have not received tax education which is in accordance with previous research.⁵⁰ The higher value of the 3 dependent variables in the group of students who have received tax education may occur because the student is more aware of the urgency of taxation and the value of tax itself.

Furthermore, related to the level of tax knowledge, the average value of students without tax education for 9 questions is below 0.5. In other words, the majority of students who have not received tax education are still unable to understand the general provisions of taxation and personal income tax, except for the TIN. This implies that the material contained in the DGT textbook within the Tax Awareness Inclusion program, which is one of the references in making this research questionnaire, is still not widely understood by students. Therefore, ensuring that the material in the textbooks in the Tax Awareness Inclusion program is appropriate, is important to overcome these problems.

This research can be developed by testing the relationship between independent variables to each dependent variable. In addition, further research can also add the number and topic of questionnaire questions.

⁴⁹ Mohamad et al (n 31).

⁵⁰ Hastuti (n 13).

A Limitations of this Study and Suggestions for Further Research

The following are the limitations of this study and suggestions for research development:

1. This study did not examine the effect of the independent variables on each dependent variable, and vice versa, due to data limitations. Future research may consider looking for a relationship between the independent variables to each of the dependent variables.
2. This study only used 3 interviewees from the DGT to be interviewed. Future research can add the number of interviewees, for example, not only interviewing the DGT but also interviewing lecturers, tax consultants, recent graduates and others.

REFERENCES

A Articles/Books/Reports

- Bahari, Anis Barieyah Mat and Lai Ming Ling, 'Introducing Tax Education in Non-Accounting Curriculum in Higher Education: Survey Evidence' (2009) 7(1) *Journal of Financial Reporting and Accounting* 37
- Bhushan, Puneet and Yajulu Medury, 'Determining Tax Literacy of Salaried Individuals - An Empirical Analysis' (2013) 10(6) *IOSR Journal of Business and Management* 76
- Blechová, Beáta and Šárka Sobotovičová, 'Analysis of Tax Education in a Business School: A Case Study' (2015) 24(2) *Periodica Polytechnica Social and Management Sciences* 113
- Cvrlje, Dajana, 'Tax Literacy as an Instrument of Combating and Overcoming Tax System Complexity, Low Tax Morale and Tax Non-Compliance' (2015) 4(3) *The MacrotHEME Review* 156
- Deris, Mohamad Sakarnor Bin, Norkhazimah Bt Ahmad and Marziana Bt Hj Mohamad, 'Perceptions of Taxpayers with Level of Compliance: A Comparison in the East Coast Region' (2010) 1(1) *Journal of Global Business and Economics* 241
- Fallan, Lars, 'Gender, Exposure to Tax Knowledge, and Attitudes Towards Taxation; An Experimental Approach' (1999) 18 *Journal of Business Ethics* 173
- Gujarati, Damodar N and Dawn C Porter, *Basic Econometrics* (McGraw-Hill/Irwin, 2008)
- Hazianti Abdul Halim, Noor Lela Ahmad, Nooraisah Katmun and Hartini Jaafar, 'Understanding and Attitudes Towards Self-Assessment Taxation System: The Case of Malaysian Non-Accounting Undergraduates Students' (2015) 6(2) *Global Review of Accounting and Finance* 110
- Hastuti, Rini, 'Tax Awareness and Tax Education: A Perception of Potential Taxpayers' (2014) 5(1) *International Journal of Business, Economics and Law* 83
- Kamaluddin, Amrizah and Nero Madi, 'Tax Literacy and Tax Awareness of Salaried Individuals in Sabah and Sarawak' (2005) 3(1) *Journal of Financial Reporting and Accounting* 71

- Madi, Nero, Amrizah Kamaluddin, Tamoi Janggu, Muliati Binti Aba Ibrahim, Aizimah Binti Abu Samah and Kamaruzaman Jusoff, 'Tax Literacy Among Employees: Sabah and Sarawak's Perspective' (2010) 2(1) *International Journal of Economic* 218
- Mahat, Mohd Amran and Lai Ming Ling, 'Featuring Tax Education in Non-Accounting Curriculum: Survey Evidence' (Conference Paper, ZBW - Leibniz Information Centre for Economics, 2011)
- Mohamad, Marziana, Norsalihah Mohd Nor, Norshiela Bakar and Winnie Lemi Anak Nanta, 'Accounting vs Non-Accounting Majors: Perception on Tax Knowledge, Fairness and Perceived Behavioural Control' (2013) 3(9) *International Journal of Asian Social Science* 1887
- Moučková, Michaela and Leoš Vitek, 'Tax Literacy' (2018) 66(2) *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis* 553
- Palil, Mohd Rizal, Mohd Rusyidi Md Akir and Wan Fadillah Bin Wan Ahmad, 'The Perception of Taxpayers on Tax Knowledge and Tax Education with Level of Tax Compliance: A Study the Influences of Religiosity' (2013) 1(1) *ASEAN Journal of Economics, Management and Accounting* 118
- Park, Chang-Gyun and Jin Kwon Hyun, 'Examining the Determinants of Tax Compliance by Experimental Data: A Case of Korea' (2003) 25 *Journal of Policy Modeling* 673
- Prastiti, Wiwien Dinar and Susantyo Yuwono, *Psikologi Eksperimen: Konsep, Teori, dan Aplikasi* (Universitas Negeri Muhammadiyah, 2018).
- Saad, Natrah, 'Tax Knowledge, Tax Complexity and Tax Compliance: Taxpayers' View' (2014) 109 *Procedia – Social and Behavioral Sciences* 1069
- Sekaran, Uma and Roger Bougie, *Research Methods for Business: A Skill Building Approach* (John Wiley & Sons, 7th ed, 2016)
- Waris, A and H Murangwa, 'Utilising Tax Literacy and Societal Confidence in a State: The Rwandan Model' (2012) *University of Nairobi Law Journal*

B Other

- Berhane, Zelalem, 'The Influence of Tax Education on Tax Compliance Attitude' (MSc Thesis, Addis Ababa University, October 2011)
- Eaton, Sarah, 'Formal, Non-Formal and Informal Learning: What are the Differences?' (Newsletter, Spring Institute of Intercultural Learning, 2010)
- Echols, John M and Hassan Shadily, *English-Indonesian Dictionary* (PT Gramedia Pustaka Utama, 1975).
- Palil, Mohd Rizal, 'Tax Knowledge and Tax Compliance Determinants in Self Assessment System in Malaysia' (PhD Thesis, University of Birmingham, 2010)
- United Nations Educational, Scientific and Cultural Organization, 'Education for All Global Monitoring Report: Understandings of Literacy' (Report, 2006) <http://www.unesco.org/education/GMR2006/full/chapt6_eng.pdf>