

Towards a conceptual framework for tax literacy: a scoping review

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Abstract

Given the paucity of studies on tax literacy in the extant literature, a meticulous approach to synthesising the conceptualisation of the emerging topic was followed in this scoping review. Three prominent content areas relating to the conceptualisation of the construct 'tax literacy' emerged from the review. These content areas are included in a suggested conceptual framework that is presented from a holistic perspective. These content areas are as follows: (i) tax literacy from an individual's perspective, that is, an individual as his or her own tax professional; (ii) tax literacy from a relational perspective, that is, citizens are required to be responsible in relation to all tax-related issues, and (iii) tax literacy from a systemic perspective, that is, a sense of responsibility towards the objectives of the social contract, which requires the active participation of the citizenry and a high degree of tax morality.

Keywords: tax literacy, financial literacy, scoping review, conceptual framework, tax compliance, public finance, government expenditure

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1. INTRODUCTION

‘In this world nothing can be said to be certain, except death and taxes.’

Benjamin Franklin

As the above quotation ascribed to Benjamin Franklin suggests, taxes are ubiquitous and, for most people, an undesirable obligation. A specific type of preparation seems to be necessary to encourage people to fulfil their duty to pay tax. Indeed, proponents of so-called tax literacy put forward a series of arguments about why increasing the level of taxpayers’ literacy could be considered an effective and efficient way of approaching problems like tax complexity, low tax morale, low tax compliance and the shadow economy. The Organisation for Economic Co-operation and Development (OECD), in conjunction with the International and Ibero-American Foundation for Administration and Public Policies (FIIAPP) (2015), for example, states that promoting tax literacy is expected to help citizens understand the functioning of the tax system and to strengthen their feelings of responsibility to the state. Furthermore, it should raise their awareness that increased revenues could affect the improvement of the quality of public goods and services. More recently, tax literacy has also been acknowledged as an important part of financial literacy as taxation could influence a variety of important financial decisions and events such as a promotion, donations and retirement saving product selections with more responsibility transferred to the taxpayer to make informed decisions (Lyon & Catlin, 2020).

As Cvrlje (2015) states, individuals and households have to keep track of all the changes in their financial environment in order to protect and secure their personal finances. This may also pertain to changes in the tax system. In order to manage their personal finances effectively, individuals should be well educated on both their tax obligations and their tax entitlements since any disturbances in the taxation system may affect the level of their disposable income, and their expenditure, saving and investment decisions. Secondly, tax literacy is strongly connected not only to the financial situation of individuals and households but also to the issue of government finance and government spending. The recent Covid-19 pandemic has also highlighted the need for taxpayers and consumers to be more prepared to cope with unforeseen challenges and therefore become more financially resilient (OECD, 2021). It however also indicated that tax and financial literacy is a topic relevant to policy-makers across the world to ensure the financial stability of the economy (OECD, 2023).

However, it should also be noted that given the paucity of research on tax literacy, the evidence on the effect of tax literacy on compliance is still evolving with no clear result at this point in time. A case in point is the study conducted by Kwok and Yip (2018) which indicated that there are various intermediate compliance factors that could influence compliance regardless of high levels of tax literacy, such as taxpayers’ ability and willingness to pay, their perceptions towards the fairness of the tax system as well as their level of tax morale.

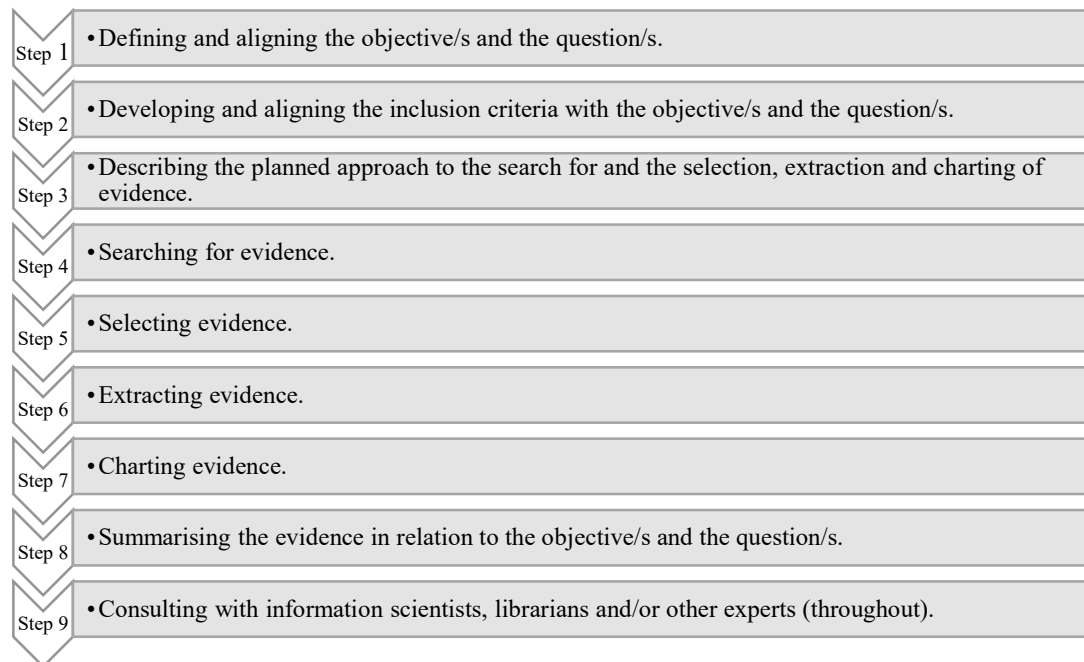
Despite the recognised importance of the concept of tax literacy, it is not discussed as widely as the concept of financial literacy, nor is there a global and generally accepted definition or a common conceptualisation of tax literacy. This is a rather unfortunate state of affairs since a correct understanding of what tax literacy actually means is an

indispensable prerequisite not only for bringing tax and financial education together but also for developing targeted learning and assessment tools. The study presented in this article addresses this gap by systematically identifying and analysing conceptual definitions and key components of tax literacy for individuals in the available research literature by means of a scoping review. On this basis, a preliminary conceptualisation of tax literacy as an integral part of financial literacy is suggested.

The structure of the article is as follows. In the next section we briefly describe the methodology employed in the study. In section 3, we present the results of the scoping review. On the basis of the results, in section 4 we propose a conceptual structure and main elements of tax literacy as an integral part of financial literacy. We conclude the article in section 5 by summarising the main insights emerging from the review and its interpretation while at the same time pointing out possible limitations of our efforts so far and delineating prospects for future research in the field of tax literacy.

2. RESEARCH METHODOLOGY

A scoping review was employed to map the key components that underpin the concept of ‘tax literacy’. A scoping review provides a synthesis of the evidence gathered through research (Rumrill, Fitzgerald & Merchant, 2010) and clarifies working definitions (Peters et al., 2017). Given the paucity of randomised control trials and the fairly recent interest in defining the concept of tax literacy, a systematic review was not feasible (Levac, Colquhoun & O’Brien, 2010). Levac and co-authors (2010) and Peters and co-authors (2017) expanded on Arksey and O’Malley’s (2005) original guiding framework on how to conduct a scoping review and suggested nine steps that should form part of the process (refer to Figure 1).

Fig. 1: A Scoping Review Framework

Source: Adapted from Peters et al. (2017, p. 5)

The enhanced scoping review framework suggested by Peters et al. (2017) and illustrated in Figure 1 was followed for the purpose of this article. Two experienced researchers, one from the discipline of taxation and one from the discipline of business and economics education, conducted the review, which ensured that the review was as broad and detailed as possible.

Step 1: Defining and aligning the objective and the question. One key question informed the literature review: How is tax literacy conceptualised in the existing literature? The answer to this question assisted the researchers in identifying the key components of tax literacy.

Step 2: Developing and aligning the inclusion criteria with the objective and the question. The literature search was limited to studies that have ‘tax literacy’ in the title, the abstract or the list of keywords. This was done to ensure that only studies that focus on the concept of tax literacy were identified. The related term ‘tax knowledge’ was not used since it would limit the literature to the narrow concept of tax knowledge and not the broader concept of tax literacy (which the researchers expected to include knowledge, skills and attitudes and to be broader than pure technical tax knowledge). Other concepts such as tax morale were also not considered as tax morale is an outcome variable similar to tax literacy and the focus of this article was to identify the composition of the limited concept of tax literacy and not the relationships with other potentially related concepts. The researchers also limited the review to literacy in respect of personal tax as opposed to the tax literacy of business owners.

Step 3: Describing the planned approach to the search for and the selection, extraction and charting of evidence. In order to ensure that the review was as extensive as possible, the scoping exercise involved the exploration of four databases, namely, ABI/INFORM Collection, Business Source Ultimate, EconLit and Google Scholar. These databases were selected because of their broad coverage of a variety of fields of study (including business, taxation, economics and public finance).

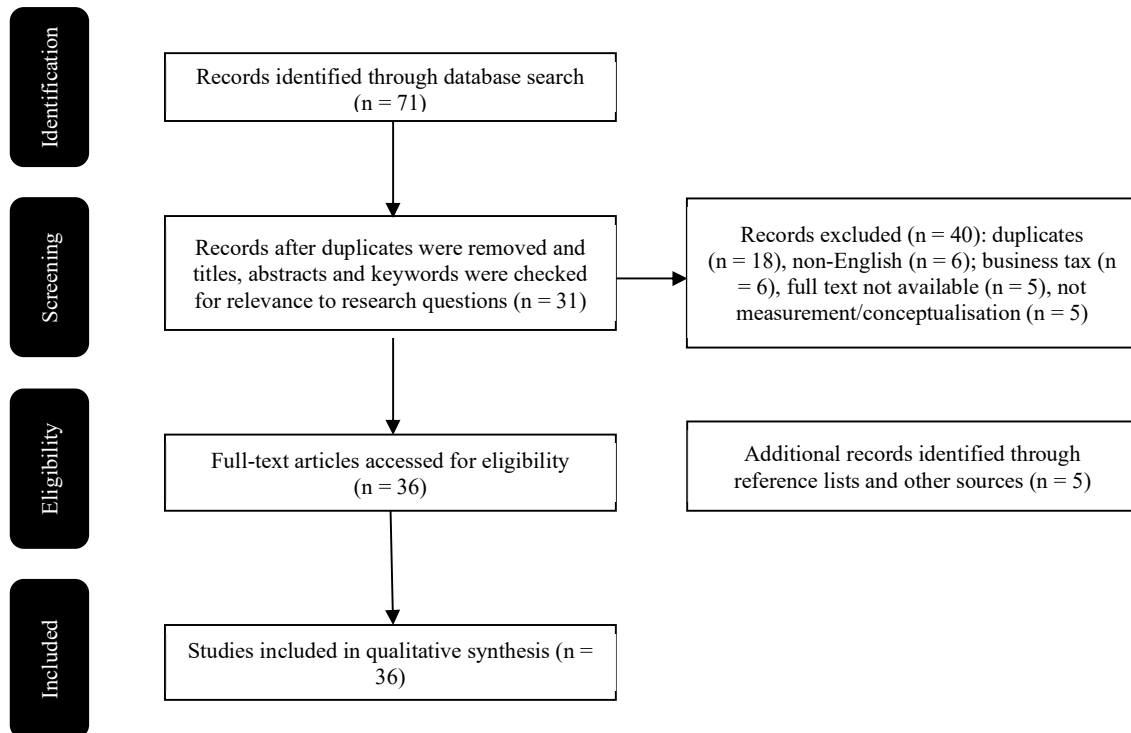
Step 4: Searching for evidence. A review of the titles, abstracts and keywords (if available) of studies indicated that there was not a large number of studies focusing on tax literacy per se. The inclusion and exclusion criteria that were applied are presented in Table 1.

Table 1: Inclusion and Exclusion Criteria

Inclusion criteria	Exclusion criteria
- English article in a peer-reviewed journal - Full paper accessible - Conceptualisation and/or measurement of personal income tax - Conceptualisation and/or measurement of the tax system applicable to citizens of a country (i.e., public finance)	- Non-English article - Tax literacy of business owners - Article was incorrectly highlighted during the search strategy, e.g., ‘tax, literacy’ was included although the article does not discuss tax literacy (the inclusion of the comma was not picked up during the search) or the reference to tax literacy in the abstract was a recommendation and not a conceptualisation or a measurement - Full text of article was not available

A literature review conducted by a librarian of one of the universities involved in the project did not lead to the identification of any additional records (step 9).

Step 5: Selecting evidence. In keeping with the search strategy protocol, 71 records were identified by searching the databases. Following a review of the 71 records, 18 duplicates were removed. Another 21 records were also excluded since they focused on business tax, only the abstract was in English, the full text was not available or the reference to ‘tax literacy’ had mistakenly been included as ‘tax, literacy’. Through a review of the reference lists, another five additional sources were identified. On completion of the inclusion/exclusion exercise, a total of 36 records were included in the qualitative synthesis (refer to Figure 2).

Fig. 2: PRISMA Flow Diagram of Study Selection Process

Source: Adapted from Peters et al. (2017)

Step 6: Extracting evidence. The identified records were downloaded and stored in Mendeley to ensure ease of access for both researchers. An Excel spreadsheet was developed for recording key data on each record, including the author(s), the academic background of the author(s), if available, the year of publication, the aim/purpose of the study, conceptual definitions provided and key findings that related to the concept of tax literacy. A thematic analysis (discussed in step 7 and presented in section 3) was performed to establish a robust and systematic framework for coding the qualitative data (Braun & Clarke, 2014). Through the coding of the qualitative data identified in the scoping review, themes were identified across the dataset in relation to possible components of tax literacy.

Steps 7 and 8: Charting and summarising the evidence.

As mentioned in step 6, an Excel spreadsheet was populated with all the relevant information required for conducting a descriptive analysis (refer to section 3.1). All identified sources were stored in a literature repository (Mendeley) to which both researchers had access. Once the studies had been identified as per the scoping review protocol, a thematic analysis as suggested by Nowell and co-authors (2017, p. 5) was conducted in order to identify content areas of tax literacy. The first author (given the tax expert) reviewed the articles and conducted the thematic analysis. The second author

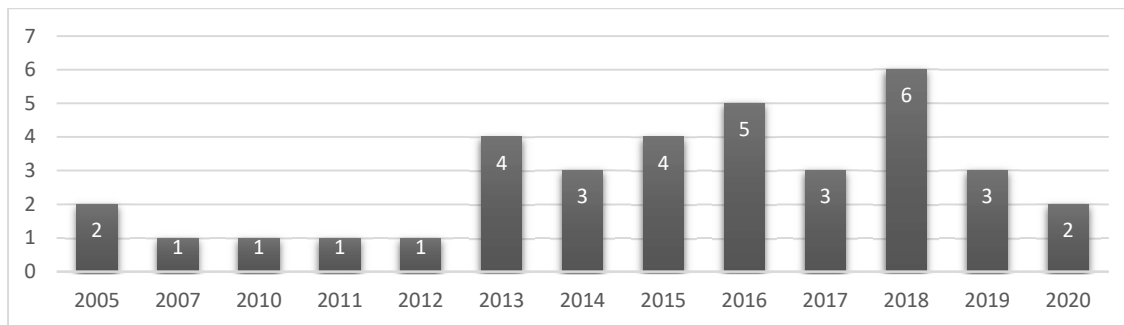
independently reviewed a selection of the articles and where differences were observed between the two coding exercises, these were discussed and resolved. The results of this analysis will be presented in the next section, along with a brief overview of the characteristics of the sources.

3. ANALYSIS OF RESULTS

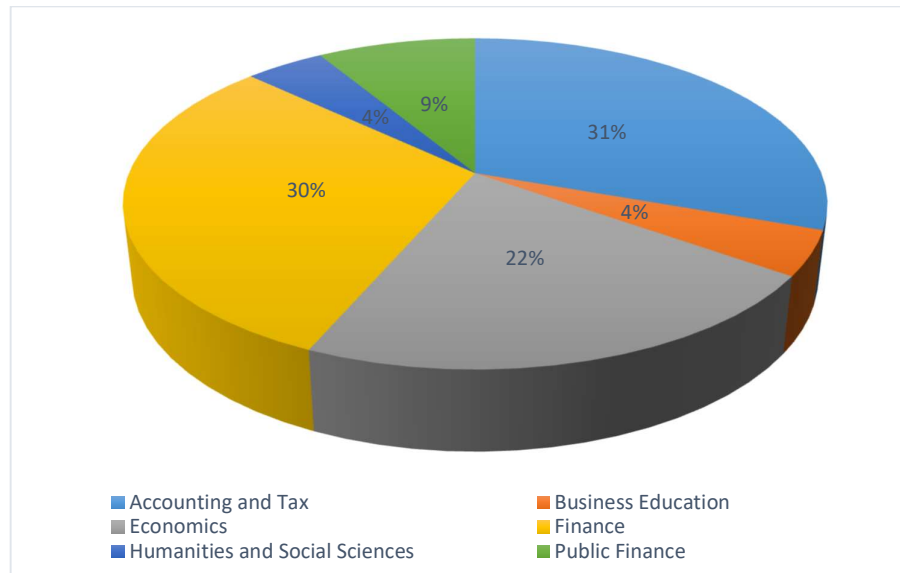
3.1 Characteristics of the sources

A total of 36 sources that pertinently focus on tax literacy were identified in the review. The analysis is based on conceptual definitions provided by the various authors. However, where conceptual definitions are not provided, the authors deduced content areas from the operational definitions provided, that is, domains of the measurement instruments applied. The paucity of research on tax literacy is evident in Figure 3. Although there has been an increase in such research since 2005, only six sources that had ‘tax literacy’ in the title were published in 2018 and three in 2019.

Fig. 3: Number of Publications on Tax Literacy



Of the 36 papers, several papers were co-authored, but four authors published more than once on this topic. Based on the academic discipline of the first authors, it is evident from Figure 4 that most of the studies included in the scoping review were published by authors from the disciplines of accounting and tax (31%), finance (30%) or economics (22%), confirming the multifaceted nature of taxation.

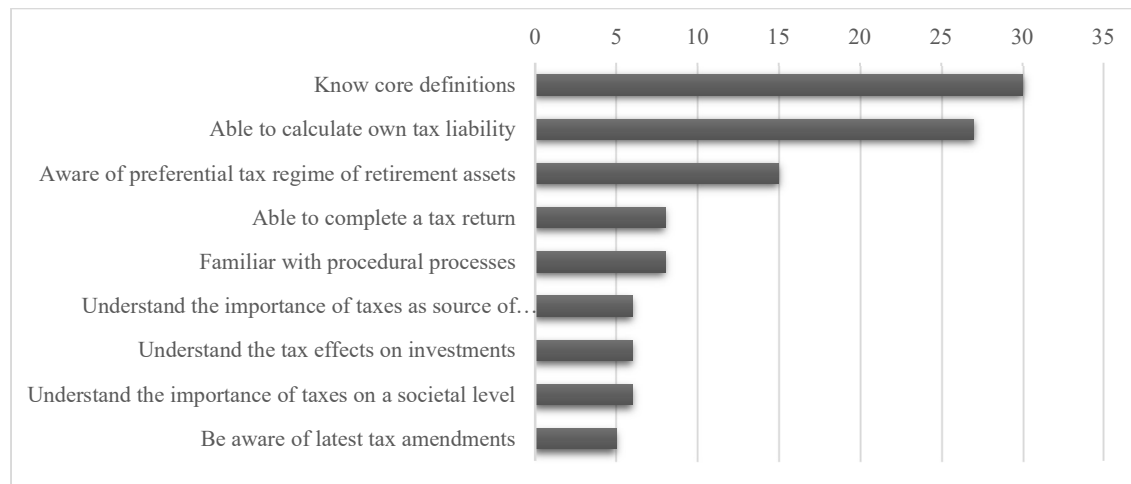
Fig. 4: Academic Disciplines of First Authors

The bulk of the studies included in the scoping review were sourced from academic journals (26). The remainder of the source documents were papers delivered at conferences (4), unpublished dissertations (4) and two working papers.

3.2 Identification of tax literacy content areas or themes

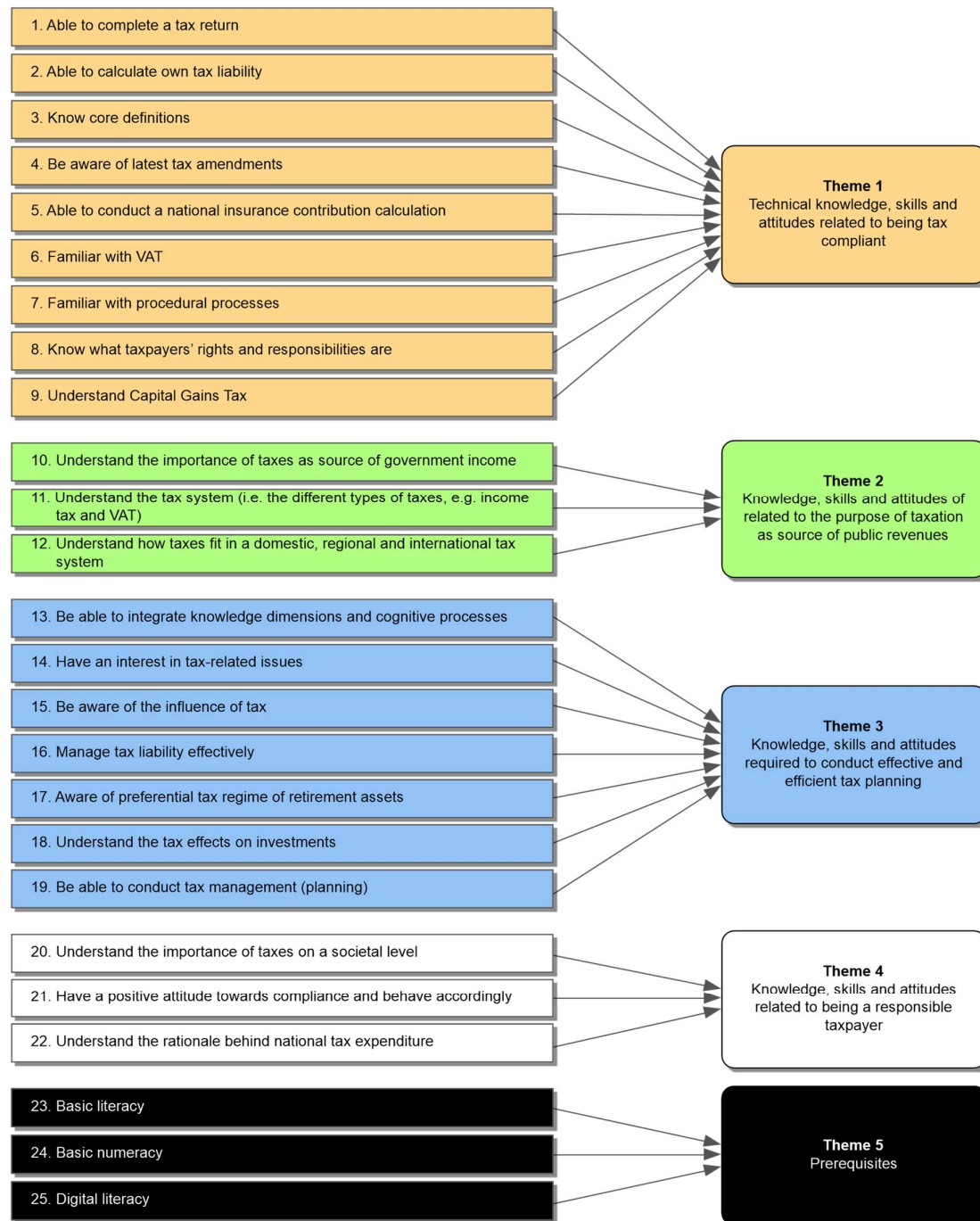
The second phase of the analysis entailed identifying themes, as suggested by Nowell and co-authors (2017, p. 5), which required the development of an initial set of codes. An inductive process was followed whereby an original list of 86 codes were identified. After the initial list had been reviewed, several similar codes were identified and the initial list was reduced to 25 codes (refer to the left-hand side of Figure 6).

Based on a frequency distribution, it became evident that some of the 25 codes occurred more frequently than others. The codes that reflected almost 80% of all the identified codes are illustrated in Figure 5.

Fig. 5: Frequency of Codes

As is evident from Figure 5, there is a strong sense that taxpayers should be familiar with the core definitions embedded in tax laws, be able to calculate their own tax liability, be aware of the preferential nature of taxes in respect of retirement assets and be able to submit their own tax returns, which requires knowledge on the administration processes.

Nowell and co-authors (2017, p. 9) indicate that once the initial codes have been identified, the set of codes should be reviewed to determine whether there is a coherent pattern among the codes. In addition to the frequency distribution of the codes, as indicated in Figure 5, there was a certain hierarchy in the codes, resulting in the identification of five overall themes (refer to Figure 6).

Fig. 6: Identification of Themes

The five themes that were identified will now be discussed in detail. The discussion of the themes is presented in chronological order, based on the sources identified in the scoping review.

3.2.1 *Theme 1: Technical knowledge, skills and attitudes related to being tax compliant*

Some authors approach tax literacy in a predominantly technical or practical way. For example, Kamaluddin and Madi (2005, p. 73),¹ quoting Bardai (1992) and Razman and Ariffin (2000), define tax literacy as individuals' 'ability to fill [in] the tax form and calculate their tax liabilities independently'. Kamaluddin and Madi (2005, p. 72) and Madi and co-authors (2010, p. 219) also refer to functional literacy by stating that a taxpayer, especially in a self-assessment environment, should be able to determine his or her own chargeable income and income tax payable and to furnish correct returns to the relevant tax authority. The authors also stress the importance of awareness of tax amendments since changes to a self-assessment system will have a significant impact on taxpayers because they have to ensure the accuracy of the returns they submit. Latiff and co-authors (2005, p. 2) agree with Kamaluddin and Madi (2005) regarding this rather narrow scope of tax literacy in that they define it as a 'sufficient ability to read, write and understand taxation matters'. For Latiff et al. (2005), a person is tax illiterate if he or she does not understand how to complete his or her own tax return. They further posit the notion that people are functionally tax illiterate when they self-report on having the necessary ability to perform the task, that is, complete a tax return but do not have enough knowledge about tax.

Brackin (2007) started her exploration of the measurement of tax literacy by focusing on financial literacy research in the context of the Australian taxation system. She specifically examined whether low levels of tax literacy act as a barrier to participation in the taxation system. In her work on financial literacy among school learners, she included what she refers to as 'basic taxation, including why governments impose taxation, general income, general deductions and the calculation of basic tax liability' (Brackin, 2007, p. 2). It is clear that she considers tax literacy to include knowledge of relevant tax legislation and procedures for tax compliance, together with a broader understanding of the need for taxes. This second point is included in Theme 2.

Similar to the previous authors referred to, Bhushan (2014, p. 124) equates tax literacy with the knowledge and skills required to be tax compliant. He defines tax literacy as 'the ability of an individual to understand the concepts of personal taxation and to apply these concepts for calculating tax liability and filing of tax returns independently'. Although the definition focuses on an individual's ability to calculate tax liability and to file a tax return, it is interesting to note that for purposes of the tax literacy score, measures of attitudes towards taxation and behaviour (broader than the filing of a tax return) are included in the calculation.

Blechová and Sobotovičová (2016) take a slightly different approach in their measurement of tax literacy. In the majority of the studies discussed, the tax literacy levels of taxpayers were assessed, but Blechová and Sobotovičová (2016) evaluated the tax literacy levels of students enrolled in the School of Business Administration in Karviná, Czech Republic. For purposes of their assessment, they measured basic tax

¹ Unfortunately, the original sources for Bardai (1992) and Razman and Ariffin (2000) could not be sourced and as such the authors are dependent on the quotation as per Kamaluddin and Madi (2005).

literacy as determined by questions on personal income tax, tax rates, tax allowances and tax credits. They also included a measurement relating to consumption taxation, focusing on general knowledge about selected products and tax rates (Blechová & Sobotovičová, 2016, p. 116). They did not provide a conceptual framework, but their questions seemed to measure legislative tax knowledge.

Concerns regarding tax complexity that would require high levels of tax literacy led to a Canadian study by Genest-Grégoire, Godbout and Guay (2017). The study was aimed at measuring the tax literacy level of citizens of Quebec. The authors define tax literacy as ‘having the knowledge, skills and confidence to make responsible tax decisions’ (Genest-Grégoire et al., 2017, p. 4). They further postulate that tax literacy consists of objective and subjective aspects and provide a framework in support of their measurement tool, as indicated in Table 2.

Table 2: Subject Matters Tested

Subjective and behaviour measures	Knowledge about income tax	Knowledge about consumption taxes	Knowledge about progressivity
1. Self-reported level of knowledge about taxation	1. Capital gains taxation on the sale of a residence	1. Rates of GST and QST	1. Presence of different tax rates for different people
2. Tax preparation behaviour	2. Taxation of various types of income: • withdrawal from RRSP • withdrawal from TFSA • employment insurance benefit • lottery gains • child support payments received	2. Coverage of different goods and services by the GST and QST: • potatoes • restaurant meal • sweater • detective novel • dentist exam	2. Varying effect of a deduction, depending on the level of income
3. Media consulted on subjects pertaining to taxation and frequency of consultation: • dedicated programmes • opinion pieces • blogs or social media • official sources			3. Tax rate at the top income tax bracket 4. Marginal taxation of a salary gain 5. Income splitting between spouses
Acronyms: RRSP – registered retirement savings plan, TFSA – tax-free savings account, GST – goods and services tax, QST – Quebec sales tax			

Source: Genest-Grégoire et al. (2017, p. 5)

Alexander and co-authors (2018) explored mechanisms for improving the tax literacy and the tax morale of young adults in the United Kingdom. Although they do not provide a conceptual definition of tax literacy, they operationalise the concept in their measurement instrument by including a variety of questions aimed at testing respondents’ financial and tax literacy, including specific knowledge and application questions on value added tax, income tax, national insurance contributions, allowances

and deductions within the UK's tax framework, as well as general knowledge questions on the UK's individual tax system (Alexander et al., 2018, p. 12). The items included were concepts of average tax rates and marginal tax rates, a calculation of value added tax, simplistic calculations of income tax liability and calculations of national insurance contributions.

Cechovsky (2018a) explores the conceptual definition of tax literacy through the lens of economics education. Based on the theoretical groundwork of economics education, Cechovsky (2018a, p. 115) defines tax literacy 'as general tax knowledge on a societal and individual level, an interest in tax-related issues, and an attitude, alongside a corresponding tax compliance behaviour'. She provides a more comprehensive description of what is to be understood under 'general tax knowledge'. According to Cechovsky (2018a), general tax knowledge comprises different types of knowledge and different cognitive processes, according to the taxonomy for learning, teaching and assessment by Anderson and Krathwohl (2001), which is based on work by Bloom (1972). Therefore, general tax knowledge comprises not only factual knowledge but also more complex knowledge dimensions (factual, conceptual and procedural knowledge) and cognitive processes (remembering, understanding, applying, analysing and evaluating). Furthermore, it consists of relevant tax-related content. While the content focuses on a public level of taxation (e.g., functions of taxes), it also focuses on the individual level (e.g., basic principles of the most important types of taxes) (Cechovsky, 2018a, p. 115). Unfortunately, Cechovsky (2018a) does not provide detail on the scope or the content of the questions related to tax knowledge that were part of the questionnaire on tax knowledge in her study, only stating that it consisted of 24 multiple-choice questions on general tax knowledge developed from an analysis of various textbooks, a curriculum analysis, the qualitative study and existing instruments.

Cechovsky's (2018b) doctoral thesis provides however more detail on the measurement discussed above by providing a comprehensive discussion of the process she followed in measuring the tax literacy of Austrian students. She first explores certain central concepts, such as economics literacy, economics education, economics competency, financial literacy and tax literacy. Second, she provides some theoretical background on the composition of a possible measurement instrument for tax literacy that includes the cognitive dimension, interest in the subject at hand and attitudes toward the topic. She then gives a review of the empirical evidence on tax literacy, tax knowledge and tax compliance. In her review, she defines tax literacy for purposes of her project as 'general tax knowledge concerning the individual and society, including recent developments; an interest in tax-related issues; an attitude; and a corresponding tax compliance behaviour' (Cechovsky, 2018b, p. 22). She then sets out a comprehensive instrument for measuring the various components. Cechovsky is therefore concerned with technical knowledge required to be deemed tax literate.

In their evaluation of tax literacy, Moučková and Vitek (2018) focus on Bachelor's degree students enrolled at a university in Prague. They compare the level of tax literacy of students who previously passed tax courses with that of students who had no previous exposure to tax courses. They do not provide a definition of tax literacy but measure the concept with two questionnaires, one on personal income tax and one on value added tax. Their basis for the selection of the questions was to examine the knowledge students acquired through formal education and students' ability to apply that knowledge by means of practical assessments.

In a more future-oriented approach than has been described thus far, Bornman and Wassermann (2018) explore the meaning of tax literacy and tax compliance in the context of a digital economy. For purposes of their study, they define tax literacy as ‘a dynamic process of developing skills and gaining the confidence to be aware of and understand the factors that influence your tax decision and of taxation consequences of your decision, to know where to get assistance on complicated tax issues and to use the knowledge to make informed choices and decisions with respect to various transactions’ (Bornman & Wassermann, 2018, p. 5). According to the authors, tax literacy has three distinctive elements, namely, tax awareness, contextual knowledge and informed decision-making. They indicate their understating of tax awareness includes the notion of understanding or recognising factors relevant to a decision (where the decision relates to applying tax rules and procedures correctly) and the notion of understanding the tax consequences of the decision made (Bornman & Wassermann, 2018, p. 5). Bornman and Wassermann (2018) are thus also focusing on the technical knowledge required to be able to conduct a tax liability calculation and be tax compliant.

Regarding contextual knowledge, Bornman and Wassermann (2018, p. 5) list two dimensions, namely, procedural and legal knowledge. Procedural knowledge refers to the fact that taxpayers need to be aware and have acceptable knowledge of the tax processes and their responsibility to adhere to the tax laws in their countries. This is the knowledge of how and when to fill in tax returns and to supply information to the tax authorities (Bornman & Wassermann, 2018, p. 6). Legal knowledge, as an element of tax knowledge, has two dimensions – the understanding of legal terms and legislation (‘knowing that something is taxable’) and the ability to apply the legal knowledge to specific situations to be able to calculate the tax effect (‘knowing how’) (Bornman & Wassermann, 2018, pp. 6-7). Lastly, Bornman and Wassermann (2018, p. 7) depict decision-making as the outcome that is attained when an individual’s tax awareness interconnects with his or her tax knowledge and an informed decision can be made.

In a more recent study, Nichita and co-authors (2019) explore the relationship between tax literacy and tax compliance. Nichita et al. (2019, p. 2) define tax literacy as ‘taxpayers’ ability to understand their rights and obligations, to make use of their tax knowledge and skills in order to fill in tax returns correctly, and to comply with the tax laws in effect’. The authors state that tax literacy ‘is therefore connected to the tax knowledge possessed by taxpayers which consists of information regarding both tax obligations (i.e., fiscal fees, taxes, mandatory contributions) and the manner in which the mechanism of collecting and redistributing taxes works’ (Nichita et al., 2019, p. 5). Based on this conceptual definition, they operationalise the concept through a tax literacy index, based on the number of correct answers in 11 of 15 items in the assessment. Four of the 15 items focus on respondents’ awareness of (or familiarity with) the finance ministerial agencies. The remaining 11 items measure what the authors refer to as theoretical and practical knowledge of basic taxation concepts. The basic concepts include knowledge on: the institution that establishes tax obligations at the national level; a taxonomy of tax obligations; the types of tax rates applied to income/profit; a simple calculation for determining the value of a good before direct and indirect taxation; and benefits generated by fully paying local taxes in advance (Nichita et al., 2019, p. 10).

Machova, Šeben and Kútina (2019) explore the tax literacy of Generations Z and Y. They provide a brief description of the distinguishing characteristics of the two generations, and a brief overview on the history of taxation. As in many of the studies

presented thus far, these authors do not provide a definition of tax literacy, focusing their analysis on Slovakian taxpayers' awareness of the tax rate, as well as knowledge questions on the tax system (i.e., direct versus indirect taxes, differentiated rates between corporate and local taxes, submission dates, the effect of a rise in fuel taxes on excise duty, the taxation of tobacco products, and tax exemptions). In addition to conducting a knowledge assessment, they obtained information regarding the respondents' satisfaction with the process of tax declarations, the helpfulness of staff, the electronic information system, the interpretation of documents and the business hours of the tax offices.

The study of Stephen and Chakraborty (2019) explores the tax literacy levels of individuals in India. Similar to most key areas already identified, they base their assessment on the measurement of knowledge about 'computation of taxable income, tax liability, deductions, and the manner of filing tax returns'. They do not provide a formal conceptual definition of tax literacy.

Similar to Brackin (2007), Lyon and Catlin (2020) explore the relationship between tax and financial literacy. Using a tax literacy measurement instrument consisting of eight questions, they gauge consumers' understanding of the tax law concepts that are applicable to important decisions in their daily lives. Unfortunately, they do not provide a conceptual framework, but they note that the aim of the research was to address the paucity of research on 'consumers' knowledge across multiple provisions of the tax code in the United States' (Lyon & Catlin, 2020, p. 3). The following topics were assessed in their survey: (1) withholding versus tax liability; (2) tax brackets; (3) tax deductions versus credits; (4) charitable contributions; (5) income and exclusions (gifts), and (6) payroll/self-employment tax.

3.2.2 *Theme 2: Knowledge, skills and attitudes related to the purpose of taxation as a source of public revenue*

Waris and Murangwa (2012) argue that tax literacy is embedded in the social context of a country. They argue that although tax literacy is not dependent on the sophistication of the tax system, it does have an important role to play in the development of a country. The authors argue that tax literacy becomes critical especially in developing countries where confidence in the state is normally low or where governments are perceived as incapable of carrying out the mandate society has granted them. In terms of their discipline lens, they define the purpose of tax literacy as follows (Waris & Murangwa, 2012, p. 8):

Tax literacy is intended to firstly, help provide information about tax, secondly, not to support any particular type or amount of taxes, but to simply explain: taxes within a domestic system as well as a regional and international system and how it impacts on those being informed. Thirdly, the information transmitted consists of not just tax revenue but also tax expenditure. Finally the persons being informed include any interested persons but society generally.

Kovárník and Hamplová (2013) approach their exploration of the concept of tax literacy from a tax equity perspective. They state: 'Tax literacy, as a basic part of knowledge based economy, is analyzed in this research through ... questions related [to both] the opinion on the main purposes of taxes, and to the explanation of terms direct and indirect taxes' (Kovárník & Hamplová, 2013, p. 69). Paseková, Kovařík and Ředinová (2013, p. 40) deem someone to be tax literate if that person has 'sufficient theoretical and

practical knowledge on and insight in issues that affect payroll and tax problems'. They regard theoretical knowledge as knowledge of the meaning of terms related to the tax system in the Czech Republic. They moreover interpret practical knowledge as knowledge relating to tax rates. In another study conducted by the authors, they analyse tax literacy through 'questions related [to both] the opinion on the main purpose of taxes, and to the explanation of terms direct and indirect taxes' (Kovárník et al., 2015, p. 1254). The authors referred to thus far are therefore not consistent in their conceptualisation of the construct of tax literacy, which makes it very difficult to develop a coherent understanding of the construct – an issue that will continue to be evident as other studies are discussed.

The need for general society to have an awareness of the tax system and the role that tax plays, as suggested by Waris and Murangwa (2012), is echoed by Blechová and Sobotovičová (2013). Although Blechová and Sobotovičová (2013) discuss the possible relationship between financial literacy and tax literacy, they do not define tax literacy but include it as part of financial literacy. According to the authors, 'financial literacy as management of personal or family finance includes three components, namely monetary literacy; pricing literacy; and budget literacy'. Further in their discussion they indicate that budget literacy does not reflect personal budgeting as per traditional financial literacy but rather the need for society to understand important terms such as public finance (which includes state and municipal budgets, incomes and budget expenses, taxes, deficit management and budget policy). Thus, one can deduce from their discussion that they agree that the concept of tax literacy must include the social context, which moves it away from the personal income tax only also to include the broader tax system and the importance thereof. According to Blechová and Sobotovičová (2013, p. 18), a person is tax literate if he or she

- understands why taxes exist and what the role of tax is in terms of citizen society;
- understands that tax is an element of ensuring responsible behaviour of citizens towards a family and a state;
- has a basic awareness of the tax system;
- has a basic knowledge of the taxes levied in the state where he or she lives.

Nichita (2015a) endorses the notion that tax authorities should make every effort to increase the tax literacy of both current and future taxpayers. She discusses the link between higher levels of tax literacy and compliance, concluding that having the necessary knowledge will improve tax compliance. She does not provide a description of what tax literacy entails in this narrative of tax literacy and tax compliance. However, in a follow-up article, Nichita (2015b) does provide a definition of tax literacy, stating that it has both a narrow sense and a broad sense. She defines tax literacy, in the narrow sense, as 'a taxpayer's ability to correctly fill in a tax return' (2015b, p. 849). She relates this ability to conditions for being tax compliant, namely, genuine reporting of the tax base, accurate computation of taxes to be paid, the filing of tax reports in due time according to the tax calendar established by authorities and payment of taxes owed in due time to avoid penalties. Regarding the broader sense, she focuses on taxpayers' role as contributors to the state finances, which includes understanding the matter of taxation as a source of government income and its importance.

3.2.3 Theme 3: Knowledge, skills and attitudes required for effective and efficient tax planning

Another line of research explores the linkage between tax literacy and financial literacy. Brackin (2007) does not provide a formal definition of tax literacy but alludes to the positive linkage between being more tax literate and taking a more active and responsible role in the taxation arena. She further argues that taxation should be regarded an important component of financial literacy since it has the potential to impact on a person's overall wealth. The ability to meet tax liabilities on time, to prepare returns accurately and to claim all available entitlements would certainly impact on a person's overall financial position. In her review of the scope of financial literacy research in the context of the taxation system, Brackin² (Brackin, 2007; Chardon, 2011) reports on the low levels of knowledge specifically relating to the effect of taxation on superannuation, for example, that superannuation is taxed at a lower rate than other investments.

Following her original exploratory work on the relationship between financial and tax literacy, Chardon (Brackin, 2014; Chardon, 2014) and her colleagues (Chardon, Brimble & Freudenberg, 2016; Chardon, Freudenberg & Brimble, 2016a; Chardon, Freudenberg & Brimble, 2016b; Chardon et al., 2016) continued to explore tax literacy in Australia and New Zealand. They explored tax literacy from a broad perspective by means of a tax literacy index, on the one hand, and on a narrow scope, on the other, focusing on the importance of tax and superannuation. Working through a grounded theory lens, Brackin (2014) developed a tax literacy score informed by the results of focus group interviews of what should be included in a measurement of tax literacy. Informed by the focus group results, she concluded (2014, p. 146) that such a survey should include confidence questions, knowledge questions and attitudinal questions.

Brackin (2014, p. 146) further reports that for a person to be considered financially literate, he or she should understand the tax equation; understand how marginal tax rates work; understand what deductions he or she is entitled to; understand the difference between deductions and offsets; understand the tax effects of investing in property; understand important tax consequences for small business; understand superannuation; and have knowledge of the Medicare levy and medical tax offsets. She further differentiates the item pool not only in terms of the topics listed but also in terms of their nature, that is, questions about confidence in understanding the meaning of some tax and investment terms and knowledge questions incorporating theoretical and practical questions on specific concepts. The knowledge questions include questions about the tax equation such as upon which basis tax is calculated and questions about marginal rates of tax and how to calculate tax payable given a simple scenario. These questions are followed by general questions about tax deductions, such as questions about the deductibility of specific items and questions exploring participants' understanding of the difference between deductions and tax offsets. Two questions deal with understanding the actual dollar effect of receiving a tax deduction as opposed to a tax offset. The next questions deal with different types of investments, exploring the different reasons why participants might choose types of investments, as well as the benefits of negative gearing and how capital gains tax works. There are also several questions regarding general concepts related to superannuation and tax consequences of superannuation. The final knowledge category questions relate to the Medicare levy and

² Please note that the names Toni Brackin and Toni Chardon refer to the same author.

include a small number of knowledge questions about the Medicare levy, how to calculate it and the availability of medical tax offsets (Brackin, 2014, pp. 147-148).

Bhushan and Medury (2013, p. 76) stress the importance of tax management as part of personal financial planning. They argue that tax management includes taxpayers' ability to compute their tax liability, to determine any possible tax savings via the tax code and not to incur any financial losses due to late payments or the late submission of tax returns. Bhushan and Medury (2013, p. 76) broadly define tax literacy 'as the knowledge which an individual should possess in order to manage the issues concerning personal taxation effectively'.

Cvrlje (2015) discusses the relationship between financial literacy and tax literacy, giving a comprehensive analysis of their interrelatedness. Financial literacy, like tax, is dynamic and ever-changing. She highlights that consumers (and/or taxpayers) should have a certain amount of financial knowledge and skills, first, to identify the various risks that might have serious financial consequences and, second, to diminish or avoid those risks. Keeping track of changes to one's personal financial environment, including changes to the tax system, is one of the measures a person can implement to avoid or reduce these financial consequences. She further argues that a lack of financial and tax literacy could lead to lost wealth for an individual. In respect of competencies required, Cvrlje (2015, p. 157) indicates that individuals should be well educated not only on their tax obligations but also their tax entitlements. She states:

To be able to understand [the] tax system and determine (i.e. calculate) your own tax obligations, one should have an adequate level of tax education i.e. tax literacy. Secondly, tax literacy is strongly connected not only to the financial situation of individuals and households but also to the issue of government finance and government spending. Problems like tax complexity; low tax morale, low tax compliance and shadow economy may all be reduced [by] increasing the level of taxpayers' (individuals') financial literacy.

She observes that tax literacy should be considered in conjunction with financial literacy since the ability to meet tax liabilities on time, to prepare returns accurately and to claim all available entitlements will certainly impact on a person's overall financial position. Cvrlje (2015, p. 158) reiterates the important role of tax management in personal financial planning and agrees with Bhushan and Medury's (2013) definition of tax literacy in stating that an individual should have a thorough knowledge of various aspects of taxes and tax policies, which should help him or her to better understand how much he or she can save even after paying taxes.

Le Roux (2017), in his study, explores the financial and tax literacy of South Africans, specifically relating to retirement planning, but he does not provide a comprehensive definition of tax literacy. The administered questionnaire measured (among other issues) whether the respondents were aware of the retirement reform that had been implemented in South Africa, knew what a tax-free savings account was, understood the tax implications of their investments and might act differently if they were better informed about tax and financial concepts and principles (Le Roux, 2017, pp. 48-55). These questions were very broadly structured.

Echoing previous authors' (Brackin, 2007; Chardon, 2011; Le Roux, 2017) interest in tax and retirement, Iwasaki, Nakashima and Kitamura (2018) investigate the role of tax literacy, time and risk preference in personal pension investments. They do not provide

a conceptual definition of tax literacy, but operationalise the concept by including questions that could objectively measure tax and financial literacy (Iwasaki et al., 2018, p. 3). The objective measure of tax literacy in their study comprises three questions focusing on respondents' knowledge of the tax advantages of certain savings products and respondents' ability to calculate the tax benefit of investing in tax-friendly retirement products.

3.2.4 *Theme 4: Knowledge, skills and attitudes related to being a responsible citizen*

In addition to linking tax literacy to decision-making capabilities, Cvrlje (2015) discusses the relevance of tax literacy from a societal perspective, specifically regarding tax compliance and tax evasion. The linkage between low tax morale, tax compliance and tax evasion is well known. However, from a tax literacy perspective, complex tax systems, dissatisfaction with tax rates or the quality of services rendered by the government, as well as high levels of corruption could result in tax-literate taxpayers becoming less willing to remain tax compliant. Kidder and McEwen (1989, p. 58) state that 'procedural compliance may be a luxury that relatively few can afford because it requires skill and resources that relatively few people have'. Thus, citizens should not only have the relevant tax knowledge but also the inclination to remain tax compliant (tax morality).

In line with the citizenship approach suggested by Cvrlje (2015), Pazdnikova and Pechenegina (2017) explore mechanisms for establishing a public tax culture and public tax literacy through a review of possible ways to organise the process of public tax culture formation by the authorities. They do not measure tax literacy per se, but suggest approaches that can be followed to develop protection management in respect of taxpayers' rights, stating that 'public awareness of the necessity to pay taxes, as an essential obligation, should be combined with the awareness of taxpayers' rights based on continuous and comprehensive informing of public society' (Pazdnikova & Pechenegina, 2017, p. 389).

Abuselidze (2020) also considers the relevance of tax literacy for the societal good, exploring the optimality of tax policy based on a comparative analysis of income taxation in developed and developing countries. Although the purpose of the paper was not to measure tax literacy, given the inclusion rules that were applied, the paper was included in the scoping review because tax literacy is mentioned in the abstract. However, the author's sentiment towards tax literacy is worth noticing – he states 'that the main idea of income tax should be the optimal distribution of tax literacy on the basis of a direct definition of income of taxpayers or progressive taxpayers' (Abuselidze, 2020, p. 272). The author explores the tax burden among taxpayers and sees tax literacy as an outcome of a fair distribution of the tax burden, speaking to the societal value of taxation.

3.2.5 *Theme 5: Prerequisites*

Aligned with research on financial literacy, Cvrlje (2015) also draws attention to the prerequisites for the acquisition of tax literacy. She underlines the importance of basic literacy and numeracy since people have to be able to read and write in order to understand tax laws and procedures and to determine their tax burden.

Regarding the effect of the digital economy on tax literacy, Bornman and Wassermann (2018, p. 9) reflect on the additional competencies that will be required of taxpayers.

Digital literacy will become more prominent as tax administration processes (affecting taxpayers' interaction with authorities) and the processes of recording transactions and maintaining records for tax purposes (affecting taxpayers' financial accounting and record-keeping) are digitalised.

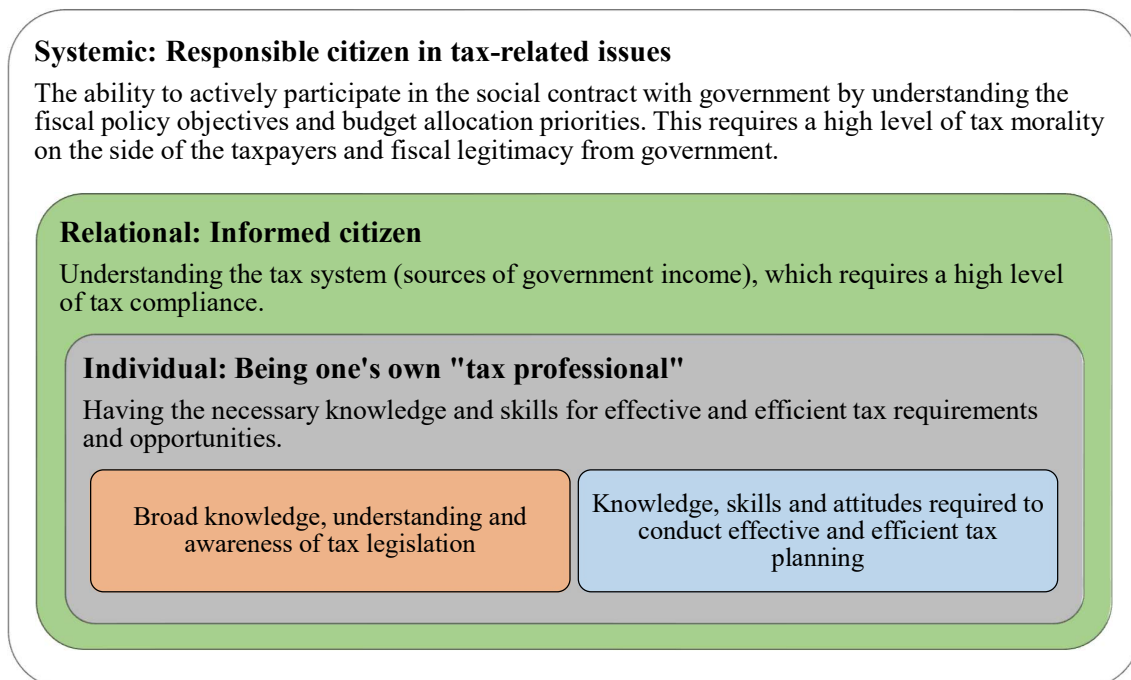
It is clear from the concept-mapping exercise that similar topics have been dealt with by several authors. Themes 1 and 3 focus on the knowledge, skills and attitudes required by citizens to be tax knowledgeable, to conduct efficient tax planning and to be tax compliant. Theme 2 focuses on the importance of tax as a source of government income to fund its various fiscal policy objectives. Theme 4 concerns the societal value of taxation. Some authors have also identified certain prerequisites (Theme 5) that should be met.

However, the absence of a clear conceptual definition is prevalent in most of the studies included in the scoping review. The following section addresses the identified gap.

4. A PRELIMINARY CONCEPTUAL FRAMEWORK TOWARDS TAX LITERACY

Tax literacy is clearly a multidimensional concept, strongly defined by a variety of disciplines. It is also clear that the key areas of tax literacy not only relate to an individual perspective but also touch on relational (or societal) and systemic perspectives to ensure high levels of tax morale and economic stability in a country. The three dimensions of the content areas relevant to tax literacy are illustrated in Figure 7.

Fig. 7: A Conceptual Frame



As indicated in the introduction, there is a higher demand on consumers and taxpayers to make informed financial and tax decisions. This notion is supported by the review which seems to indicate the consensus among various authors that tax literacy entails having enough knowledge about the relevant tax laws, especially laws on personal income tax. This aspect is listed as a requirement in 18 of the studies. The need for legislative knowledge is also listed as a requirement for tax literacy in a large number of the studies, together with the requirement that taxpayers be familiar with core concepts relating to income tax, for example, taxable income, deductions and marginal rates. Taxpayers are also expected to be aware of the latest tax amendments. Furthermore, knowledge alone regarding income tax is not enough. Taxpayers should be able to complete their tax returns by themselves and have the relevant attitudes that motivate them to do so.

This thinking is very much aligned with what is being discussed in the financial literacy domain since an increasing number of individuals need to take responsibility for their financial decisions (e.g., the transfer of investment decisions due to the switch from defined benefit funds to defined contribution funds). Thus, taxpayers are also required to be more informed in order to manage their own tax affairs. This is also clear from Table 1, where the need to be able to conduct effective and efficient tax planning is identified. Those that undertake tax planning (not professionals but taxpayers themselves) should be aware of the preferential tax regimes that apply to several investment products. Such tax incentives are provided to entice tax planners to save more and therefore tax planners should be aware of possible tax benefits when considering investments.

In addition to knowledge about legislation, it is also evident in Table 1 that a country's taxpayers should understand the linkage between the taxes they pay and how those taxes contribute to the various sources of income of the government. Here the focus is broader than personal income tax. For example, in a country such as South Africa, the personal income taxpayers are in the minority compared to the total population. However, value added tax is also a source of income of a government and all citizens pay value added tax for goods, except on certain zero-rated items. Therefore, all citizens of a country contribute to the government's income, albeit some more than others. It is thus necessary to ensure high levels of voluntary compliance through a taxpayer-centric approach. This would require certainty and clarity of what is expected from taxpayers through an effective and efficient tax administration approach.

Lastly, it is also important that citizens of a country understand what is done with the taxes collected. Fiscal policy defines a government's spending priorities, which include, among other things, quality education, health care, public transport and poverty alleviation. To enable a government to achieve these goals, a high level of tax compliance among taxpayers is required. Should low tax morale and low levels of compliance occur, regardless of the knowledge that tax evasion is illegal and can have severe consequences, the fiscal stability of a country can be at risk. When a government is perceived to be corrupt and guilty of wasteful expenditure and the tax burden becomes too high, a systemic problem could arise if taxpayers withhold payment of taxes. The fiscal policy objectives such as poverty alleviation will not be achieved, which could lead to higher levels of social unrest. Citizens of countries should thus be actively involved in fiscal policy debates and hold their governments accountable in terms of the agreed upon social contract by which they (the citizens) have to pay their due taxes and the governments have to uphold the highest level of governance and transparency in

fulfilling their mandate. This will result in social cohesion that will benefit all through effective domestic resource mobilisation, high levels of accountability and agency amongst all involved in the tax ecosystem.

Supported by Figure 7, the authors argue that in terms of the social contract between a government and its citizens, tax literacy can be defined as follows:

Tax literacy is a combination of the knowledge, the skills and the attitudes that individuals require to gather the necessary information to determine their tax liability, to be tax compliant and to conduct effective tax planning. It furthermore includes a sense of responsibility towards the objectives of the social contract, which requires active participation by the citizenry and a high degree of tax morality.

5. CONCLUSION

In addressing the paucity of reviews of the existing literature on tax literacy, this article derives valuable conceptual insights on the topic. Tax literacy is receiving more prominence from both a national and individual level since several countries are experiencing fiscal pressures, and many are modernising their tax administration efforts. These modernisation efforts cater for more independence from taxpayers, for example, self-assessments, resulting in taxpayers becoming more tax literate. Regarding fiscal pressures, governments are required to adhere to their roles and responsibilities in terms of their social contract with the citizens of their countries in spite of limited resources. In view of the importance of redistribution based on collective contributions, citizens have to understand public finances and the role they play in public finances. This article is therefore a wake-up call not only to tax administrations, policy-makers, and other stakeholders, but also to citizens, that steps should be taken to improve people's tax literacy, based on a sound conceptualisation that will ultimately improve the financial wellbeing of individuals and the broader society. This article is the first step in providing a conceptual framework and will be followed by an exploration of measurement methods as operational efforts to gauge the actual tax literacy of citizens across various tax systems and jurisdictions.

Future research should therefore explore the applicability of the conceptual definition across the various disciplines that underpin tax literacy to support concept clarity for this very important construct. The conceptual framework should also be further unpacked to determine whether it is possible to identify key competencies supporting each of the domains that would be comparable regardless of country of implementation. De Clercq (2023) developed a draft competency framework for tax literacy that could support the population of the three layers identified in this conceptual framework; however the stated framework also only defines high-level domains and needs to be operationalised in future research. The suggested conceptual framework will also support the development of a measurement instrument that could provide comparable data on tax literacy across different tax systems and countries at various levels of development.

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