READING ATTITUDES AND READING HABITS OF VIETNAMESE UNDERGRADUATE STUDENTS

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ABSTRACT

This study focuses on reading attitudes and reading habits of Vietnamese university students. The study is grounded in two principal theoretical orientations. The first is a model relating reading attitudes to reading habits that is broadly based on the Theory of Planned Behaviour (Ajzen, 1991). The second is theory about reading engagement. The understandings derived from this investigation contribute to both theoretical and practical issues relating to reading in Vietnamese higher education context.

The project was conducted at a regional university located in a small city in the south of Vietnam. These universities are termed "local" universities in Vietnam. Participants are 350 second-year students. An explanatory mixed methods design is employed in this study. There is a priority on quantitative data collection and analysis to identify the potential predictive power of selected factors (the contexts) on students' reading attitudes and reading habits. A small qualitative component then follows in the second phase of the research to explain why certain factors, tested in the quantitative phase, were significant predictors of students' reading attitudes and reading habits.

Three important findings arise from this study. First, although the data are broadly consistent with the model of reading habits, reading attitude is the only independent factor that explains the amount of time students spent on reading for their education. Second, reading contributes directly to students' academic achievement: the more students engaged in academic reading the more success they achieved in their courses. Last, students' reading engagement was not only influenced by their personal characteristics but, importantly, was related to aspects of the university's practices and services.

The above findings lead to several practical implications. To be successful, students must read. However, as the transition from the level of literacy expected of high school students to

that expected at university is a challenge for many students (Armstrong & Newman, 2011), they need to be guided and supported to engage in reading. Vietnamese universities, therefore, must look to their practices in order to develop a supportive culture that motivates reading engagement among students. As students should be inspired to read, lecturers could be good reading models themselves. Teaching methods and classroom instruction should value the role of academic reading. Assessment practices should be used effectively to drive students' reading and, therefore, their learning. In addition, the library infrastructure and services in the university at which the study was conducted were found wanting. Universities should consider ways in which their services influence student learning.

DECLARATION

I certify that this study does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university. To the best of my knowledge and belief it does not contain any material previously published or written by another person where reference is not made in the text.

Signature:

Tuong Huu Ho

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Chapter 1 – Introduction

This study investigates reading attitudes and reading habits of undergraduate students who are studying at a local university in a small city in the South of Vietnam. In the current chapter, the study background is discussed first. Then, the problem statement, the study context, the research purposes, the significance of the study and the thesis structure are addressed.

1.1. Background

This section provides the background for this study. First, the definition and the characteristics of reading literacy in the 21st century are introduced. Then, the importance of reading is discussed. It is followed by an overview of the problem of reading non-compliance among university students.

1.1.1. Reading literacy in the 21st century

As society changes, the skills needed to negotiate the complexities of life also change. In the past, a person who had acquired simple reading, writing, and calculating skills was considered literate (S. White & McCloskey, 2006). However, in recent years, literacy is not only about decoding and comprehending information but also involves understanding, using and reflecting on written information in a range of situations and for various purposes (Thomson, Hillman, & De Bortoli, 2013). Reading literacy is defined in PISA[1] 2012 as *"*understanding, using, reflecting on and engaging with written texts, in order to achieve one's goals, develop one's knowledge and potential, and participate in society" (OECD, 2013, p. 61)[2]. In this definition, motivational and behavioural characteristics of reading are recognised alongside cognitive characteristics (OECD, 2013). It is noted that PISA data focused on what it is thought literate 15 year old students should be equipped to do.

[1] PISA: Programme for International Student Assessment
[2] OECD: Organization for Economic Co-operation and Development.

The evolution of how readers communicate through various forms of text requires the notion that literacy should be dynamic and responsive. OECD (2013, p. 66) reported five aspects of reading literacy, including "retrieving information", "forming a broad understanding", "developing an interpretation", reflecting on and evaluating the content of a text" and "reflecting on and evaluating the form of a text". Not only the traditional form of text but other forms in the 21st century (such as internet-based text or other electronic forms of text) influence the way that literacy should be understood (Leu et al., 2011). The diversity of text forms in the 21st century requires an expansion of the reading skill sets to ensure interactions with these sources of text.

The concept of reading literacy has already expanded. This means, to be literate, students in the 21th century require more effort than in the past. The next section explains why it is important that students should develop their abilities to extract information from texts.

1.1.2. Benefits of reading

According to Kirsch et al. (2002), it is universally accepted that, in responding to the increasing demands placed on the educational development of citizens, reading literacy plays a particularly important role as a foundation skill. Reading plays a vital role in the learning process in university classrooms (Bartlett, Gorney, Herschbach, & Lei, 2010). Students who are well-prepared for their university life with reading comprehension skills will benefit in several ways.

First, reading ability is recognized as an important factor that contributes to students' success in school (Kim & Anderson, 2011; Swalander & Taube, 2007). Students who read frequently tend to become skilful readers (Krashen, 2009). Their reading skills support them in deeply understanding information and knowledge (Annamalai & Muniandy, 2013; Mohamed et al., 2012). Students who comply with reading assignments will be advantaged in their exams (Sappington, Kinsey, & Munsayac, 2002). According to Kim and Anderson (2011), the more

time students spend on reading, the more skilful they become; and the better students are at reading, the more success they achieve in their courses.

Reading activity leads to important cognitive outcomes and may result in habits that affect the rest of students' academic lives (Schutte & Malouff, 2007). Indeed, students develop their critical thinking, and problem-solving skills through reading processes as a result of regularly using their abilities of thinking such as imagination, analysis, judgment and creativity (Igwe, 2011). Because regular reading facilitates the development of reading competence (Schiefele, Schaffner, Möller, & Wigfield, 2012), students who read frequently become autonomous and independent readers (Tse, Lam, Lam, Loh, & Westwood, 2005). Reading, therefore, can be seen as an important factor that contributes to the growth of students' intellect and emotion; and paves the way to life-long learning (Lone, 2011; Tse et al., 2005).

Students' social outcomes such as future employment and community involvement can be predicted through their reading ability (Schutte & Malouff, 2007). People with high levels of literacy seem more likely to participate in voluntary community activities, and the higher the level of literacy they have the more job opportunities they get (OECD, 2000). Reading skills can be seen as a necessary tool for a person to participate effectively in social life (Lone, 2011).

Generally, reading is basic in all academic disciplines (Lei, Rhinehart, Howard, & Cho, 2010; H. L. White, 2004). An individual's ability to read and understand complex information is an important factor that contributes to his or her success in academic life, in professional life, and in everyday life (Kirsch et al., 2002). Thus, it can be said that supporting students to read effectively is an important shared mission for parents, educators, managers, policy makers, and the community as whole.

1.1.3. Reading noncompliance among university students

Although the importance of reading has been verified, there is an unfortunate trend of poor engagement in reading among university students. They do not comply with academic reading (Park & Kim, 2014). For pleasure, they are more likely to take part in other activities rather than reading (Nadelson et al., 2013)[3].

On one hand, many students are apathetic to academic reading. Park and Kim (2014) summarized from previous studies that university students were frequently found to show a low level of engagement in academic reading. There was a trend of noncompliance with course assigned readings among university students (Burchfield & Sappington, 2000; Sappington et al., 2002). Although students (across three universities in the USA) perceive the importance of reading, feel pressure from their lecturers to read and understand that reading will influence their academic achievement, most of them still do not read set textbooks (Berry, Cook, Hill, & Stevens, 2011).

On the other hand, a large numbers of university students are not motivated to read for recreation. Based on a literature review, Nadelson et al. (2013) claimed that reading seems not to be a pleasurable activity among university students. A study by Mokhtari, Reichard, and Gardner (2009) found that although students report enjoying recreational reading and consider themselves as good readers and think that recreational reading is important, they seem to engage in other activities, such as watching television or using the internet, more often and for longer periods of time than reading for pleasure.

Generally, getting students to read is one of the big challenges of teaching at tertiary level (Hatteberg & Steffy, 2013). It would be useful to know why university students are noncompliant with reading. What factors influence their reading engagement?

[3] Recreational reading or leisure reading or reading for pleasure can be defined as any reading voluntarily undertaken that has not been assigned for class (Gilbert & Fister, 2010).

1.2. Statement of the problem

The current section provides reasons for conducting this study. First, there are gaps in existing reading research. Second, there is a lack of reading research in the Vietnamese context where several hypotheses exist about the reasons for the claimed reading decline among university students.

To date, much reading research has been done but it has not given a complete picture about the factors that affect university students' reading habits. To investigate the influences on reading habits, much of the research has focused on reading attitudes but has ignored related issues such as subjective norms for reading and perceived behavioural control for reading (Karim & Hasan, 2007; Mohamed et al., 2012; Shafi & Lone, 2010). The findings about the relationships between reading habits and students' academic achievement are inconsistent among previous studies. The influences of university context on students' reading engagement are rarely mentioned in the literature.

In Vietnam, there is a concern about the decline of reading habits among our population, especially among undergraduate students. Students are not interested in libraries (Di & Quang, 2005). Their practice of reading is quite limited (Pham, 2011). It seems that, in the Vietnamese higher education context, the role of reading has not been appreciated.

Although the lack of a reading culture and the reduction of reading habits among the Vietnamese population are often reported by government authorities and the media (Ha, 2013; P. Le, 2014; Ngo, 2009), surprisingly, these issues are relatively unexplored fields in the Vietnamese literature. Many factors that affect students' reading habits have been suggested but they are anecdotal and have not been verified. It can be said that virtually no in-depth study on the reading problem has been carried out in the Vietnamese context. Among our university communities, it is assumed that there are several potential reasons for the low incidence of reading.

First, the poor library resources among the Vietnamese universities may be a reason. Materials for reading are generally in short supply at Vietnamese education institutions (Pham, 2011). The number of books, articles and magazines in the libraries are limited and cannot satisfy the demand of readers (Di & Quang, 2005). Thus, most Vietnamese students reported that they lack support and guidance from their universities, and that they need to be given more resources and useful material to practice (Humphreys & Wyatt, 2014).

Second, teaching methods may be another reason for reading declining. Currently, in Vietnam, university classroom practices often focus on rote learning and memorization (World Bank, 2014). In this context, textbooks have been used as the only information resource and the focus of teaching and learning at almost all Vietnamese universities. Most students perceive that "the required text by the lecturer for a particular subject is the definitive written resource for that subject", and therefore consulting any other reading materials is not necessary (Pham, 2011, p. 7).

Assessment practices may also contribute to poor reading habits among Vietnamese students. In a country with a Confucian heritage culture like Vietnam (Humphreys & Wyatt, 2014), where students seem to consider the words from their lecturers are always correct (Pham, 2011), the university lecturer is still considered as an ultimate source of knowledge and the knowledge will transfer in one-direction from lecturers to students (Tran, 2013). As a result, approximately 90% of the students thought that correct answers for their tests come from two sources, the textbooks and their teacher's lectures (Pham, 2011). Thus, it seems that students just need to focus on these two sources to pass the exams.

1.3. The context of study: higher education in Vietnam

Because this study is conducted at a Vietnamese university, it is necessary to consider the Vietnamese higher education context. First, an overview of the higher education system is

given. Then, the development of this educational sector over the past decade is described. This is followed by a review of the quality of higher education in Vietnam.

As provided in the Law of Higher Education enacted by the Vietnamese National Assembly (VNA), higher education in Vietnam is structured into four levels including junior college, undergraduate, master and doctorate (VNA, 2012). The duration of junior college education[4] is from 2 to 3 years depending on the discipline and it is for students who have graduated from high-school. The duration of undergraduate programs is from 4 to 6 years depending on the discipline and it is for students who have graduated from high-school or for those who have graduated from junior college. Masters courses are from 1 to 2 years duration for students who hold bachelor degrees. Doctoral level study is from 3 - 4 years for students with masters degrees. In special cases, training duration may be longer in accordance with the regulations of the Ministry of Education and Training (VNA, 2005, 2012).

In the national educational system, besides the full-time training levels as stated above, there is another training mode called continuing education (including part-time and distance learning). Continuing education provides opportunities for lifelong learning for people while working to improve their knowledge, skills, and quality of life, to find jobs or to create jobs for others, and to meet the changing requirements of the society. The government has policies to encourage the development of continuing education, education for all, and the development of a learning society (VNA, 2012).

Vietnamese higher education institutions are organized into two different sectors, including public and non-public institutions (VNA, 2012). Public institutions are established and funded by government organizations. Public institutions are stratified into two forms: one is directly controlled by the Ministry of Education and Training (MOET) called national universities

[4]The main purpose of a junior college is to provide academic, vocational and professional education. The highest certificate offered by such schools is usually an Associate degree, although junior college students may continue their education at undergraduate level.

(normally located in big cities) and another is directly controlled by local governments called local universities[5] (normally located in small provinces). It is noted that local universities are smaller in scale as well as poorer in infrastructure and facilities than national universities; and their mission is to serve the human resource development needs of businesses and communities of the local area. Non-public institutions are funded by social, professional, economic organizations or individuals for their infrastructure, facilities and operational expenditures. The government regulates all higher education institutions but, particularly, supports public institutions to ensure they are playing the key role in the national education system.

The number of higher education institutions in Vietnam (in both the public and non-public sectors) has increased dramatically over the past decade. According to MOET (2013), there were 81 universities and 121 colleges in Vietnam in the academic year of 2002-2003. By the academic year of 2012-2013, there were 207 universities and 214 colleges, with particularly fast growth occurring in the last five years. In 2003, 23 of the 202 universities and colleges in existence were private; by 2013, there were 54 private universities and 29 private colleges, representing approximately 20% of the total stock of 421 tertiary institutions in the country (MOET, 2013).

The student population has also increased dramatically in that time. In the academic year of 2012-2013, there were 2,177,299 students in the higher education system, with 1,864,647 of those attending public institutions and 312,652 (16.8%) attending private institutions. This is a significant increase from 2003 when there were just 1,020,667 students in higher education (MOET, 2013).

[5] The current study is conducted at a local university.

The quality of higher education in Vietnam, however, is still poor. Teaching at Vietnamese universities mostly focuses on developing students' knowledge and comprehension rather than developing their critical thinking and problem solving skills (Dao, 2008). In addition, because of the curriculum of the Vietnamese higher education system, students seem to graduate without essential skills for their future of professional life (H. Le, 2014).

Although higher education in Vietnam is now diverse in terms of form and scope of training, its quality is still a problem. The quality of teaching at Vietnamese universities is still poor compared with other universities in the Asian area (V. Le, 2014). Thus, improving the quality of higher education is a core mission for the long-term development of the whole education system in Vietnam (Vietnamese Prime Minister, 2012).

1.4. Research purposes

This study is a response to the lack of research on an identified reading problem in Vietnam. It also aims to provide an in-depth understanding of university students' reading. Particularly, in order to provide information for developing a reading culture at a particular Vietnamese university, its purposes are to increase the awareness about the role of reading in higher education, and to test hypotheses about reasons for the claimed reading decline among students through:

(1) Exploring the reading attitudes and reading habits of undergraduate students;

(2) Assessing how students' characteristics, home background and university context affect students' reading attitudes and reading habits.

(3) Discovering the network of relationships between reading attitudes, subjective norms for reading, perceived behavioural control on reading and reading habits; and

(4) Evaluating how reading habits relate to students' academic performance.

1.5. Significance of the study

Theoretically, the present study will contribute to the literature in the field of reading in the Vietnamese context where virtually no in-depth study on the reading problem has been done. It is expected to contribute to the development of knowledge about reading, and give a more complete picture of university students' reading habits. It will show evidence of the role of reading in the Vietnamese higher education setting. In particular, it seeks to draw important conclusions about the influences of university context (teaching methods, assessment practices and library services) on measured aspects of students' reading. As a result, the research outcomes will provide a useful theoretical framework and lead to recommendations for further research.

Practically, this study provides an understanding of (1) the current situation of reading among undergraduate student at a particular Vietnamese university, (2) the relationship between their reading and academic achievement, and (3) the factors that influence their reading attitudes and habits. This is the first step to redress the claimed lack of reading by university students. In other words, it is important to have a good understanding of the current situation before a plan can be made for developing a supportive culture that will facilitate improved teaching and learning. The current study, therefore, will be useful for lecturers, managers, curriculum designers, policy makers, educators and students.

1.6. Structure of the thesis

The thesis is structured into five chapters, including this first chapter that presents the introduction. Chapter 2 examines the theoretical framework of this study including a model of reading habits and theory about reading engagement. It also presents a literature review on the issues related to university students' reading engagement. Based on the theoretical framework and a review of literature, the research questions are stated. Chapter 3 elaborates on the methodology used in this study. It clarifies the rationale for employing a mixed method

approach in this study. This chapter also provides details of the data collection process, data analysis and ethical procedures. Chapter 4 presents the research findings from both quantitative and qualitative phases of the study. Finally, chapter 5 contributes to the discussion with reference to the literature review, and presents the study conclusions along with implications of the findings and recommendations for further research.

1.7. Summary

This first chapter addresses the need for the investigation of reading attitudes and habits among Vietnamese tertiary students. University students seem not to comply with reading expectations although reading can benefit them in several ways. Findings from previous studies do not contribute a complete picture about the factors that affect university students' reading habits. In addition, the issues related to reading among university students are relatively unexplored fields in the Vietnamese literature. This study of students' reading attitudes and habits has the potential to contribute to theoretical and practical issues related to university students' reading. It, therefore, will be useful for the community of local universities in Vietnam.

Chapter 2 – Literature Review

The present chapter reviews the literature relevant to students' reading. First, the chapter introduces the theoretical framework that guides this study. The subsequent section is the summary of findings on students' reading from previous studies. In the final section, the research questions that guide this study are posed.

2.1. Theoretical framework

For the purpose of this study, it is necessary to understand the potential factors that affect students' reading attitudes and habits as well as the relationship between reading attitudes and reading habits. To provide this foundation, the research is grounded in two principal theoretical orientations. The first is a model relating reading attitudes to reading habits, and the second is theory about reading engagement.

2.1.1. A model for explaining reading habits

In order to explain students' reading habits, Ajzen's (1991) Theory of Planned Behaviour (TPB) is used as foundation. This theory is a widely accepted socio-psychological model and is used frequently by many scholars to explain human behaviours across the various disciplines including reading (Miesen, 2003; Stokmans, 1999; Van Schooten & De Glopper, 2002; Van Schooten, De Glopper, & Stoel, 2004). According to the Theory of Planned Behaviour model (Figure 2.1), the most proximal determinant of a person's behaviour is their intention to perform the behaviour (Ajzen, 1991). Behavioural intention then is influenced by three direct determinants: attitudes, subjective norms and perceived behavioural control (which can also predict behaviour directly as shown by the broken line in Figure 2.1). As a general rule, the more positive the attitudes and subjective norms with respect to behaviour, and the greater the perceived behavioural control (PBC), the stronger should be an individual's intention to perform the behaviour under consideration (Ajzen, 1991). Under

conditions of volitional control, it has been found that the intention to perform a particular behaviour is the strongest predictor of its actual performance (Ajzen, 1991).

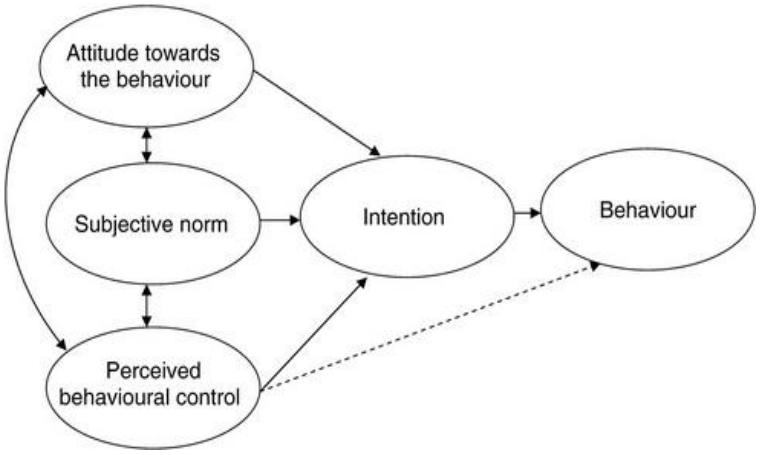

Figure 2. 1 The Theory of Planned Behaviour model (Ajzen, 1991)

Taking the Theory of Planned Behaviour as a starting point, a model for explaining students' reading habits is developed. Because this research focuses on the duration and frequency of students' reading, reading habits are studied rather than reading behaviour. According to Neal, Wood, Labrecque, and Lally (2012, p. 492), habits are formed by the "psychological dispositions to repeat past behaviour". In other words, a habit is a routine of behaviour that is repeated regularly.

Because the model of reading habits is used to seek explanations for an established pattern of behaviour not a projected one, it does not include the component of reading intention. This decision is made based on a point of view by Broeder and Stokmans (2013) that reading is an on-going behaviour not one that is only in the future. Moreover, due to the design of this study, if the measure of intention occurs at the same time as the measure of the target behaviour, these two measures would in effect be conflated.

The reading habits model, therefore, is constructed from four components including reading habits, reading attitudes, subjective norms for reading and perceived behavioural control for

reading. It is predicted that the components of reading attitudes, subjective norms for reading and perceived behavioural control for reading have important influences on reading habits. Figure 2.2 below presents the revised model of reading habits that is used in this study.

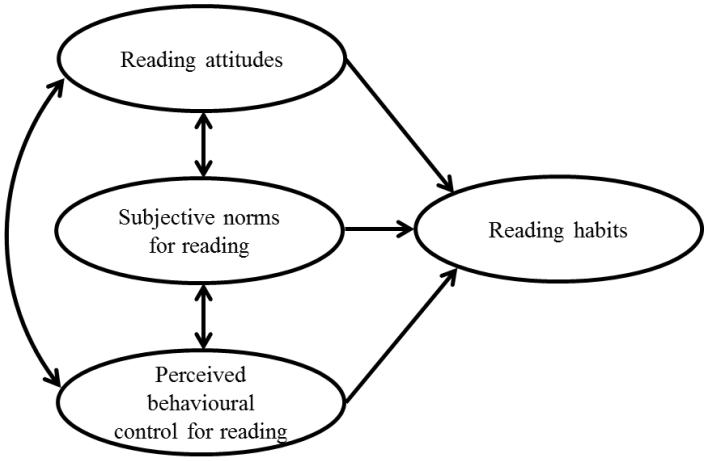

Figure 2. 2 A modified model of reading habits based on Ajzen's TPB

2.1.1.1. The reading attitudes component

An attitude toward reading is "a state of mind, accompanied by feelings and emotions, that makes reading more or less probable" (Smith, 1991, para. 1). It, therefore, can be defined as an individual's positive or negative feeling towards a reading situation (Swalander & Taube, 2007). The degree of positive or negative attitude towards reading differs according to the kind of reading to be performed and the purpose of reading (Kear, McKenna, & Ellsworth, 1995).

Reading attitude is determined by individual factors, including behavioural beliefs and evaluation of reading outcomes (Van Schooten et al., 2004). In other words, according to Broeder and Stokmans (2013), reading attitude has two constituent components, namely hedonic (emotion and feeling about reading) and utilitarian/instrumental (benefits from reading) perceptions. Based on these two dimensions, in order to measure reading attitudes, many sub-dimensions have been identified in the previous research. For Smith (1991),

reading attitudes can be measured by five sub-scales including activity-enjoyment (the extent to which the person reads for pleasure), anxiety-difficulty (the extent to which the person experiences problems or becomes anxious when reading), social reinforcement (the extent to which the person's reading activities are recognized and reinforced by others), modalities (the extent to which the individual prefers to use some other sources rather than reading when faced with a learning task) and tutoring (the extent to which the person needs help in reading).

Reading attitudes are seen as the most important predictor of reading behaviour (Broeder & Stokmans, 2013; Van Schooten & De Glopper, 2002). In the current study, which is based on a modified form of the Theory of Planned Behaviour, it is predicted that there is a positive relationship between reading attitudes and reading habits: the more positive the reading attitudes a student shows, the stronger the probability that this student will read and the greater the frequency of her/his reading.

2.1.1.2. The subjective norms for reading component

Subjective norms are the social pressure perceived by a person to perform or not to perform the behaviour (Knowlden, Sharma, & Bernard, 2012). They are determined by the normative beliefs of the social agents around him/her combined with the motivation to comply with these norms (Van Schooten et al., 2004). Subjective norms for reading, therefore, contribute to the social pressure perceived by a person to engage in reading behaviour (Broeder & Stokmans, 2013). It reflects the influence of others, who are important to the student, on the student's engagement in reading activities. In this study, subjective norms for reading therefore consists of two aspects: (1) the student's perception of the importance placed on reading by parents, friends and lecturers and; (2) the extent to which parents, friends and lecturers think a student should read. It is hypothesized that, based on the Theory of Planned Behaviour, there is a positive relationship between the subjective norms and reading habits: the higher the pressure to read a student feels from his/her parent, friends and lecturers, the

stronger the probability this student will read at a particular point in time, and the greater the amount of reading that will be done.

2.1.1.3. The perceived behavioural control for reading component

Perceived behavioural control can be defined as an individual's beliefs that he/she is able to exercise control over the their participation in the particular behaviour (Knowlden et al., 2012). It is thought to be the result of the choices a person perceives for the performance of intended behaviour and the difficulties this person perceives in personally performing these choices (Van Schooten et al., 2004). The perceived behavioural control is determined by two distinct components: an internal component that consists of a person's abilities and knowledge that support or prevent this person from performing the behaviour; and an external component that consists of the opportunities and the barriers to perform this behaviour, determined by contextual factors (Hugen, 2009). In the case of reading, perceived behavioural control refers to a student's perception of control over the reading process and is assumed to reflect the obstacles that he/she perceived from past reading experiences (Miesen, 2003). In this study, the construct of perceived behavioural control for reading is, therefore, determined by two dimensions of students' personal judgment on capacity for reading (referring to their ability to understand texts or self-efficacy) and opportunities to read (referring to materials, time and space for reading). Based on the Theory of Planned Behaviour, it is predicted that there is a positive relationship between the perceived behavioural control and reading habits: the more favourable the perception of capacity for reading and opportunities to read that a student expresses, the stronger the probability that he/she will read at a particular point in time and the greater the amount of reading will be done.

2.1.1.4. The reading habits component

Reading habits reflect time (duration and frequency) and choices (types of material) for reading (Nadelson et al., 2013). They express the way readers organize their reading, and their

reading tastes (Annamalai & Muniandy, 2013). In other words, they reflect a part of readers' engagement (diversity and frequency of reading) in reading activities (Brozo, Shiel, & Topping, 2007).

In this study, two components of reading habits of university students are measured. They are the amount of time students spend on reading and the frequency students read various types of material (textbooks, academic books, journal articles, newspapers, magazines, novels, comics and websites). As discussed above, reading habits are predicted to be positively influenced by three factors: (1) reading attitudes, (2) subjective norms for reading and (3) perceived behavioural control for reading.

2.1.2. Reading engagement

The critical factor for successfully encouraging a student to be a committed reader is to engage this student in reading tasks (Braunger & Lewis, 2006). Thus, in order to make recommendations for motivating Vietnamese undergraduate students to read, the study focuses on students' reading engagement. To provide a rationale about how reading engagement can be studied, the first part of this section discusses reading engagement and its relevance to the model of reading habits. It is followed by discussions on the role of context in fostering reading engagement, in order to explain how the context variables fit into the reading habits model.

2.1.2.1. Reading engagement and its relation to the reading habits model

Engagement is a multifaceted construct including behavioural, emotional and cognitive dimensions that reflect what students do, how they feel and what they think (Fredricks, Blumenfeld, & Paris, 2004). In the case of reading, engagement is defined as the motivated use of strategies for reading: when students are engaged, they are motivated to read for a variety of purposes, and they employ strategic behaviours to achieve their personal reading

goals (Guthrie & Alao, 1997). Reading engagement, therefore, is observable as a behaviour in the classroom but also entails cognitive, motivational, and social attributes (Guthrie, 2004).

Students' reading engagement can be understood by measuring the components of the reading habits model. Thomson et al. (2013) explained that reading engagement includes (1) interest in and enjoyment of reading, and (2) it is a sense of control over what people read, (3) their social interaction in reading, and (4) their reading practices. It can be noticed that, each of these four perspectives, in turn, reflects a part of reading attitudes, perceived behavioural control for reading, subjective norms for reading and reading habits. Thus, since the model of reading habits primary focuses on explaining how reading attitudes, subjective norms and perceived behavioural control predict reading habits, the measurement of this model's components can be used to make a general conclusion on reading engagement. Figure 2.3 below is a further modification of the reading habits model that explains how the perspectives of reading engagement, which are shown within dashed lines in the figure, are included into the components of reading habits model.

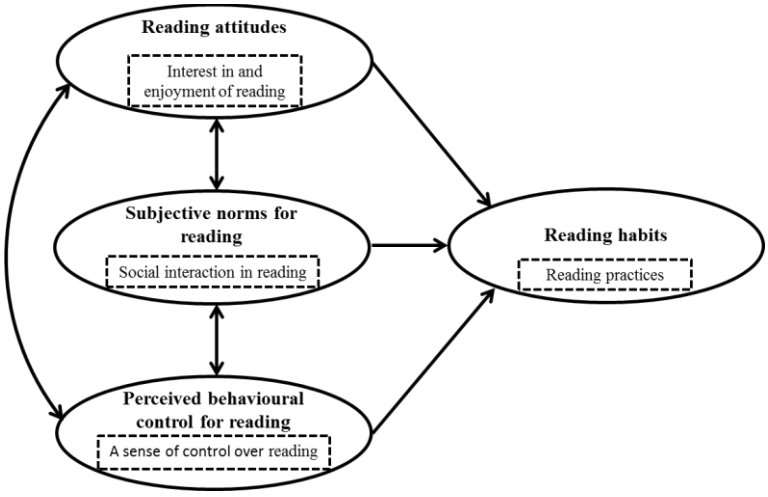

Figure 2. 3 A further modification of reading habits model (incorporating reading engagement components, which are shown within dashed lines)

2.1.2.2. Contexts and reading engagement

It is generally agreed that reading engagement is influenced by context (Braunger & Lewis, 2006; Guthrie, Wigfield, & You, 2012). Indeed, the development of reading is facilitated by social interaction, the environments for literacy experiences (e.g. physical environment, classroom community), resources and opportunities to read (Braunger & Lewis, 2006). Students' engagement in reading is enhanced when the contexts in which reading occurs foster it (Guthrie, Wigfield, & You, 2012, p. 602). More access to books leads to more reading (Krashen, 2009). A place that provides students with a comfortable and relaxing environment to read may enhance their opportunities to engage in self-selected reading as well as reading in general (Bossmann, Houston, & Kelly, 2010). Literacy activities found at home and within the community foster desire and purpose to read (Braunger & Lewis, 2006, p. 73). In short, it is suggested that "long-term reading engagement depends on a sustained context" (Guthrie & Cox, 2001, p. 299).

Students' individual characteristics such as gender, hometown status (urban or rural) and family background are possible predictors of their reading engagement. Brozo et al. (2007) reported that female students showed more positive reading attitudes, read more often, and tended to read longer texts for enjoyment more than males. According Brozo et al., students' reading engagement also varied widely across national contexts. Clark and Rumbold (2006) stated that parents and the home environment are essential to the early teaching of reading and fostering a love of reading; children are more likely to continue to be readers in homes where books and reading are valued.

Instructional practices in classrooms motivate students' reading. Brewer and Burgess (2005) reported lecturers who are open-minded, friendly, enthusiastic, and who know students' names and interests motivate students the most. In class, students who were supported to be autonomous were more likely to place a higher value on reading than other students (Guthrie

et al., 2012). Guthrie (2004) found out that students tend to be highly engaged in reading when they are given the freedom to make choices related to the subtopics that will be explored, the learning materials that will be used, and the strategies that will be implemented during reading and writing lessons. When lecturers assign appropriate readings and use these materials effectively, students are more likely to read for their classes (Brost & Bradley, 2006; Commander & Valeri-Gold, 2002; Hilton III, Wilcox, Morrison, & Wiley, 2010). In short, the instructional context can promote engaged reading among students (Guthrie, Wigfield, & Klauda, 2012, p. 24).

Generally, as the context plays an important role in fostering reading engagement (Reschly & Christenson, 2006), it is important that context is part of a set of variables of this study. According to Kelly (2003), the contextual factors can be categorized into three groups namely: national and community contexts, home context, and school context. However, for the purpose of this study (the study was carried out only in Vietnam), national context is not a variable. The contextual variables are divided into two groups: students' individual characteristics (gender, hometown status, parents' education and books at home); and the university context (teaching methods, assessment practices, and library resources and services). It is predicted that students' characteristics and university context influence students' reading attitudes subjective norms on reading, perceived behavioural control for reading and reading habits.

2.2. Previous research on tertiary students' reading

Because reading is a relatively unexplored field in the Vietnamese literature, studies from other countries are reviewed here. Although research conducted in other cultures may not be replicated in a study in the Vietnamese context, the literature discussed below is valuable to develop an initial understanding of the reading attitudes and reading habits of university

students. It plays an important role in justifying the research problem and suggests research questions for this study.

2.2.1. Reading attitudes

Findings on students' reading attitudes vary across previous studies. Reading can be an enjoyable activity but, sometimes, it can leads to students' anxiety. Furthermore, reading can be driven by the beliefs that students place on reading outcomes.

First, reading can be seen as a pleasurable activity. In research on students' reading attitudes at a Malaysian university, Karim (2006) found the majority of students, who responded that reading is their main activity during free time, agreed reading is an enjoyable activity. Research by Lone (2011) in India, Mohamed et al. (2012) in Malaysia and Onovughe (2012) in Nigeria showed quite similar results, that approximately 70% of students enjoy reading. Mohamed et al. (2012), in addition, claimed that students enjoy reading magazines and newspapers because they can gather the latest information. This indicates that reading can be an enjoyable activity if student are free to decide what they read or when it serves their personal purposes. This sense of agency is consistent with the influence of perceived behavioural control on reading habits as predicted in the Ajzen's (1991) Theory of Planned Behaviour and the model of reading habits.

However, in some cases, reading might lead to anxiety among students. Mellinee, Watson, and Elliot (2007), in a study at Texas Tech University, reported most college students feel displeasure and boredom with assigned readings. Annamalai and Muniandy (2013) indicated that most polytechnic students (from a northern state of Malaysia) find reading difficult and to cause reading anxiety. To explain students' reading anxiety, Bartlett et al. (2010) claimed that students may lack reading comprehension skills and therefore may have a tendency to avoid reading, especially difficult texts. As many tertiary students (especially those from disadvantaged schooling backgrounds) are not prepared for university-level reading and have

poor reading comprehension, they find enormous difficulties in reading at this level and, therefore, may have a defensive attitude and even not like to access reading materials (Anderson & Kim, 2011; Zulu, 2005). In other words, students' reading skill and prior experience are important influences on their reading attitudes. Reading may become a stressful activity if university students do not have the ability to understand the texts. This reluctance to read among university students, which is related to their lack of skill, is also consistent with the PBC component of the reading habits model, as low skill leads to reduced control.

On the other hand, reading can be driven by students' beliefs about the outcomes of reading activities. Most students read to learn. Reading for education is the purpose of a majority of Indian college students according to Shafi and Lone (2010). Similarly, Burgess and Jones (2010) reported that 75% of students at a regional university in the USA regularly read for school related purposes. Sappington et al. (2002), on the other hand, argued that students do not comply with reading assignments because they do not see a causal connection between reading as a learning activity and performance. Moreover, it seems that students' practice of reading is more driven by CGPA (Cumulative Grade Point Average) rather than a desire to gain knowledge for professional career (Bartlett et al., 2010). These findings reflect the instrumental dimension of reading attitudes component of the reading habits model, as students show more positive attitudes toward reading when they believe reading activity benefits them.

2.2.2. Subjective norms for reading

Subjective norms for reading do influence students' engagement in reading. Shafi and Lone (2010) indicated reading habits among Indian students are influenced by their lecturers and parents the most. Under pressure from parents and lecturers to improve their academic performance, most students read for education (Lone, 2011). Lecturers can be seen as role-

models for reading and that is a key factor to motivate students to read (Stokmans, 1999). Their sharing about the excitement for reading, knowledge of various authors, enjoyment of certain books, recommendations of good reading materials or just mentioning a recent enjoyable reading experience can have a powerful influence on students' perceptions and beliefs on reading (Albright et al., 2007). Generally, although lecturers and parents positively influence students' reading habits in several ways, the most important contribution they can make to students is to be role-models for reading (Akanda, Hoq, & Hasan, 2013).

2.2.3. Perceived behavioural control for reading

Perceived behavioural control for reading also influences reading engagement among university students. Some scholars have argued that the factors of ability to understand texts and self-confidence are positively correlated with reading compliance among university students (Anderson & Kim, 2011; Bartlett et al., 2010). As students realized the requirement of literacy practices for university level of study is different from their past education, most of them found difficulties in reading and seem to passively received information (Armstrong & Newman, 2011). Other researchers, on another aspect, implied that students would engage in reading if they have easy to access to reading materials (Duncan, 2010; Krashen, 2009) or have more comfortable spaces for reading (Bossmann et al., 2010; D. Johnson, 2007). Generally, students tend to read if they have the required capacities and opportunities to read.

2.2.4. Reading habits

Findings from various surveys on reading habits among undergraduate students vary between countries. Students spend different amounts of time reading for their learning and pleasure. They read different genres for these two purposes.

Students rarely do recreational reading. Over a half of Taiwanese students reported that they spent less than one hour per day on extracurricular reading (Su-Yen, 2007). During the academic semesters, more than 60% of students who are studying at a college located in

Texas (US) reported that they read two hours or less each week for pleasure (Gallik, 1999). Students at a public university in the Pacific Northwest (US) spent an average of 0.4 hours a day reading for pleasure (Nadelson et al., 2013). Since college students are now potentially faced with more leisure options, they are more likely to take part in other activities than reading for recreation (Burgess & Jones, 2010).

Students mostly read for their learning, but they spent little time on this activity. Malaysian students spent from one to two hours per day on reading due to the requirements of academic activities (Annamalai & Muniandy, 2013; Karim, 2006; Karim & Hasan, 2007). A total of 62% of US students from two Midwestern universities spent no more than one hour a day reading their assigned materials and only 6.1% of them spent more than two hours a day for this reading activity (Baier, Hendricks, Warren Gorden, Hendricks, & Cochran, 2011). Students from another US public university generally spent about 0.8 hours a day reading for their courses (Nadelson et al., 2013). In short, university students seem to spend no more than two hours per day reading for educational purpose.

Although university students read a diversity of genres for recreational purpose, magazines and newspapers are the most popular reading materials. Among eight types of recreational reading materials (magazines, newspapers, novels, poetry, letter/email, internet, non-fiction and comic books), Gallik (1999) found that 75% of students read magazines most frequently. Mohamed et al. (2012) reported that although Malaysian students access a variety of reading materials, up to 80% of them preferred to read magazines and newspapers. Similarly, magazines and newspapers are the first and second choices for recreational reading among Taiwanese students (Su-Yen, 2007). It seems that, when reading for pleasure, students prefer to read the materials that provide them latest information or news.

To read for course-related purposes, students seem to depend on textbooks and their lecture notes. According to Pham (2011), Vietnamese students tend to focus on textbooks for their

learning. Berry et al. (2011) found that about 70% of students in college finance courses (US) read their textbooks for exam preparation. For 87% of students at Loughborough University (UK), lecture notes were heavily relied on when reading, especially for examinations (Barnett et al., 2012). Thus, it seems that university students have limited reading habits, both in terms of the time they spend reading and in the types of materials they read.

Websites have become an increasingly important reading source whether students read to learn or to relax. Shen (2006) indicated that Taiwanese students prefer to read digital rather than print information. According to Karim & Hasan (2007), most Malaysian students get their reading materials from the internet, and this is followed by the library (28%), friends (23%), and the bookstore (16%). Similarly, for all purposes, Mohamed et al. (2012) found that Malaysian students would read digital media rather than printed materials. It is predicted that students might prefer to read digital materials because it is convenient and easy to access. That is, they are able to exercise control over their reading.

2.2.5. Relationships between contexts and students' reading

Findings from previously published literature regarding the effects of contexts on students' reading attitudes and reading habits are summarized in two parts. Findings on the relationships between students' characteristics and their reading attitudes and reading habits are reviewed first. This is followed by a discussion of findings about the influences of university context on students' reading attitudes and reading habits.

2.2.5.1. Relationships between individual characteristics and students' reading

Findings from previous research on the influence of gender on students' reading attitudes and reading habits are inconsistent. Karim (2006) found no gender differences on time spent reading and reading attitudes among Malaysian students, while others (Shafi and Lone, 2010 (India); Su-Yen, 2007 (Taiwan)) did report gender differences in reading attitudes and reading habits. Shafi and Lone (2010) confirmed that females generally spent more time reading than

their male counterparts, and Su-Yen (2007) reported that males spent more time on extracurricular reading than female students. It seems that the relationships between gender and reading attitudes, and between gender and reading habits vary by reading purposes and national contexts.

The explanation for the gender differences in reading habits has been discussed in previous studies. Tepper (1998) claimed that women read fiction more often than men because, women are more often encouraged to engage in reading activities as children or simply because they are better readers. Shafi and Lone (2010) posited, because female students spend more time indoors than males, they are more likely to read than male students. Summers (2013) generalizes that gender differences in reading might be influenced by inherent biological, social and cultural factors or based on the development of early literacy.

Field of study is also reported as an important factor that affects the reading habits and reading attitudes of undergraduate students. In research on reading newspapers among US students, Jeffres and Atkin (1996) reported that students from a humanities major read more than those from natural science, engineering, and math majors. Taiwanese students from arts and architecture majors spent much more time on reading than those from other majors (Su-Yen, 2007). Karim & Hasan (2007) found that art-based students have more positive attitudes towards reading than IT-based students. They claimed that art-based students reveal positive attitudes toward reading and read more simply because they are required to do so. In brief, the academic discipline of students shapes their reading attitudes and habits.

Hometown status (urban/rural) was found to be a predictor for students' reading attitudes and habits. According to Lone (2011), due to the problems of low level of literacy and lack of a healthy reading tradition in rural areas (poor literary environment), students who grew up in a rural area tend to enjoy reading less than students who grew up in a urban area and they spent less time on reading (per day) than their urban counterparts. Since the development of reading

is facilitated by the environments for literacy experiences (Braunger & Lewis, 2006), the communities or areas where students grow up can predict their reading attitudes and habits.

Students' reading attitudes and reading habits are influenced by their family background. Indeed, the fundamentals of reading engagement are laid down in a family environment (Camp, 2007; Lena & Karin, 2007). In a study of 402 college students (US), Nickoli, Hendricks, Hendricks, and Smith (2004) reported that students who live in a rich home literary environment (providing both reading materials such as books and newspapers, and reading events such as reading circles or reading aloud) are identified as having a positive attitude toward reading. In Taiwan, the higher the educational level of the parent the more time students spent on extracurricular reading (Su-Yen, 2007). As well-educated parents tend to place high expectations on their children and more often provide them with various language practices, they contribute strong effects on reading skills and achievement of their children (Gustafsson, Yang Hansen, & Rosén, 2011). To some extent, family background can be used to explain students' reading habits.

2.2.5.2. Relationships between university context and students' reading

Lecturers and their teaching strategies significantly influence students' reading. The lecturers' guidance and sharing of reading experiences have an important influence on students' motivation to read (Baccus, 2004). Hilton III et al. (2010) indicated the length of time students spent on assigned readings is influenced by different approaches that the lecturers use to assign and evaluate these readings. They found a significant difference in terms of task completion among students based on the forms of reading they are assigned. They also concluded that grading reading assignments motivates reading frequency among students. Commander and Valeri-Gold (2002) suggested that US students' positive attitudes toward reading can be promoted when their teachers make reading activities more interesting (providing reading materials that relate to students' career goals or give information about

problems to which they want answers). Brost and Bradley (2006), in addition, found that noncompliance with assigned reading among US students is caused by their lecturers who did not provide appropriate materials or simply did not use these materials effectively in class. Evaluating students on their class participation might encourage US students to read for class preparation (Hatteberg & Steffy, 2013). The activity of group discussion motivates students to read for their courses because it is an enjoyable activity that provides students with opportunities to share ideas, interact and learn from each other about what they have read (Chi, 2012), and makes learning more active, effective and creative (Sajjad, 2009).

It seems that students' reading is driven by their examinations. Students might read because they believe there is a connection between their learning preparation and their performance (Sappington et al., 2002). Barnett et al. (2012), in a study at Loughborough University (UK), found that approximately 98% of students were more likely to read materials directly relevant to an assessment. Baier et al. (2011) reported only 24.8% of students (from two Midwestern universities, US) completed assigned readings before class while 40.8% of them indicated they did their reading only when preparing for examinations. Because classroom assessment influences the way students learn and their motivation to learn (Earl & Katz, 2006; Scouller, 1998), it, therefore, might influence the way they read for exam preparation. In an oral presentation, students are required to apply theory to practice, do the presentation in front of audiences (lecturer and classmates) and respond to questions from them (Borin, Metcalf, & Tietje, 2008; Race, 2015), and therefore students require more effort to gain a deep understanding of the topic. The multiple-choice questions method, however, are usually used to test students' broad knowledge of the curriculum and learning objectives (Brady, 2005; University of New South Wales, 2014), and this might lead to a strategy of surface learning among students.

It is generally agreed that the university library influences students' reading attitudes and reading habits. According to Somaratna and Peiris (2011), the academic library can be seen as the "heart" of the learning community, providing a place for students to advance their knowledge. The mission of a library is not to teach students to read, but rather to provide them with reasons to read (Pappas, 2004). A library that is user-friendly for students (where students are not intimidated or overwhelmed) will help to create a positive culture for reading (D. Johnson, 2007). A quiet, inviting place is more conducive to reading (Krashen, 2004), and comfortable seating (in the library) will help students relax and spend time reading (D. Johnson, 2007; Krashen, 2004). When students have more access to books they seem to do more reading, in turn becoming better readers (Krashen, 2009). Students who are regular library users are active learners: they participate more in class, and read, write and study more (Julien, 2000). Yusuf and James-Iwu (2010), in a study at Covenant University (Nigeria), reported that 88% of students prefer to visit the library to read for examinations.

It is concluded that the university context can be seen as an important predictor for students' reading. A review of literature indicates that the lecturers and their teaching approaches, assessment practices and the library services significantly influence students' reading in different ways. Students tend to read when the university context fosters it.

2.2.6. Relationships between reading attitudes, subjective norms, perceived behavioural control for reading and students' reading habits

Students' reading habits were found to be influenced significantly by their reading attitudes. Karim and Hassan (2007) confirmed that students reading attitudes positively and significantly correlate with the amount of time they spent on reading and the frequency they read several reading genres (academic books, literature, fiction or novels). According to Stoffelsma and Spooren (2013), there was a positive correlation between Ghanaian students' attitude towards reading for school and their time spent reading for school. It seems that the more positive the reading attitudes students show, the more frequently they read.

Findings on the relationships between subjective norms for reading and students' reading habits were inconsistent across previous studies. Broeder and Stokmans (2013), in their study on secondary students in the Netherlands, in Beijing (China), and in Cape Town (South Africa), reported that there were different correlations (positively and negatively) between subjective norms and the amount of time students spent on leisure reading. Shafi and Lone (2010), in their study in India, confirmed that reading habits among college students are influenced most by their parents and lecturers. A study of adult literacy (Miesen, 2003), however, found that the subjective norm was not predictive of the reading intention. Other research in US showed that although college students know it is important to read and know the professors expect them to read, most of them still do not read set textbooks (Berry et al., 2011). In short, the relationships between subjective norms for reading and students' reading habits might vary between contexts.

Perceived behavioural control for reading was also an important factor to predict students' reading habits. Van Schooten and De Glopper (2002) and Broeder and Stokmans (2013), in their studies on adolescents' reading, confirmed positive correlations between perceived behavioral control and reading habits. Other scholars (Bartlett et al., 2010; Bossmann et al., 2010; Kim & Anderson, 2011; Krashen, 2009) implied that students are more likely to read if they have abilities (reading skills) and opportunities (more access to books and a quiet environment) to read. Generally, the more students feel control over their reading, the more frequently they read.

Generally, results from previous studies partly reflect the predictions of the Theory of Planned Behaviour. It was found that reading attitudes and perceived behavioral control for reading significantly explain students' reading habits, while the relationships between subjective norms and reading habits are uncertain. The Theory of Planned Behaviour, to some extent, can be seen as a useful model for predicting reading habits of university students, but one that

requires further investigation because, while some of the proposed relationships are well supported in the literature, some are not widely supported.

2.2.7. Relationships between reading habits and students' academic achievement

Although reading is generally regarded as the basis for students' success (Mohamed et al., 2012), the findings about the relationships between reading habits and students' academic achievement are inconsistent in previous research. It seems that the relationships between reading habits and students' academic achievement depend on how well students comprehend the texts they read.

Several studies indicated that students' reading habits have positive effects on their academic achievement. Gallik (1999) found that there was a significant positive relationship between US students' CGPA and time spent reading for pleasure during vacations. Sappington et al. (2002) reported that the frequency of reading research articles among US students positively correlated with their activeness in class discussions, their understanding of lectures and their examination results. It seems that when students spend more time on reading (whether for educational or recreational purposes) they tend to become skilful readers (Krashen, 2009), and these students are more likely to succeed in their courses than others (Kim & Anderson, 2011).

Other studies, however, found that there is no relationship between reading habits and students' academic performance. According to Karim and Hasan (2007), Malaysian students' CGPA was found not to be significantly related to the types of reading materials, sources of reading materials or the amount of time spent reading per week. Similarly, Mohamed et al. (2012) found that there was no significant correlation between Malaysian students' reading habits and their CGPA. These authors, however, could not give a logical explanation for this phenomenon. Since reading at tertiary level requires specific skills (Anderson & Kim, 2011;

Bartlett et al., 2010; Zulu, 2005), it is assumed that although Malaysian students do read for their classes, they do not have a good comprehension of these reading.

In brief, among previous studies on reading, it can be seen that findings are inconsistent across national contexts. Reading can be an enjoyable activity or sometimes a cause of anxiety. Reading habits can be driven by reading purpose and the availability of reading materials for undergraduate students. Students' individual characteristics (e.g. gender, field of study, home background) and university context might have direct or indirect effects on reading habits. The Theory of Planned Behaviour can be seen as an adequate model for predicting reading habits of university students. The literature review, therefore, provides a rationale for the need to explore students' reading habits and reading attitudes in a Vietnamese university context. It also provides suggestions for research questions and directions for selecting of variables in this research.

2.3. Research questions

The research questions for this study are driven by the theoretical framework and the review on previous research (see Figure 2.4). Students' individual characteristics and the university context (including teaching methods, assessment practices and library services) are predicted to have significant effects on students' reading attitudes, subjective norms for reading, perceived behavioural control for reading and reading habits. It is predicted that students' reading attitudes, subjective norms for reading and perceived behavioural control for reading can explain students' reading habits. It is also expected that students' reading habits have positive effects on their academic achievement. There are three major research questions in this study:

1. How do contextual factors (students' individual characteristics and the university context) explain undergraduate students' reading attitudes, subjective norms, perceived behavioural control and reading habits?

a. To what extent do contextual factors explain students' attitudes towards reading?

b. To what extent do contextual factors explain students' subjective norms for reading?

c. To what extent do contextual factors explain students' perceived behavioural control for reading?

d. To what extent do contexts explain students' reading habits?

2. How do students' reading attitudes, subjective norms for reading and perceived behavioural control for reading explain their reading habits?

a. To what extent do reading attitudes explain students' reading habits?

b. To what extent do subjective norms for reading explain students' reading habits?

c. To what extent does perceived behavioural control for reading explain students' reading habits?

3. What are the relationships between students' reading habits and their academic achievement?

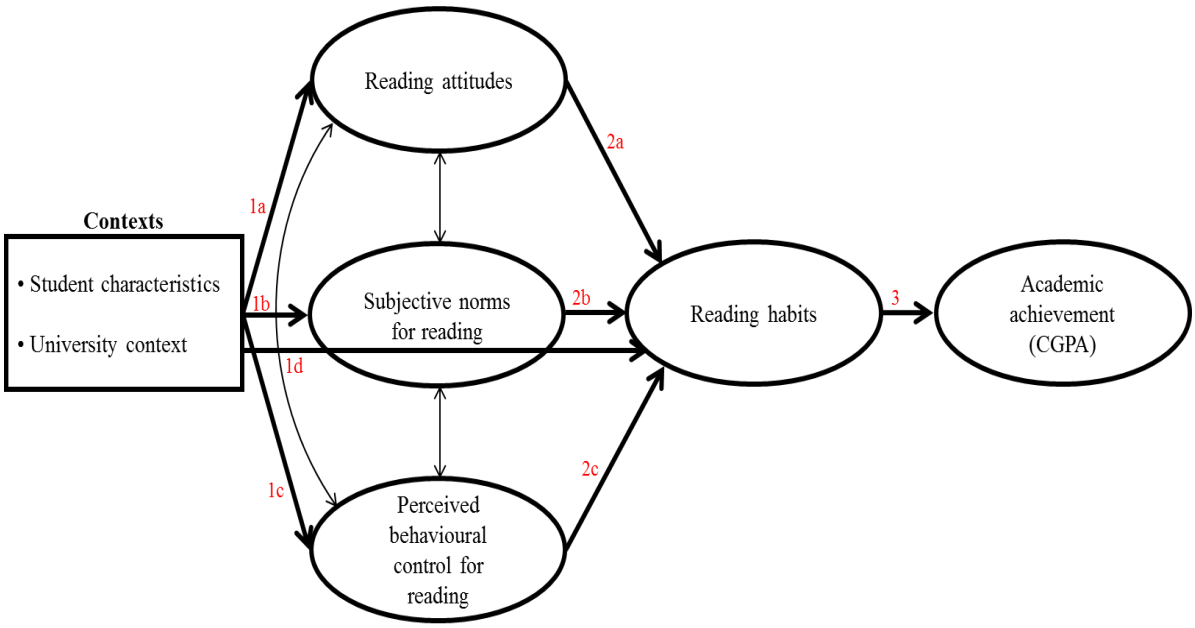

Figure 2. 4 Construct map for the research questions [6]

[6] The numbering in the contruct map reflects the numbering used for the research questions.

From these research questions, it is hypothesized that:

- Students' characteristics, their family background and the university context have significant effects on their reading attitudes, subjective norms for reading, perceived behavioural controls on reading and reading habits.
- There are positive relationships among students' reading attitudes, subjective norms for reading, perceived behavioural control for reading and reading habits.
- There are positive relationships between reading habits and students' academic achievement.

2.4. Summary

In this chapter, the theoretical framework that drives this study is discussed. A model for explaining students' reading habits is developed based on a modified form of the Theory of Planned Behaviour (Ajzen, 1991). Reading engagement is included to supplement context variables in the model.

The review of previous studies provides an initial understanding of reading engagement among university students. It supports the hypotheses that students' reading attitudes and reading habits are influenced by students' characteristics and the university context. It also supports the suitability of using the reading habits model to measure university students' reading attitudes and reading habits. Most studies found students' reading habits have a positive influence on their academic achievement but some have reported no relationship, e.g. in the Malaysian context (Karim & Hasan, 2007; Mohamed et al., 2012).

The theoretical framework and the literature review provide the rationale for the present research that focuses on explaining Vietnamese undergraduate students' reading habits. They support the appropriateness of the variables that are measured in this research. Based on them, the research questions are stated above.

Chapter 3 – Methodology

The current chapter discusses the methodology used in this study, describing it in detail in several sections. The first section presents the research design, epistemology, methodological frameworks and methods of collecting data. It is followed by an outline of the population and samples in the second section. The subsequent sections describe the research instruments, address the procedures of data collection, data analyses and describe how the findings from the quantitative and qualitative phases are integrated. The final section discusses how this study manages ethical considerations.

3.1. Research design and paradigms

To provide insight into aspects of reading among Vietnamese undergraduate students, and to find out what factors and explain why these factors influence their reading habits, this study employs a mixed methods design. A mixed methods design is defined as "the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (B. Johnson, Onwuegbuzie, & Turner, 2007, p. 123). Creswell (2011) argued that combining different information from both quantitative and qualitative approaches provides a better understanding of the research problem (such as the complex issues related to students' reading attitudes and reading habits) than a single approach, either quantitative or qualitative. Quantitative results can point out the relationships among variables while qualitative data can help to build an in-depth understanding about what these statistical results actually mean (Creswell & Clark, 2011). Generally, by using mixed methods research, the object of the research will be examined from different views (Creswell & Clark, 2011). Figure 3.1 is a visual model of philosophical positions for this mixed methods study.

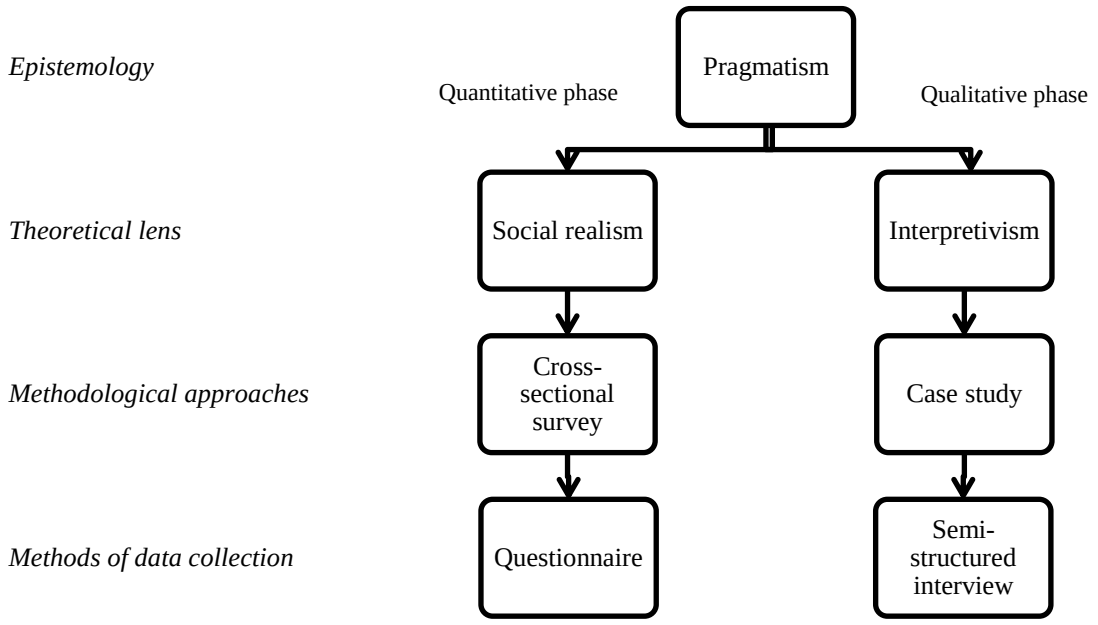

Figure 3. 1 The philosophical positions and how they are enacted in the present study

The epistemology guiding this research is pragmatism. This paradigm was chosen because it has been seen as "philosophical partner" for mixed methods research (B. Johnson & Onwuegbuzie, 2004). It is claimed that "pragmatism offers an epistemological justification (i.e., via pragmatic epistemic values or standards) and logic (i.e., use the combination of methods and ideas that helps one best frame, address, and provide tentative answers to one's research questions) for mixing approaches and methods" (B. Johnson et al., 2007, p. 125). The major tenet of pragmatism is that both objective and subjective points of view are flexibly focused, depending on the research phase (Teddlie & Tashakkori, 2009, p. 88). It can be said that "pragmatism can provide a philosophy that supports paradigm integration and helps mixed research to peacefully coexist with the philosophies of quantitative and qualitative research" (B. Johnson et al., 2007, p. 125).

In the quantitative phase of this research, the information about reading attitudes and reading habits among Vietnamese undergraduate students and the factors that might influence them are investigated using numerical data obtained from a survey design. The broad

methodological framework for this phase is social realism in which the developing knowledge is claimed based on discovering the "structures and mechanisms" that produce reading attitudes and reading habits (Blaikie, 2009). In this phase, to determine variables, predict the factors that might affect students' reading attitudes and reading habits and adapt the instrument, the research is focused on the model of reading habits that was developed based on Ajzen's Theory of Planned Behaviour. The predicted relationships among variables are uncovered using statistical analyses and the findings are reported in a factual style.

To complement the quantitative analysis, in the qualitative phase, explanations for the results from the first quantitative phase are sought. This is an inquiry process that focuses on students' views to develop a detailed understanding of their reading attitudes, reading habits and how certain factors influence their reading using text analysis of verbal data (Creswell, 2011). In this approach, knowledge claims are made based on the interpretivist perspective that concentrates on the subjective experiences and the meanings students bring to the situations related to reading (Punch, 2014).

This study employs an explanatory design (Creswell & Clark, 2011, p. 81), consisting of two distinct phases, to capture the trends and details of students' reading attitudes and their reading habits (see Figure 3.2). The rationale for this approach is that the quantitative data and results provide a general picture of the research problem, while the qualitative data and its analysis will refine and explain those statistical results by exploring participants' views in more depth (Creswell, 2011, p. 542). Creswell and Clark (2011, p. 82) claimed that this type of design is the most useful when the researcher not only tries to explore trends and relationships among variables but to go beyond that – explaining the reasons for these findings.

The present mixed methods study is classified in terms of priority and sequence (Bryman, 2012). There is a priority on quantitative data collection and analysis to identify the potential

predictive power of selected factors (the contexts) on students' reading attitudes and reading habits, and this is based on a modified form of Ajzen's (1991) Theory of Planned Behaviour. A small qualitative component then follows in the second phase of the research to explain why certain factors, tested in the quantitative phase, were significant predictors of students' reading engagement. The results of the quantitative phase of the study are used to direct the qualitative phase through the purposeful selection of participants and the development of interview questions. The results of these two phases are integrated during the discussion of outcomes for the whole study.

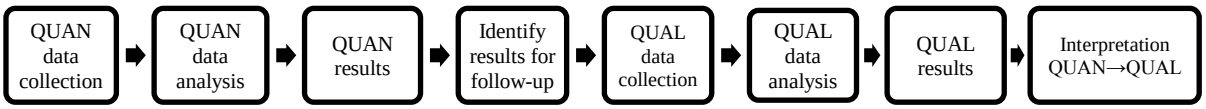

Figure 3. 2 The explanatory design procedures (Creswell & Clark, 2011, p. 84)

In the first phase, a cross-sectional survey design was selected because it is the most suitable tool to both collect data on multiple cases at a single point of time and to examine the relationships between variables (Bryman, 2012, p. 59). It is particularly appropriate for use in this first phase since the aim of this phase is to examine individual reading attitudes and reading habits, and compare these among groups of students based on the individual characteristics (Creswell, 2011). By using a survey, the inferences related to students' reading attitudes and reading habits can be generalized to the whole target population based on the data and results from studying a small sample of students (Creswell, 2011).

In the second phase, a collective case study was employed. This approach is suitable for providing insights into students' reading attitudes and habits because it focuses on describing and comparing multiple cases of participants (Creswell, 2011, p. 465). Participants were selected from students who completed the survey. A semi-structured interview technique of open-ended questions was used to collect data because it is an effective approach to enable

participants to express their point of view (Creswell, 2011, p. 218). An interview also allows the interviewer to probes, thus gaining in-depth information from the interviewee (Creswell, 2011; Teddlie & Tashakkori, 2009).

As this mixed methods study is conducted in two distinct phases (quantitative and qualitative), it requires two different sampling techniques according to these two phases. Different methods of data collection are also required for these two approaches. These are described in the next section.

3.2. Population and sample

This study was conducted at a local university located in a small city in the south of Vietnam. Currently, the university has four academic faculties: Agriculture, Economics, Education and Information Technology (IT). In the academic year of 2014 – 2015, over 5,000 students were studying at this university, with 1,106 students in their second year of study. In this study, the second-year students are selected because they are acquainted with the university environment and the learning style at tertiary level, and have a record of achievement (CGPA) for the first academic year.

In the quantitative phase of this study, from the target population of 1,106 second-year students, a sample of approximately 350 students was taken from the four academic faculties at the university. According to Creswell (2011, p. 146), this is a recommended sample size for a survey study in education. A calculation based on an online tool from the Survey Monkey website (https://www.surveymonkey.com/mp/sample-size-calculator/) also confirmed that, with the population of 1,106 and the margin of error (confidence interval) of 5% at a 95% confidence level, this study requires a sample size of 350 participants.

In addition, because the numbers of students were different across faculties, a stratified sampling technique was used to select participants. This stratification technique was chosen

because it generally provides increased accuracy in sample estimates (Ross, 2005, p. 10) and is the most suitable where the population reflects an imbalance on a characteristic of sample (Creswell, 2011, p. 144). In practice, a stratified sample is found by ensuring each sub-group is proportionately represented in the sample.

The number of participants required from the Faculty of IT was calculated at 18 but a minimum sample size of 30 students was set in order to get reasonable parameter estimates (Field, 2009, p. 42). Because different proportions of students were selected from different faculties, in subsequent analysis, sample weights were used to rebalance the sample. Consequently, 29 students were randomly selected from the Faculty of Agriculture, 71 from the Faculty of Economics, 222 from the Faculty of Education and 28 from the Faculty of IT for a sample of 350 participants. Table 3.1 presents the achieved sample in the quantitative phase of this study.

Table 3. 1 The sampling design of the quantitative phase in the study

Faculty	Number of students	Calculated sample	Achieved sample
Agriculture	93	29	29
Economics	226	71	71
Education	733	232	222
Information Technology	54	18	28
Total	**1106**	**350**	**350**

In the qualitative phase, due to the sequential design of this study where the qualitative data was used to seek explanations for the initial quantitative results, it is necessary to select participants who had completed the questionnaire in the quantitative phase (Creswell & Clark, 2011, p. 185). For this reason, in the second phase, students who participated in the first phase of this study were purposefully recruited using a maximal variation sampling technique (Creswell, 2011, p. 207). By this technique, multiple perspectives related to the complex issue of reading attitudes and reading habits among different students would be presented (Creswell, 2011). A total of 8 students were invited to participate in this phase based on their CGPA (one high achieving student and another low achieving student from each academic

faculty). According to Creswell and Clark (2011, p. 174), for a case study, the sample size typically ranges from 4 to 10 participants. They claimed that when participants are different from demographic characteristics or other factors, their opinions will reflect this difference and contribute to a good qualitative study.

3.3. Instruments

In this section, research instruments are described. Quantitative data were obtained through a questionnaire that was adapted from several that had been used in previous research. The studies on which the questionnaire was based had been published recently in international journals, and most are focused on tertiary students (Annamalai & Muniandy, 2013; Lone, 2011; Van Schooten & De Glopper, 2002). The language of the questionnaire was modified to suit the Vietnamese culture and research context. Qualitative data, on the other hand, were collected using an interview protocol that was developed based on the quantitative findings and the research purposes. Each instrument is discussed in detail below.

3.3.1. Questionnaire

The questionnaire was structured based on the model of reading habits (see Appendix A – Questionnaire of students' reading attitudes and reading habits). As discussed in the literature review, reading intention did not need to be measured in this study. This decision was made given the availability of a simultaneous measure of reading habits.

The questionnaire, consequently, is divided into seven sections. The first three sections are about students' characteristics, their home background, and the university context that reflect the contexts in the reading habits model. The next three sections correspond to the three important components of the model that are predicted to influence students' reading habits: reading attitudes, subjective norms for reading and perceived behavioural control for reading. The final section is about students' reading habits.

The context items are closed questions. For reading habits, students would answer closed questions by using 5-point frequency scales, ranging from "every day or almost every day" to "never or almost never". Participants were also asked to show the degree to which they agree with statements about reading attitudes, subjective norms for reading and perceived behavioural control for reading by responding using a 6-point Likert scale ranging from "agree a lot" to "disagree a lot". According to McKenna et al. (2012), as adolescent and older individuals are typically capable of discriminating among these response options, and a balanced response format can avoid the situation where students select a neutral middle option as a mean of masking their judgment, six response options were offered.

The questionnaire was translated into Vietnamese by the researcher and checked by a colleague fluent in Vietnamese and English. The Vietnamese version of this questionnaire was also trialed with two Vietnamese undergraduate students, who are studying at Flinders University. This helped to ensure that the wording in the questionnaire was suited to the Vietnamese culture and to ensure when distributed to Vietnamese students they would understand and be able to respond to all the questions.

3.3.1.1. Context items

Ten context items were used in the questionnaire. For students' individual characteristics, four questions were asked about their gender, hometown status (rural, urban), their academic faculty and CGPA. Relating to family background, there were three questions about their parents' education and the number of books at home. For the university context scale, students were asked three groups of questions (13 in all) about teaching methods, assessment practices and the quality of university library services. The contextual items are presented in Table 3.2.

Mothers' and fathers' education were classified into five groups namely postgraduate (master and doctorate), undergraduate, college, high school and other (secondary school or below). As

discussed earlier, the Vietnamese formal education consists of 12 years of schooling, in which primary education is five years in duration (grades 1-5), and is followed by four years of secondary (grades 6-9) and three years of high school (VNA, 2005). Following the formal education, higher education in Vietnam is structured into four levels namely college, undergraduate, master and doctorate (VNA, 2012).

Table 3. 2 Context items used in the questionnaire

Scale	**Items**
Students' individual characteristics	1. Are you male or female? 2. Where is your home located? 3. Which faculty are you in? 4. What is your CGPA rank?
Family background	5. What is the highest level of schooling completed by your father? 6. What is the highest level of schooling completed by your mother? 7. How many books are there in your home?
University context	8. How often do these things happen in your classes? • The lecturers assign reading for homework. • The lecturers ask questions about our required reading. • The lecturers ask us to write something about what we have read. • The lecturers ask us to discuss in groups about what we have read. 9. How often do your lecturers use each of these methods to assess your performance? • Multiple-choice questions • Oral presentation • Written exam • Essay • Open book exam 10. How much do you agree with these statements below about the university library? • The information I require for my course needs is available at the library. • The library opening hours match my schedule. • It is easy to find where the materials are located in the library. • Self-study areas in the library are kept quiet.

3.3.1.2. Reading attitudes' items

As discussed in the literature review, the concept of reading attitudes consists of two dimensions, "Emotions – feelings about reading" and "Benefits from reading". For the purpose of this study, students' reading attitudes were measured using three scales namely reading purposes, reading enjoyment (the extent to which a student reads for pleasure) and reading anxiety (the extent to which a student faces difficulties or becomes anxious when reading). Five questions about reading enjoyment and another five questions related to

reading anxiety were adapted from the study of Annamalai and Muniandy (2013). Three questions about reading purposes were taken from the study by Lone (2011). All reading attitudes items are presented in Table 3.3.

Table 3. 3 Reading attitudes' items in the questionnaire

Scale	**Items**	**Sources**
Reading enjoyment	11. Reading is one of my favorite activities. 12. I get a lot of enjoyment from reading. 13. I read when I have the time to enjoy it. 14. I spent a lot of my spare time reading. 15. I want to have more books of my own.	Annamalai and Muniandy (2013)
Reading anxiety	16. I get upset when I think about having to read. 17. Encountering unfamiliar words is the hardest part of reading. 18. When I read I usually feel bored. 19. I often feel anxious when I have a lot of reading to do. 20. I need a lot of help in reading.	Annamalai and Muniandy (2013)
Reading purposes	21. I need to read for my education. 22. I read for information purpose. 23. I read for recreation.	Lone (2011)

3.3.1.3. Subjective norms for reading items

Students' subjective norms for reading are determined by the normative beliefs of the social agents around them combined with the motivation to comply with these norms. In this study, several questions about normative beliefs and motivation to comply were asked to find out how students' reading habits are influenced by their parents, friends and teachers. These questions were adapted from the study by Van Schooten and De Glopper (2002). All items of the subjective norms for reading scale are presented in Table 3.4.

Table 3. 4 Subjective norms for reading items in the questionnaire

Scale	Items	Sources
Normative beliefs	24. My parents believe it is important to read. 25. My lecturers believe it is important to read. 26. My friends believe it is important to read.	Van Schooten and De Glopper (2002)
Motivation to comply	27. My parents think I should read more. 28. My lecturers think I should read more. 29. My friends think I should read more.	Van Schooten and De Glopper (2002)

3.3.1.4. Perceived behavioural control for reading items

Two aspects of students' perceived behavioural control for reading were measured namely students' personal judgment of their capacities for reading (referring to their ability to understand texts or self-efficacy) and opportunities to read (referring to reading materials, time and space for reading). Several questions were asked to find out if it is easy or difficult for students to control reading behaviour. These questions were also adapted from the study of Van Schooten and De Glopper (2002). Table 3.5 shows the items about perceived behavioural control for reading.

Table 3. 5 Perceived behavioural control for reading items in the questionnaire

Scale	Items	Sources
Capacities for reading	30. I think most books are difficult to understand. 31. It is difficult to concentrate on reading.	Van Schooten and De Glopper (2002)
Opportunities to read	32. It is easy for me to find books that I like. 33. It is easy for me to find a quiet place to read. 34. I am too busy to read.	Van Schooten and De Glopper (2002)

3.3.1.5. Reading habits items

Reading habits reflect time and choices for reading (Nadelson et al., 2013). Thus, in this study, to measure reading habits of the university students, several questions related to these two aspects were asked (Table 3.6). These questions were taken from the study by Annamalai and Muniandy (2013).

Table 3. 6 Reading habits' items in the questionnaire

Scale	Items	Sources
Time spend on reading	35. On average, how much time per day do you usually spend on reading for educational purposes?	Annamalai and Muniandy (2013)
Choices for reading	36. How often do you read the following materials? • Magazine • Newspaper • Novel • Academic book • Website • Journal article • Comic • Textbook	Annamalai and Muniandy (2013)

3.3.2. Interview protocol

In order to collect data in the qualitative phase of explanatory research, an interview protocol was developed to guide the interviews (Creswell, 2011, p. 225). To do so, the interview questions were developed after analysing the quantitative data to decide which issues required further exploration. For the detail of this protocol, please see Appendix B – Interview protocol.

According to Creswell and Clark (2011, p. 186), some statistically significant results in the quantitative phase can be considered for follow up in the qualitative phase. In this study, the week after the quantitative data collection was completed, some preliminary analyses were done to find out the significant predictors of students' reading attitudes and reading habits. The results showed that students' personal characteristics, their family background and the university context had significant influences on their reading attitudes and reading habits.

Because the purpose of this study is to provide information for developing a reading culture at a particular university, the relationships between the university context (teaching methods, assessment practices and library services) and students' reading aspects (attitudes, subjective norms, perceived behavioural control and reading habits) were chosen to be studied in more detail. Consequently, an interview protocol that includes several open-ended questions related to university context was developed for guiding the interviews. The interview questions

focused on students' experiences of teaching methods, assessment practices, the quality of library services, and how and why they think these three aspects influence their reading attitudes and reading habits.

3.4. Data collection procedures

In this section, the administration of the questionnaire and the conduct of the interviews are discussed. In order to obtain accurate data, processes were developed for approaching participants in this study, obtaining permission to study them and gathering information from them.

3.4.1. Administration of the questionnaire

The quantitative data were collected in November, 2014. Students were grouped according to their academic faculties. They were given a letter of introduction and an information sheet outlining the research. They were also given time to ask questions related to the project.

Meetings with groups of volunteer participants were organized with the faculties' approval. The questionnaire was administered before commencement of classes in the morning. This ensured a maximal response rate within the target group in a controlled environment. To help students feel their responses are not disclosed, a ballot-box was set up at the class door for students to lodge their completed questionnaires.

At every meeting, students were introduced to the research purposes. They were also informed that the participation in this study was voluntary, and that the study was supported by management, their names were not required in the questionnaire, and the completed questionnaires would be kept confidential. Students, who were willing to participate in the study, were asked to spend about 20 minutes responding to all the questions from the questionnaire. On the questionnaire, there was an option for students to indicate whether they agreed to participate in the interview and, if they did, they included their telephone numbers

for later contact. The questionnaire was distributed to 350 second-year students and all 350 questionnaires were returned completed.

The quantitative data were entered into SPSS (Version 20) for analysis. For reading attitudes, subjective norms for reading and perceived behavioural control for reading, items were coded using a 6-point Likert scale, ranging from 1 (agree a lot) to 6 (disagree a lot). Where items were negative in meaning, their coding was reversed.

After all the data had been coded and entered into SPSS, they were checked for entry errors. The data were also checked for missing values and eight items were found to have missing values (1.72% of total observations). The missing data were found to be missing at random, and were replaced with the mean based on responses of other participants on the same item (Raaijmakers, 1999).

Exploratory factor analysis (EFA) was used to explore relationships among observed variables, to see whether the items in each scale relate to the latent constructs being studied (see Appendix C). For all scales, to maximize the accuracy of factor estimations, Alpha Factoring method was used to extract factors (Field, 2009, p. 638). Promax rotation was used in order to discriminate between factors because, according to the theoretical framework, the factors are expected to be correlated (Field, 2009, p. 644). The results indicated that one factor accounts for the patterns of responses to the construct of reading attitudes (nine items), one dominant factor accounts for the patterns of responses to the latent construct of subjective norms for reading (six items) and a single factor defines the construct of perceived behavioural control for reading (five items). It is noted that, for all cases, the minimum acceptable value of an item's loading was 0.4 (Field, 2009, p. 645).

Reliability analyses were also conducted to test the internal consistency of the scales. The Cronbach's Alpha values of the scales of reading attitudes, subjective norms for reading and

perceived behavioural control for reading were 0.940, 0.754 and 0.766 respectively. Thus, the internal consistency of each scale was good or very good (Field, 2009, p. 681). The detailed results are shown in Appendix C.

After the scales had been refined and the factors had been identified, factor scores were generated for later analyses using the regression method. The factor scores obtained by the regression method are standardized to a mean of zero (Field, 2009, p. 635). A factor score indicated an individual's relative placement on an identified factor (Field, 2009, p. 636), and a higher score on a factor resulted from the higher values on the variables that reflected this factor (Hair, Black, Babin, & Anderson, 2010, p. 126). Thus, in this study, because the values of the variables for the three factors (defined above) ranked from 1 (Agree a lot) to 6 (Disagree a lot), the **greater** the value of a factor score the **lower** the level of the latent construct (attitudes, subjective norms and perceived behavioural control for reading).

In order to choose appropriate methods for the inferential analyses used in the next stage of the study, the factor scores were then tested for normality. Although basic descriptive statistics suggested that the variables are not skewed nor do they show much kurtosis, their histograms reveal a non-normal distribution. Since the results from Kolmogorov-Smirnov tests were significant ($p < 0.001$), the distributions of the factors of “Reading attitudes”, “Subjective norms for reading” and “Perceived behavioural control for reading” were not normal. Thus, for later inferential statistics, non-parametric methods were used.

3.4.2. Conduct of the interviews

The interview protocol was also translated into Vietnamese by the researcher. It then was checked by a colleague in Vietnam who is fluent in Vietnamese and English. An interview with a Vietnamese undergraduate student was trialed to examine whether this protocol worked effectively.

The participants received the interview questions prior to the scheduled interviews. They were informed that, during the interview, notes would be taken, and the interview audio-recorded. To help students feel comfortable, the interviews were conducted in a room at the library where disturbances would be minimal.

At each interview, the research purpose was introduced. To help participants feel safe and confident to participate in the interview, they were also provided information about ethical issues of this study. Then, they were asked to spend about 20 minutes responding to the questions on the interview protocol. The interviews were transcribed verbatim. The transcripts then were sent back to the interviewees so they had an opportunity to review and correct the interview transcripts. The interviewees were free to comment on what they said and, where applicable, the quality of the translations.

3.5. Data analysis

This section is a discussion of the data analysis techniques that were used in this present study. The quantitative data obtained from the questionnaire were analyzed using statistical analyses. Thematic analysis was used to analyze qualitative data obtained via interviews.

3.5.1. Quantitative data analysis

In order to explore students' reading attitudes, subjective norms for reading, perceived behavioural control for reading and reading habits descriptive statistics were used. To investigate possible differences in reading attitudes, subjective norms, perceived behavioural control for reading and reading habits between groups of students based on their personal characteristics, home background and the university context, cross-tabulation and *Mann-Whitney* and *Kruskal-Wallis* tests were undertaken. To clarify which groups differ from others, *post-hoc* tests were used to follow up.

To determine whether the students' reading attitudes, subjective norms for reading and perceived behavioural control for reading significantly influence their reading habits, *Spearman's rho* statistic was estimated. Based on the results of correlation, binary logistic regression was used to find out to what extent the predictors explain the students' reading habits. Furthermore, to explore the relationships between students reading habits and their academic achievement, cross-tabulations were generated.

3.5.2. Qualitative data analysis

The qualitative data was manually coded and analyzed for themes in a two-cycle process (Saldana, 2009, p. 45). In the first cycle, descriptive coding was applied to summarise the basic topics of the passages of qualitative data (Saldana, 2009, p. 70). Then pattern coding was used in the second cycle to group these basic topics into a smaller number of major themes (Saldana, 2009, p. 152). During pattern coding, the basic topics were reviewed (to assess their commonality) and assigned a pattern code. The pattern code was used as a stimulus to develop a statement that describes each major theme.

The analysis was performed at two levels, including within each case and across the cases (Creswell, 2011, p. 479). Firstly, each case of the transcripts was analyzed for themes. Then, all the cases were analyzed for themes that were either common or different. This shows the extent to which the university context has a similar or different effect on participants' reading attitudes and habits. Finally, the researcher interpreted the meaning of the cases and summarized the results.

3.6. Integration of quantitative and qualitative findings

Due to the use of mixed methods design of this study, after all data had been analysed, the statistical findings and qualitative results were combined. For the purpose of the present study, this stage of integration focused only on seeking a more complete understanding of relationships between the university context (teaching methods, assessment practices and

library services) and measured aspects of students' reading (reading attitudes, subjective norms, perceived behavioural control and habits) which were identified in the quantitative phase. By combining the statistical outputs with the participants' voices, new insights into the influences of the university context on students' reading attitudes, beliefs and habits were drawn out.

In this manner, the survey findings and findings from the interviews were integrated using a statistics-by-themes joint display (Guetterman, Fetters, & Creswell, 2015). By using this technique, the data were brought together visually to draw out new insights. The headings and structure of this display is shown in Table 3.7.

Table 3. 7 A description of the statistics-by-themes joint display used to integrated quantitative and qualitative findings

Teaching methods explain students' reading		
Survey findings about the relationships between teaching methods and measured aspects of students' reading.	Themes about students' reading in relation to teaching method.	Representative quotes.
Assessment practices explain students' reading		
Survey findings about the relationships between assessment practices and measured aspects of students' reading.	Themes about students' reading in relation to assessment practices.	Representative quotes.
Library services explain students' reading		
Survey findings about the relationships between the quality of library services and measured aspects of students' reading.	Themes about students' reading in relation to the quality of library services.	Representative quotes.

3.7. Ethical issues

Permission to conduct this study and to approach the potential participants was obtained from the Rector Board and Deans at the research site. Approval to conduct the study was granted by the Social and Behavioural Research Ethics Committee (SBREC), Flinders University (Project No. 6660). Permission to use several instruments from previous studies was also obtained.

All participants were volunteers and their anonymity was maintained throughout the research process. None of the participants were individually identifiable either during the research

process or after the research process. Students were informed about the research before they gathered to complete the questionnaire. They were free to withdraw from participating in this research at any time. Students who agreed to participate in the interview were asked to sign a consent form for their participation.

All data was treated in a manner that protects the confidentiality of the participants involved in the study. From the beginning, participants were assured that any information provided would be held in the strictest confidence. The information obtained and collated from the research was coded. The information is stored securely according to the university policies and it will be destroyed five years after publication of this thesis.

3.8. Summary

In this chapter, the philosophical assumptions of the present study are discussed at four levels including epistemology, theoretical perspectives, methodological approaches and methods of data collection. The research design is also discussed. Based on the research purpose, the target population is identified. The sample sizes and the sampling techniques for the two phases of this study are also presented.

The research instruments used in the study are described. The processes for approaching participants and gathering information from them were described in detail. The ethical issues were also considered.

In order to answer the research questions, analysis techniques were outlined for the two types of quantitative and qualitative data. The integration of the quantitative and qualitative findings is also discussed. Prior to analyzing the quantitative data, the data were checked for entry errors. Data was also checked for normality to see whether parametric tests could be used. More importantly, questionnaire validity and reliability were checked using explanatory factor analysis and Cronbach’s alpha coefficient.

Chapter 4 – Results of Study

This chapter presents the results of the study from the two phases of data collection. For survey results, after the contextual variables and the measured aspects of students' reading are reported, the relationships among them are addressed. Findings from student interviews are then presented. The rest of this chapter draws on and integrates both quantitative and qualitative findings.

4.1. Research questions revisited

Because the findings in this chapter are used to answer the research questions, they are reviewed. As discussed in the literature review, (1) contextual factors are predicted to influence students' reading attitudes and habits; (2) reading attitudes, subjective norms for reading and perceived behavioural control for reading are expected to influence students' reading habits; and (3) reading habits are hypothesized to influence students' academic achievement. These hypotheses are represented in the construct map below (Figure 4.1).

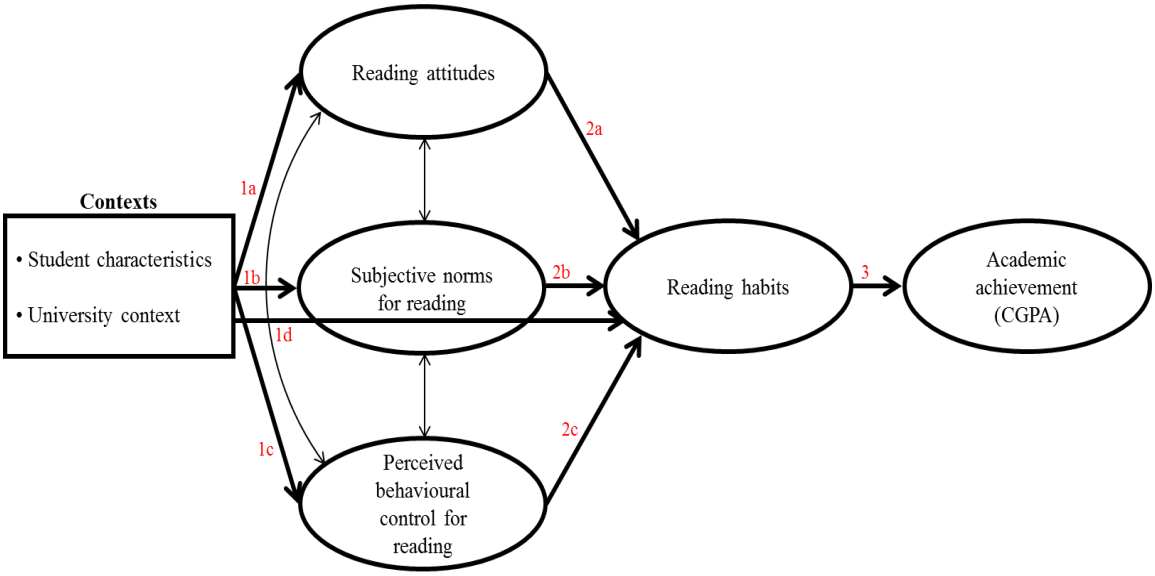

Figure 4. 1 Construct map for the research questions

4.2. Findings arising from the survey responses

In this section, the findings from the quantitative phase of this study are presented. First, findings about students' individual characteristics, the university context and the measured aspects of students reading are reported. Second, the influences of contexts on students' reading are pointed out. It is followed by findings about the relationships among components of the reading habits model. Finally, evidence about the correlations between students' reading habits and their academic achievement are provided.

4.2.1. The contextual variables and the aspects of students' reading

This sub-section is an outline of the contextual variables and the descriptions of students' reading aspects that are measured in the study. The context was studied in two groups: students' individual characteristics (gender, hometown status, CGPA, parents' education and books at home), and the university context (teaching methods, assessment practices and library services). Four aspects of students' reading were measured, including students' reading attitudes, subjective norms for reading, perceived behavioural control for reading and their reading habits.

4.2.1.1. Participants' individual characteristics

Of the 350 students who participated in this quantitative phase, there were approximately equal numbers of males and females. Because a stratified sampling technique was used to select participants, the sample meaningfully reflects the distribution of the student population of the university. Most students are in the Faculty of Education, but all faculties are represented in the sample approximately in proportion to the university's student profile. In this study, about 77% students had pass level CGPA and no student had achieved a high-distinction level CGPA.

Most students were from disadvantaged home backgrounds. As the research site is a university which is located in a small city in the south of Vietnam, a large number of students

come from rural areas. The parents' education levels are quite low, most of them having finished high school or below, with few having higher level qualifications. Their home resources for reading were relatively poor: nearly half of the students have fewer than 25 books at home. It is noted that, in Vietnam, individuals in rural areas are often poorer than those from large cities (Le & Booth, 2010). The formal education system is structured into three levels including primary education (grades 1-5), secondary education (grades 6-9) and three years (grades 10-12) of high school (VNA, 2005). Participants' characteristics are summarized in Table 4.1.

Table 4. 1 Summary of students' characteristics

Variables	Categories	N = 350	Percent
Gender	Male	184	52.6
	Female	166	47.4
Home location	Rural	287	82.0
	Urban	63	18.0
Faculty	Agriculture	29	8.3
	Economics	71	20.3
	Education	222	63.4
	Information Technology	28	8.0
CGPA rank	High-distinction	0	0
	Distinction	13	3.7
	Credit	68	19.4
	Pass	269	76.9
Father's education	Post-graduate	5	1.4
	Under-graduate	49	14.0
	Diploma/collegial certificate	39	11.1
	High school	142	40.6
	Other (Secondary school or below)	115	32.9
Mother's education	Under-graduate	18	5.1
	Diploma/collegial certificate	17	4.9
	High school	107	30.6
	Other (Secondary school or below)	208	59.4
Books at home	0 - 10 books	50	14.3
	11 - 25 books	110	31.4
	26 - 100 books	150	42.9
	101 - 500 books	30	8.6
	More than 500 books	10	2.9

4.2.1.2. The university context

In this study, the university context is characterised by three features namely teaching methods, assessment practices and library services. Students were asked to respond about the frequency of several types of classroom activities, assessment methods used, and to make a judgment about the quality of library services. The following provides insight into the context of this university.

Students indicated they had limited chances to respond to their readings. Although lecturers often assigned reading for students' homework, over half of students answered that they were rarely asked to discuss these readings in groups. Moreover, nearly all students responded that they were almost never asked to write something about what they had read. In lectures, the most frequent activity is lecturers ask questions about assigned reading. It would be useful to know about the questions that are asked; including how searching are the questions? It would also be interesting to know why the activities such as writing and discussing (which are expected to promote high-order thinking and deep processing) are rarely required in lectures. Results from students' responses on teaching methods are presented in Table 4.2.

Table 4. 2 Summary of students' responses about teaching method (percentages)

	Every day or almost every day	3 or 4 times a week	1 or 2 times a week	1 or 2 times a month	Never or almost never
Lecturers assign reading for homework	68.6	22.6	8.9	0.0	0.0
Lecturers ask question about assigned reading	62.9	30.0	5.1	1.1	0.9
Write something about assigned reading	0.0	0.3	0.9	0.3	98.6
Group discussion about assigned reading	0.0	27.1	16.6	32.6	23.7

Students had to deal with different types of assessment. As presented in Table 4.3, "oral presentation", "written exam" and "open book exam" are the three most popular assessment methods. A majority of students responded that they take these types of examination at least once, but up to six times per semester. The "multiple-choice questions" is another common assessment method with more than 75% of students reporting that their lecturers use this kind

of test at least once a semester to assess their performance. On the other hand, a majority of students responded that their lecturers almost never set essays as an assessment method. Because classroom assessment influences the way students learn and their motivation to learn (Earl & Katz, 2006; Scouller, 1998), it is assumed that students might apply different strategies of learning and preparing for their exams. Since oral presentations, written exams and open book exams are used more while essays are used less, it would be useful to learn about the assessment policy at this university. How did the lecturers require their students to prepare (i.e. read) for each of the assessment methods?

Table 4. 3 Summary of students' responses about assessment practice (percentages)

	More than 6 times a semester	5 or 6 times a semester	3 or 4 times a semester	1 or 2 times a semester	Never or almost never
Multiple-choice questions	0.0	0.0	17.7	68.9	13.4
Oral presentation	0.0	9.7	35.7	52.9	1.7
Written exam	2.9	13.1	28.0	56.0	0.0
Essay	0.0	0.0	1.4	3.1	95.4
Open book exam	0.6	3.4	12.3	82.0	1.7

The quality of library services was regarded by student respondents as good, except the supply of books (Table 4.4). A majority of students generally agreed that the opening hours and book location are convenient for their access, and they feel comfortable with the quiet atmosphere at the self-study area. However, over half of students disagreed to some levels with the statement "the information I require for my course needs is available at the library".

Table 4. 4 Summary of students' responses about the library services (percentages)

	Agree a lot	Agree	Agree a little	Disagree a little	Disagree	Disagree a lot
The information I require for my course needs is available at the library.	0.9	10.0	34.6	27.7	22.0	4.9
The library opening hours match my schedule.	7.4	53.1	28.0	9.1	2.0	03
It is easy to find where the materials are located in library.	4.3	26.9	44.9	15.4	8.0	0.6
Self-study areas in library are kept quiet.	22.9	36.9	31.1	7.1	1.7	0.3

In other words, the library's reading materials are in short supply and therefore have not met the demand of students. It would be useful to know about the types of reading materials that students want to see more in their library? Also how they deal with the problem of short supply of reading materials.

4.2.1.3. Students' reading attitudes

Students' reading attitudes are measured using two indicators of "reading enjoyment" and "reading anxiety". Results (Table 4.5) indicated that most students believed reading is an enjoyable activity rather than a cause of anxiety. The median scores for nine items of the "Reading attitudes" scale (ranged from 2 to 3) evidenced this central tendency. It is noted that, because items were coded using a 6-point Likert scale, ranging from 1 "Agree a lot" to 6 "Disagree a lot", the median response corresponded with "Agree" and "Agree a little" responses.

Table 4. 5 Summary of responses to the "Reading attitudes" items (percentages)

	Agree a lot (1)	Agree (2)	Agree a little (3)	Disagree a little (4)	Disagree (5)	Disagree a lot (6)
Reading is one of my favourite activities	4.0	17.4	41.1	15.7	14.6	7.1
I get a lot of enjoyment from reading	8.3	25.7	32.3	20.9	10.9	2.0
I read when have time to enjoy it	14.6	36.3	29.1	15.7	4.3	0.0
I spend a lot of spare time for reading	1.1	7.4	48.9	22.9	19.1	0.6
I want to own more books	5.4	23.1	39.4	17.4	13.4	1.1
I get upset when I think about having to read	0.9	7.4	21.1	22.9	37.7	10.0
When I read I usually feel bored	2.9	12.6	20.0	23.1	34.0	7.4
I feel anxious when I have a lot of reading to do	7.4	18.0	14.9	26.0	26.9	6.9
I need a lot of help in reading	4.0	10.6	16.6	31.1	28.3	9.4

A majority of students expressed favourable attitudes toward reading. Most of them reported that reading, to some extent, is a favorite activity. They get a lot of enjoyment from reading. They want to own more books and are willing to take time for reading. It seems that, to stimulate positive reading attitudes among students, it is important to provide them opportunities to read (materials, time and space for reading). Moreover, according to the

reading habits model, since most students revealed positive attitudes toward reading, they are expected to show good habits of reading.

A minority of students, however, hold unfavourable attitudes toward reading. According them, reading is an upsetting activity. They feel anxious when having too much reading to do, and they have problems with concentrating and understanding texts. For these students, the negative reading attitudes are derived from their capacity for reading i.e. poor ability to understand texts and low level of self-efficacy to complete the reading tasks.

4.2.1.4. Students' subjective norms for reading

Most students perceived pressure to engage in reading activity, as shown in Table 4.6. The median scores for six items of the "Subjective norms for reading" scale (ranged from 1.5 to 3) evidenced this trend. The median response corresponded with 'Agree' and 'Agree a little' responses.

Table 4. 6 Summary of responses to the "Subjective norms for reading" items (percentages)

	Agree a lot (1)	Agree (2)	Agree a little (3)	Disagree a little (4)	Disagree (5)	Disagree a lot (6)
My parent believe it is important to read	18.0	35.4	31.1	10.9	4.6	0.0
My parent think I should read more	14.6	38.9	35.4	10.3	.9	0.0
My friends believe it is important to read	3.4	35.1	38.9	18.6	3.4	0.6
My friends think I should read more	4.0	21.4	46.0	19.7	8.3	0.6
My lecturers believe it's important to read	50.0	44.0	5.7	0.0	.3	0.0
My lecturers think I should read more	43.7	47.1	9.1	0.0	0.0	0.0

Students felt pressure to read from their parents, friends and lecturers. Almost all students expressed their agreement to some level that their lecturers appreciate the importance of reading and their lecturers think they should read more. About 70% to 90% of them generally agreed that their parents and friends believe reading is important and they should spend more time on reading. It is concluded that students are under a high level of perceived pressure to

read. According to the reading habits model, this should contribute to high levels of reading habits.

4.2.1.5. Students' perceived behavioural control for reading

Students' perceived behavioural control for reading is measured using two indicators of their personal judgment on capacities for reading (referring to their ability to understand texts or self-efficacy) and opportunities to read (referring to materials, time and space for reading). The results shown in Table 4.7 indicate that most students expressed positive beliefs about space and time for reading, but they had problems related to reading materials and reading skills. Specifically, a majority of students can easily find a quiet place to read and about two-thirds of them are not too busy to read. However, over half of them think most books are difficult to understand, that it is difficult to concentrate on reading or difficult to locate books that they like (coding was reversed for negative items). It would be useful to know about students' tastes in reading (i.e. their favourite reading materials) and how students were prepared for their reading at tertiary level (reading skills).

Table 4. 7 Summary of responses to "PBC for reading" items (percentages)

	Agree a lot (1)	Agree (2)	Agree a little (3)	Disagree a little (4)	Disagree (5)	Disagree a lot (6)
Most books are difficult to understand	6.6	10.6	34.6	32.6	14.0	1.7
It is difficult to concentrate on reading	3.7	16.3	30.9	25.4	20.6	3.1
It is easy to find books that I like	5.1	16.0	26.0	25.7	22.6	4.6
It is easy to find quiet place to read	9.7	41.1	32.9	10.6	4.6	1.1
I am too busy to read	2.3	7.1	24.3	28.3	30.0	8.0

4.2.1.6. Students' reading habits

Students spent a significant amount of time each day on reading for their education (Table 4.8). Approximately 62% of them read for at least one hour (one to two hours or more than two hours) per day for their learning. The other students spent between half to one hour a day reading for their course. It would be useful to know if students who spend more time reading

for educational purposes get higher academic achievement than others. Moreover, since it was found that a majority of students at this university had a pass level CGPA and no one achieved a high-distinction level CGPA, it would also be interesting to seek data about how students read for educational purposes.

Table 4. 8 Summary of responses to reading durations (percentages)

Time spent on reading for education	Percentages
2 hours or more	17.4
1 – 2 hours	44.9
0.5 – 1 hour	37.7

The types of reading material accessed by students are quite variable (Table 4.9). Websites, textbooks and newspapers were the three most popular reading materials. Relating to academic materials, most students read textbooks frequently but rarely read other academic books and almost never reference journal articles. Since the frequency of reading research articles was found to have a positive influence on students' academic performance (Sappington et al., 2002), this reading habit (focusing on textbooks) might contribute to the limited academic achievement among students. Moreover, these results raise the question about whether or not the teaching methods and the assessment practices at this university decide the way students read (including reading strategies and reading materials).

Table 4. 9 Summary of responses to reading frequencies (percentages)

	Every day or almost every day	Once or twice a week	Once or twice a month	Once or twice a year	Never or almost never
Magazine	8.6	36.3	30.6	10.3	14.3
Newspaper	56.6	32.6	8.3	2.0	0.6
Novel	0.6	8.0	14.3	14.3	62.9
Comic	9.4	27.1	27.7	13.4	22.3
Website	91.4	8.3	0.3	0.0	0.0
Textbook	68.0	26.9	4.9	0.3	0.0
Journal article	0.3	7.4	12.3	13.1	66.9
Academic book	15.4	29.7	25.7	16.0	13.1

4.2.2. Contexts and student reading

[7]

In this sub-section, the influences of context on reading attitudes, subjective norms, perceived behavioural control and reading habits are analysed. The relationship between students' individual characteristics (gender, hometown status, parents' education and books at home) and these reading aspects are pointed out first. The remainder of this sub-section presents evidence of how the university context (teaching methods, assessment practices and the library services) explains students' reading attitudes, subjective norms, perceived behavioural control and reading habits.

Because the distribution of the factors of "Reading attitudes", "Subjective norms for reading" and "Perceived behavioural control for reading" were not normal, non-parametric tests were used to analyse data at this stage. Mann-Whitney (U statistic), Kruskal-Wallis (H statistic) and Crosstabs (χ^2 statistic) analyses were used depending on each pair of variables. When Kruskal-Wallis tests were used to investigate possible differences in reading among groups of students, the post-hoc procedures using Mann-Whitney tests were done to clarify which groups significantly differ from others. In these cases, to ensure the Type I error rate is ≤ 0.05, the critical value of 0.05 was divided by the number of Mann-Whitney tests conducted to establish the appropriate significance level for each test (Field, 2009, p. 565).

4.2.2.1. Individual characteristics and student reading

The findings on the relationships between individual characteristics and student reading are in line with previous studies. For this reason, these findings are discussed only briefly. Gender,

[7] The bold elements of the small figure are a visual representation of the focus of this section of the report in relation to the construct map of research questions.

hometown status, the number of books at home and parents' educational level all had small effects on students' reading attitudes, subjective norms for reading, perceived behavioural control for reading and reading habits. Table 4.10 provides brief summaries of these findings.

Female students tended to engage in reading activity more than their male counterparts. There was a significant difference in terms of students' reading attitudes by gender ($U = 12841.50$, $z = -2.571$, $p < 0.05$), with a small effect size ($r = -0.137$). A significant difference in the frequency of reading magazines was also found between male and female students (χ^2 (4df) = 16.998, $p < 0.05$). These findings reflect a prediction that a more positive attitude toward reading contributes to more frequent reading.

Table 4. 10 Summary of aspects of reading by students' individual characteristics

Individual characteristics	Measured aspects of students' reading			
	Reading attitudes	Subjective norms	Perceived behavioural control	Reading habits
Gender	*Female students showed more positive attitudes toward reading than male students.*			*Female students read magazines more often than their male counterparts.*
Hometown status (rural, urban)		*Urban students felt more pressure to read than rural students did.*		*Urban students spent more time on reading for educational purpose than those from rural areas.*
Books at home	*Students showed more positive reading attitudes when they had more books at home.*	*Students felt more pressure to read when they had more books at home.*	*Students felt more control over their reading when they had more books at home.*	*More books at home led to spending more time on reading for education.*
Parents' education	*Students showed more positive reading attitudes when their father or mother had achieved a higher educational level.*	*Students felt more pressure to read when their father or mother had achieved a higher educational level.*	*Students felt more control over their reading when their father or mother had achieved a higher educational level.*	*Students spent more time on reading for their education when their father or mother had achieved a higher educational level.*

Urban students engaged in reading activity more than those from rural areas did. In fact, hometown status was found to be a predictor of students' subjective norms for reading ($U = 7583.50$, $z = -2.004$, $p < 0.05$, $r = -0.107$). It also significantly predicted the amount of time

students spent on reading for education (χ^2 (2) = 8.99, $p < 0.05$). These results are consistent with the model of reading habits, and indicate that greater perceived pressure (subjective norms) led to more time being spent on reading. Moreover, it would be interesting to know why urban students perceived more pressure to read than their rural counterparts.

Students showed a higher level of reading engagement when they had more books at home. The number of books at home was found to significantly explain students' reading attitudes (H (4) = 82.647, p < 0.01), subjective norms for reading (H (4) = 48.616, p < 0.001), perceived behavioural control for reading (H (4) = 59.350, p < 0.01) and time students spent on reading for education (χ^2 (8) = 52.176, p < 0.01). It was also found that students who had 26 books or more at home show a more positive attitude toward reading, feel more control over their reading and feel more pressure to read than those whose family owned fewer than 26 books. It is implied that, in the same vein as Krashen (2009), students seem to engage more in reading activity when they have more access to books.

Students seemed to engage more in reading activity when their fathers achieved a higher educational level. Fathers' educational level was found to have significant influences on students' reading attitudes (H (4) = 30.487, p < 0.01), subjective norms for reading (H (4) = 38.988, p < 0.001), perceived behavioural control for reading (H (4) = 28.719, p < 0.01) and time students spent on reading for education (χ^2 (16) = 28.842, p < 0.05). Students whose fathers completed high school or college or under-graduate levels showed more positive reading attitudes than those whose fathers just completed secondary school or below. Students whose fathers graduated from high school or above felt more pressure to read than those whose fathers did not finish high school. Students' whose fathers graduated from under-graduate or college level felt more control over their reading compared with those whose fathers just finished secondary school or below. The higher the level of the fathers' education the larger the amount of time students spent on reading for education purposes. These

findings raise the questions about the differences in home environment among students based on the educational backgrounds of their fathers. How do they differ? Is a highly-educated father is a role-model of reading? Do the fathers with higher educational level provide their children with more resources or opportunities to read, or place more expectation on their children than those with lower educational levels?

Similarly, students tended to engage more in reading activity when their mothers achieved a higher educational level. Mothers' educational level also significantly influenced students' reading attitudes ($H(3) = 46.382$, $p < 0.01$), subjective norms for reading ($H(3) = 45.178$, $p < 0.001$), perceived behavioural control for reading ($H(3) = 43.765$, $p < 0.01$) and time students spent on reading for education ($\chi^2(6) = 30.891$, $p < 0.01$). Students whose mothers graduated from high school or above showed more positive attitude toward reading, felt more pressure to read and felt more control over their reading than those whose mothers did not finish high school. Students whose mothers graduated from college or above spent more time on reading for education than those whose mothers just finished high school or below. To go into more detail on these issues, it would be useful to study how mothers, with different levels of education, support and influence their children in reading and how they expect their children to progress.

4.2.2.2. University context and student reading

Several important findings in relation to the university context and student reading were found. Students' reading engagement varied among the academic faculties. Teaching methods, assessment practices and library services were found to have small effects on students' reading attitudes, subjective norms for reading, perceived behavioural control for reading and reading habits.

4.2.2.2.1. The aspects of students' reading by academic faculties

Economics students engaged in reading activity more than those from the other faculties (Agriculture, Education and IT). Academic faculty was a predictor of students' reading attitudes ($H(3) = 15.825$, $p < 0.01$). It was found to significantly explain students' subjective norms for reading ($H(3) = 10.428$, $p < 0.05$) and their perceived behavioural control for reading ($H(3) = 43.262$, $p < 0.01$). It also significantly influenced the time students spent on reading for education ($\chi^2(6) = 37.512$, $p < 0.01$). For the purpose of this study, it would be useful to find out if there were significant differences in terms of teaching methods and assessment practices among the academic faculties. The following provides this information.

IT students were assigned reading less often than others (see Table 4.11). Significant differences in the frequency of assigned reading were found among the faculties ($\chi^2(6) = 13.382$, $p < 0.05$). This finding raises the questions about why some academic faculties assigned reading more often than other faculties. How did the activity of assigned readings influence students' reading engagement?

Table 4. 11 Frequency of assigned reading by academic faculties (percentages)

Faculties	Frequency of assigned reading		
	Every day or almost every day	3 or 4 times a week	1 or 2 times a week
Agriculture	75.9	24.1	0.0
Economics	67.6	26.8	5.6
Education	69.4	21.6	9.0
Information Technology (IT)	57.1	17.9	25.0

Students from the faculty of Economics were required to discuss readings in class more often than others (see Table 4.12). There was a significant relationship between field of study and class discussion ($\chi^2(9) = 215.02$, $p < 0.001$). As Economics students engaged in reading activity more than those from other faculties, it is expected that class discussions exerted a positive effect on students' reading engagement.

Table 4. 12 Frequency of class discussion reading by academic faculties (percentages)

Faculties	Frequency of class discussion			
	3 or 4 times a week	1 or 2 times a week	1 or 2 times a month	Never or almost never
Agriculture	75.9	20.7	3.4	0.0
Economics	80.3	18.3	1.4	0.0
Education	7.2	16.2	44.6	32.0
IT	0.0	10.7	46.4	42.9

Multiple-choice tests were used less in the faculty of Economics compared with other faculties (see Table 4.13). There was a significant relationship between field of study and the use of multiple-choice question examinations (χ^2 (6) = 14.674, $p < 0.05$). This finding leads to a hypothesis that, because Economics students revealed a higher level of reading engagement compared with other students, the practice of multiple-choice questions method might have a negative influence on students' reading engagement.

Table 4. 13 Frequency of multiple-choice tests by academic faculties (percentages) [8]

Faculties	Frequency of multiple-choice tests		
	3 or 4 times a semester	1 or 2 times a semester	Never or almost never
Agriculture	27.6	72.4	0.0
Economics	11.3	70.4	18.3
Education	18.9	65.8	15.3
IT	14.3	85.7	0.0

4.2.2.2.2. Teaching methods and the measured aspects of students' reading

Students' reading engagement seems to be influenced by the teaching methods. It was found that the frequencies of assigned reading or class discussion have small effects on students' reading attitudes, subjective norms for reading, perceived behavioural control for reading and reading habits. Since some academic faculties assigned reading more often than other faculties, this finding provides an explanation for the variation in students' reading engagement across the faculties. As Economics students were required to discuss their reading in class more often than those from other faculties, they showed a higher level of reading

[8] Although in the questionnaire there were options for 5 or 6 and more than 6 time per semester, no-one choose these options.

engagement than others. The relationships between teaching methods and students' reading aspects are summarised in Table 4.14.

Table 4. 14 Summary of aspects of reading by teaching methods

Teaching methods	Measured aspects of students' reading			
	Reading attitudes	Subjective norms	Perceived behavioural control	Reading habits
Assigned reading	*Students' reading attitudes were more positive when their lecturers assigned reading more often.*	*Students felt more pressure to read when they were assigned reading more often.*	*Students felt more control over their reading when they were assigned reading more often.*	*Students spent more time on reading for their education when their lecturers assigned reading more often.*
Class discussion	*Students showed more positive reading attitudes when they were asked to discuss their reading in class more often.*	*Students felt more pressure to read when they were asked to discuss their reading in class more often.*	*Students felt more control over their reading when they were asked to discuss their reading in class more often.*	*Students spent more time on reading for their education and more often read academic books when they were asked to discuss their reading in class more often.*

The more frequently lecturers assign reading the more positive the reading attitudes students showed. Among three groups of students based on their responses to the frequency of assigned reading, including every day or almost every day (group 1), 3 or 4 times a week (group 2) and once or twice a week (group 3), there was a significant difference in term of reading attitudes ($H(2) = 19.983$, $p < 0.01$). Reading attitudes of students who were assigned reading every day or almost every day significantly differ from those whose lecturers assigned reading 3 or 4 times a week ($U = 7183.5$, $z = -3.23$, $p < 0.01$, $r = -0.173$) and those whose lecturers assigned reading just once or twice a week ($U = 2253.0$, $z = -3.572$, $p < 0.001$, $r = -0.191$). The mean rank values indicated that students whose lecturers assigned reading every day or almost every day showed more positive reading attitudes than others. It is noted that the group with the highest mean rank should have a greater number of scores within it (Field, 2009, p. 548). In this study, the **greater** value of a factor score the **lower** level of the latent construct (attitudes, subjective norms and perceived behavioural control for reading).

Students felt more pressure to read when they were assigned reading more often. Among three groups of students based on their responses about the frequency of assigned reading, there was a significant difference in term of subjective norms for reading ($H(2) = 9.832$, $p < 0.01$). This result indicates that students who were assigned reading every day or almost every day felt more pressure to read than those who were required to read once or twice a week ($U = 926.0$, $z = -1.984$, $p < 0.01$, $r = -0.106$).

Students exerted more control over their reading when they were assigned reading more often. Among three groups of students' responses to the frequency of assigned reading (every day or almost every day, 3 or 4 times a week, and once or twice a week), students' perceived behavioural control for reading was significantly different ($H(3) = 8.898$, $p < 0.05$). Students who were assigned reading every day or almost every day felt more control over their reading than those who were required to read once or twice a week ($U = 2718.0$, $z = -2.44$, $p < 0.01$, $r = -0.130$).

Students spent more time on reading for education purpose when their lecturers assigned reading more often (Table 4.15). The amount of time that students spent on reading for education (each day) was found to be positively influenced by the frequency of assigned reading ($\chi^2(4) = 18.071$, $p < 0.01$). Because Cramer's V is an adequate indication of effect size (Field, 2009, p. 699), a Cramer's V of 0.16 indicated a small effect of the frequency of assigned reading on the amount of time they spent on reading for education.

Table 4. 15 Time spent on reading for education by frequency of assigned reading (percentages)

Time spent on reading	Frequency of assigned reading			Total
	Every day or almost every day	3 or 4 times a week	1 or 2 times a week	
More than 2 hours	19.6	17.7	0.0	17.4
From 1 to 2 hours	46.7	45.6	29.0	44.9
From 0.5 to 1 hour	33.8	36.7	71.0	37.7
Total	100	100	100	100

Students reading attitudes were more positive when class discussion was a frequent activity. There was a significant difference in term of students' reading attitudes ($H(3) = 17.236$, $p < 0.05$) by groups of students based on their responses about the frequency of class discussion, including 3 or 4 times a week (group 1), once or twice a week (group 2), once or twice a month (group 3) and never or almost never (group 4). Reading attitudes of students who participated in 3 to 4 class discussions a week significantly and positively differ from those who never or almost never discussed in class ($U = 2643.5$, $z = -3.788$, $p < 0.001$, $r = -0.202$). Reading attitudes of students who reported participating in class discussions once or twice a week also significantly differ from those who never or almost never participated in class discussion ($U = 1723.5$, $z = -2.864$, $p < 0.005$, $r = -0.153$). Based on the mean rank values (Appendix D), students who participated in at least one class discussion a week showed a more positive attitude toward reading than those who never or almost never discussed reading in class.

Students felt more pressure to read when they were more often asked to discuss in groups about what they had read. Among four groups of students based on their responses about the frequency of class discussion, a significant difference in term of students' subjective norms for reading was found ($H(3) = 14.803$, $p < 0.01$). Subjective norms for reading of students who discussed in class 3 or 4 times a week significantly differ from those who never or almost never participated in class discussion ($U = 2923.5$, $z = -2.972$, $p < 0.005$, $r = -0.159$). Subjective norms for reading were also significantly different between students who had one or two class discussions a week and those who never or almost never experienced class discussions ($U = 1715.0$, $z = -2.90$, $p < 0.005$, $r = -0.155$). It was found that students who had at least one class discussion a week felt more pressure to read than those who never or almost never participated in group discussion (see Appendix D).

Students exerted more control over their reading when class discussions were required more often. There was a significant difference in term of perceived behavioural control for reading among four groups of students based on their responses to the frequency of class discussion ($H(3) = 30.202$, $p < 0.01$). Students who participated in class discussion 3 to 4 times a week felt more control over their reading than those who had one or two class discussions a month ($U = 3913.5$, $z = -3.499$, $p < 0.005$, $r = -0.184$) and others who never or almost never experienced class discussions ($U = 2257.5$, $z = -4.913$, $p < 0.001$, $r = -0.263$). Students who experienced class discussions once or twice a week also felt more control over their reading than those who never or almost never experienced in class discussion ($U = 1522.0$, $z = -3.666$, $p < 0.001$, $r = -0.196$).

Students spent more time on reading for education purposes when they were required to engage in class discussions more often (Table 4.16). The amount of time that students spent on reading for education (each day) was positively influenced by the frequency of class discussion ($\chi^2(6) = 35.941$, $p < 0.01$). Since the value of Cramer's V was 0.23, the frequency of class discussion had a small effect on the amount of time students spent on reading for learning.

Table 4. 16 Time spent on reading for education by frequency of class discussion (percentages)

Time spent on reading	Frequency of class discussion				Total
	3 or 4 times a week	1 or 2 times a week	1 or 2 times a month	Never or almost never	
More than 2 hours	26.3	22.4	19.3	1.2	17.4
From 1 to 2 hours	49.5	41.4	31.6	60.2	44.9
From 0.5 to 1 hour	24.2	36.2	49.1	38.6	37.7
Total	100	100	100	100	100

Students also read academic books more often when they were required to discuss in classes more often (Table 4.17). The frequency that students read academic books was significantly influenced by the frequency of class discussion ($\chi^2(12) = 31.391$, $p < 0.01$). As the value of

Cramer's V was 0.17, the frequency of class discussion had a small effect on the frequency that students read academic books.

Table 4. 17 Frequency of reading academic books by frequency of class discussion (percentages)

Frequency of reading academic books	Frequency of class discussion				
	3 or 4 times a week	1 or 2 times a week	1 or 2 times a month	Never or almost never	Total
Every day or almost every day	24.2	10.3	15.8	8.4	15.4
Once or twice a week	35.8	29.3	30.7	21.7	29.7
Once or twice a month	22.1	36.2	23.7	25.3	25.7
Once or twice a year	9.5	13.8	20.2	19.3	16.0
Never or almost never	8.4	10.3	9.6	25.3	13.1
Total	100	100	100	100	100

4.2.2.2.3. Assessment practices and the measured aspects of students' reading

Students' reading engagement, to some extent, was influenced by the assessment practices at this university. The practices of multiple-choice test, written exam and oral presentation were found to have small effects on certain aspects of students' reading. Table 4.18 outlines these findings.

Table 4. 18 Summary of aspects of reading by assessment practices

Assessment practices	Measured aspects of students' reading			
	Reading attitudes	Subjective norms	Perceived behavioural control	Reading habits
Oral presentation	*Students' reading attitudes were more positive when they did oral presentations more often.*	*Students felt more pressure to read when they gave oral presentations more often.*	*Students felt more control over their reading when they gave oral presentations more often.*	
Written examination		*Students felt **less** pressure to read when they took written exams **more** often.*		
Multiple-choice test			*The **more** often multiple-choice question exams were used the **less** the students felt control over their reading.*	

Students reading attitudes were more positive when oral presentations were more frequent. Among four groups of students' responses about the frequency of the oral presentation that

they took, namely 5-6 times/semester (group 1), 3-4 times/semester (group 2), 1-2 times/semester (group 3) and never or almost never (group 4), there was significant difference in terms of students' reading attitudes ($H(3) = 15.557$, $p < 0.01$). Group 1 significantly differ from group 3 ($U = 1873.5$, $z = -3.744$, $p < 0.001$, $r = -0.2$). The values of mean rank indicated students who gave 5 to 6 presentations a semester showed a more positive attitude toward reading than those who just did one or two oral presentations a semester (see Appendix D).

Students felt more pressure to read when they took part in oral presentations more frequently. There was a significant difference in students' subjective norms for reading among four groups of students ($H(3) = 9.869$, $p < 0.05$) based on their responses about the frequency of the oral presentation. Subjective norms for reading of students who performed 5 to 6 presentations a semester significantly and positively differ from those who just did one or two oral presentations a semester ($U = 2114.5$, $z = -3.035$, $p < 0.005$, $r = -0.162$). Students who reported that they took part in 5 to 6 presentations a semester felt more pressure to read than those who participated in 1 or 2 per semester.

Students exerted more control over their reading when oral presentations were more frequent. Among four groups of students based on their responses about the frequency of oral presentations (group 1 = 5-6 times a semester, group 2 = 3-4 times a semester, group 3 = 1-2 times a semester and group 4 = never or almost never), there was a significant difference in term of students' perceived behavioural control for reading ($H(3) = 16.161$, $p < 0.01$). Group 1 significantly differ from group 2 ($U = 1418.5$, $z = -2.968$, $p < 0.005$, $r = -0.158$). Group 1 also significantly differ from group 3 ($U = 1872.0$, $z = -3.749$, $p < 0.001$, $r = -0.2$). Based on the mean rank values, students who took 5 to 6 oral presentations a felt more control over their reading than others (see Appendix D).

However, students felt less pressure to read when they took written examinations more frequently. Among four groups of students based on their responses on the frequency of this

type of assessment (group 1 = more than 6 times a semester, group 2 = 5-6 times a semester, group 3 = 3-4 times a semester and group 4 = 1-2 times a semester), a significant difference in students' subjective norms for reading was found ($H(3) = 11.513$, $p < 0.05$). Students who responded that they had more than six written exams a semester felt less pressure to read than those who took this type of exam three to four times a semester ($U = 225.0$, $z = -2.810$, $p = 0.005$, $r = -0.150$). To explain this tendency, it would be useful to know how students prepared for this type of examination and what was tested in the examinations.

The more often multiple-choice exams were used, the less the students felt control over their reading. Among three groups of students' responses about the frequency of multiple-choice exam, students' perceived behavioural control for reading was significant different ($H(2) = 11.316$, $p < 0.01$). Perceived behavioural control for reading of students who had 3 to 4 multiple choice questions tests a semester significantly differed from those who never or almost never took this type of exam ($U = 935.5$, $z = -3.191$, $p < 0.005$, $r = -0.170$). Difference in this reading aspect was also found between students who did multiple-choice exams once or twice a semester and those who never or almost never took this type of exam ($U = 4397.0$, $z = -2.425$, $p < 0.016$, $r = -0.129$). Based on the mean rank values, students who had at least one multiple-choice exam a semester felt less control over their reading than those who never or almost never experienced this assessment method (see Appendix D). This finding, to some extent, is a response for the hypothesis that the use of multiple-choice questions method might have a negative influence on students' reading engagement. However, it raises another hypothesis that the influence of this assessment method on students' perceived behavioural control for reading can be explained by what students are required to do in this type of test. Such tests tend to be limited to recall of factual knowledge (Nitko & Brookhart, 2011, p. 169) and this may limit the need students feel to read in order to develop or recall higher level knowledge.

4.2.2.2.4. The quality of library services and the measured aspects of students' reading

The quality of some services at the library significantly influenced certain aspects of students reading. While the quiet atmosphere at the library had positive effects on students' reading attitudes and their perceived behavioural control for reading, the poor book supply service negatively related to students' perceived behavioural control for reading. Table 4.19 summarises the relationships between the library services and the aspects of students' reading.

Table 4. 19 Summary of aspects of reading by quality of library services

Library services	Measured aspects of students' reading			
	Reading attitudes	Subjective norms	Perceived behavioural control	Reading habits
The atmosphere at library	*Students' reading attitudes were more positive when they were more satisfied with the atmosphere at the library.*		*Students felt more control over their reading when they were more satisfied with the atmosphere at the library.*	
Books supply			*Students felt **more** control over their reading when they were **less** satisfied with the supplied reading material at the library.*	

Students reading attitudes were more positive when they were more satisfied with the atmosphere at the library. Among six groups of students based on their agreement with statement about the library's atmosphere (from group 1 = Agree a lot to group 6 = Disagree a lot), there was a significant difference in term of reading attitudes, H (5) = 13.556, $p < 0.05$. Students who agreed with the statement "self-study areas in the library are always kept quiet" showed more positive reading attitudes than those who just agreed a little with this statement (U = 5396.5, z = -3.088, p < 0.003, r = -0.165). The values of mean rank confirmed this tendency (see Appendix D).

Students exerted more control over their reading when they were more satisfied with the atmosphere at the library. Among groups of students based on their agreement with the statement about the library's atmosphere (from group 1 = Agree a lot to group 6 = Disagree a lot), a difference in students' perceived behavioural control for reading was found (H (5) = 14.841, p < 0.05). Students who agreed with the statement "self-study areas in the library are

always kept quiet" were found to show more control over their reading than those who agreed a little with this statement (U = 5433.0, z = -3.109, p < 0.003, r = -0.116).

Students revealed more control over their reading when they were less satisfied with the supplied reading material at the library. There was a significant difference in perceived behavioural control for reading (H (5) = 15.557, p < 0.01) among six groups of students based on their agreement with statement about the library's supplied reading material (from group 1 = Agree a lot to group 6 = Disagree a lot). Group 3 was found to significantly differ from group 6 (U = 507.5, z = -3.375, p < 0.003, r = -0.18). According to the mean rank values (see Appendix D), students who disagreed a lot with statement "the information I require for my course needs is available at the library" (group 6) felt more control over their reading than those who agreed a little with this statement (group 3). It seems that the extent to which students have control over their reading depends on how they can overcome the problem of limited book supply at this library.

4.2.3. The relationships among components of the reading habits model

[9]

In this sub-section, a logistic regression model was used to investigate how students' reading attitudes, subjective norms and perceived behavioural control explain their time spent on reading for education. First, the variables were checked for possible correlation by using *Spearman's rho* value. Then, as the outcome variable (time spent on reading for education) included three categories, multinomial logistic regression was used for the analysis (Field, 2009, p. 265).

[9] The bold elements of the small figure are a visual representation of the focus of this section of the report in relation to the construct map of research questions.

Results from Spearman's rho statistic indicated that reading attitudes, subjective norms and perceived behavioural control significantly influence certain aspects of reading habits among these students (Table 4.20). There was a positive and significant relationship between students' reading attitudes and their time spent (per day) on reading for education ($r_s = 0.495$, $p < 0.01$). The amount of time (per day) students spent on reading for their education was significantly correlated with their subjective norms for reading ($r_s = 0.296$, $p < 0.01$). Students' perceived behavioural control for reading was also significantly related to the time students spent on reading for their education each day ($r_s = 0.377$, $p < 0.01$). These results, consistent with the model of reading habits, indicate that students spent more time on reading for their education when their reading attitudes were more positive or when they perceived greater pressure to read or when they felt more control over their reading. The rest of this section provides information about the extent that the other components of the reading habits model explain the amount of time (per day) students spent on reading for their education.

Table 4. 20 Correlations among reading attitudes, subjective norms, perceived behavioural control and time spent on reading for education

	Time spent on reading for education	Reading attitudes	Subjective norms for reading	Perceived behavioural control for reading
Time spent on reading for education	1	0.495**	0.296**	0.377**
Reading attitudes		1	0.480**	0.746**
Subjective norms for reading			1	0.411**
Perceived behavioural control for reading				1

**. *Correlation is significant at the 0.01 level (2-tailed).*

Among the components of the reading habits regression model, only reading attitudes directly explains the amount of time students spent on reading for education. Results from the multinomial logistic regression indicate that the model as a whole fits significantly better than a null model (i.e., a model with no predictors), χ^2 (6) = 121.472, p <0.001. This model also shows a good fit to the data since the Pearson and Deviance statistics were both not significant (p values were 0.79 and 0.95 respectively). The likelihood ratio tests, however,

indicated that reading attitudes is the only factor that has a significant effect on time students spent on reading for education, χ^2 (2) = 44.45, p <0.001. Table 4.21 summarizes these findings.

Table 4. 21 The coefficients for the regression of time spent on reading for education by students' reading attitudes, subjective norms and perceived behavioural control

		95% CI for Odds ratio		
	B (SE)	Lower	Odds ratio	Upper
1 -2 hours vs. more than 2 hours				
Intercept	2.91 (0.47)*			
Reading attitudes	2.53 (0.52)*	4.55	12.59	34.80
Subjective norms	0.46 (0.24)	0.98	1.58	2.53
Perceived behavioural control	0.52 (0.34)	0.87	1.69	3.28
0.5 -1 hours vs. more than 2 hours				
Intercept	2.63 (0.47)*			
Reading attitudes	2.94 (0.54)*	6.63	18.91	54.03
Subjective norms	0.38 (0.26)	0.88	1.46	2.41
Perceived behavioural control	0.67 (0.36)	0.96	1.95	3.98

*Notes: R^2 = 0.293 (Cox & Snell), 0.336 (Nagelkerke). * p< 0.001.*

The odds ratio values indicated that, if the reading attitudes score increases one unit, the odds of a student spending 1 to 2 hours to read for education (rather than spending more than 2 hours) would be 12.59 times more likely when the other variables in the model are held constant, and the odds of a student spending 0.5 to 1 hour to read for education (rather than spending more than 2 hours) would be 18.91 times more likely when the other variables in the model are held constant. Thus, the parameters shown in Table 4.21 indicate that students with poorer attitudes towards reading are likely to spend less time reading. It is noted that reading attitude was scored on a scale in which favourable attitudes have a lower scale score than unfavourable attitudes.

It is concluded that the model of reading habits overall fits the data, but two of the hypothesised predictors did not exert statistically significant influences. In fact, reading attitudes was the only independent factor that directly explains the amount of time students spent on reading for their education. Because the components of this model were found to be correlated to each other, subjective norms and perceived behavioural control for reading

possibly had marginally significant effects on students' reading habits, or they might influence students' reading habits through the mediating factors.

4.2.4. Reading habits and students' academic achievement

[10]

To examine the relationships between students' reading habits and their academic achievement, Crosstabs analyses were used. In these analyses, chi-square tests were selected for checking statistical significance. The Cramer's V values were also calculated in order to measure the strength of associations between each pair of variables. It is noted that the categories of the independent variables (time spent on reading for education, frequency of reading academic books and frequency of reading journal articles) have been regrouped in order to ensure an assumption of chi-square test that is no more than 20% of expected frequencies below 5 (Field, 2009, p. 692).

It was found that the larger the amount of time students spend on reading for education purpose per day the higher the level of CGPA they achieve (Table 4.22). Between two groups of students based on the amount of time per day that they spend on reading for learning purpose (more than two hours/day, and two hours or below/day), the CGPA was significantly different (χ^2 (2) = 197.648, $p < 0.01$). The Cramer's V value of 0.75 indicated the amount of time students spent on reading for education has a strong effect on their CGPA. This finding is not surprising as it is supported by some of the literature, but it raises questions about why some students spent more time reading for educational purpose than others; and what the university could do to motivate their students to read for education.

[10] The bold elements of the small figure above are a visual representation of the focus of this section of the report in relation to the construct map of research questions.

Table 4. 22 Students' achievement by time spent on reading for education per day

Time spent on reading	Levels of CGPA			
	Distinction	Credit	Pass	Total
More than 2 hours	21.3	68.9	9.8	100
2 hours or below	0	9.0	91.0	100

Students achieved a higher level of CGPA when they read academic books more often (Table 4.23). A significant difference in CGPA was found between two groups of students (group 1 = at least once a week, group 2 = no more than twice a month) based on the frequency of reading academic books (χ^2 (2) = 73.662, $p < 0.01$). It is also indicated there was a relatively strong association (Cramer's V = 0.46) between the frequency of reading academic books and students' CGPA. Note that academic books and textbooks are two distinct reading materials that were referred to in this study.

Table 4. 23 Students' achievement by the frequency of reading academic books

Frequency of reading academic books	Levels of CGPA			
	Distinction	Credit	Pass	Total
At least once a week	8.2	36.1	55.7	100
No more than twice a month	0	5.7	94.3	100

The more often the students read journal articles the higher the level of CGPA they achieved (Table 4.24). There was a significant difference in CGPA between two groups of students (group 1 = at least once a week, group 2 = no more than twice a month) based on the frequency of reading journal articles (χ^2 (2) = 83.856, $p < 0.01$). The frequency of reading journal articles has a relatively strong effect on students' CGPA (Cramer's V = 0.49).

Table 4. 24 Students' achievement by the frequency of reading journal articles

Frequency of reading journal articles	Levels of CGPA			
	Distinction	Credit	Pass	Total
At least once a week	25.9	63.0	11.1	100
No more than twice a month	1.9	15.8	82.4	100

It is concluded that reading habits had strong effects on students' achievement. Students achieved higher level of CGPA when they spent more time each day reading for their

education, or when they read academic books or read journal articles more often. It would be useful to help all students perceive the contribution of these reading habits to their academic achievement.

4.3. Findings from student interviews

In this section the findings from the qualitative phase of this explanatory mixed-methods study are presented. Although students' individual characteristics (e.g. gender, books at home, parental education, and hometown status) were related to reading attitudes, subjective norms and perceived behavioural control for reading, and the expected relationships were found between reading attitudes, subjective norms and perceived behavioural control and reading habits, these relationships were not explored in the interviews. Instead, because of the importance of relationships between aspects of the university context (teaching methods, assessment practices and library resource and services) and reading engagement, these factors were selected for detailed investigation in the qualitative phase of the study. Namely, follow-up interviews with eight participants were conducted in order to gain an in-depth understanding of how the university context influences students' reading. While the quantitative results are considered the most significant part of the study, the qualitative findings provide a valuable supplementary dimension to what the quantitative results reveal.

The data were manually coded and analyzed using a two-stage process (Saldana, 2009, p. 45). A descriptive coding method was applied in the first stage of analysis in order to summarize the issues raised by students during their interviews. The basic topics of the passages of each interview transcript were defined. For the second stage, a pattern coding method was used to identify major themes. The main issues identified from the first stage were grouped into the themes in this final stage. Table 4.25 is an example of the two-stage process of analyzing qualitative data.

Table 4. 25 An example of qualitative analysis

First stage	Second stage
Defining the basic topics of the passages in the transcript	Grouping these topics into a theme
• *There was a trend of "the lecturers read and students write" in class.* • *Students had limited chances to interact in the lessons.*	*Teaching at this university is characterized by a traditional approach.*

4.3.1. The interviewees

From the original participants responding to the invitation from the researcher to participate in the follow up interview, eight interviewees were recruited. Two students were purposefully selected from each faculty based on their CGPA (one with a Distinction-level CGPA and another with a Pass-level CGPA). Pseudonyms are used to refer to students. Table 4.26 presents the participants' background information.

Table 4. 26 Background information about the eight interviewees

CGPA	Students' pseudonyms							
	Agri1	Agri2	Educ1	Educ2	Econ1	Econ2	Info1	Info2
Distinction	x		x		x		x	
Pass		x		x		x		x

4.3.2. Teaching methods and student reading

Participants expressed their opinions on teaching approaches. They talked about classroom activities and how they prepare for these activities. They also explained how classroom activities influence their reading.

4.3.2.1. Teaching approaches

Teaching at this university is characterized by a traditional approach. Most students reported the trend of "the lecturers read and students write" in class. That means they mostly listen to the lectures and take notes of what lecturers say in class. Educ1 explained "at the beginning of each class, my lecturer often checks our attendance, reviews the previous lesson and then, for most of the class, the lecturer lectures based on the textbook and we listen to and take notes". Info2 added "the lecturers often point out the core information of the lesson and students enter

them for later reference". "We have very limited chances to express what we understand or not about the lessons", Educ2 said. This student implies that she needs more opportunities to interact with the lectures. She needs a positive way to enhance her knowledge rather than having to resort to passive learning.

However, for a minority of topics, a more interactive learning approach is used. Agri1 reported "some classes are a combination of lecturer lecturing and class discussions". Econ1 explained "there is a trend of passive learning that lecturers lecture and students take note in the foundation topics but, for some core topics, lecturers combine lectures with asking questions or asking us to do exercise or group discussion". Agri2 shared "some lecturers apply a new strategy of teaching but they are a minority; we need more chances to respond on our understanding". This student is clearly signaling that he is capable of more than mere passive learning; he reveals an awareness that his learning may be enhanced by more challenging teaching methods. Since a low achieving student like Agri2 expressed this opinion, the teaching approach at this university could be more interactive.

Overall, a traditional approach to teaching is applied at this university. In this context, lecturers are dominant in the classroom and students acquire knowledge passively. It implies that, since most students can be seen as passive learners, they might read, or think that they need to read or know what needs to be read only when their lecturers assign reading.

4.3.2.2. Classroom activities

A frequent classroom activity that requires student knowledge was lecturers' questioning but its duration is limited. All eight students reported that their lecturers often ask questions in class. Educ1 shared "normally, my lecturers ask two or three questions during each lesson", while Agri1 explained "the number of questions is dependent on the key points in lesson". Educ2 complained "although my lecturers often ask questions related to lessons, the number is limited and therefore, up to now, after one year of study, I have only had one chance to

express my understanding in class". Again, a low achieving student expressed she need more opportunities to interact in the lessons. In this case, students were expressing they need their lecturers to ask more questions in class to guide their learning.

An activity that requires students' critical thinking was class discussion but it was not a frequent activity. Four participants agreed that, in some topics, lecturers sometimes organise group discussion. Agri1 reported "in some topics, class discussions about how to apply our knowledge in real and professional situations are held". Similarly, Econ2 said, in his core topics, "during the lectures, sometimes, the lecturer brings out the practical problems and ask students to discuss and solve them". He emphasized that "these activities make classes more interesting but unfortunately the frequencies of them are limited". It can be said that students need more class discussions to support their learning.

Other classroom activities were not useful for students' learning because they did not relate to the content of lessons. As Info2 said, "not all activities are useful. Some of them are held for making time seem to pass more quickly or making class to be funny". Econ2 shared "to help students to feel more comfortable and not to be bored in the crowded class, one of my lecturers tells jokes". Because of the purposes of these activities, they did not contribute to students' learning. Some lecturers perhaps use these activities just for relieving the boredom of classes because so much of their teaching is passive. This raises a question about why these lecturers do not use other activities such as group discussions to make classes more interesting.

According to the students' reports, among the classroom activities, lecturers' questioning and class discussion were useful for students' learning but, unfortunately, the frequency and duration of these two activities were limited. Students implied that they need more useful classroom activities such as lecturers challenging students' understanding. It is assumed that

when classroom activities are designed to effectively guide and support students' learning, they would learn more and therefore they would read more.

4.3.2.3. Reading materials for class preparation

Textbooks were the main reading material, as all eight students reported. For Econ1, textbooks were the main required material that lecturers often recommended at the beginning of topics. On average, she read one to two chapters for each class. Agri1 explained "because the main purpose of the lectures is to help students understand the textbooks' content, so to prepare for their classes, students firstly need to read these textbooks". Agri2 added "because most of classroom activities are focused on textbooks so reading textbooks is the best way to prepare for them". Educ2 affirmed "I never read anything but textbooks". It can be said that students perceived, for their classes and their understanding of the topics, they should read the textbooks.

However, there was a difference in using textbooks between the high and low achieving students. All high achieving students reported that reading beyond the textbooks was needed in a few cases while only one low achieving student (Agri2) reported reading further than the textbook. For example, Agri1 said "sometimes, for class discussions, they [lecturers] provide us copies of some journal articles or ask us to find some information from the internet". This information was confirmed by Agri2. Econ1, in addition, reported "when a group exercise or group presentation is required we have to find and read some articles from the internet or other academic books in the library". It seems that high achieving students thought textbooks are the first requirement for their learning (but other reading materials are also necessary), while low achieving students appeared to believe set textbooks are all they need.

Students showed a poor reading habit. Low achieving students read relatively little, and when they read, they tend to restrict their reading to set textbooks. Reading journal articles and

academic books was thought by high achieving students to be necessary for a few particular classroom activities such as class discussion or group presentation.

4.3.2.4. Influences of teaching method on students' reading

Teaching methods motivate students' reading in different ways. As most students were passive learners, they just focused on the lecturers' directions of what should be read. Moreover, students might read because they are required to prepare for their participation in classroom activities. They might also read because classroom activities inspire their learning. According to Educ2 and Agri2, they read only if their lecturers required it. Econ1 said, "If my lecturers require us do more preparation or homework for our classes, I have to spend more time on reading". Econ2 explained "because the activities such as lecturers' questioning or group discussion require ideas and knowledge, I need to read to prepare them". For Agri1, classroom activities motivated him to learn more about the topics and therefore he often tried to read more outside the textbooks.

It is implied that students' reading can be motivated by teaching methods. Although high and low achieving students might read different genres for their class preparation, they all agreed that they need to read for certain academic tasks. Students would engage more in reading when classroom activities require their preparation or value their learning.

4.3.3. Assessment practices and student reading

Students' responses on assessment practices are summarized in two sections. The first section is about assessment methods. It is followed by a discussion of how assessment activities influence certain aspects of students' reading.

4.3.3.1. Assessment methods

The assessment methods that were used at this university are quite variable, corresponding with the assessment policy. Students reported that there are two tests for each topic, including midterm assessment (30% of score) and final assessment (70% of score). It is assumed that

lecturers decide assessment methods based on their purposes of assessment at midterm or the end of semester.

The open book exam method is most commonly used for midterm assessment, while the written exams are often used for the final assessment. As reported by students from the faculties of Agriculture, Education and Economics, their lecturers often use the open book exam method and sometimes require oral presentations to evaluate students' progress at midterm. Written exam is the main assessment method but sometimes a multiple-choice question method is used for the final assessment. In the faculty of Information Technology, "besides the written exam and multiple-choice question methods, open book exams are sometimes used to evaluate students' achievement at the end of semester", said Info1.

It can be said that students have to deal with different types of assessment. Because classroom assessment influences the way students learn and their motivation to learn (Earl & Katz, 2006), different assessment methods may therefore have different influences on students' reading. The following provides information about how students prepare for their examinations.

4.3.3.2. Influences of assessment activities on students' reading

The interview data indicated that assessment activities drive students' reading. As students need to prepare for their examinations, they have to read. However, different assessment methods led to different preparations.

All students agreed that they need to read more for preparation of their examinations. Info1 explained "because the exams' results decide our academic achievement, we need to carefully learn for them". Educ1 said "we have to review all lessons in order to deeply understand them". Students read because they believe that good preparation leads to better performance at the exams.

Different assessment methods had different influences on certain aspects of students' reading. First, most students perceived less pressure to read for a written exam. For instance, Agri2 reported, to read for a written exam, he just needed to focus on the outline or several questions that his lecturer assigns for preparation. He is clearly signalling that it is not necessary to put more effort to prepare for this type of assessment, and therefore the more frequent written exams the less he felt pressure to read. In this situation, written exams do not limit students reading but, because of the way the lecturers assign tasks for preparation, students feel they can choose to do less reading when they prepare for a written exam. Second, students thought multiple-choice question tests lead to an overload of reading for preparation. Econ1 and Info2, for example, reported they need to read to gain as much information as possible for a multiple-choice question test. Although reading for this type of assessment can be surface level learning, the more use of multiple-choice assessments lead to more reading needing to be done and lead to a reduced sense of student control over their reading. On another aspect, as thought by some high achieving students, to prepare for an oral presentation, they need to read more outside the textbooks. According to Agri1, referencing academic books and journal articles is needed for oral presentations. It seemed that high achieving students are aware of what are required for this type of assessment and wish to achieve a good grade for this assessment. They therefore try to read more beyond the set textbooks.

The types of texts that students read for their examinations varied between low and high achieving students. There was a trend of dependence on textbooks and class notes among low achieving students when they prepare for their examinations. Info2 reported "most of time I just read textbooks and notes that I took from the lectures to prepare for my exams". Educ2 explained "because the exams mostly focus on textbooks' content, I just need to read them". Info2 added "in my opinion, my notes from the lectures are main ideas and explanations of textbooks which are often the content of tests". Because these students think the exam content is mostly limited to material in the textbooks, they just focus on understanding the textbooks

to pass their exams. For high achieving students, not only textbooks but also academic books and journal articles were referenced for their exams. According to Econ1, in order to achieve high examination results, besides reviewing textbooks and class notes, she often read other academic books or several journal articles from the internet. When students place a high expectation on their academic performance, they carefully prepare for their exams, and read more outside the textbooks.

4.3.4. Quality of library services and student reading

Students' reports on the quality of library services are summarized in two sections. First, the quality of library services is discussed. Then, the influences of the quality of these services on students' reading aspects are explained.

4.3.4.1. Quality of library services

Reading materials were in short supply. All students reported the library has not provided an online resource (no electronic reading material) for students' reference. Most students agreed the number and type of reading materials were poor. Info1 and Info2 agreed that there is a very limited number of books related to their discipline. Agri1 reported "it is difficult to find journal articles here so most of the time I find them on the websites of other famous universities in Vietnam". This suggests that other students who want to learn more and are aware of the poor supply of reading materials at the library may also seek out additional sources for their reading materials.

The loan policy at the library was inconvenient. Six students reported that they are annoyed by this policy. For example, Econ1 said "the loan policy is really complex. To borrow books, I need to present my library card to the librarian. Then, I need to fill in a written form that requires my information and the name of books". Agri1 added "we are allowed to borrow no more than 7 books for reading at home. The borrowing time is no more than one week. If we

want to extend it, we have to come to meet the librarian and fill in the borrowing form again". This inconvenience might prevent students from borrowing reading materials from the library.

Students, however, showed a positive opinion about the atmosphere of the self-study area at the library. All eight participants reported that the self-study area at their library is always quiet. For instance, Econ1 said the only good thing about our library is the quiet atmosphere of the self-study area. This student signaled that she liked to go to the library just for this service.

It is clear that the quality of library services is regarded as poor. Although students like the quiet atmosphere at the library, the stock of books is limited and the loan policy is identified as inconvenience. As the library is expected to be an important resource for student reading, the poor services at this library might lead to poor reading habits among students.

4.3.4.2. Influences of the quality of library services on students' reading

The quiet atmosphere in the self-study area motivates students' reading. All students perceived that their reading benefits from this quiet atmosphere. Info1, for instance, shared "it is comfortable to do self-study here. The quiet atmosphere helps me to concentrate on my learning". Educ1 added "seeing other students keep quiet and concentrate on their own learning motivates me to learn and therefore I like to go there". These students like to read in the self-study area.

The poor quality of other the library services led to poor reading habits among students that they referenced limited types of reading material. In the same vein as other students, Econ1 said "I do not like to borrow library materials. I only borrow academic books when they are really necessary for my classroom activities or exams". Agri2 added "because the number of books at the library is limited, it is difficult to find books that I like there. So, most of time, I just go there to read my textbooks and class note-taking". The types of material that students

read for their learning seem to be limited because they did not like to borrow from the library (relating to the inconvenient loan policy) or they could not find suitable reading materials (relating to the limited supply of books).

The quality of library services, to some extent, restricts students' reading. The inconvenience of the loan policy and the limited stock of books seemed to prevent students from accessing the reading materials. However, the quiet atmosphere in the self-study area attracted students spend time reading there.

4.4. Relating qualitative to quantitative findings

As the current study employs an explanatory design, the survey and interview findings are combined to capture a complete picture about the relationships between university context and students' reading. These findings are combined using a statistics-by-themes joint display (Guetterman et al., 2015).

4.4.1. Teaching methods explain student reading

The activity of assigned reading motivates students' reading engagement. Quantitative results indicated that students showed more positive attitudes toward reading, felt more pressure to read, felt more control over their reading and spent more time on reading for their education when their lecturers assigned reading more often. According to the qualitative results, as most students were passive learners, they might depend on their lecturers' recommendations through the assigned reading.

The activity of class discussion positively influences students' reading habits. As found from quantitative data analysis, students spend more time reading for learning and often read academic books when their lecturers provide more opportunity for class discussions. Findings from qualitative analysis indicated that class discussion motivates students' learning and therefore motivates their reading. Although class discussion was not a frequent activity,

students reported that they are sometime required to read journal articles and academic books for this type of activity.

On the other hand, the current classroom practice at this university leads to poor reading habits among students as the materials they read for their classes are limited. Of students who participated in the quantitative phase of this study, 68% read textbooks every day or almost every day and 67% of them never or almost never read journal articles. This can be explained by the qualitative finding that there was a dependence on textbooks, particularly among low achieving students. These students implied that, because most classroom activities are focused on textbooks, they just try to understand them.

4.4.2. Assessment practices explain student reading

The practice of requiring oral presentation positively correlates with students' reading engagement. Survey results indicated that students reveal more positive reading attitudes and perceive more the pressure to read when they participate in oral presentations more often. This is supported by Agri1 who believed that reading more outside the textbooks (academic books and journal articles) is needed for oral presentations.

The assessment method of written exams negatively influences students' subjective norms for their reading. Quantitative results indicated that the more frequent the use of written exams the less pressure to read students felt. This can be explained by a qualitative finding that, to prepare for this type of exam, students were only required to focus on several specific questions. This means students did not need to read widely for the written exams.

The multiple-choice questions assessment method also has a negative effect on students' control over their reading. As found from quantitative data analysis, students felt less control over their reading when their lecturers used multiple-choice questions exams more often. In supporting this finding, the qualitative analysis showed that when this type of exam is used

frequently, students tend to read widely to seek as much factual information as possible, and therefore they feel a loss of control over what they should read.

The materials that students read for their exams explain their academic achievement. According to the qualitative results, there was a trend of focusing on textbooks among low-achieving students, while academic books and journal articles are read by students who expected and gained a high level of achievement. This is an explanation for the findings from the quantitative phase that only 3.7% (13 students) achieved a distinction level CGPA and; there were relatively strong correlations between the frequency students read academic books or journal articles and their CGPA.

4.4.3. Library services explain student reading

The book supply and the loan policy at this university's library had negative effects on the types of reading material that the students read. Quantitative analysis indicated that students often read textbooks but they rarely read other academic books and almost never read journal articles. This can be explained by a qualitative finding that students seemed to read limited types of material for their learning because they did not like to borrow from the library (relating to the inconvenient loan policy) or they could not find suitable reading materials in the library (relating to the limited book supply).

The atmosphere at the library, however, positively influences students' reading engagement. As found from quantitative analysis, the higher the level of satisfaction students placed on the atmosphere at the library the more positive the reading attitudes they revealed. In fact, the qualitative results showed that students like to read in the self-study area because of its quiet atmosphere.

4.5. Summary

In this chapter, analysis of quantitative and qualitative data has been presented. The key findings are summarized below. These findings are discussed in the next chapter.

- Students revealed positive attitudes toward reading. They were under a high level of pressure to read. Most of them expressed positive beliefs about space and time for reading, but they had problems related to reading materials and reading skills. A majority of students spent at least one hour per day on reading for their education. Their types of reading materials were quite variable.
- Consistent with the literature review, the individual characteristics (gender, books at home, parental education, and hometown status) significantly explain the measured aspects of students' reading.
- Importantly, aspects of the university context (teaching method, assessment practices and library services) each had small effects on students' reading engagement. However, these influences may have a substantial cumulative effect: more effective teaching methods combined with more demanding assessment methods and the provision of better learning resources could lead to higher levels of reading engagement and therefore, higher achievement.
- Although the model of reading habits overall fits the data, reading attitudes was the only independent factor that significantly explains the amount of time students spent on reading for their education.
- The amount of time that students spent on reading for educational purpose, and the frequency that they read academic books or journal articles had strong correlations with their CGPA.

Chapter 5 – Discussion and Conclusions

This chapter is divided into two key sections. The first section is a discussion of findings arising from this study. The second section presents the study's conclusions, implications and limitations and presents recommendations for educational practices and further research.

5.1. Discussion

The findings of the present study are discussed in four sub-sections that directly answer the research questions. First, since findings on the relationships between individual characteristics and students' reading confirm what have been found in the literature, they are only briefly discussed. An important finding from this study, which is discussed in the subsequent section, is the effects of university context on students' reading engagement. It is followed by a discussion on the consistency of the reading habits model which was based on a modification of the Theory of Planned Behaviour (Ajzen, 1991). In the final sub-section, the relationships between reading practice and students' academic achievement are considered.

5.1.1. Influences of selected student characteristics on reading attitudes, beliefs and reading habits

In line with previous studies, the findings from this one indicate student characteristics account for some of the variation in reading attitudes, beliefs and habits (Karim & Hasan, 2007; Lone, 2011; Nickoli et al., 2004; Shafi & Lone, 2010; Su-Yen, 2007; Zulu, 2005). Female students revealed a higher level of reading engagement compared to male students. Students who grew up in a disadvantaged family background were less engaged in reading than those from an advantaged family background. Although the relationships between student characteristics and the aspects of reading might vary by reading purposes and national contexts, the literature review suggested that the effects of individual characteristics on students' reading are largely caused by variations in the social interaction and experiences of reading (Nickoli et al., 2004; Shafi & Lone, 2010; Summers, 2013; Tepper, 1998). Students,

whether males or females, seem to engage in reading activities more than others if they grew up in a literacy-rich environment, where reading was valued, and where reading materials were well provided. Since most students at this university come from disadvantage family backgrounds, they should be encouraged and supported to engage more in reading activities.

5.1.2. The influences of university context on students' reading

An important finding of this study is that aspects of the university context, specifically teaching methods, assessment practices, and library services, can significantly explain the variation in the measured aspects of students' reading, namely attitudes, subjective norms, perceived control and reading habits. This finding emerges from both the quantitative and qualitative data collected in this study. It leads to several valuable implications for university practices.

5.1.2.1. Reading engagement across academic faculties

Students' reading engagement varies by academic discipline. Among students from four academic faculties, it was found that Economics students show the highest level of reading engagement. This finding is consistent with the reports from Jeffres and Atkin (1996) and Karim and Hasan (2007), who suggested that students from social sciences and humanities majors are more engaged in reading than those from other academic disciplines such as natural science and computer science. The differences in students' reading engagement across academic disciplines at the university in this study can be explained by the reading requirement, the ways that readings were assigned and valued in students' learning, and the ways that students' learning was assessed in each discipline. The following sections provide insight into the influences of university context on students' reading engagement.

5.1.2.2. Teaching methods motivate students' reading

Teaching practices at this university influence all aspects of students' reading. Students were more likely to read if their lecturers required it. In addition, students' reading engagement was

promoted through class discussions. It seems that, for this university, better and more frequent opportunities for reading (assigned reading and classroom discussion) will lead to students being more engaged in reading.

Students tend to focus on assigned reading because they do not know what they should read (other than prescribed textbooks). The interview data showed that, to prepare for their classes, students mostly focused on textbooks, and few students read beyond them in those cases where their lecturers required it. For instance, Agri1 reported "the main purpose of the lectures is to help students understand the textbooks' content, and therefore, for class preparation, we need to read them… sometimes they [lecturers] provide us copies of some journal articles or ask us to find some information from the internet". It seems that, as most Vietnamese students perceive textbooks are all they need for their learning (Pham, 2011), a majority of students at this university did not know what they should read (outside the textbooks) until their lecturers assigned that reading.

Students, especially low achieving students, focus on assigned reading because they perceive pressure from their lecturers to do this reading. This is supported by the interview data where Educ2 and Agri2 reported that they read only if their lecturers required it. Indeed, lecturers have an important influence on their students' reading habits (Shafi & Lone, 2010). They can be seen as role-models for reading (Stokmans, 1999). Lecturers sharing their reading attitudes, reading habits and reading experience significantly influences students' perceptions and beliefs about reading (Albright et al., 2007). As Vietnamese students seem to consider their lecturers' words are always correct (Pham, 2011), these students engage in reading activity because their lecturers want them to do so.

The positive relationship between class discussion and students' reading engagement can be explained by the ways that class discussion values students' learning. In fact, Econ2 reported that class discussions make classes more interesting and that he needs to read to get ideas and

knowledge as preparing for these discussions. Agri1, in addition, said "classroom activities [such as class discussions] motivate me to learn more about the topics and therefore I often try to read more outside the textbooks". As discussed in the literature review, class discussions not only provide a powerful learning approach for students but also promote their autonomy as learners (Chi, 2012; Jones, 2007; Sajjad, 2009; Weimer, 2010). Since students perceive that their learning benefits from class discussions, they are motivated to read in preparation for those discussions (Brost & Bradley, 2006; Guthrie, Wigfield, & You, 2012).

Consistent with the views presented by Armstrong and Newman (2011), most students at this university can be seen as passive learners. They did not perceive an important role for reading, and they were too dependent on textbooks. It seems that, to read, they only expect to follow their lecturers' recommendations. Students, therefore, only read under certain conditions such as the lecturers' request. This might contribute to the limited achievement among these students and explain why no one had achieved a high-distinction level CGPA. Moreover, since assigned reading is currently a frequent activity at this university, students should be provided more opportunities to respond to what they have read and see how these readings add value to their learning. To do so, class discussion should be required more often.

5.1.2.3. Assessment practices drive students' reading

Assessment practices at this university influence aspects of students' reading. While oral presentations positively correlate with reading engagement among students, other methods of assessment such as written exams and multiple-choice tests have negative effects on students' reading. It can be said that different assessment methods lead to different preparations (reading for the examinations).

It seems that the positive relationship between the practice of oral presentation and students' reading engagement arises from the requirements of this type of assessment. This conclusion is supported by Agri1 who believed that not only textbooks but also academic books and

journal articles need to be read for oral presentations. As an oral presentation challenges students with hard tasks (Borin et al., 2008; Race, 2015), students need to read more to gain a deeper understanding of the topic. Students need to ensure that they have a genuine understanding of what they are saying and have the ability to respond to the follow-up questions, in order to demonstrate high performance or at least to avoid seeming foolish. The need for greater understanding, in turn, places pressure on students to read more so they are more effectively prepared for this assessment.

The negative relationship between written examination and the pressure to read among students can be explained by the work that lecturers require students to do for exam preparation. It seems that students thought it is unnecessary to read more for a written examination. For instance, Agri2 reported that, to read for a written examination, he just needed to focus on the outline or several questions that his lecturer assigned for preparation. By limiting the workload of exam preparation, the lecturers seem to limit students' reading. The use of more written examinations, therefore, leads to less pressure to read.

An explanation for the negative relationship between the extensive use of multiple-choice question exams and students' perceived behavioural control for reading might relate to an overload of reading for exam preparation. Indeed, as reported by Econ1, students need to read more to gain as much information as possible for a multiple choice test. Because multiple choice methods are usually used to test students' broad knowledge of the curriculum and learning objectives (Brady, 2005; University of New South Wales, 2014), students might need to focus on a wide range of course materials to prepare for this type of assessment. Thus, more often this type of exam leads to students reading a wider range of materials. Possibly, for this reason, they perceive a lower degree of control over what they should read and what information they should obtain.

Although the assessment practices at this university drive the reading strategies among students, some assessment methods had harmful effects on their reading engagement. The way the lecturers assign tasks for preparation make students feel they can choose to read less when preparing for a written exam. The frequent use of multiple-choice exams for final assessment make students feel they lose control of what information needs to be memorized. In order to improve the reading practices at this university, the assessment policy and practices need to be reconsidered.

5.1.2.4. Quality library services facilitate students' reading

It was found that not only the atmosphere but also the physical environment of the library significantly influences students' reading. On one hand, the quiet atmosphere at the library motivates students' reading engagement. A limited stock of books, on the other hand, has a negative influence on students' control of their reading.

The relationship between the atmosphere at the library and students' reading engagement can be explained by the convenience of learning in a quiet place. Because students believe the quiet atmosphere at the library supports their learning, they might want to visit the library more often for self-study. Since students visit the library regularly, they are more likely to become active learners who read, write and study more (Julien, 2000). In fact, while Info1 reported the quiet atmosphere helps her to concentrate on her learning, Educ1 said seeing other students study quietly and concentrate on their learning motivates him to learn. As students perceived the library's atmosphere benefits their learning, they like to spend time for self-study there.

Since both survey and interview data indicated that reading materials at this library were in short supply, the negative effect of the limited book supply on students' control for reading might be explained by the reading ambition among students. Students who are dissatisfied with library facilities are more demanding readers and they try to find other ways to serve

their need for academic reading. By contrast, those who are satisfied and do not have high ambitions for their own reading seem to be dependent on what the library provides for them. As a result, when reading materials are in short supply, the higher the ambitions for reading students show, the greater they feel control over their reading. In fact, Agri1 reported "it is difficult to find journal articles there (the library), so most of time I often find them on the websites of other famous universities in Vietnam". He indicated that, for some students who are clearly aware of the poor supply of reading materials in the library but have the desire to learn more, they try to find (and know how to find) additional sources of materials to serve their reading and they, therefore, exercise greater control over their reading.

It is questioned that how does this library attract students with its current services? Although students like to read in a quiet atmosphere, will they visit the library if they are sure that they cannot find books they require? Regardless of what services are provided by the library, it is important that students can access rich sources of reading materials.

5.1.3. The practicability of applying the reading habits model

In this study, students' reading is measured using a model of reading habits that is broadly based on the Theory of Planned Behaviour (Ajzen, 1991). However, the study did not include measures of reading intention. This decision was made given the availability of a simultaneous measure of reading habits, rendering the measurement of intention unnecessary.

The reading habits model is constructed using four components, namely reading attitudes, subjective norms for reading, perceived behavioural control for reading and reading habits. The findings, however, provide limited support for the application of this model. This model of reading habits just partly reflects predictions of the Theory of Planned Behaviour.

Although the predicted positive relationships among the components of reading habits model were confirmed, it was identified that attitude toward reading is the only factor that directly explains the amount of time students spent on reading for their education. Subjective norms

for reading and perceived behavioural control for reading might indirectly influence this reading amount through other mediators. Indeed, since the components of the reading habits model positively correlate with each other, subjective norms and perceived behavioural control might influence reading habits through reading attitudes. Furthermore, according to the Theory of Planned Behaviour (Ajzen, 1991), subjective norms for reading and perceived behavioural control for reading might influence reading habits through reading intention.

It seems that, because the model of reading habits did not include reading intention, it failed to fully explain the relationships among the components. The influences of subjective norms and perceived behavioural control on reading habits are weaker, since their relationships are indirect. Consistent with previous studies (Broeder & Stokmans, 2013; Van Schooten & De Glopper, 2002), this study found that the factor of reading attitudes is the most important predictor of reading habits.

5.1.4. The role of reading in higher education

It was found that students' reading habits make a positive contribution to their CGPA. The survey data indicated that the greater the amount of time students spend on reading for education purpose per day or the more often they read academic books or journal articles the higher the CGPA they achieved. This is consistent with Kim and Anderson (2011) and Sappington et al. (2002) who claimed that good reading habits are correlated with better academic achievement. According to the literature review, this positive relationship can be explained by the way reading benefits students learning, their cognitive outcomes and their general knowledge (Annamalai & Muniandy, 2013; Igwe, 2011; Kim & Anderson, 2011; Krashen, 2009; Mohamed et al., 2012). In particular, it might relate to the advantage of reading other materials in addition to the prescribed textbooks. This is supported by Econ1 who reported that, in order to achieve the high results in exams, besides reviewing textbooks and class notes, she often read other academic books or journal articles on the internet.

According to Sappington et al. (2002), students who seriously comply with reading assignments are advantaged in their examinations. Those who read research articles regularly have a better understanding of lectures and, therefore, tend to gain better results on their examinations (Sappington et al., 2002).

The relationships between reading habits and students' academic achievement reveal that reading is necessary in order to achieve high grades. Although there were variations in teaching methods and assessment practices among the academic faculties, reading plays a vital role in the learning process. Thus, to learn and to be successful at university level, students must read.

5.2. Conclusions, implications, limitations and recommendations

In this section, important conclusions arising from this study are drawn. Here, and based on these conclusions, several educational implications are made. Several limitations of this study are pointed out. The section concludes by making by some suggestions for future research.

5.2.1. Conclusions

The purpose of this study is to provide insights into issues that relate to university students' reading engagement. It aims to define the role of reading in higher education and to explain Vietnamese students' reading practices. Its results lead to several important conclusions.

First, although the model of reading habits (developed in this study) fails to fully explain the relationships among reading attitudes, subjective norms, perceived behavioural control and reading habits, it shows that elements of the Theory of Planned Behaviour can be used as a theoretical framework for studying university students' reading practices since the components of this model are positively correlated to each other. Most importantly, it establishes a strong relationship between reading attitudes and reading habits. This is an important contribution to the Vietnamese literature where the issue of university students'

reading is an unexplored field. Moreover, since reading attitude is found to be the key factor that directly explains the variation in reading habits, an explanation for claimed poor reading habits among Vietnamese students might be they do not feel reading is an enjoyable activity or do not perceive the benefits from reading.

Second, reading contributes directly to students' academic achievement. The more students engage in academic reading the more success they achieve in their courses. Since poor reading engagement among students is a problem (Ha, 2013; P. Le, 2014; Ngo, 2009) and improving the quality of higher education is a core mission for long-term development of the whole education system (Vietnamese Prime Minister, 2012), this conclusion becomes significant in the Vietnamese context as it is evidence of the need for change.

The most important conclusion in this study is students' reading engagement is significantly influenced by university practices and services. Students tend to engage in reading when they are required to read more often. Their reading engagement is promoted when classroom activities value the role of academic reading and make it an interesting activity. Different assessment methods lead to different reading strategies among students. The quiet atmosphere at the library attracts students to read but the stock of books seems to limit the materials students read. Generally, students read if they are guided and supported by the university practices and services.

5.2.2. Implications

The above conclusions lead to several important implications for practices in this university. Since the importance of reading is evident, motivating students to read is a practical solution to improve the quality of learning. Since reading attitudes directly explain the amount of time that students spend on reading for education, a viable way to promote reading among students is to stimulate them to view reading as an enjoyable and useful activity that will help them improve their learning outcomes. Since the university context explains much of the variation

in students' reading engagement, the university practices and services can be used to promote reading engagement among students. The following practical suggestions may contribute to the development of a supportive culture that motivates reading engagement among students.

First, because it is important for students to develop positive attitudes toward reading, they should be inspired to read. To do so, lecturers should be good reading models themselves. They should adopt an enthusiastic attitude toward reading and openly discuss their personal reading lives with students. Assigning students with interesting readings that related to their topics or sharing reading experiences and favorite academic journals or recommending academic books and articles to students are simple ways to motivate students to read (Akanda et al., 2013; Albright et al., 2007; Applegate et al., 2014).

Second, teaching methods and classroom activities should be designed to value the role of academic reading. Both the survey and interview data implied that when students think classroom activities are useful, they want to learn more and therefore they read more. Since the frequency the lecturers assign reading has positive effects on students' reading engagement, students should be assigned reading often. Since class discussion motivates students' reading, although it is not a frequent activity at this university, students should be required to discuss their reading in groups more often. As students need opportunities to share ideas about what they have read (Larson, Young, & Leibham, 2011), instructors should follow reading assignments with class discussions and other activities to signal reading as a valued activity. According to Hatteberg and Steffy (2013), announced quizzes, required reading questions, and mandatory writing assignments are several effective ways to motivate students to do the assigned reading. In short, to inspire students' reading engagement, teaching methods should be student-centered (O'Banion, 2011), and classroom activities that emphasise the active involvement of students should be promoted (Pham, 2011).

Third, assessment practice should be used effectively to drive students' learning and, therefore, reading. Since the qualitative data indicated that textbooks and class notes were the main sources that students read for their exams, the content of examinations should not only focus on these two sources but expanded knowledge in term of what students know and can do with their knowledge. In this way, the students who read critically will have more opportunities to receive good grades rather than those who simply memorize. Besides, it is necessary that lecturers are skilled in assessment practices. They must understand the functions of assessment, when they should conduct assessment, what the purposes are, who their audiences are, which method they can use, and how they can effectively apply this method (Earl, 2003; Earl & Katz, 2006; Nitko & Brookhart, 2011).

In addition, the library infrastructure and services should be improved to attract students. Since the interview data indicated that reading materials at this university were in short supply, an online learning resource should be developed, and the quality and quantity of reading materials in the library should be strengthened. Since the quiet atmosphere at this library motivates students' reading engagement, the number and spaces for self-study and reading rooms should be increased. Since most students reported that they are unhappy with the loan policy at this library, this should be simplified in order to be user-friendly for students. The limit of books for a loan should be increased. Promoting cooperation with other libraries (from other universities) by sharing resources is an effective way to improve the quality of library services (Truong & Le, 2011).

It is evident from this study that to be successful students must read. However, as the higher literacy demands of university study compared with high school can be a challenge for many students (Armstrong & Newman, 2011), students need to be guided and supported to engage in reading. This requires a shared effort of the whole university community to improve the quality of university practice and services.

5.2.3. Limitations and recommendations

Several limitations to this study exist. Among them, the omission of the 'intentions' concept from the model of reading habits is the first limitation. This omission may have contributed to the inconclusive findings about the relationships among the components of the reading habits model. The second limitation is related to the use of regression modeling in this study. Indeed, the logistic regression model is limited because regression models make certain assumptions namely linearity, independence of errors and the absence of multicollinearity (Field, 2009, pp. 273-276). The next limitation is related to the specific research site of this study (a local, public university). A study in a particular type of institution might be limited in generalizability to other types of institutions.

For further research, a measure of reading intention should be incorporated into the model of reading habits. To evaluate this model, Structural Equation Modelling could be used rather than Regression Modelling, although to do so will require a much larger sample size. Other types of higher education institutions should be studied in order to get an overview of reading among Vietnamese students. Such research could identify directions that help the whole community of Vietnamese universities to improve the reading engagement among their students.

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Appendices

Appendix A – Questionnaire of students' reading attitudes and reading habits

Direction

In this booklet you will find questions about:

You, your family and your university;

Your view on various issues related to reading.

Please read each question carefully and answer as accurately as you can. For this questionnaire, you will normally answer by filling in a circle. If you decide to change your answer, draw an "X" through your first answer and then fill in the circle next to or under your new answer.

In this questionnaire, there are no right or wrong answers. Your answers should be the ones that are right for you.

You may ask for help if you do not understand something or are not sure how to answer a question.

Your answers will be combined with others to make totals and averages in which no individual can be identified. All your answers will be kept confidential.

About you

Q1	Are you male or female? (Fill one circle only) • Male O • Female O
Q2	Where is your home located? (Fill one circle only) • A rural area O • An urban area O (a **rural area** is a geographic area that is located outside the cities and towns)
Q3	Which faculty are you in? (Fill one circle only) • Faculty of Agriculture O • Faculty of Economics O • Faculty of Education O • Faculty of Information Technology O
Q4	What is your CGPA rank? (Fill one circle only) • High-distinction O • Distinction O • Credit O • Pass O

Your family

Q5	What is the highest level of schooling **completed** by your father? (Fill one circle only) • Post-graduate O • Under-graduate O • Diploma or collegial certificate O • High school O • Other *(e.g. Secondary or below)* O
Q6	What is the highest level of schooling **completed** by your mother? (Fill one circle only) • Post-graduate O • Under-graduate O • Diploma or collegial certificate O • High school O • Other *(e.g. Secondary or below)* O
Q7	How many books are there in your home? (Fill one circle only) • 0 – 10 books O • 11 – 25 books O • 26 – 100 books O • 101 – 500 books O • More than 500 books O

Your university

Q8 How often do these things happen in your classes? (Fill one circle for each line)

	Every day or almost everyday	3 or 4 times a week	1 or 2 times a week	1 or 2 times a month	Never or almost never
The lecturers assign reading for homework.	O	O	O	O	O
The lecturers ask questions about our required reading.	O	O	O	O	O
The lecturers ask us to write something about what we have read.	O	O	O	O	O
The lecturers ask us to discuss in groups about what we have read.	O	O	O	O	O

Q9 How often do your lecturers use each of the following methods to assess your performance? (Fill one circle for each line)

	More than 6 times a semester	5 or 6 times a semester	3 or 4 times a semester	1 or 2 times a semester	Never or almost never
Multiple choice questions	O	O	O	O	O
Oral presentation	O	O	O	O	O
Written exam	O	O	O	O	O
Essay	O	O	O	O	O
Open book exam	O	O	O	O	O

Q10 How much do you agree with these statements below about your university library?

(Fill one circle for each line)

	Agree a lot	Agree	Agree a little	Disagree a little	Disagree	Disagree a lot
The information I require for my course needs is available at the library.	O	O	O	O	O	O
The library opening hours match my schedule.	O	O	O	O	O	O
It is easy to find where the materials are located in the library.	O	O	O	O	O	O
Study areas in the library are kept quiet.	O	O	O	O	O	O

Attitudes towards reading

Q11 How much do you agree with the statements below about reading enjoyment?

(Fill one circle for each line)

	Agree a lot	Agree	Agree a little	Disagree a little	Disagree	Disagree a lot
Reading is one of my favorite activities.	O	O	O	O	O	O
I get a lot of enjoyment from reading.	O	O	O	O	O	O
I read when I have the time to enjoy it.	O	O	O	O	O	O
I spent a lot of my spare time reading.	O	O	O	O	O	O
I want to have more books of my own.	O	O	O	O	O	O

Q12 How much do you agree with the statements below about reading anxiety?

(Fill one circle for each line)

	Agree a lot	Agree	Agree a little	Disagree a little	Disagree	Disagree a lot
I get upset when I think about having to read.	O	O	O	O	O	O
Encountering unfamiliar words is the hardest part of reading.	O	O	O	O	O	O
When I read I usually feel bored.	O	O	O	O	O	O
I often feel anxious when I have a lot of reading to do.	O	O	O	O	O	O
I need a lot of help in reading.	O	O	O	O	O	O

Q13 How much do you agree with these statements below about reasons for reading?

(Fill one circle for each line)

	Agree a lot	Agree	Agree a little	Disagree a little	Disagree	Disagree a lot
I need to read for my education.	O	O	O	O	O	O
I read for information purpose.	O	O	O	O	O	O
I read for recreation.	O	O	O	O	O	O

Pressure to read

Q14	How much do you agree with the statements below? (Fill one circle for each line)						
		Agree a lot	Agree	Agree a little	Disagree a little	Disagree	Disagree a lot
	My parents believe it is important to read.	O	O	O	O	O	O
	My lecturers believe it is important to read.	O	O	O	O	O	O
	My friends believe it is important to read.	O	O	O	O	O	O
	My parents think I should read more.	O	O	O	O	O	O
	My lecturers think I should read more.	O	O	O	O	O	O
	My friends think I should read more.	O	O	O	O	O	O

Opportunities to read

Q15	How much do you agree with the statements below? (Fill one circle for each line)						
		Agree a lot	Agree	Agree a little	Disagree a little	Disagree	Disagree a lot
	I think most of books are difficult to understand.	O	O	O	O	O	O
	It is difficult to concentrate on reading.	O	O	O	O	O	O
	It is easy for me to find books that I like.	O	O	O	O	O	O
	It is easy for me to find a quiet place to read.	O	O	O	O	O	O
	I am too busy to read.	O	O	O	O	O	O

Reading habits

Q16	On average, how much time per day do you usually spend on reading for educational purposes? (Fill one circle only) 0.5 hour < O 0.5 to 1 hour O 1 to 2 hours O 2 to 3 hours O > 3hours O

Q17 How often do you read the following materials? (Fill one circle for each line)

	Every day or almost everyday	Once or twice a week	Once or twice a month	Once or twice a year	Never or almost never
Magazine	O	O	O	O	O
Newspaper	O	O	O	O	O
Novel	O	O	O	O	O
Academic book	O	O	O	O	O
Website	O	O	O	O	O
Journal article	O	O	O	O	O
Comic	O	O	O	O	O
Textbook	O	O	O	O	O

To provide insight into the research issues, you are invited to involve in an interview in the next phase of this study. So, do you agree to participate in this interview?

Yes	
No	

If yes, please provide your phone number in the below so that the researcher can contact you.

Mobile:…….

Thank you for filling out the questionnaire!

Appendix B – Interview protocol

Time of interview:

Place:

Interviewer:

Interviewee:

Introduction

Thanks very much for agreeing participate in this interview. This is a part of the research "Reading attitudes and reading habits of Vietnamese undergraduate students" that aims to explain in more detail how university context influences students' reading attitudes and reading habits.

I would like to remind you that our conversation will be taken notes, audio-recorded and transcribed in verbatim. Any information that you provide will remain in the strictest confidence and you are will not be individually identifiable either during the research process or after the research process.

Background questions

Could you please tell me something about you, your university life?

About teaching methods

1. Could you please describe the daily activities in your classes?

a. How often do your lecturers ask you to read for class preparation or give you reading assignments?

b. How often do your lecturers ask you to discuss/summary/answer questions about your required readings?

2. How do you feel about these reading activities? Why?

3. Do you think teaching methods (reading assignments, class preparation, class discussions and lecturers' questions) affect your reading attitudes and habits? Please give more explanations.

4. In your opinion, what should lecturers do to make reading assignments more interesting?

About assessment practices

1. Could you please describe the assessment activities for a particular topic in your course?

a. Which methods do your lecturers usually use to assess your performance?

b. Do they give you feedbacks after assessment activities? How?

2. What do you need to read for your exams? Why?

3. Do you think assessment practices (assessment methods, tests content, feedbacks) affect your reading attitudes and habits? Please give more explanations.

4. How would you suggest for better assessment practices?

About library services

1. Could you please tell me about your university library?

a. What are the opening hours of your university library?

b. What are services in your university library?

c. What must you do to borrow reading materials or book a reading room?

2. How do you feel about your university library services? Why?

3. Do you think the quality of university library services (loan procedures and policies, number and types of reading materials, quality of reading materials, opening hours, and reading rooms) affect your reading attitudes and habits? Please give more explanations.

4. Which suggestions would you give library administrators in order to enhance the quality of your university library services?

Ending the interview

Is there anything else you would like to tell me?

Thank you for your time. After the interview is transcribed, it will be sent to you for your review. Thank you very much!

**Note: Additional follow-up questions will be asked, if appropriate, with each participant.*

Appendix C – Exploratory factor analyses

1. The scale of reading attitudes

Table C. 1 Total variance explained for the scale of reading attitudes.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.676	51.354	51.354	6.227	47.897	47.897
2	1.257	9.668	61.022	.663	5.102	52.999
3	.892	6.863	67.886			
4	.824	6.337	74.223			
5	.712	5.474	79.697			
6	.539	4.143	83.840			
7	.438	3.367	87.207			
8	.376	2.896	90.104			
9	.363	2.793	92.896			
10	.304	2.341	95.237			
11	.233	1.795	97.032			
12	.219	1.683	98.715			
13	.167	1.285	100.000			

Extraction Method: Alpha Factoring.

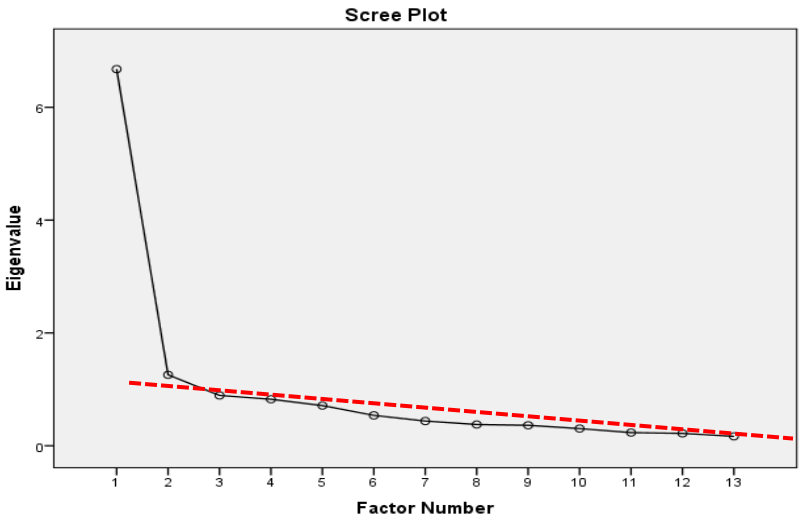


Chart C. 1 The scree plot for the "reading attitudes" items.

Table C. 2 Factor loadings for reading attitude items

Items	Factor
	Reading attitudes
Reading is one of my favourite activities.	0.880
I get a lot of enjoyment from reading.	0.844
I read when I have time to enjoy it.	0.694
I spent a lot of spare time on reading.	0.864
I want to have more books of my own.	0.772
I get upset when I think about having to read.	0.858
When I read I usually feel sleepy.	0.796
I often feel anxious when I have a lot of reading to do.	0.799
I need a lot of help in reading.	0.727

Extraction Method: Alpha Factoring.

Table C. 3 The internal consistency of items on the scale of reading attitudes

	Cronbach's Alpha if Item Deleted
Reading is one of my favorite activities	.929
I get a lot of enjoyment from reading	.931
I read when I have the time to enjoy it	.939
I spent a lot of my spare time reading	.932
I want to have more books of my own	.935
I get upset when I think about having to read	.930
When I read I usually feel bored	.934
I often feel anxious when I have a lot of reading to do	.934
I need a lot of help in reading	.937

2. The scale of subjective norms for reading

Table C. 4 Total variance explained for the scale of subjective norms for reading.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.734	45.572	45.572	2.421	40.352	40.352
2	1.214	20.238	65.810	.843	14.055	54.407
3	1.050	17.503	83.313	.816	13.596	68.003
4	.486	8.106	91.419			
5	.351	5.844	97.263			
6	.164	2.737	100.000			

Extraction Method: Alpha Factoring.

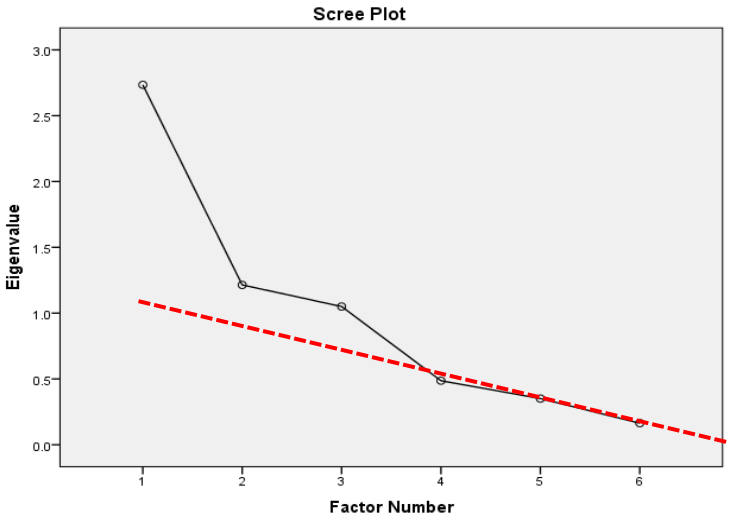


Chart C. 2 Scree plot for the "Subjective norms for reading" items

Table C. 5 Factor loadings for items of subjective norm for reading

Items	Factor
	Subjective norms for reading
My parent believes it is important to read.	0.665
My lecturers believe it is important to read.	0.593
My friends believe it is important to read.	0.485
My parent thinks I should read more.	0.687
My lecturers think I should read more.	0.483
My friends think I should read more.	0.600

Extraction Method: Alpha Factoring.

Table C. 6 The internal consistency of items on the scale of subjective norms for reading.

	Cronbach's Alpha if Item Deleted
My parents believe it is important to read	.689
My lecturers believe it is important to read	.732
My friends believe it is important to read	.730
My parents think I should read more	.680
My lecturers think I should read more	.745
My friends think I should read more	.721

3. The scale of perceived behavioural control for reading

Table C. 7 Total variance explained for the scale of PBC for reading.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.630	52.603	52.603	2.062	41.245	41.245
2	.911	18.216	70.820			
3	.661	13.221	84.040			
4	.423	8.456	92.496			
5	.375	7.504	100.000			

Extraction Method: Alpha Factoring.

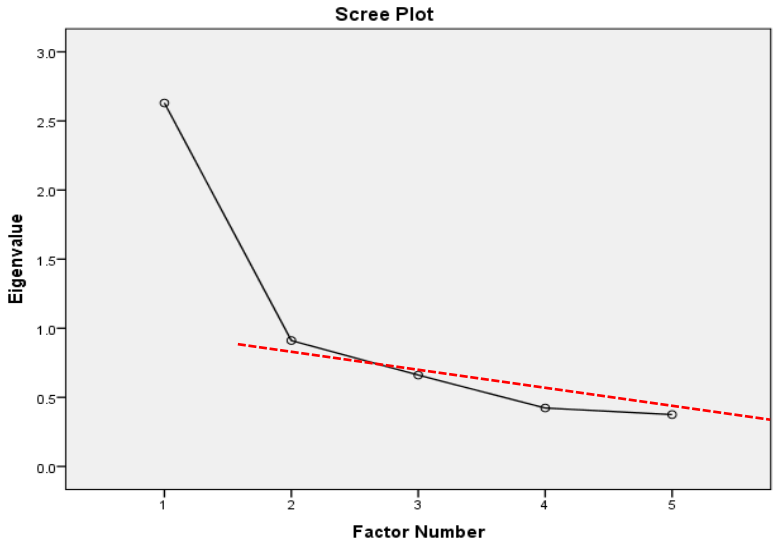


Chart C. 3 Scree plot for the "Perceived behavioural control for reading" items

Table C. 8 Factor loadings for perceived behavioural control for reading items

	Factor
	PBC for reading
Most of books are difficult to understand.	0.781
It is difficult to concentrate on reading.	0.712
It is easy to find books I that like.	0.510
It is easy to find quiet place to read.	0.479
I am too busy to read.	0.675

Extraction Method: Alpha Factoring.

Table C. 9 The internal consistency of items on the scale of PBC for reading

	Cronbach's Alpha if Item Deleted
Most of books are difficult to understand	.679
It is difficult to concentrate on reading	.694
It is easy to find books I that like	.767
It is easy to find quiet place to read	.764
I am too busy to read	.703

Appendix D – Inferential analyses

1. Students' individual characteristics and the measured aspects of reading

Table D. 1 Frequency of reading magazine by gender

	Male	Female	Total
Every day or almost every day	9.8	7.2	8.6
Once or twice a week	27.7	45.8	36.3
Once or twice a month	31.5	29.5	30.6
Once or twice a year	14.7	5.4	10.3
Never or almost never	16.3	12.0	14.3
Total	100	100	100

Table D. 2 Time spend on reading for education by hometown statuses

	Rural	Urban	Total
More than 2 hours	14.6	30.2	17.4
From 1 to 2 hours	47.0	34.9	44.9
From 0.5 to 1 hour	38.3	34.9	37.7
Total	100	100	100

Table D. 3 Pairs of difference in reading attitudes based on number of books at home

Pair of difference	*U*	*Z*	*P*	*r*
≤ 10 books and 26 - 100 books	1567.5	-6.158	0.001 <	-0.329
≤ 10 books and 101 - 500 books	165.5	-5.809	0.001 <	-0.311
≤ 10 books and ≥ 500 books	26.0	-4.44	0.001 <	-0.237
11 - 25 books and 26 - 100 books	4729.0	-5.878	0.001 <	-0.314
11 - 25 books and 101 - 500 books	572.0	-5.475	0.001 <	-0.293
11 - 25 books and ≥ 500 books	108.0	-4.197	0.001 <	-0.224

Table D. 4 Pairs of difference in subjective norms for reading based on number of books at home

Pair of difference	*U*	*z*	*P*	*r*
≤ 10 books and 26 - 100 books	2144.5	-4.531	0.001 <	-0.242
≤ 10 books and 101 - 500 books	287.5	-4.599	0.001 <	-0.246
≤ 10 books and ≥ 500 books	60.0	-3.772	0.001 <	-0.202
11 - 25 books and 26 - 100 books	6000.0	-3.757	0.001 <	-0.201
11 - 25 books and 101 - 500 books	844.5	-4.092	0.001 <	-0.219
11 - 25 books and ≥ 500 books	174.5	-3.568	0.001 <	-0.191

Table D. 5 Pairs of difference in perceived behavioural control based on number of books at home

Pair of difference	*U*	*z*	*P*	*r*
≤ 10 books and 26 - 100 books	2072.5	-4.733	0.001 <	-0.253
≤ 10 books and 101 - 500 books	276.5	-4.706	0.001 <	-0.251
≤ 10 books and ≥ 500 books	63.5	-3.70	0.001 <	-0.198
11 - 25 books and 26 - 100 books	5476.0	-4.631	0.001 <	-0.247
11 - 25 books and 101 - 500 books	699.0	-4.83	0.001 <	-0.258
11 - 25 books and ≥ 500 books	148.5	-3.813	0.001 <	-0.204

Table D. 6 Time spend on reading for education by number of books at home

	≤ 10 books	11 - 25 books	26 - 100 books	101 - 500 books	≥ 500 books	Total
More than 2 hours	4.0	3.6	24.0	46.7	50.0	17.4
From 1 to 2 hours	54.0	52.7	38.7	33.3	40.0	44.9
From 0.5 to 1 hour	42.0	43.6	37.3	20.0	10.0	37.7
Total	100	100	100	100	100	100

Table D. 7 Pairs of difference in reading attitudes based on fathers' educational level

Pair of difference	*U*	*Z*	*P*	*r*
Under - graduate and Secondary school or below	1415.5	-5.037	0.001 <	-0.269
College and Secondary school or below	1489.5	-3.129	0.005 <	-0.167
High school and Secondary school or below	6070.5	-3.535	0.001 <	-0.189

Table D. 8 Pairs of difference in subjective norms based on fathers' educational level

Pair of difference	*U*	*z*	*P*	*r*
Post - graduate and Secondary school or below	39.5	-3.259	0.005 <	-0.174
Under - graduate and Secondary school or below	1453.5	-4.902	0.001 <	-0.262
College and Secondary school or below	1456.0	-3.269	0.005 <	-0.175
High school and Secondary school or below	5624.5	-4.288	0.001 <	-0.229

Table D. 9 Pairs of difference in perceived behavioural control by fathers' education

Pair of difference	*U*	*z*	*P*	*r*
Under - graduate and High school	2454.0	-3.072	0.005 <	-0.164
Under - graduate and Secondary school or below	1570.5	-4.48	0.001 <	-0.239
College and Secondary school or below	1536.5	-2.933	0.005 <	-0.157

Table D. 10 Time spend on reading for education by father educational levels

	Post - graduate	Under - graduate	College	High school	Other	Total
More than 2 hours	40.0	38.8	12.8	18.3	7.8	17.4
From 1 to 2 hours	60.0	38.8	35.9	43.0	52.2	44.9
From 0.5 to 1 hour	0.0	22.4	51.3	38.7	40.0	37.7
Total	100	100	100	100	100	100

Table D. 11 Pairs of difference in reading attitudes based on mothers' educational level

Pair of difference	*U*	*z*	*P*	*r*
Post - graduate and High school	942.0	-3.495	0.001 <	-0.187
Under - graduate and High school	729.0	-4.026	0.001 <	-0.215
College and High school	7007.0	-5.383	0.001 <	-0.288

Table D. 12 Pairs of difference in subjective norms based on mothers' educational level

Pair of difference	*U*	*z*	*P*	*r*
Post - graduate and High school	781.0	-4.101	0.001 <	-0.219
Under - graduate and High school	704.0	-4.124	0.001 <	-0.220
College and High school	7443.0	-4.814	0.001 <	-0.257

Table D. 13 Pairs of difference in perceived behavioural control by mothers' education

Pair of difference	*U*	*z*	*P*	*r*
Post - graduate and High school	890.0	-3.69	0.001 <	-0.197
Under - graduate and High school	818.0	-3.681	0.001 <	-0.196
College and High school	7076.0	-5.293	0.001 <	-0.283

Table D. 14 Time spend on reading for education by mother educational levels

	Under - graduate	College	High school	Other	Total
More than 2 hours	38.9	52.9	22.4	10.1	17.4
From 1 to 2 hours	38.9	29.4	43.0	47.6	44.9
From 0.5 to 1 hour	22.2	17.6	34.6	42.3	37.7
Total	100	100	100	100	100

2. University context and the measured aspects of reading

Table D. 15 Pairs of difference in perceived behavioural control based on field of study

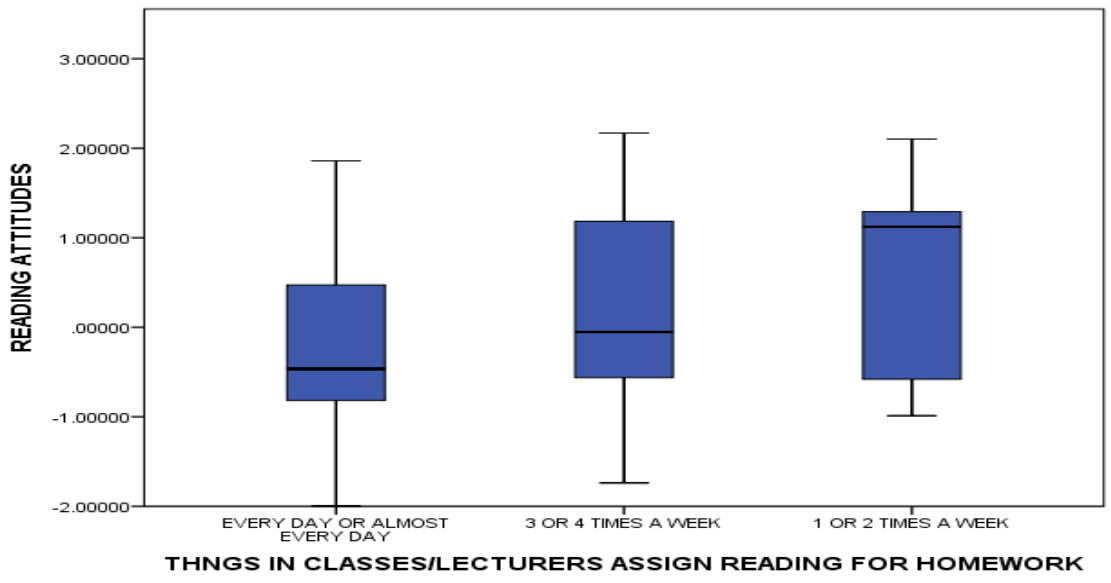
Pair of difference	*U*	*Z*	*p*	*r*
Faculty of Economics and faculty of Agriculture	423.0	-4.607	0.001 <	-0.246
Faculty of Economics and faculty of Education	4426.0	-5.56	0.001 <	-0.297
Faculty of Economics and faculty of IT	268.0	-5.641	0.001 <	-0.301

Table D. 16 Time spend on reading for education by faculty statuses

	Agriculture	Economics	Education	IT	Total
More than 2 hours	20.7	28.2	14.4	10.7	17.4
From 1 to 2 hours	55.2	62.0	37.4	50.0	44.9
From 0.5 to 1 hour	24.1	9.9	48.2	39.3	37.7
Total	100	100	100	100	100

Table D. 17 Reading attitudes by frequency of assigned reading

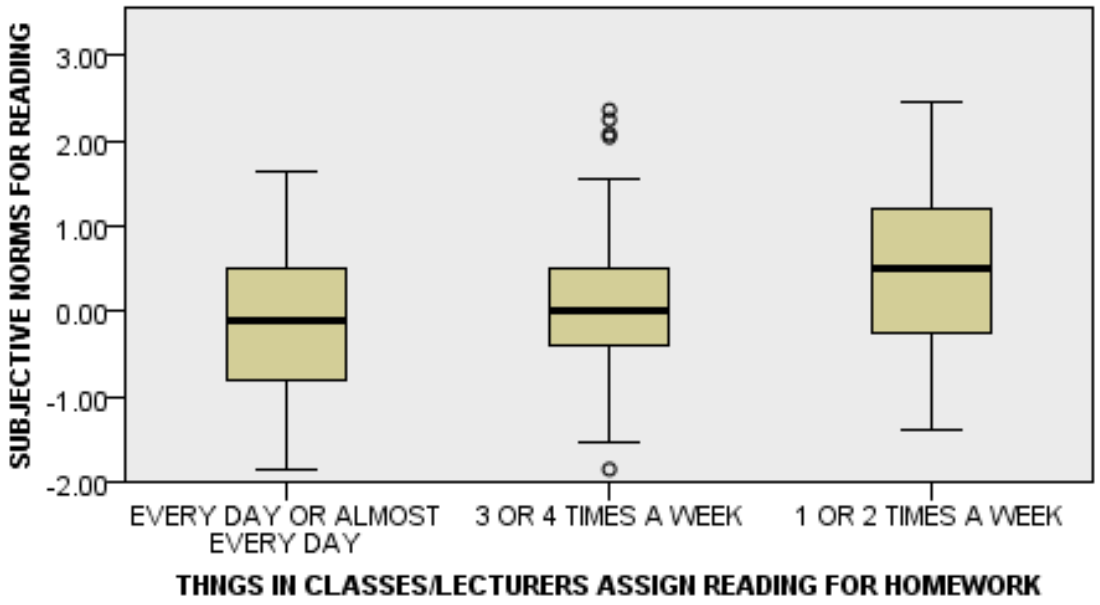
Pair of difference	*U*	*z*	*P*	*r*
Every day or almost every day and 3 or 4 times/week	7183.5	-3.23	0.01 <	-0.173
Every day or almost every day and once or twice a week	2253.0	-3.572	0.001 <	-0.191



Graph D. 1 Boxplot of students' reading attitudes by frequency of assigned reading

Table D. 18 Subjective norms for reading by frequency of assigned reading

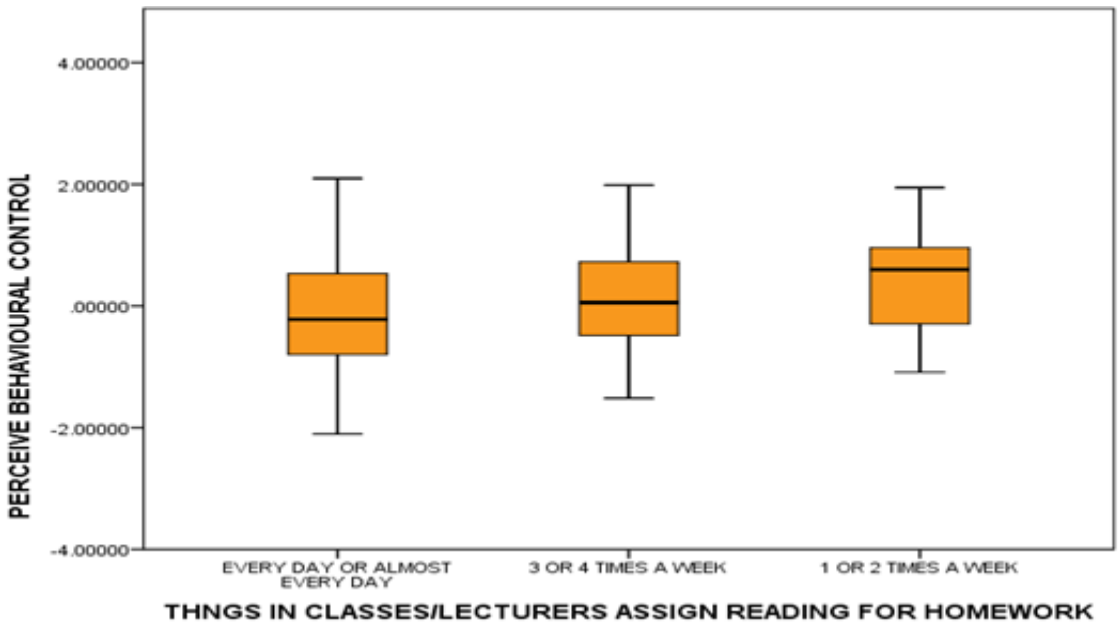
Pair of difference	*U*	*z*	*P*	*r*
Every day or almost every day and once or twice a week	926.0	-1.984	0.01 <	-0.106



Graph D. 2 Boxplot of subjective norms for reading by frequency of assigned reading

Table D. 19 Perceived behavioural control for reading by frequency of assigned reading

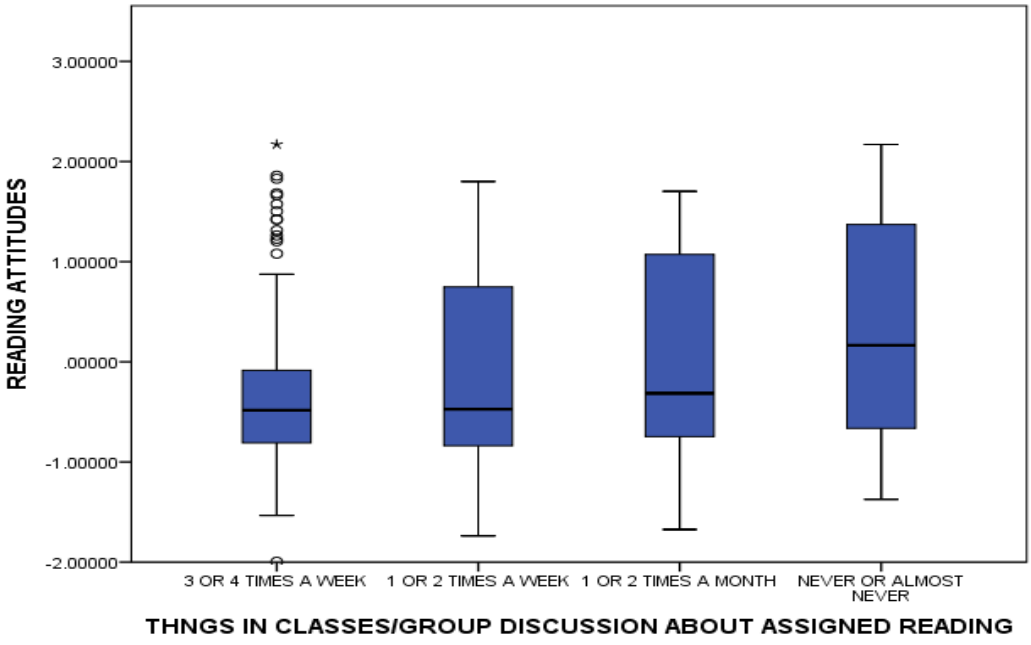
Pair of difference	*U*	*z*	*P*	*r*
Every day or almost every day and once or twice a week	2718.0	-2.44	0.01 <	-0.130



Graph D. 3 Boxplot of PBC for reading by frequency of assigned reading

Table D. 20 Reading attitudes by frequency of class discussion

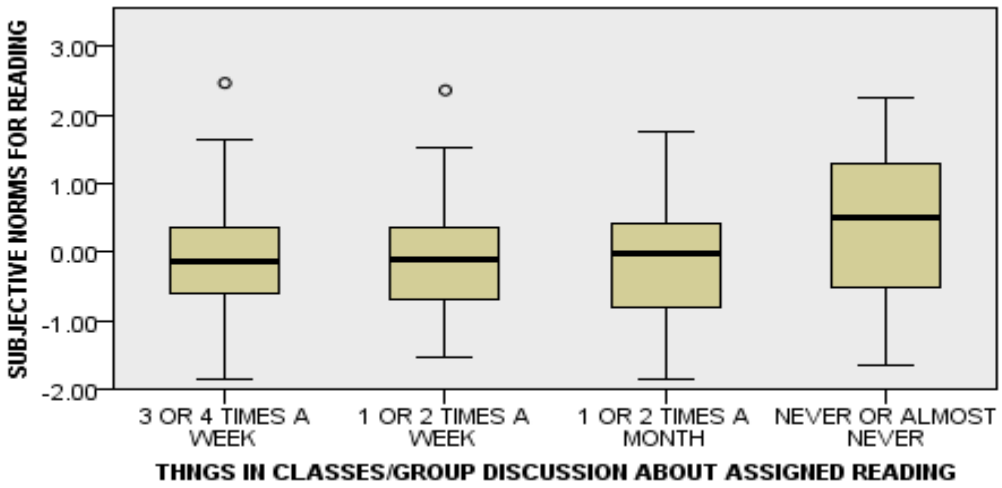
Pair of difference	*U*	*z*	*P*	*r*
3 or 4 times per week and never or almost never	2643.5	-3.788	0.001 <	-0.202
Once or twice a week and never or almost never	1723.5	-2.864	0.005 <	-0.153



Graph D. 4 Boxplot of students' reading attitudes by frequency of class discussion

Table D. 21 Subjective norms for reading by frequency of class discussion

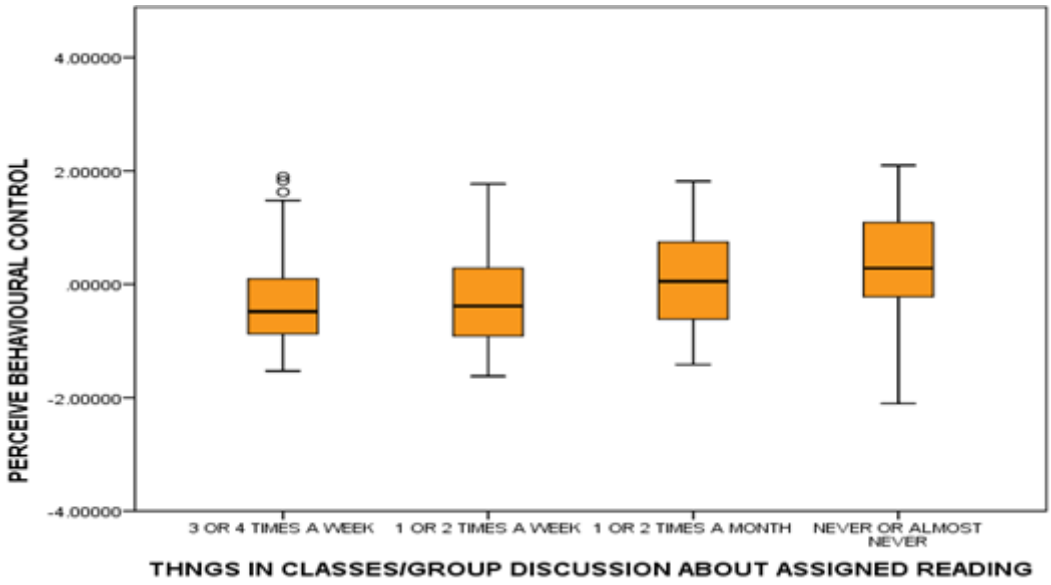
Pair of difference	*U*	*z*	*P*	*r*
3 or 4 times per week and never or almost never	2923.5	-2.972	0.005 <	-0.159
Once or twice a week and never or almost never	1715.0	-2.90	0.005 <	-0.155



Graph D. 5 Boxplot of subjective norms by frequency of class discussion

Table D. 22 Perceived behavioural control for reading by frequency of class discussion

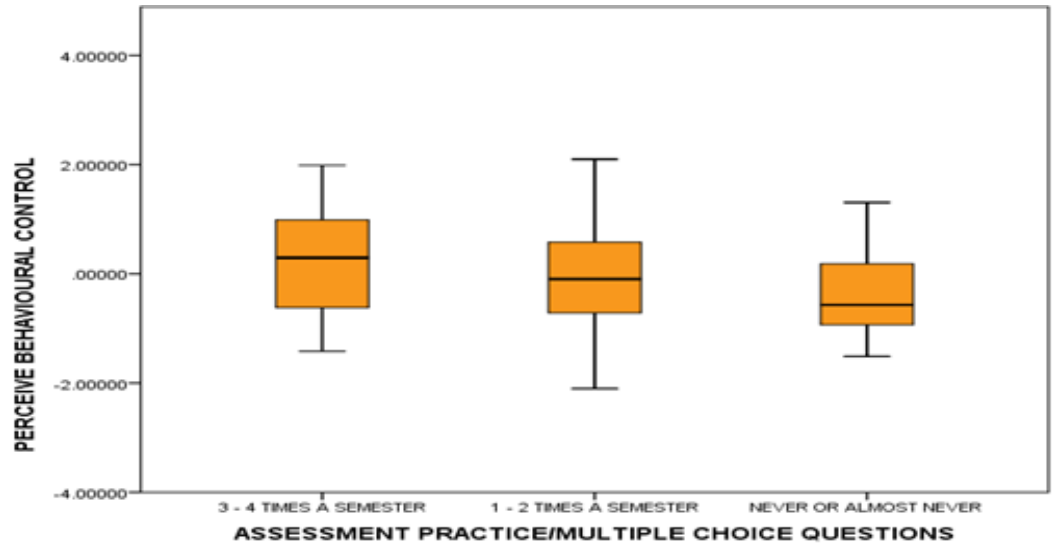
Pair of difference	*U*	*z*	*P*	*r*
3 or 4 times/week and 1 or 2 class discussions/month	3913.5	-3.499	0.005 <	-0.184
3 or 4 times/week and never or almost never	2257.5	-4.913	0.001 <	-0.263
Once or twice a week and never or almost never	1522.0	-3.666	0.001 <	-0.196



Graph D. 6 Boxplot of PBC for reading by frequency of class discussion

Table D. 23 Perceived behavioural control for reading by frequency of multiple choice questions exam

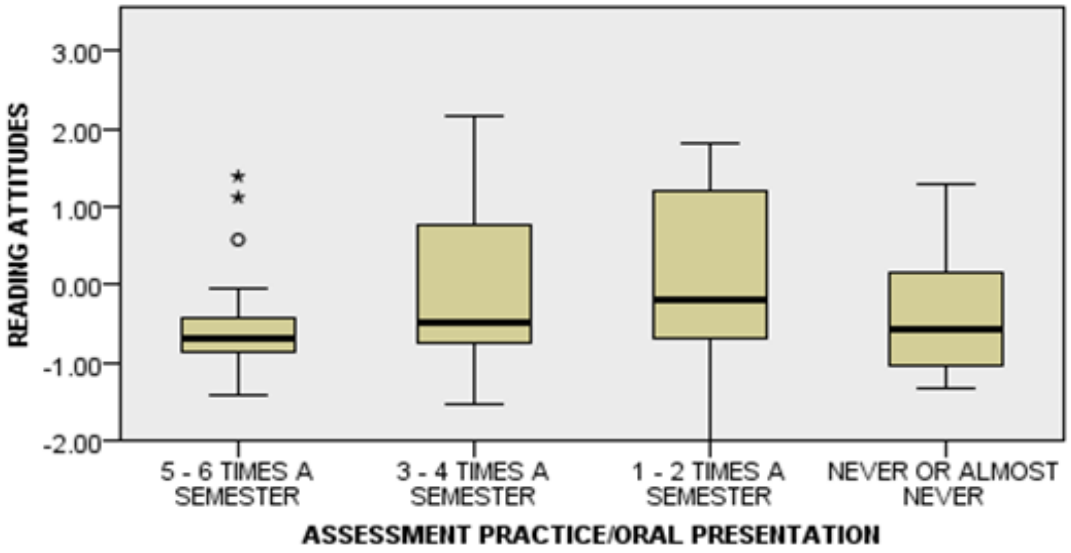
Pair of difference	*U*	*z*	*P*	*r*
3 or 4 tests/semester and never or almost never	935.5	-3.191	0.005 <	-0.170
Once or twice tests/semester and never or almost never	4397.0	-2.425	0.016 <	-0.129



Graph D. 7 Boxplot of PBC for reading by frequency of multiple choice questions exam

Table D. 24 Reading attitudes by frequency of oral presentation

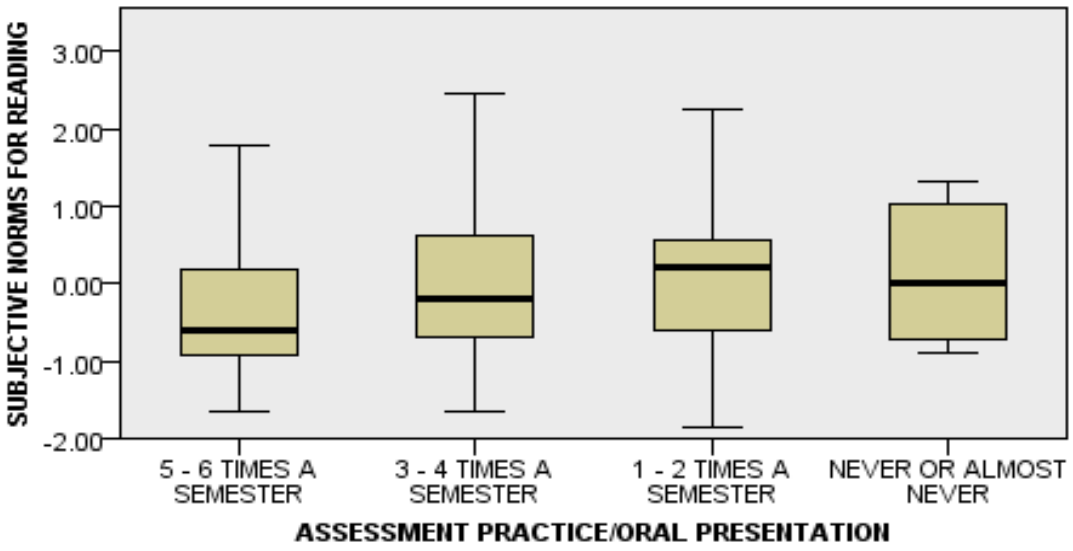
Pair of difference	*U*	*z*	*P*	*r*
5 or 6 presentations/semester and once or twice/semester	1873.5	-3.744	0.001 <	-0.2



Graph D. 8 Boxplot of reading attitudes by frequency of oral presentation

Table D. 25 Subjective norms for reading by frequency of oral presentation

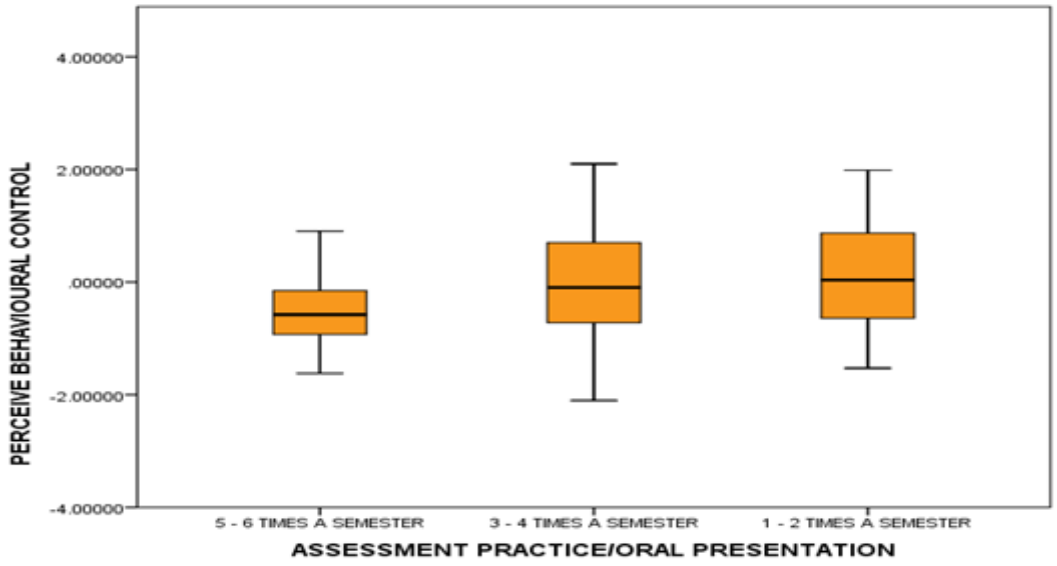
Pair of difference	*U*	*z*	*P*	*r*
5 or 6 presentations/semester and once or twice/semester	2114.5	-3.035	0.005 <	-0.162



Graph D. 9 Boxplot of subjective norms for reading by frequency of oral presentation

Table D. 26 Perceived behavioural control for reading by frequency of oral presentation

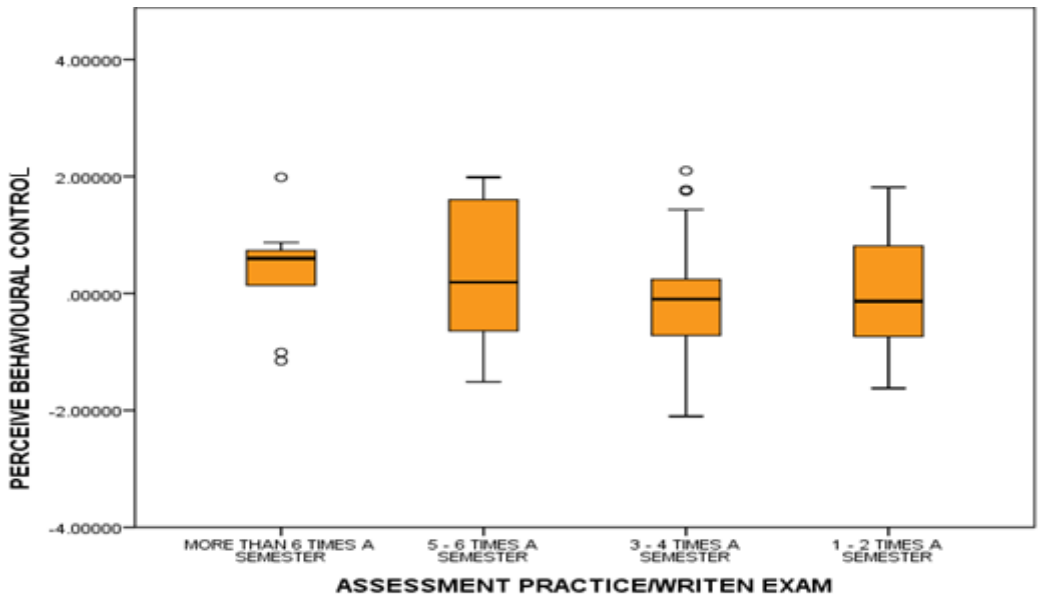
Pair of difference	*U*	*z*	*P*	*r*
5 or 6 presentations/semester and 3 or 4 times/semester	1418.5	-2.968	0.005 <	-0.158
5 or 6 presentations/semester and 1 or 2 times/semester	1872.0	-3.749	0.001 <	-0.2



Graph D. 10 Boxplot of PBC for reading by frequency of oral presentation

Table D. 27 Perceived behavioural control for reading by frequency of written exam

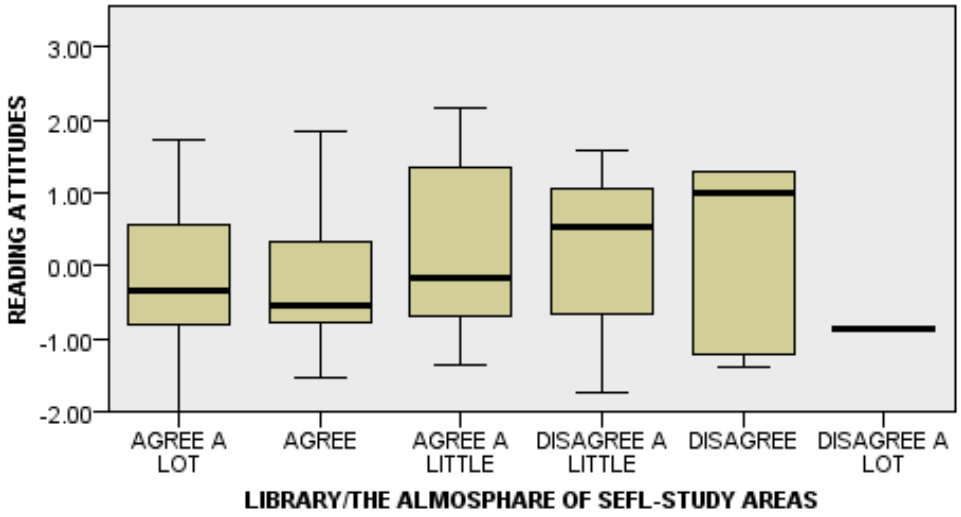
Pair of difference	*U*	*z*	*P*	*r*
> 6 written exams/semester and 3 or 4 times/semester	225.0	-2.810	0.005 <	-0.150



Graph D. 11 Boxplot of PBC for reading by frequency of written exam

Table D. 28 Reading attitudes by level of agreement about the quiet atmosphere at library

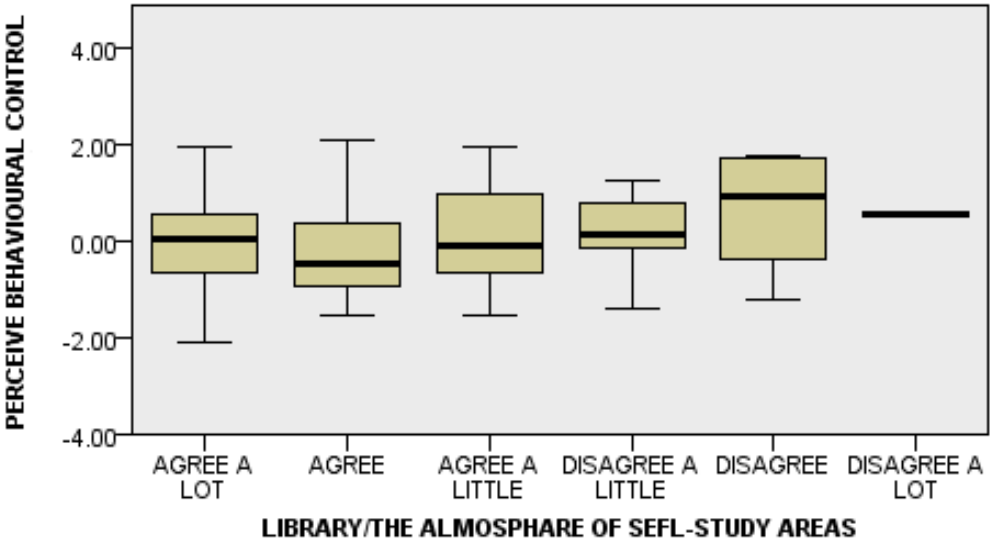
Pair of difference	*U*	*z*	*P*	*r*
Agree and agreed a little	5396.5	-3.088	0.003 <	-0.165



Graph D. 12 Boxplot of reading attitudes by the atmosphere at library

Table D. 29 PBC for reading by level of agreement about the quiet atmosphere at library

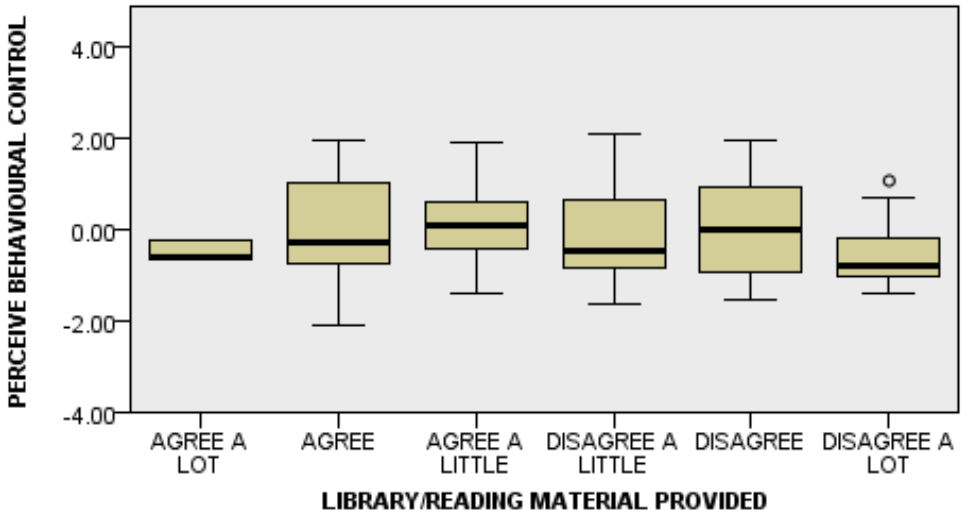
Pair of difference	*U*	*z*	*P*	*r*
Agree and agreed a little	5433.0	-3.109	0.003 <	-0.116



Graph D. 13 Boxplot of reading PBC for reading by the atmosphere at library

Table D. 30 PBC for reading by level of satisfaction about the book supply service

Pair of difference	*U*	*z*	*P*	*r*
Agreed a little and Disagree a lot	507.5	-3.375	0.003 <	-0.18



Graph D. 14 PBC for reading by level of satisfaction about the book supply service