Abstract
This paper presents the initial findings of my PhD research to answer the question ‘How can first year Indonesian students’ reading comprehension of academic English texts be improved to support their learning in an Indonesian university?’ Five humanity departments comprising 373 students participated in this research and 20 of them joined focus group interviews. A mixed methods sequential design was applied in order to reveal the students’ learning process as constructed by their sociocultural factors. The students’ level of reading comprehension is analysed and discussed in relation to their response to a paraphrasing protocol, the comparison of the mean of groups paraphrasing scores, and the sociocultural themes that have impacted their comprehension. The findings will be used to put forward factors that should be considered in reading approaches in order TEFL teachers to empower the students to be independent learners.

Keywords: reading comprehension, academic English texts, mixed methods sequential design, sociocultural factors, paraphrasing protocol
This paper presents the background of this research to contextualize the research problems. The findings report, first, quantitative data and, second, qualitative data followed by discussion and conclusions.

**Background**

Since English is considered as the global lingua franca, most academic sources are written in English. Students with no English language background which includes many Indonesian students find it problematic. The problem may start from language acquisition and subsequently impact reading comprehension.

Another issue arises for students who have just enrolled at university. They face different reading loads from that experienced at high schools. The reading load assigned by university teachers is very high and needs a relatively short time to accomplish. In high school, it is reported that on average students in the United States of America read about 12 pages of textbook a day (Donahue, Voelkl, Campbell, & Mazzeo, 1999). At university level, Taillefer (2005) reports British teachers in Law and Economics expected about three to five hours per week students’ independent reading per class. Further, the time students devoted to reading varied depending on the hours of class per week and the disciplines involved in the research. Another researcher reported that the reading load at a university in South Africa was about seven to eight modules or a total of over 600-1200 pages extensive reading for a first semester student (Nel, Dreyer, & Klopper, 2004). These reports suggest that teachers at universities expect their students to be independent readers who are able to master the content of the references.

The discussion above, highlights the paramount role that reading holds in an academic setting. Engagement in an academic setting depends on reading proficiency because students need to absorb as much knowledge as possible from articles, textbooks, modules, handouts, Internet and other forms of media and teaching materials and reproduce this knowledge in written and oral assignments and exams. This skill underpins not only academic success but also professional competence (Nel et al., 2004). However, before the students come to the professional world, they need to acquire a certain level of academic performance including the ability to read and synthesize and apply knowledge from reading (Simpson & Nist, 2002). Students have to read to broaden their knowledge. The higher the educational level, the more reading is required.

In reading, comprehension is the essential goal. When university students need to read an academic text, the intention is to acquire knowledge from the text. Acquiring knowledge will be achieved only when the students comprehend the text. As comprehension is the goal of reading, the process should end up with understanding the message stated in the overall text (Clarke, Trueove, Hulme, & Snowling, 2013). Reading activities should result in comprehension of the text. Only then is reading accomplished.

Understanding the information from previous reading activities is important for undertaking the next academic activities. This information is going to be recalled to manage other academic activities; readings, discussions, writing papers, and doing presentations. Reading, however, does not have to be directly connected to classroom
activities. A survey Burrell, Tao, Simpson, and Mendez-Berrueta reported that more than 60% of 223 professors expected their students to fully understand the ideas of textbooks by doing independent reading and these textbooks would not be discussed in their class (Simpson & Nist, 2002).

Georgiou’s research at a university in Canada, indicates that five per cent of 400 university students do not comprehend the content of their textbooks (Lam, 2012). Georgiou’s research explored the students’ reading performance in Canada in which English is nationally the dominant language ("Linguistic Characteristics of Canadians," 2012). Given these results for a mainly English as a first language cohort, students’ reading performance in countries which utilise English-as-a-second or foreign-language (ESL/EFL) such as Indonesia is likely to be even lower. For ESL/EFL students there are likely to be additional unique factors which affect their cognitive process in comprehension.

Some university classes in Indonesia read English texts and conduct courses in English. There are various departments/study programs in Indonesia which are conducted in Bahasa Indonesia as it is the formal instructional language; however, English Literature and English Language Education study programs are instructed in English to create an English academic-context. Even though the language of instruction in non-English departments is Bahasa Indonesia, some teachers expect their students to read some references in English because many relevant text-books and articles are in English. Kartika and Mastuti (2012), however, report that most students, prefer not to read English texts although they realise the importance of doing so. Students find it harder to process comprehension in English texts than in Bahasa Indonesia and it makes them reluctant to read English texts.

Reading researchers such as Mikulecky (2009), Proctor, Carlo, August, and Snow (2005), and Stanovich (2008) imply that first language reading is a complex process let alone reading in a second/foreign language context. Indonesian students were reported to have comprehension problems even when reading Bahasa Indonesia academic texts. Amir (2008) reported that the students lack sufficient reading comprehension practice to perform well at reading. In other reading research Kartika and Mastuti (2012) reported that in reading English academic texts, university students in a Psychology program at a university in Surabaya-Indonesia showed an average level of motivation and spent an average of 30 to 60 minutes per week reading English literature. In their research, however, the participants considered the reading of English references to be important.

Similar to the students mentioned above, students at the university in this study experience challenges in reading English academic texts. Trying to fulfil the university demand that students should be able to read academic English texts and, at the same time, struggling with limited English proficiency to read English texts puts them in a situation that creates serious frustration for students.

The effort to acquire foreign languages for the sake of broadening students’ horizons has been suggested since 1930s by Ki Hadjar Dewantara, a prominent Indonesian education leader. He proposed that learning foreign languages (including English) as a tool to gain knowledge should be one of Indonesia’s educational concerns (Panitia Penerbitan, 2013).
The way readers/students comprehend reading texts is affected by the previous knowledge they have. This knowledge is shaped in part by the culture they live in. In many Indonesian universities, the students come from parts of Indonesia that are culturally varied. The university involved in this study, just like other universities in Indonesia is multicultural. Different cultural backgrounds provide different knowledge and experiences that influence the students’ cognitive process and strategies in reading (Mikulecky, 2009).

Most students at the university in this research do not represent the highest achieving school leavers because normally the highest of them choose to study in state universities. With this type of student intake, this university aims to empower the students to be able to compete with other university graduates. The university’s aim will not be achieved easily without the students’ learning independence and reading skills are an essential component of this independence.

In order to help these students acquire reading skills, factors influencing their reading comprehension should be considered. Recognising the factors will be the baseline for a framework for teaching reading. Investigating how students comprehend academic English texts is also contextual as it is influenced by the students’ experience in reading the texts and their thinking/cognition process during reading activities.

Cognition is influenced by a sociocultural process in the reader’s mind. It is a basic mental thinking process which leads to learning. John-Steiner and Mahn (1996), Mikulecky (2009), Catts, Falk, and Wallace (2011) commenting on Vygotsky’s individual learning framework noted that social factors and culture construct learning (Vygotsky, 1978, pp. 56-57). Thus, the cognitive process is influenced by the sociocultural factors of the learners. Because the process is covert, uncovering what happens in the students’ minds was a key challenge of this study. The study will provide valuable information to the body of knowledge of language comprehension.

Research into reading English texts in Indonesia mostly focuses on teaching reading as a classroom activity. Vianty (2007) compares student’s use of metacognitive reading strategies when reading in English and Bahasa Indonesia among English department students in South Sumatra, Indonesia. She reported that analytic reading strategies which aim at comprehension, are pre-dominantly used when reading Bahasa Indonesia texts while pragmatic reading strategies, which involves physical action such as underlining, is dominantly used when reading English texts. Sukyadi and Hasanah (2012) organised a quasi-experiment on Think-aloud reading strategies in reading comprehension. They claimed that this strategy influences comprehension and can be applied to narrative, descriptive, and news-items texts. Kartika and Mastuti (2012) focused on students’ motivation in reading English literature for their content-knowledge. They argued that by having better English proficiency, the students would read easier and, in turn, increase their motivation in reading English literatures.

The researches mentioned above do not discuss students’ sociocultural processes. They only consider cognitive processes. Further, they have all been based on quantitative research that discuss The studies mentioned above have all been based on quantitative research that discuss teaching reading, reading strategies and motivation in reading English texts but do not integrate the voice of participants. To integrate participants and explain their
experience of reading English academic texts, this study applies an explanatory sequential mixed method design to investigate the sociocultural factors involved in students’ reading comprehension.

Research questions

My study aims to determine (through applying a paraphrasing protocol) how can first year Indonesian students’ reading comprehension of academic English texts can be improved to support their learning in an Indonesia university. This aim is supported by three research questions:

1. To what extent do Indonesian first year university students comprehend academic English texts?
2. How does the comprehension of academic English texts differ between the departments?
3. What are the sociocultural factors of comprehending academic English texts in the English department and non-English departments?

Methodology

In conducting this research, reading passages for the reading comprehension test need to be selected. In selecting reading passages for the reading comprehension test Coh-metrix 3.0 (Graesser, McNamara, & Kulikowich, 2011; McNamara, 2005) was applied. Coh-metrix is an online text readability assessment tool. Crossley, Dufty, McCarthy, and McNamara (2007, p. 1) stated that this readability measurement assesses “…cohesion and text difficulty at various levels of language, discourse, and conceptual analysis”.

Some passages were selected from books which are not the participants’ course books but used by some courses of Indonesian tertiary studies and represent typically levels of reading required for. Two passages with approximately similar readability level based on Coh-metrix 3.0 scores were selected. They were taken from ‘Perry’s Fundamental of Nursing’ 4th Edition (Crisp & Potter, 2013) and ‘Management’ 2nd Edition (Robbins, 2000). These books were selected for two reasons; one, they were not the participants’ course books and two; they were used by first year university students in Indonesia. Since the books were not the participants’ course books, it gave an equivalent starting point for the cohorts of participants. It was to ensure that the prior knowledge involved in comprehension process was not obtained from their subject courses.

This research is a mixed method sequential explanatory design (Creswell & Clark, 2011) as can be seen in Figure 1. There are two stages of different research methods; quantitative method in Stage One and, qualitative method in Stage Two to seek explanation of Stage One’s findings.

Stage One was conducted to answer research questions number one and two while Stage Two was conducted to answer research question number three.
Analysis in this research applied paraphrasing protocol to test students’ reading comprehension. Paraphrasing protocol refers to recall protocol of Bernhardt (2011). In this study, the term “recall” in Bernhardt’s recall protocol will be rephrased as “paraphrasing” because many participants defined “recall” as memorising the words in the passage. Bernhardt, however, argues that recalling is meant to holistically assess comprehension by retelling/rewriting a passage in the students’ first language to minimize (foreign) language anxiety. This approach involves presenting the participants with a passage and asking the participant to rewrite the passage in Bahasa Indonesia. Recall protocol (i.e. paraphrasing protocol) is used because it is “…evidently a productive and efficient means of assessing reading in a second language…” (Bernhardt, 2011, p. 109).

In order to ascertain the reading scores reliability, two scorers were used and interscorer reliability was applied. Scores should be statistically significantly similar the scorers.

The analysis for this paper also compared the means between comprehension results across five departments taking part in this research by applying Kruskal-Wallis tests using the statistical analysis software, SPSS to determine if there was a difference between departments.

Focus group interviews were analysed by applying thematic analysis (Braun & Clarke, 2006, 2013) and then a model of the themes was developed as the result of the analysis.

There were 373 first year university students from five departments took part in quantitative stage of this research.

On the basis of the results of the paraphrasing protocol, each department was divided into two groups; upper mean scorers and lower mean scorers. From each group of scorers, two participants were randomly invited to join focus group interviews. Thus, in total, there were 4 participants from each department, for a total of 20 participants.
Findings

Quantitative data

Based on their responses to the paraphrasing protocol, the students’ reading comprehension scores between the means of 1.16 (Dept. of Art Education) and 3.62 (Dept. of English Language Education). The details for each department are shown in Figure 2.

<table>
<thead>
<tr>
<th>Department ID</th>
<th>Department</th>
<th>Number in department</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBI</td>
<td>Department of English Language Education</td>
<td>75</td>
<td>3.62</td>
</tr>
<tr>
<td>PBSI</td>
<td>Department of Indonesian Language and Literature</td>
<td>98</td>
<td>2.48</td>
</tr>
<tr>
<td>SR</td>
<td>Department of Art Education</td>
<td>43</td>
<td>1.16</td>
</tr>
<tr>
<td>PGSD</td>
<td>Department of Teacher Training of Primary School</td>
<td>88</td>
<td>2.51</td>
</tr>
<tr>
<td>Psi</td>
<td>Department of Psychology</td>
<td>72</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td>Total Participants</td>
<td>373</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: Reading Comprehension Mean Score

A normality test was run to decide which statistical test should be used. A Shapiro-Wilk’s test (p > 0.05), and an inspection of the skewness and kurtosis measures and standard errors, and a visual inspection of their histograms showed that the sample data were not approximately normally distributed. A non-parametric Levene’s test was used to verify the homogeneity of variances (p > 0.05) (Nordstokke & Zumbo, 2010) and Kruskal-Wallis One-Way Analysis of Variance (Kruskal-Wallis test) was applied to test for significant differences between means of more than two independent variance/groups (Howell, 2014).

The Kruskal-Wallis test was applied as an alternative of One-way Anova test (see Salkind, 2010). In One-way Anova test, the reading comprehension scores should be normally distributed. Since in this research the scores were not normally distributed, the number of participants from each department were different, and there was homogeneity of variance among the departments, Kruskall-Wallis test was used.

The Kruskal-Wallis test assumes homogeneity of variance among the departments compared (Salkind, 2010). Since the data for this research is not normally distributed, the non-parametric Levene’s test was run to verify the homogeneity of variances in the participants (p > 0.05). The test keeps the null hypothesis and assumes equality of variances (see Figure 3) (Nordstokke & Zumbo, 2010). In SPSS, the non-parametric Levene’s test is developed in Anova procedure so the output table is headed Anova.
Kruskal-Wallis Test was, then, run to see if there was significant difference among the departments and it reported the p value (Asymp. Sig.) $p < 0.05$, so the test rejects the null hypothesis (see Figure 4). There is a difference in the mean test scores among the five departments. On the basis of this result, a post-hoc test using Kruskal-Wallis Test was run.

The post-hoc Kruskal-Wallis Test at the $\alpha = 0.05$ level of significance shows there exists enough evidence to conclude that there is a difference in the mean test scores among eight pairs of departments (Figure 5). There are not significantly different between Department of Art Education and Department of Psychology (No. 1) and Department of Teacher Training of Primary School and Department of Indonesian Language and Literature Education (No. 8).
The post-hoc test above ends the quantitative stage of the analysis. Explanation of the differences is now provided through the thematic analysis of focus group interviews (FGI) with twenty participants from the original cohort (four participants from each department). The thematic analysis followed the stages of data coding, defining the themes, and quantitating the themes. The latter was used to sort out the largest to the smallest bubbles in Figure 6.

**Qualitative data**
Thematic analysis (Braun & Clarke, 2006, 2013) was used with the data from the focus group interviews (FGI). Themes emerging from the FGI are represented in the form of a model shown in Figure 6. The stronger themes are represented by the larger bubbles in the diagram.

**Reading support**
The theme of reading support related to the ‘support’ provided by the parents, guardians, or environment who are more literate both in reading Indonesian and English. The sub-themes identified were: somebody who read for the participants...
(when they are much younger), (learning) to read Indonesian, (learning) to read English.

This paper presents participants’ pseudonyms and quotes translated from Bahasa Indonesia.

**Somebody who read for the participants**

Only one of twenty FGI participants stated that a more literate person (i.e. mother) read for her. As Angga noted, translated from:

> My mother read stories for me. Usually she did it in bedroom and she showed me the books and then I fell asleep.

**Reading Indonesian**

Mothers had the biggest role in teaching basic reading skill to the participants. Two participants noted that their fathers taught them reading. Another two participants stated both parents taught them reading. The extent of this teaching role was based on the available time provided by their parents. Most fathers were the breadwinners who had less time staying with their children.

Similar learning pattern in reading Indonesian were found among the participants. They talked about their learning experience from learning the basic reading such as recognising alphabets and the sounds, then arranging the words alphabetically. As noted by Aji:

> When I started to learn reading, I had to memorise the alphabet. When there was a word, I had to guess what it said. It was my mother’s way.

When I asked them to self score of their comprehension of reading Bahasa Indonesia academic texts, they mostly scored 4 of 5. Number 1 means “do not understand at all” and number 5 means “understand”.

**Reading English**

In learning to read English, teachers played important role since most participants’ family members did not understand English. However, some family members (i.e. older brothers/sisters) helped the participants with their English. As Anggi noted:

> I just came to the teacher because she lived close to my place. …Yes. She lent me an English book, then she gave me a dictionary and she asked me to translate it. It was grade 6 primary school.

When I asked them to self score of their comprehension of reading English academic texts, they mostly scored 2 of 5. Number 1 means “do not understand at all” and number 5 means “understand”.

**Attitude toward reading**

Many of the participants revealed a low interest in reading Indonesian. Most of them read lesson books and few of them read for pleasure. One of them admitted that they read for survival such as reading public notices when I asked if he was eager to read. As Gendon noted:
… I just got enough with what was available. When there were some readings then I read..like..when there was a writing on a wall…I don’t really like lesson books either.

Reading English texts was a challenge for the participants. Although the access to reading English readings is getting much easier now by using Internet, most of them do not read English. The only time they read English was in the English school lesson. As Yaya noted: “I read English only in English class.”

Yaya however stated that she would have been challenged if her lecturer gave her academic readings in English. Rita, on the other hand, disagreed. As they noted:

I don’t like my lecturer giving me English readings. I don’t really like English. But I will try to understand the texts from the beginning to the end. I will search difficult words in a dictionary (Rita).

I will feel challenged if the lecturers give me English texts (Yaya).

Attitude toward English
As with the example from Rita above, it can be noted that some participants had a negative attitude toward English that in turn, became a perceived hurdle in acquiring English, particularly reading English academic texts. Furthermore, English department participants and a few students of non-English departments said that they did not like English. As Muljanes noted:

..to tell the truth, I actually hate English…
Access to readings
Reading materials were generally easy to access however two of the 20 participants claimed they struggled to get books or Internet (i.e. paperless readings) because of their geographical remoteness. In addition, most people cannot afford books and many parents are computer and Internet illiterate so accessing Internet for readings is beyond their reach. As Bob noted:

I lived in a very remote area so it was hard to get that kind of story books. I got books from my father’s friend. He was a primary school principal. Sometime he took some old school books which were readable. Indonesian books for grade 1. …<At School> The books were very limited. Say in one class of 26 students, one book was shared among four students.

Multilingualism
Indonesia has 706 living languages (Lewis, Simons, & Fennig, 2015) and an Indonesian mostly speaks 2 languages; his/her local language and Bahasa Indonesia. The multilingualism in some extent can inhibit the acquisition of a new language and reading comprehension (i.e. English) because of the language ego of the learners (Galetcaia, 2014). Among the participants, I found one participant who speaks three local languages, Bahasa Indonesia and studies two foreign languages at school. As William noted:

I speak Bemak, Ahe <my ethnic lingua franca>, Pontianak Malay, and Bahasa Indonesia. I studied English and German at school.

Discussion
This section discusses the findings firstly in relation to reading the in Bahasa Indonesia context and then reading in English.

The findings in this study suggest that parents hold a paramount role in their children learning to read. Reading becomes an essential skill for children to acquire in order to progress in their learning development. The parental role is crucial in creating a reading habit and motivating children to read (Klauda, 2009). However, the results of the focus group interviews suggest that parents and environmental support of the children in the Indonesian context is low. It can be noted that only one of twenty participants admitted her mother read a book for her in her childhood. These findings are in line with the findings of Mustafa (2012) who reports parents’ minimum support of reading to their children amongst the Indonesian participants in his study. First language literacy and reading ability as well as home reading are important for enabling second or other language. Adult language learners, as well as the participants of this study, learn English cognitively based on “the foundation of the first language” (Brown, 1994, p. 66).

In the context of Bahasa Indonesia, many parents of the participants, mostly mothers, often engage in reading activities with the view of preparing their children for school preparation rather than teaching them specific reading skills itself for enhancing reading acts. They expect their children will have some reading ability when the children enrol at primary school. Their objective is for the child to be enrolled by the primary school and not to be left behind. Reading for pleasure is not the issue in this context although it may motivate children’s reading habits in their future academic/learning path (Sullivan, 2015).
The way people around the participants perceive reading (as described in the example above) shapes the participants’ attitude toward reading (Conradi, Jang, Bryant, Craft, & McKenna, 2013). It is of concern that most of the participants in this study view reading as a tool for basic survival, but one which inhibits their knowledge curiosity and language development. One participant admitted to not enjoying reading and noted that he just read notices. Even his statement that he does not like lesson books is surprising for a university student.

In learning to read English texts, on the other hand, students learning experiences were slightly different. When the participants reading habit in Bahasa Indonesia was indicated as low, then their reading in English was even lower. These students tended to read English only in their English class where the teachers normally do not only focus on reading skills but also grammar.

In general, the attitude toward English of all of the participants was mostly negative. English lessons at school were viewed simply as a compulsory school lesson which demands a final exam rather than a pleasurable opportunity to build useful and essential language skills. Thus the attitude of both English teachers and students can be seen as test-oriented (B. Mustafa & Hamied, 2014). They blamed their teachers for boring instructional method. It is therefore not surprising that the participants in this paper state that they do not like English. They also see English as a frustrating lesson. Related to this attitude, reading in English was not fun at all.

Access to reading has become a crucial issue in Indonesian education. Geographical factors are perhaps the main factor of this unequal access. Mustafa (2012) reports “low availability of reading infrastructure” and further he adds some factors inhibit reading access in Indonesia; oral culture, poor library management, economic challenges and interest in audio-visual electronic media. With the unsupportive culture and infrastructure for reading, this basic requirement to absorb knowledge is a serious challenge.

Multilingualism to some extent promotes the readers to be more confident in reading comprehension; however, theoretically research should be conducted to understand the “complexities of reading” such as reading English in other language context or English as a Foreign Language (EFL) (Bernhardt, 2003). Modirkhamene and Sokhandan (2012) reported that reading anxiety of EFL learners was significantly influenced by their linguistic background. Multilingual learners reported lower levels of reading anxiety. It was suggested an instructional method suitable for the needs and characteristics of the multilingual students (Milambiling, 2011). In responding to the paraphrasing protocol, some participants of this research paper resorted to writing in Javanese letter or Bahasa Indonesia saying that they did not understand English. This response shows how they have successfully acquired bilingualism (a local language and Bahasa Indonesia) or multilingualism (two or more local languages and Bahasa Indonesia) but not English.

Despite these common issues amongst all the participants, there are some themes in the data, which show differences between English department and non-English departments. These relate to attitudes toward English and attitudes toward reading. With the former theme, motivation in learning English is a strong sub-theme in the English department.
Conclusions

On the basis of the themes emerging from the focus group interviews, five sociocultural factors were found to affect participants’ reading comprehension, these in order of importance were reading support, attitudes toward reading, attitudes toward English, access to readings, and multilingualism. These factors were influenced by the participants’ learning experience from their family, environment, schools or some other factors around them. It was concluded that all five factors affect students reading acquisition in Bahasa Indonesia and consequently their ability to read English academic texts.

The complexities of English reading in this Indonesian multilingual setting must be considered. Reading in Bahasa Indonesia must precede reading in English to secure the reading skill transfer from the national language to English as a foreign language.

Sociocultural factors change with culture. An understanding of these factors and considering multilingual issues should inform development of reading instructional designs that are suitable for the needs of the English language learners. The sociocultural factors cited, especially reading support, attitudes toward reading, and attitudes toward English are all factors that could be addressed through good pedagogy.

The implications of understanding sociocultural factors for students and teachers in reading English academic texts will be the next research question for this study.
References


