

Definitions in applied linguistics research

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Abstract

The definition of a term used in research can be considered a critical element that can guide research processes, shape research findings, or even impact research interpretations. Interestingly, in spite of the importance of definitions and their functions in research, from my preliminary survey of research method books and published research articles, little has been written about them. This study seeks to explore the functions of definitions in applied linguistics research in previous literature and to compare functions of definitions used in 10 research articles and 10 master's theses in the field. Literature suggests definitions have three functions: for clarifying a term; for an argument in research; and for a methodological purpose. The findings from my 'intratextual reading' (that is, to identify a functional relationship between a term defined and another part of research within the same research) suggest that there are differences in functions of definitions between the articles and the theses, with the greatest differences found in the third function: for a methodological purpose.

1. Introduction

“this common sense definition is not of much help in clarifying what discourses are, how they function, or how to analyse them” (Jorgensen & Phillips, 2002, p.1)

Jorgensen and Phillips's statement suggests two critical issues. Firstly, there is a clear functional relationship between the definition and the research process. Indeed, this functional relationship can be so essential that without an appropriate definition, research success is less likely. Secondly, their critical reflection could be seen as an implicit manifestation of the field's concerns with the use of a definition and its functions in research. I share this concern with these applied linguists. When I read theses produced by master's students in applied linguistics, I realized that some of them seemed not to be aware of the functional relationship between the definitions of terms used in research and the research itself. This led to my curiosity to find out more about such a relationship. To do so, I read several research manual books and research articles, but to my surprise I found that little attention has been paid to functions of definitions in research. To shed light on this issue, in this study I seek to explore functions of definitions in applied linguistics research. Also, given my concern from reading the master's theses, I aim to compare functions used in research articles and in master's theses. Exploring functions in both sources of data may provide insights into similarities and differences between the two groups of researchers: experts and graduate students (that is, novice researchers). Comparing research articles and theses can be seen as work of expert researchers and novice researchers (see e.g. Basturkmen, 2009). Thus, comparing the functions of definitions used by expert researchers with that of the novice researchers could provide us with valuable pedagogical implications in our interest in helping graduate students in applied linguistics to improve their research papers/theses.

1.1 Previous work on definitions

When the interest into definitions originated is controversial. On one side, Flowerdew (1992) suggests that

“it has been the focus of attention on the part of philosophers since Socrates. It was, indeed, the Socratic question 'What does (virtue, justice, etc.) mean?', as the starting point for philosophical discourse, which did most to draw attention to the importance of definitions in rational enquiry”. (p.204)

On the other side, according to Goddard (2011), the passion to study definitions has long been of academic interest since Aristotle wrote the book *On Definitions*. Although previous researchers do not agree on the origin of the scholarly interest into a definition, it is clear that such an interest can be traced back over many centuries.

Interests into the definitions related to language and language teaching, based on my review, can be grouped into three main areas: (1) *definitions in philosophy and linguistics*, (2) *definitions in teaching*, and (3) *definitions in research*. The first area is manifested in books related to philosophy and linguistics (especially semantics) such as *The Meaning of Meaning* by Ogden and Richards (1927), one unit of which looks at the nature of definition, or *Semantic Analysis: A Practical Introduction* (Goddard, 2011). This scholarly line is concerned mostly with problems related to a definition in general use such as circular or unclear definitions of a concept.

The second group covers two subgroups: definitions in English learning materials and definitions in lectures. An example of the first subgroup is Swale's work on definitions used in the science and law subjects (for more details, see Swales, 1981). An example of the second group is Flowerdew's (1992) work on definitions in science lectures. Flowerdew explored definitions used in science lectures from eight teachers' classes for EFL students in Oman, and found that there were two functions of definitions which were signposts (to help structure whole lectures), and embedded (to help students understand new ideas during a lecture). These definitions can be signaled lexically (i.e. is called, known as, define) or syntactically (i.e. relative clauses, pre- or post- modification). Following Flowerdew (1992), Lessard-Clouston (2006) looked at definitions in academic lectures in *Introduction to Theology I* of a large, private Christian graduate school of theology in a major city in central Canada by categorizing definitions and examining their use during the lectures. While these two studies are situated in different academic fields, both can be said to emphasize forms and functions of definitions.

The third area is *definitions in research*. In this research camp, to my knowledge, there have been few previous studies. For instance, Markee (1990) studied several variant definitions of *applied linguistics* by tracing the historical development, categorizing these definitions into strong and weak versions, and then arguing that weak definitions were more preferable due to their flexible application to the demands of the wider professional community. More recently, Knoch and Sitajalabhorn (2013) investigated definitions of *an integrated task* and suggested that a more "focused, slightly narrower definition of these tasks could improve test design and improve replicability of research including a coherent research agenda" (p.301). Abdel Latif (2013) pointed out the definitional confusion of *writing fluency*, as well as suggested "[t]his variance clearly shows that there is no agreed-upon definition of writing fluency" (p.99). Emerging from the review of these previous studies is that while these studies look at various definitions of concepts related to applied linguistics and attempt to show that there is no absolute definition accepted by every academic in the field, all of these studies share a common focus which is on the differences of various definitions of a single concept. This line of research seems to pay little attention to one crucial aspect of a definition – the functions of a definition, which is of interest to the researchers in the *definitions in teaching*. This study then aims to contribute to this line of interest in *definitions in research*, but it differs in an important aspect in rather than looking at the various definitions of a single concept, it looks at relationship between the definition and its function in research.

1.2 Functions of definitions in research

Prior to discussing functions of definitions in research, it is worth discussing what constitutes a definition. A definition is composed of two parts: a *definiendum* and a *definiens* (Longworth, 2006). The *definiendum* is the term that is to be defined, whereas the *definiens* is the word or the chain of words used in the definition that, supposedly, has the same meaning as the *definiendum*. For instance, in defining *applied linguistics*, Carter (1993) states “applied linguistics is the application of linguistic theories, descriptions and methods to the solution of language problems which have arisen in a range of human, cultural and social contexts” (p.3). The word ‘applied linguistics’ is the *definiendum*, and ‘the application of linguistic theories, descriptions and methods to the solution of language problems which have arisen in a range of human, cultural and social contexts’ is the *definiens*.

Based on the review, there are three main functions of definitions in research: for clarifying a term; for an argument in research; and for a methodological purpose.

Firstly, a definition is used to clarify a term so that the speaker/writer and the listener/reader can understand each other (Anthony, 1999; Porte, 2002), especially when the term is abstract, controversial, or specialized (Tittle, 2011). The first function is obviously a basic function that all definitions are supposedly to fulfill. Secondly, a definition can be used to establish a point of understanding for how a term will be understood during argument development in research (e.g. Craswell & Poore, 2013; Hart, 1998). The second function implies that a definition of a term used in research is not an end in itself - not simply for the clarity of a term, but has an important function to be part of a research argument. Lastly, it can be used for methodological purposes (Porte, 2002). As implied in the quote by Jorgensen and Phillips (2002) mentioned earlier, a definition can provide the starting point for what data to collect and analyze. In this view, the use of a definition is related to the practicality of conducting research. In the field of applied linguistics, we deal with vague concepts such as fluency which need to be defined for operationalization. Also, without an appropriate definition, validity and reliability of research may suffer (Babbie, 2004; Creswell, 2003). These two issues depend on developing conceptual or operational definitions of terms in research.

1.3 Conceptual and operational definitions in research

Two types of definitions that are generally referred to in research are a conceptual definition and an operational definition. A conceptual definition is an abstract explanation of a construct (Creswell, 2003). For instance, in defining the term assessment in their study on the nature of examiners’ reports on master’s and doctoral theses, Kumar and Stracke (2011) state that “a conceptual definition of assessment refers to how much learning has taken place as a result of teaching” (p.212). This definition provides some indicators of what the researchers mean when referring to assessment, although it may be not clear what ‘how much learning’ means.

To lessen confusion, in many research studies, an operational definition (or in some cases known as a working definition) is used instead of a conceptual definition which yields more tangible or explicit indicators where numerical values can be applied to quantify the concept (Babbie, 2004). The quantification of the concepts is generally related to quantitative research (Walliman, 2005). For instance, Watson Todd (2012) was interested in exploring the relationship between class size and learning in the context of foundation English language courses at a Thai university. He operationalized *learning* as students’ grades. Without this operational definition, the research may have been impractical given that the research dealt with a large number of students. Nonetheless, learning may be defined differently in other research contexts, and thus, it is not surprising to learn that “there might be as many operational definitions as there are people using them!” (Porte, 2002, p.30).

While an operational definition is useful and provides a clear idea of what researchers try to study, its limitations should be acknowledged. First, in research, concepts are not always easy to define because researchers need to think what words or phrases to be put in a definition. This leads to the second limitation which is that some of the meaning may be discarded. When trying to operationalize *learning*, for example, Watson Todd (2012) explicitly points out that “such grades only measure learning of the course objectives and ignore other things that students might have learnt” (p.82). Lastly, given that there is no absolute agreement on an operational definition of a term, this may “place restrictions on the generalisability of any results obtained using this definition” (Porte, 2002, p.33).

Perhaps due to such limitations, not all applied linguistic research studies employ an operational definition when trying to explain a concept. One example is the study by Kumar and Stracke (2011), as mentioned earlier. Some may think that such concepts as ‘how much learning’ or ‘has taken place’ are not clear and need to be clearly defined before the research can proceed. However, this is not always the case as Caldwell, Henshaw, & Taylor (2011) state that in some occasions the research purpose is to identify definitions of the concepts from the research participants’ perspective, especially in qualitative research. Therefore, we must be cautious of our judgment of a definition since it is taken out of its context and therefore we cannot say whether it is appropriate or not, especially because “all definitions are essentially ad hoc” (Ogden & Richards, 1927, p.111), and “there is no universal agreement about how accurate one is entitled to expect a definition to be” (Goddard, 2011, p. 37). Nevertheless, we can generally evaluate a definition by gauging its appropriateness as a measurement procedure and assessing its relation to a theoretical concept (Walliman, 2005).

2. Research purposes

The literature review so far suggests that, firstly, there is a functional relationship between a definition and the research, secondly, such a relationship can be critical in research, and thirdly, there has been little interest in exploring this issue. This study then aims explore functions of definitions in research, focusing on applied linguistics. Also, for pedagogical reasons, this study will compare functions of definitions in research articles and theses.

3. Methodology

3.1 Data collection

The data in this study are 10 research articles and 10 master’s theses in the field of applied linguistics. The articles were selected from five quality journals related to applied linguistics which are Journal of English for Academic Purposes, Language Learning, Modern Language Journal, TESOL Quarterly, and System. Then two articles were randomly selected from each journal that was published in 2013. The 10 theses were produced by master’s graduates from two universities in Thailand which offer master’s degree related to applied linguistics (specializing in English Language Teaching). All the research papers and theses are written in English.

3.2 Data analysis

In analyzing the data, there are three main steps: identifying a definition; identifying functions of the definition; and comparing functions of the definitions.

3.2.1 Identifying a definition

Prior to identifying a definition, a definition of *a definition* is needed. In the previous sections, we have learned other aspects related to a definition - previous work on definitions, functions of definitions in research, conceptual and operational definitions in research. At this

stage, it is time to take one of the most difficult challenges in this research – to define a definition. There are several scholars who attempt to provide a definition of a definition. For instance, Longworth (2006) sees that “definition’ is the activity of explaining to an audience the meaning of an expression. A definition is the product of that activity” (p.138). In the same vein, Goddard (2011) refers to a definition as “an attempt to show the meaning of one word (or other linguistic expression) by means of some other words which ‘say the same thing’” (p.33). These two definitions of a definition provide us with an understanding of what a definition is, but they seemed not suitable and applicable in this research.

To find an appropriate definition, I then decided to look at what indicates a definition. As mentioned earlier, Flowerdew (1992) suggests that, definitions can be signaled lexically (i.e. is called, known as, define) or syntactically (i.e. relative clauses, pre- or post-modification) in science lectures. The context of this research is research articles and theses, and I wondered whether I could apply the idea of using lexical and syntactical signals to locate a definition, so I attempted to identify a definition by using lexical and syntactical clues in definitions in research articles.

In this step, I randomly read 10 articles. From reading the 20 articles, I realized that in research articles, definitions can be signaled with various syntactical patterns, and it is less likely that these patterns can be used as a signal to indicate a definition. Therefore, I decided to discard this syntactic signal to identify a definition, and pay my attention to the lexical items. Examples are bolded as following.

- Accent **is** the perceived degree of difference from the local language variety. (Derwing & Munro, 2013, p.167)
- Fluency **refers to** listeners’ perceptions of the flow of the speaker’s language output, for example, whether there are frequent pauses, false starts, or other dysfluencies. (Derwing & Munro, 2013, p.167)
- Affordances are **conceptualized as** the potential starting point of the meaning-making process. (Guerrettaz & Johnston, 2013, p.782)
- I use the term discourses throughout this article in the Foucauldian sense to **mean** “practices which systematically form the objects of which they speak” (Foucault, 1972, p. 49). (Appleby, 2013, p.127)
- Adapting a definition from Johnston (2007), we **conceive of** materials as any artifacts that prompt the learning and use of language in the language classroom. This deliberately broad definition is intended to encompass a wide potential range of artifacts, including pictures, realia, and virtual artifacts such as Web sites and computer programs. (Guerrettaz and Johnston, 2013, p.779)

Initially, I expected that these lexical items (e.g. **is**, **refers to**, **conceptualized as**, **mean**, **define**) could be used to guide me to identify a definition. So, I used these lexical items to identify a definition. However, it appeared that not all sentences that have these lexical items are definitions, but can simply be explanations. An example is given below.

- Applied linguistics is a diverse and contested area. (Yang & Allison, 2004, p.266)

Having learned this complication, I decided to drop lexical items that can be controversial and less likely to indicate a definition such as **described as**, **is**, **conceptualized as**, **mean**, select only two items that are **define** and **refer to**, which are probably most common, salient, and useful in signaling a definition. For the purposes of this paper, then, a definition, adopted from Flowerdew’s (1992) idea and grounded on my article reading, refers to an explanation of a term or concept that is signaled by **define** or **refer to** and their related word forms (e.g. defined, definition, referred to, referring to).

Two points are worth noting here. First, my approach in defining a definition is not unusual as Locke, Spriduso, and Silverman (2000) suggest a term can be defined by describing a criterion (e.g. highly proficient students are defined as students who receive an A or B+ in an English course). This definition, although potentially ignoring definitions that are expressed in other linguistic forms, is useful in identifying a definition. Secondly, in the definition, a signal can be within one sentence such as “This study defines argument as a set of statements to express the communicator’s opinion or belief, which may involve reasoning and logical appeals” (Suzuki, 2006, p.196) or across sentences such as “These two terms are defined here as follows: Explicit knowledge consists of the facts that speakers of a language have learned...” (Sonbul & Schmitt, 2013).

After that, I decided to use the two lexical signals to locate a definition in research articles. To do this, I used “search” function embedded in the Fire Fox reader. It should be noted here that there are cases where the use of “define” does not actually indicate a definition as shown below.

“...women’s selves are **defined** by greater emotional involvement with others” (Henry & Cliffordson, 2013, p.273)

Even though there is a term **defined** in this statement, it seems that it is not about what but how a term is defined. In this case, I consulted with an applied linguist for a second opinion whether to consider it a definition. We agreed that it is not a definition, and I decided to discard such cases.

3.2.2 Identifying functions of the definition

In the second main step which is identifying a function of a definition, I based my broad categories on functions in the previous literature which are (1) for clarifying a term, (2) for an argument in research, and (3) for a methodological purpose. In this step, I used a technique called ‘intratextual reading’, a reading technique that I would like to propose. This reading technique is influenced by the concept of intertextuality which is concerned with the relationship between two or more texts (see Holmes, 2004; Kristeva, & Moi, 1986). ‘Intratextual reading’ refers an attempt to identify a functional relationship between a term defined and another part of research within the same research.

Below are the explanations of my ‘intratextual reading’ to identify functions of a definition. Note that after locating the definition, I identified where the term was used in order to identify the functions. In the examples, sentence numbers are added in the beginning of each sentence for ease of explanation.

Example of *for clarifying a term*

[1] McClosky and Mildred (1971) **define** teaching strategy as a teaching approach that is used either in solving a classroom problem or in improving instruction. [2] Singh (2008) states that a “teaching strategy is a generalized plan for a lesson, which includes structure, desired learner behavior in terms of goals of instruction and outline of planned tactics necessary to implement the strategy.... [3] According to several studies...there are a variety of teaching strategies which teachers can use to motivate students to learn in a classroom setting...(30 lines)... [4] in this study the research used them [learning strategies] as criteria to analyze teacher’s strategies used in the classroom”

From the example, we see that the term *teaching strategy* is defined in sentence [1]. In sentence [2], it seems to be an explanation of the term. The research then moves on to types of teaching strategies in sentence [3]. I considered the function of a definition in this case as for clarification (the issue of whether a definition is clear or not is not a major concern in this

research, but will be revisited in the discussion section). Reading on 30 more lines, when I found sentence [4], I moved to read in the method section to see whether the definition was really used “as criteria to analyze teacher’s strategies” or not. If used, this definition would have one more function which is for a methodological purpose. However, it turned out that, there was no clear trace of the application of the definition in the method, and so I decided to consider that the definition of *teaching strategy* has one function: *for clarifying a term*.

Example of *for clarifying a term* and *for an argument in research* and *for a methodological purpose*

[1] I use the term *discourses* throughout this article in the Foucauldian sense to mean “practices which systematically form the objects of which they speak” (Foucault, 1972, p.49). [2] Used in this critical theory tradition, *discourses* **refers to** the “finite range of things it is conventional or intelligible to say about any given concerns” within any community (Cameron, 2001, p.15). [3] When individuals talk about a topic, they draw from these shared resources, and through such individuals’ talk, says Cameron (2001), “reality is ‘discursively constructed,’ made and remade as people talk about things using the ‘discourses’ they have access to” (p.15). [4] Within this tradition, discourse analysis—described in more detail in a later section—can be seen as “a method for investigating the ‘social voices’ available to the people whose talk analysts collect” (Cameron, 2001, p.15). [5] Central to this form of discourse analysis is a concern with “how social phenomena are named and organized” through “relations of power, the governing of people and the production of subjects or forms of personhood” (Lee & Petersen, 2011, p.140)...(in the method section)...[6] The discourse analysis approach adopted here is situated within a tradition of Foucauldian discourse studies that explores how “situationally ‘provided’ discourses shape and guide (but do not determine) what might be said in social settings” and how “social realities” are “built up” through participants’ “organization and use of discursive resources and opportunities” (Miller & Fox, 2004, p.37).

From this example, that the term *discourses* are defined for clarification in sentence [1], and for an argument in research sentences [2-5]. Note that in judging whether a definition has a function for a research argument, I read other parts of the text and found that the definition is used for a methodological purpose. Therefore, the definition of *discourses* covers all the three main functions.

Example of *for clarifying a term* and *for a methodological purpose*

[1] ‘collocation’ was **defined** as a single word that tends to co-occur in the span of 3 words from the reference word, co-occurring at least five times in total across at least five different texts with a Mutual Information (MI) score of at least 3 and a t-score of at least 2.

In the above example, it is clear that a definition is for a methodological purpose. However, it is at the same time makes us understand more about the term collocation in this research, and so I consider the definition of collocation has two functions.

3.2.3 Comparing functions of the definitions

Once identified, the functions of the definitions in the research papers and the theses were compared. Note that in some articles, there may be several terms that are defined. However, I selected terms that are considered important by considering the key words in the research title. From this, I decided to choose only one key definition from each article/thesis. The comparison of these definitions is presented in the next section.

4. Findings

This study seeks to explore a function of a definition in applied linguistics research in previous literature and compares functions of definitions used in 10 research articles and 10 master's theses in the field. The findings from my 'intratextual reading' suggest that there are differences in functions of definitions between the articles and the theses as shown in Table 1 and Table 2.

Table 1 International research articles

Article No.	Term defined	For clarification	For argument	For methodological purpose
1	collocation	Yes	-	Yes
2	discourses	Yes	Yes	Yes
3	language-related episodes	Yes	Yes	Yes
4	comprehensibility	Yes	-	Yes
5	fluency	Yes	Yes	Yes
6	materials	Yes	Yes	Yes
7	cognitive	Yes	Yes	-
8	genre	Yes	Yes	-
9	basic facet of morphological awareness	Yes	-	Yes
10	reflective thinking	Yes	Yes	Yes

From Table 1, we see that all definitions have more than one function. Five definitions out of ten (Nos. 1, 4, 7, 8, 9) perform two functions, one is for clarifying a term, the other is either for an argument or for a methodological purpose. The other five (Nos. 2, 3, 5, 6, 10) cover all the three functions. Looking at individual functions, apart from for the term clarification, a definition is used more for a methodological purpose than for an argument.

Table 2 Master's theses

Theses	Term defined	For Clarification	For argument	For methodological purpose
1	teaching strategy	Yes	-	-
2	bilingualism	Yes	-	-
3	digital natives	Yes	Yes	-
4	collation	Yes	-	-
5	language strategies	Yes	-	Yes
6	readiness	Yes	-	-
7	reading comprehension	Yes	Yes	Yes
8	culture	Yes	Yes	-
9	vocabulary breadth and depth	Yes	Yes	Yes
10	Anxiety	Yes	Yes	-

From Table 2, unlike Table 1, we see that only six definitions have more than one function. Four definitions (Nos. 1, 2, 4, 6) have one function and the other six (Nos. 3, 5, 7, 8, 9, 10) have more than one function. Of these six, four have two functions while the remaining two (Nos. 7, 9) cover all the three functions.

If we consider Tables 1 and 2, we can see a clear discrepancy in functions of definitions from the two data sources. The difference lies most in the third function: for a methodological purpose.

5. Discussion and conclusion

Before discussing the findings, some limitations are noted. Firstly, the number of articles and theses is rather small. Secondly, my definition, although grounded in previous literature and based on actual reading of the articles, is limited in scope. Third, the

determination of the relationship was based on my own interpretations. Therefore the discussion provided here would only be suggestive.

Overall, we can see that in the research articles, all definitions have more than one function, while in the theses, only six definitions have more than one function. This suggests a limited use of functions of definitions of graduate students which may be due to a lack of understanding of potential functions of definitions. To illustrate, let's consider two definitions of *collocation*, one from a research article and the other from a thesis as following.

a single word that tends to co-occur in the span of 3 words from the reference word, co-occurring at least five times in total across at least five different texts with a Mutual Information (MI) score of at least 3 and a t-score of at least 2.
(from a research article)

a particular combination of two or more words are used frequently and naturally in spoken and written language (from a thesis)

What we see here from the two definitions of *collocation* is the definition given in the research article is specific which clearly has a methodological purpose, but such specificity, however, is not seen in the definition from the thesis. Indeed, the definition in the thesis consists of at least two vague terms – frequently and naturally. If we assess a definition with its appropriateness as a measurement indicator suggested by Walliman (2005) mentioned earlier, we can probably say that the definition given in the thesis is not really useful in terms of research which can be similar to Jorgensen and Phillips's (2002) assertion.

One may argue whether the difference may be derived from the different nature of research (that is, operationalization in quantitative research). A closer look at the research methods in all the research papers and the theses reveals that this is not the case. It was found that the *for a methodological purpose* function of the definition is not only used in quantitative research, but also in qualitative research (see e.g. Appleby, 2013; Atkinson, 2013).

The differences in the functions of definitions in the two data sources reveal differences in the use of definitions in research between the 'expert' and 'novice researchers'. From my experience in learning research methods in applied linguistics, not much discussion was given to studying how to use definitions in research. Perhaps there is an assumption that graduate students would understand the functions of definitions in research as this is basic knowledge. To guard against my bias, I asked two graduate students (that is, novice researchers) in the field (both of them had taken the research method course; one of them is writing a thesis) what the functions of a definition in research are. Both suggest only that the function of a definition is to explain a concept to the reader. This corresponds to the findings in Table 2, and thus points to the need that those who teach research may need to be aware of the students' limited understanding of potential functions of definitions in research. The findings can also be useful to the design and instruction of research writing or research methods courses.

From a pedagogical perspective, this study may provide initial useful findings. However, more research from other perspectives (e.g. a sociocultural perspective or a corpus perspective) may provide complementary information about the functions of the definitions. Also, it may be worth exploring the functions of the definition at a deeper level as the categories of definitions in this study are broad which can potentially be further categorized.

This study has shed more light on understanding of functions of a definition in research in applied linguistics and revealed the differences of functions in the research

articles and the master's theses. This study may also be useful to others in the field to further explore the complex relationships between the definitions and the research. The idea of exploring functions of definitions in research, although contextualized in the field of applied linguistics, can be applied to other disciplines.

References

- Abdel Latif, M. M. M. (2013). What do we mean by writing fluency and how can it be validly measured? *Applied Linguistics*, 34(1), 99-105.
- Anthony, L. (1999). Writing research article introductions in software engineering: how accurate is a standard model? *Professional Communication, IEEE Transactions on*, 42(1), 38-46.
- Appleby, R. (2013). Desire in translation: white masculinity and TESOL. *TESOL Quarterly*, 47(1), 122-147.
- Babbie, E. (2004). *The Practice of Social Research* (10 ed.). Belmont, CA: Thomson Wadsworth.
- Basturkmen, H. (2009). Commenting on results in published research articles and masters dissertations in Language Teaching. *Journal of English for Academic Purposes*, 8(4), 241-251.
- Caldwell, K., Henshaw, L., & Taylor, G. (2011). Developing a framework for critiquing health research: An early evaluation. *Nurse Education Today*, 31(8), e1-e7.
- Carter, R. (1993). *Introducing Applied Linguistics*. London: Penguin Books.
- Chang, C.-F., & Kuo, C.-H. (2011). A corpus-based approach to online materials development for writing research articles. *English for Specific Purposes*, 30(3), 222-234.
- Craswell, G., & Poore, M. (2013). *Writing for Academic Success* (2nd ed.). London: Sage.
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2 ed.). Thousand Oaks: Sage.
- Derwing, T. M., & Munro, M. J. (2013). The development of L2 oral language skills in two L1 groups: A 7-year study. *Language Learning*, 63(2), 163-185.
- Elkad-Lehman, I., & Greensfeld, H. (2011). Intertextuality as an interpretative method in qualitative research. *Narrative Inquiry*, 21(2), 258-275.
- Flowerdew, J. (1992). Definitions in science lectures. *Applied Linguistics*, 13(2), 202-221.
- Goddard, C. (2011). *Semantic Analysis: A Practical Introduction* (2 ed.). New York: Oxford University Press.
- Guerrettaz, A. M., & Johnston, B. (2013). Materials in the classroom ecology. *The Modern Language Journal*, 97(3), 779-796.
- Hart, C. (1998). *Doing a literature review*. London: SAGE.
- Henry, A., & Cliffordson, C. (2013). Motivation, Gender, and Possible Selves. *Language Learning*, 63(2), 271-295.
- Holmes, J. (2004). Intertextuality in EAP: an African context. *Journal of English for Academic Purposes*, 3(1), 73-88.
- Jorgensen, M., & Phillips, L. J. (2002). *Discourse Analysis as Theory and Method*. London: Sage.
- Knoch, U., & Sitajalabhorn, W. (2013). A closer look at integrated writing tasks: Towards a more focused definition for assessment purposes. *Assessing Writing*, 18(4), 300-308.
- Kristeva, J., & Moi, T. (1986). *The Kristeva Reader*: Columbia University Press.
- Kumar, V., & Stracke, E. (2011). Examiners' reports on theses: Feedback or assessment? *Journal of English for Academic Purposes*, 10(4), 211-222.
- Lessard-Clouston, M. (2006). *Definitions in academic lectures: A preliminary report*. Paper presented at the CATESOL State Conference, California.

- Locke, L. F., Spirduso, W. W., & Silverman, S. J. (2000). *Proposals that work: A guide for planning dissertations and grant proposals*. Thousand Oaks, California: Sage.
- Longworth, G. (2006). Definitions: Uses and varieties of, in *Concise Encyclopedia of Philosophy of Language and Linguistics* (eds. Barber, A., & Stainton, R. J). Elsevier Science.
- Markee, N. (1990). Applied linguistics: What's that? *System*, 18(3), 315-323.
- Ogden, C.K., & Richards, I.A. (1927). *The Meaning of Meaning*. New York: Harcourt, Brace & Company.
- Porte, G. K. (2002). *Appraising research in second language learning: A practical approach to critical analysis of quantitative research*. Amsterdam: John Benjamins.
- Sonbul, S., & Schmitt, N. (2013). Explicit and implicit lexical knowledge: Acquisition of collocations under different input conditions. *Language Learning*, 63(1), 121-159.
- Suzuki, S. (2006). Gender-linked differences in informal argument: Analyzing arguments in an online newspaper. *Women's Studies in Communication*, 29(2), 193-219.
- Swales, J. (1981). Definitions in Science and Law—evidence for subject-specific course components? *Fachsprache*, 81(3), 106-12
- Tittle, P. (2011). *Critical Thinking: An Appeal to Reason*. New York: Routledge.
- Walliman, N. (2005). *Your Research Project* (2 ed.). London: Sage.
- Watson Todd, R. (2012). The effects of class size on English learning at a Thai university. *ELT Research Journal*, 1(1), 80-88.
- Yang, R., & Allison, D. (2004). Research articles in applied linguistics: Structures from a functional perspective. *English for Specific Purposes*, 23(3), 264-279.

Appendix

Data sources

10 Research papers

1. Academic writing in the business school: The genre of the business case report (JEAP)
2. Desire in translation: white masculinity and TESOL (TESOL Quarterly)
3. Developing the Academic Collocation List (ACL)—A corpus driven and expert-judged approach (Journal of English for Academic Purposes)
4. Doing planning and task performance in Second Language Acquisition: An Ethnomethodological Respecification (Language Learning)
5. Effects of pretask modeling on attention to form and question development *(TESOL Quarterly)
6. Materials in the classroom ecology (The Modern Language Journal)
7. Morphological awareness and reading comprehension in a foreign language: A study of young Chinese EFL learners (SYSTEM)
8. Reflective journal writing: Exploring in-service EFL teachers' perceptions (SYSTEM)
9. The Development of L2 oral language skills in two L1 groups: A 7-year study (Language Learning)
10. The development of Chinese fluency during study abroad in China (The Modern Language Journal)

*Name of the journal

10 Master's theses

1. A case study of culture teaching practices of upper secondary school English teachers
2. A study of language learning strategies of students in an English in Thai secondary schools

3. A study of the use of academic verb collocations and English writing ability of undergraduate English-major students
4. Affective factors faced by new learners in a bilingual setting
5. Attitudes of Thai students towards teaching strategies used in Vietnamese as a third language class
6. Effects of differentiated writing instruction by tiered assignments on writing ability of ninth grade students
7. Effects of web-based English reading instruction using project-based language learning on reading comprehension ability of Phetchaburi Rajabhat University
8. Measuring vocabulary size and vocabulary depth of secondary education students in a Thai-English bilingual school
9. Pre-service teachers' anxiety and anxiety management during the first encounter with students in EFL classroom
10. The study of students' and teachers' use of technology in higher education