Introduction

In 1980, Paul Meara’s article “Vocabulary Acquisition: A Neglected Aspect of Language Learning” was published. Indeed, at that time there were relatively few studies being published that were focused on the construct of vocabulary, or the teaching and learning of words, and research on second language (L2) vocabulary was particularly scarce. However, perhaps fueled by the influential work of Paul Nation, Batia Laufer, and Paul Meara, there is now much greater interest in studies of vocabulary.

Today, there is a great deal of research conducted on vocabulary, and an increased range in topics relating to words. There are now a number of excellent books that provide a comprehensive review of lexical studies. Nation (2001, 2013) and Schmitt (2010) have provided the widest ranging overviews of vocabulary research in general, while Read’s (2000) Assessing Vocabulary has been the key book devoted to measuring vocabulary knowledge. More recently, interest in learning sequences of words has generated great interest with Schmitt’s (2004) Formulaic Sequences: Acquisition, Processing, and Use; Wray’s (2002) Formulaic Language and the Lexicon; and Boers and Lindstromberg’s (2009) Optimizing a Lexical Approach to Instructed Second Language Acquisition being among the key texts in this area. Moreover, with the development of new approaches to researching vocabulary, there has also been the publication of books providing guidance to help graduate students and researchers with their research. There are now books on how to develop word lists (Nation, 2016) and how to use eye tracking for data collection (Conklin, Pellicer-Sánchez, & Carrol, 2018; Godfroid, 2019), as well as texts devoted to issues related to researching vocabulary (Nation & Webb, 2011; Schmitt, 2010). Surprisingly, there have been few collective volumes focused on vocabulary. Schmitt and McCarthy’s (1997) Vocabulary: Description, Acquisition and Pedagogy and Bogaards and Laufer’s (2004) Vocabulary in a Second Language: Selection, Acquisition, and Testing are the best collections on vocabulary, because each covered a variety of important topics that were written by notable researchers. Recently, there have also been several special issues of journals devoted to vocabulary, including the April 2010 issue of Reading in a Foreign Language edited by Averil Coxhead, the May 2012 issue of the RELC Journal edited by Paul Nation, the January 2017 issue of Language Teaching...
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The aim of this volume was to build on these earlier texts by providing a comprehensive coverage of vocabulary studies from key researchers in the field today. What makes this volume unique is the wide range of themes on lexis, and the many different perspectives of the researchers. The diversity of issues and foci of the researchers should make it a useful reference text, help to expand on the discussions of vocabulary, and highlight important areas for future research.

Who Is Currently Researching Vocabulary?

One of the goals of the volume was to try to bring different views to some of the subjects. While vocabulary researchers agree on many things, each person brings a different perspective to the research literature. Sometimes these differences are quite small. For example, I believe that many of us (e.g., Averil Coxhead, Jonathan Newton, Irina Elgort, Stuart Webb) who have studied and worked with Paul Nation at Victoria University of Wellington may echo much of what he has written about. There is good reason for this, the biggest being that Paul has written about so many different topics, and even if it takes us a while to recognize it, in the end we usually find that his suggestions are correct. Although we might have differences in our views, these views may often have developed from his earlier work, and so are often similar to his. Moreover, we might consider that there are other schools of thought such as from those who have studied and worked with Paul Meara at Swansea University, and those who have learned from Norbert Schmitt at the University of Nottingham. Paul Meara’s influence likely extends to his colleagues, Tess Fitzpatrick and Jim Milton, and the many students who have learned about vocabulary research from them (e.g., Rob Waring, Brent Wolter, Dale Brown, Jeff Stewart). Norbert Schmitt’s viewpoint on research has also likely impacted the work of his many students (e.g., Ana Pellicer-Sánchez, Anna Siyanova-Chanturia, Benjamin Kremmel, Laura Vilkaitė-Lozdiėnė, Beatriz González Fernández) and colleagues (Kathy Conklin, Zoltan Dornyei). Of course all of these researchers have also had a large impact on the wider research community.

With the increase in research on vocabulary there has also been an increase in the number of people investigating it, and these researchers are certainly not limited to those just mentioned. Perhaps nobody has contributed as many seminal studies of L2 vocabulary as Batia Laufer (University of Haifa, Israel). The breadth and influence of her research continues to grow today. Her research initially focused on issues related to lexical difficulty. However, it has touched on a large number of areas related to lexis, such as the development of tests, lexical coverage, formulaic language, and incidental and intentional vocabulary learning. Her work with Jan Hulstijn on the development of the Involvement Load Hypothesis should be considered to be one of the key contributions to vocabulary acquisition research in the last 20 years. While Batia Laufer has focused on a wide range of themes, the impact of John Read in the area of vocabulary testing has had great influence. His book Assessing Vocabulary must be considered the essential work in this area, and the continued development and validation of the Word Associates Test should be considered as an important landmark in the development of tests of vocabulary knowledge.

If we think about the different places where people are researching vocabulary, then we can see that there are researchers in a diverse range of countries. With the large body of work completed by Paul Meara, Norbert Schmitt, Ron Carter, and Michael McCarthy in the United Kingdom, not surprisingly there is still a large number of researchers focused
on lexis there, such as Judit Kormos, Dana Gablasova, and Vaclav Brezina (University of Lancaster), Thi Ngoc Yen Dang (University of Leeds), Seth Lindstromberg, Philip Durrant (University of Exeter), and Ana Pellicer-Sánchez (University College London). Elsewhere in Europe, researchers are a little more isolated, with Henrik Gyllstad (Lund University) and Fanny Forsberg Lundell (Stockholm University) in Sweden, Benjamin Kremmel (University of Innsbruck) in Austria, Laura Vilkaite-Lozdiené (Vilnius University) in Lithuania, Rob Schoonen (Radboud University) and Tessa Spätgens (University of Amsterdam) in the Netherlands, Imma Miralpeix and Raquel Serrano (University of Barcelona) in Spain, and Brigitta Dóczi (Eötvös Loránd University) in Hungary. There is also a lot of interest in vocabulary research in Asia with researchers such as Rob Waring (Notre Dame Seishin University), Atsushi Mizumoto, Tatsuya Nakata, and Alan Hunt (Kansai University), David Beglar (Temple University Japan), Laurence Anthony (Waseda University), Junko Yamashita (Nagoya University), and Yosuke Sasao (Kyoto University) all conducting lexical studies in Japan, whereas, David D. Qian (Hong Kong Polytechnic University) and Anna Chang (Hsing-Wu University) are based in Hong Kong and Taiwan, respectively.

Vocabulary has also been a popular topic among researchers in Belgium, led by the work of Frank Boers. His cognitive linguistics studies on the teaching and learning of single and multiword items have fueled many useful articles by his former colleagues and students: June Eyckmans (Ghent University), Hélène Stengers and Julie Deconinck (Vrije Universiteit Brussel), and Aline Godfroid (now at Michigan State University). Sylviane Granger and her colleagues Fanny Meunier and Magali Paquot at Université Catholique de Louvain have made an impact on research of formulaic language by conducting a large number of corpus-based studies with a particular focus on learner language use. More recently, Elke Peters and Maribel Montero Perez and their students at KU Leuven University have made important contributions to research on vocabulary, perhaps most notably with their research on multimodal learning of words.

In North America, researchers tend to be more scattered. In the US, Joe Barcroft (Washington University in St. Louis), Brent Wolter (Idaho State University), Dilin Liu (University of Alabama), Kristopher Kyle (University of Hawai‘i at Manoa), Scott Crossley (Georgia State University), Scott Jarvis (University of Utah), and Dee Gardner and Mark Davies (Brigham Young University) have emerged as key vocabulary researchers. In Canada, Tom Cobb (Université du Québec à Montréal), Marlise Horst (Concordia University), Sima Paribakht (University of Ottawa), David Wood and Michael Rodgers (Carleton University), and the team at the University of Western Ontario (Frank Boers, myself, and students such as Akifumi Yanagisawa, Takumi Uchihara, Zhouhan Jin, Su Kyung Kim) have been frequent contributors to the literature on teaching and learning single and multiword items.

How Might We Classify the Many Investigations of Vocabulary?

With so many lexical studies being conducted, it is perhaps useful to classify research into distinct categories to reveal potential gaps in the literature, as well as to highlight areas that receive more or less attention. There are many different ways in which we might classify research on vocabulary. The following sections are a few of the possibilities.

Description, Pedagogy, and Assessment

This volume is loosely structured around these three categories, as they are at the heart of understanding much of what is written about vocabulary. Description entails understanding what is involved in knowing a word or sequence of words, the factors that influence learning,
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how vocabulary learning is related to other components of language development, how we might classify vocabulary, and how vocabulary fits into existing theories of language learning. Description is central to understanding and evaluating research on vocabulary. Nation’s (2001, 2013) description of vocabulary knowledge is the most important work on the subject to date, which is why this volume begins with this topic (see Nation, this volume).

Much of the research on vocabulary has focused on pedagogy. Research has examined the efficacy of different vocabulary learning activities (e.g., Laufer & Shmueli, 1997), learners’ strategies in vocabulary learning (e.g., Gu & Johnson, 1996), and the tools (e.g., word lists, flash cards, dictionaries) that can be used for teaching and learning words (e.g., Dang, Coxhead, & Webb, 2017; Laufer & Hadar, 1997; Nakata, 2011). A key contribution in this area was Laufer and Hulstijn’s (2001) Involvement Load Hypothesis, which sought to identify factors present in text-based activities that contribute to vocabulary learning and provide a testable framework that could predict the relative efficacy of such activities. Before the Involvement Load Hypothesis, the rationale for why more words might be learned through completing one activity rather than another was that in the former the words may have been processed more deeply than in the latter. While this might well be true, it is also a very unsatisfactory statement because there is no means to determine what constitutes deep processing. Although the Involvement Load Hypothesis may also be in need of refinement (e.g., Folse, 2006), it raised awareness of the need to look at the psychological conditions within activities that contribute to learning. Moreover, it also motivated the development of other frameworks such as Barcroft’s (2002) TOPRA model and Nation and Webb’s (2011) Technique Feature Analysis that shed further light on the relative efficacy of activities (see chapters by Laufer and Lindstromberg, this volume).

Assessment of vocabulary knowledge plays a large role in both pedagogy and research. In the classroom, tests of vocabulary knowledge can motivate study, raise awareness of different aspects of vocabulary knowledge (see Yanagisawa and Webb, this volume), indicate the extent of lexical development within a course (see Kremmel, this volume), and reveal which words students know and which words they need to learn (see chapters by Gyllstad and Kyle, this volume). In research, the quality and focus of tests of vocabulary knowledge may affect whether or not vocabulary learning is found to occur, as well as the number of words participants are found to “know” (see Read, this volume). More sensitive test formats, such as those employing a meaning recognition format, are likely to reveal greater learning or knowledge, while more demanding formats, such as form recall, are likely to show less learning or knowledge (see Laufer & Goldstein, 2004; Godfroid, this volume). Moreover, a mismatch between what is learned (e.g., written form) and what is measured (e.g., form-meaning connection) may provide misleading results (Webb & Piasecki, 2018). There is much that needs to be considered when selecting or designing tests of vocabulary knowledge, and of particular importance is the need to carefully consider the multidimensionality of vocabulary knowledge and assess the aspects of knowledge that are most likely to be learned or known (Nation & Webb, 2011).

Single-Word Items vs. Multiword Items

Although researchers have long been aware of the importance of learning sequences of words as well as individual words (e.g., Palmer, 1933), until recently the vast majority of studies had focused on single-word items. However, with advances in technology, it is now much easier to identify and research multiword items (see chapters by Meunier and Wood, this volume). Indeed, in the last 30 years, more and more has been written about formulaic...
language, to the point that there are many of the same lines of research for multiword items as single-word items. For example, there are studies looking at the factors that affect learning multiword items (see Boers, this volume), how formulaic language is processed (see Conklin, this volume), how tests can be created to measure knowledge of multiword items (see Gyllstad, this volume), and the resources that are available for learning formulaic language (see Meunier, this volume).

Although research on multiword items is still in its infancy, there are also some questions that we might hope would be answered by now. What might be the most important question to answer is whether it is more effective to learn words as individual items or as sequences of items, as this may help to optimize instruction. For example, is it better to learn the form and meaning of *take* and encounter it in context, or is it more effective to learn the forms and meanings of the most frequent sequences in which it occurs (*take care, take place, take advantage*) and encounter each of these in several sentences?

Despite the long history of research on individual words, there are still some very important practical questions that remain unanswered. Perhaps the most important of these questions is how many words can students learn in different periods of time? This is a particularly important question because answering it would allow teachers, learners, and program developers to set meaningful goals for courses, programs, and study periods. If we aim for our students to understand most forms of speech, research suggests that they need to know the 3,000 most frequent word families. A word family is made up of a headword (e.g., *approach*), its inflections (*approaches, approaching, approached*), and its derivations (*approachable, unapproachable*). If the goal is for students to understand written text, then the objective should be that they know the most frequent 8,000 word families, and if we expect them to reach the vocabulary size of an educated L1 user, then they should learn 15,000 word families. Without understanding how many words that students can learn in courses and over different durations, it is unlikely that language learning programs will be highly effective.

**Intentional vs. Incidental Word Learning**

Intentional and incidental vocabulary learning often seem to be discussed as the only two approaches to learning words. Exercises and activities that are designed to explicitly focus students on learning words are labeled as examples of intentional vocabulary learning, whereas activities that involve learning words through encounters in meaning-focused input are labeled as examples of incidental vocabulary learning (see chapters by Lindstromberg and Webb, this volume). This distinction makes some sense because there are many activities, such as flash cards, fill in the blanks, and matching exercises, that are designed to make students focus on learning words to develop lexical knowledge. There are also many other situations that involve encountering input through reading and listening in which there may be no intention to learn words, and yet through these experiences words are in fact learned.

The advantage of labeling vocabulary learning as intentional and incidental is that it allows us to see the similarities between different learning conditions, as well as their strengths and weaknesses. For example, we might note that vocabulary learning is relatively effective when we learn words intentionally through using flash cards, filling in blanks, and writing words in sentences in comparison to encountering unknown words when reading, listening, or viewing television. The disadvantage of categorizing vocabulary learning as an intentional-incidental dichotomy is that we may lose sight of the many differences among the different intentional learning activities, as well as the differences among the incidental learning activities. Moreover, as with most dichotomies, there may also be the urge to state
that one is good or effective and the other is bad or less effective. However, we should not think of intentional and incidental vocabulary learning as being in competition with each other but rather as useful complements to each other.

**Processing vs. Learning Words**

Another distinction that is made in research is studies focused on rates of processing words and those that look at the amounts of vocabulary learning (see chapters by Conklin, Godfroid, and Pellicer-Sánchez, this volume). Most studies of vocabulary have focused on word learning perhaps in part because of the ease with which we can assess vocabulary gains using paper and pencil tests. Studies of lexical processing are becoming much more common because improved technology has provided new tools for measuring lexical processing such as reaction time tasks and eye tracking.

Processing speed is sometimes viewed as indicating the strength of links within the mental lexicon, as well as the strength of knowledge that someone has for a word or sequence of words; words that are more closely linked or are better known should be processed more quickly than those that are less closely linked or less well known. In fact, processing speed can also be considered a measure of vocabulary learning because it provides a very sensitive measure of vocabulary knowledge that may be difficult to reveal through more traditional paper and pencil tests. It is probably easiest to see processing speed as a measure of lexical fluency; the faster that we can process a word, the more fluent our access to that word (see chapters by Conklin and Godfroid, this volume).

**Depth of Vocabulary Knowledge vs. Breadth of Vocabulary Knowledge**

Breadth of vocabulary knowledge refers to the number of words known. In studies of breadth, knowing a word is typically indicated by whether students know the form-meaning connections of words. Depth of vocabulary knowledge refers to how well a word is known, and this is usually indicated by whether students know aspects of knowledge, such as collocation, multiple meanings of words, and derivations, rather than only knowing form-meaning connection. Generally, it is only in the last 20 years that research has started to focus on depth of knowledge. Before that, knowing a word was pretty much always indicated by whether or not students knew form-meaning connection.

Although there has been quite a lot written about depth of vocabulary knowledge, most new studies of words still equate vocabulary learning with gaining knowledge of form-meaning connection. There is good reason to measure knowledge of form-meaning connection. Knowledge of form-meaning connection is essential for comprehension; the more words we understand in a text, the more likely we are to understand that text (Hu & Nation, 2000; Laufer, 1989; Schmitt, Jiang, & Grabe, 2011). Moreover, this is true for not only reading comprehension but also for listening comprehension (van Zeeland & Schmitt, 2013). However, it is also extremely important to recognize the multidimensional nature of vocabulary knowledge; there are many different aspects of word knowledge and so measuring any one aspect of knowledge is only providing a partial evaluation of what might be known. Therefore, while measuring knowledge of form-meaning connection may provide a useful measurement of vocabulary knowledge, it is also a very limited evaluation of what might have been learned (see chapters by Godfroid, Nation, Webb, Yanagisawa and Webb, this volume).

More research on depth of vocabulary knowledge is also needed. Perhaps of greatest benefit would be the development and validation of new measures of vocabulary depth (see
chapters by Godfroid, Gyllstad, Read, Yanagisawa and Webb, this volume). The development of earlier tests, such as the Vocabulary Knowledge Scale (Wesche & Paribakht, 1996) and the Word Associates Test (Read, 1993, 1998), were very important innovations in lexical assessment. However, there is a need to keep improving and expanding on these earlier measures. In particular, it would be useful to have measures of different aspects of vocabulary knowledge such as derivation and collocation with test items selected according to word frequency levels. This would allow teachers and researchers to measure knowledge of the most useful words for different components of depth. Moreover, this would also allow us to compare knowledge of these aspects with the results of established tests that use a similar format such as the Vocabulary Levels Test (Webb, Sasao, & Ballance, 2017).

Quantitative vs. Qualitative Studies of Vocabulary

Within applied linguistics and other research disciplines, studies are often classified by design with the most common classification being quantitative and qualitative studies. Within lexical studies this categorization does not really apply, however, because there are very few qualitative studies of vocabulary (notable exceptions include Gu, 2003; Haastrup & Hennissen, 2000). This is a major limitation of the research on vocabulary. Although we can learn much through quantitative studies of words, there is also a great deal that is unaccounted for that deserves attention. For example, when we look for differences in the amount of word learning through different conditions, we might find that Condition X was more effective than Condition Y. This is useful because it provides some indication of the relative efficacy of the two conditions. However, within each condition, it is likely that there was some variation in the amount of learning; most students may have learned the most through Condition X, but a few may have learned very little. Moreover, a few students may have learned more through Condition Y than through Condition X. Qualitative and mixed methods studies (e.g., Godfroid & Schmidtke, 2013) can help to shed more light on inconsistencies within data sets and expand upon earlier quantitative studies.

Vocabulary and the Four Skills

Another way that we might categorize studies of vocabulary is around the four skills: reading, writing, listening, and speaking. Unfortunately, this would lead to an extremely long section on reading, followed by shorter and shorter sections on writing, listening, and speaking in that order. Most research on vocabulary has looked at the words in written text. For example, we can analyze the vocabulary in corpora of written text to determine word and multiword frequencies and the strength of the relationships between words. We can also look at how reading different types of text contributes to vocabulary learning and how the factors within these texts and the characteristics of the learners affect gains. The reason why most studies have focused on written text is that it is easiest to collect this text type to create corpora, or modify written text to suit research purposes. This has allowed us to learn much about the vocabulary in written text (e.g., Nation, 2006), and the extent to which words can be learned through reading (e.g., Webb, 2008).

There has also been a fair amount of research on vocabulary and writing, with many studies focusing on the lexical richness or lexical variation of learner writing (e.g., Kyle, this volume; Laufer & Nation, 1995). With much improved software, such as TALEES (Kyle, Crossley, & Berger, 2018), AntWordProfiler (Anthony, 2014), and AntConc (Anthony, 2018), that indicates the lexical frequency, formulaic language, and lexical relationships between words in text,
there is a large amount of information that can be revealed about the words used in writing (see chapters by Anthony and Kyle, this volume). One challenge with conducting these studies is that while researchers can analyze the words that participants use in their writing, there is a lack of clarity about the words that are not used. For example, if we are interested in the proportion of lower frequency words that are used in student writing, we cannot know if the figures accurately reflect productive knowledge of words. Instead, the figures reflect the choices that students made about which words to use; some students may choose to focus on accuracy and use more of the higher frequency words that they are most familiar with, others may choose to take more risks and use lower frequency words that they are less familiar with, while others may have written their text according to the frequencies of the words that they knew. Studies of lexical richness in writing do, however, provide very useful indications of the vocabulary that is used between L1 and L2 students (e.g., Crossley & McNamara, 2009).

In contrast to studies of reading and writing, there is relatively little research on vocabulary learning through listening and speaking, or the words and sequences of words encountered in spoken discourse. It is likely that the reason for this is that these are more challenging skills to investigate. For example, it is quite easy to create a corpus of written text that is tens of millions of words in size, because there are billions of words of written text freely available online. However, there is relatively little transcribed spoken text freely available, and so analysis of the vocabulary found in speech is less common. Examining vocabulary learning through speaking and listening is particularly difficult in the classroom, because of the unpredictability of interaction, the large number of variables involved, as well as the challenges of accurately recording the interaction. Despite these challenges, the number of studies investigating the vocabulary of spoken language (e.g., Dang & Webb, 2014), and learning words through speaking (e.g., Newton, 2013; Nguyen & Boers, 2018) and listening (e.g., Peters & Webb, 2018; Vidal, 2003, 2011), appears to be increasing. There would be great value in examining vocabulary learning through speaking and listening in new studies. Hopefully recent studies in this area will reveal useful methodological approaches that can be incorporated into new studies.

**Vocabulary and the Four Strands**

Nation (2007) introduced the four strands as an approach to L2 curriculum development that would provide diverse opportunities for learning. Although the four strands was initially focused on course or curriculum development, its principles also apply to opportunities for lexical development. The four strands are meaning-focused input, meaning-focused output, language-focused learning, and fluency development. Nation suggests that each strand has similar importance, and that a balance in learning between the four strands should provide the greatest benefit to students.

Meaning-focused input involves learning words incidentally through repeated encounters during reading and listening. Meaning-focused input tasks, such as extensive reading and viewing, focus learners on comprehension rather than vocabulary learning. Through encountering words in meaning-focused tasks, students may learn not only the form-meaning connections of words but also learn how they can be used in context. A large number of studies have investigated incidental vocabulary learning with meaning-focused written input (see Webb, this volume). The greatest potential for further research in this area may be through investigating incidental learning with meaning-focused spoken input.

Meaning-focused output involves developing productive vocabulary knowledge through using words in speech and writing in tasks that focus on communication rather than intentional
word learning. Although there are a reasonable number of studies devoted to vocabulary learning through meaning-focused writing (e.g., Crossley & McNamara, 2009; Laufer & Nation, 1995), there are few studies that have looked at vocabulary learning through meaning-focused speaking. This is an area where further research is clearly needed.

Language-focused learning involves the intentional learning of words through exercises and activities such as sentence production and flash cards. Language-focused learning might be what most students and teachers consider to be at the heart of lexical development, because it involves the deliberate teaching and learning of words. However, when we consider that native speakers know as many as 15,000 to 20,000 word families (Goulden, Nation, & Read, 1990) and that you need to know 8,000 to 9,000 word families to understand English novels and newspapers (Nation, 2006), it should be evident that intentional vocabulary learning on its own will not be successful in helping students reach these targets. There are a large number of studies investigating language-focused vocabulary learning activities (e.g., Webb, 2007, 2009; see also chapters by Laufer and Lindstromberg, this volume). However, the research tends to be limited to examining a relatively small number of different activities (Webb, Yanagisawa, & Uchihara, under review). It would be useful for new studies to look at the extent to which common learning conditions, such as matching exercises, true/false questions, cloze activities, and crosswords, contribute to vocabulary learning.

Fluency development involves processing and using vocabulary at a faster rate. Gains in the rate of processing and using words should be viewed as an indication of vocabulary learning (see Godfroid, this volume). Speed reading, 4/3/2 activity, and repeated reading and viewing are examples of activities designed to promote fluency development. Fluency development has tended to receive less attention than the other three strands, both in the classroom and in research. In recent years there has been increased focus on lexical fluency (e.g., Pellicer-Sánchez, 2015). However, with relatively few studies of fluency development, more research is clearly warranted.

The Organization of This Handbook

This volume is organized into four parts: Part I, Understanding Vocabulary; Part II, Approaches to Teaching and Learning Vocabulary; Part III, Measuring Knowledge of Vocabulary; and Part IV, Key Issues in Teaching, Researching, and Measuring Vocabulary. The first part is composed of chapters that are at the heart of researching, learning, teaching, and testing words. These chapters explore what it means to know a word, what affects vocabulary learning, explanation of the different types of words (e.g., academic, technical, high-, mid-, and low-frequency words, formulaic language), lexical processing, vocabulary size, and how vocabulary fits into language learning theories. In order to research, teach, and test words, it is necessary to have a grasp of these topics. The second part is devoted to issues related to teaching and learning words. It begins with the broader areas of incidental and intentional learning and then moves to narrower topics, such as vocabulary learning strategies, word lists, and resources for learning words. All of the chapters in this part are linked with both pedagogy and research; there is typically a large amount of research in each area, and each subject should be considered when developing a program of vocabulary learning.

The third part, Measuring Knowledge of Vocabulary, begins with chapters focused on measuring depth of knowledge of single-word items and measuring knowledge of multiword items. It then moves on to discussion of the different approaches to measuring vocabulary knowledge. A goal of this section was to include an explanation of newer approaches to measuring vocabulary knowledge, such as eye tracking, response times, Coh-Metrix, and
TAALES software, as well as tests that have become recently available, such as the Word Part Levels Test (Sasao & Webb, 2017) and the Guessing from Context Test (Sasao & Webb, 2018). Thus, it should provide a useful update on older books that have focused on the topic of measuring vocabulary, such as Read’s (2000) excellent Assessing Vocabulary.

The final part, Key Issues in Teaching, Researching, and Measuring Vocabulary, was designed to look at issues that might not have been covered in significant depth in earlier chapters, as well as to provide an overview of important themes from the perspective of other experts in the field. Two chapters focus on research issues related to investigating single-word items and formulaic language. These chapters were included because they are likely to be of interest to graduate students and researchers who are planning to start working in this area. Similarly, two chapters focus on key issues in teaching and learning vocabulary (single-word items are the focus of one chapter, while formulaic language is the focus of the other). These chapters may be starting points for teachers looking to help their students do a better job of vocabulary learning. The final two chapters deal with key issues related to measuring vocabulary knowledge and resources for researching vocabulary. While it is likely that all six of the key issues chapters will touch on some of the topics in the other sections, the overlap should hopefully guide readers to explore different parts of the book in more detail.

When first reading the chapters in this volume, I was often struck by the thought that I would have written things very differently. This variation in discussion of subjects is what I believe to be the greatest value of the Handbook. Topics that I felt that I knew quite well were described from different perspectives, and this originality in explanation was informative, interesting, and useful. I was thrilled to have read such a great collection of contributions and I know that this book will be an essential resource for myself. I hope that you will find it equally useful.
Introduction


