Carolin Müller-Spitzer
Empirical data on contexts of dictionary use

Abstract: To design effective electronic dictionaries, reliable empirical information on how dictionaries are actually being used is of great value for lexicographers. To my knowledge, no existing empirical research addresses the context of dictionary use, or, in other words, the extra-lexicographic situations in which a dictionary consultation is embedded. This is mainly due to the fact that data about these contexts are difficult to obtain. To take a first step in closing this research gap, we incorporated an open-ended question ("In which contexts or situations would you use a dictionary?") into our first online survey (N = 684). Instead of presenting well-known facts about standardized types of usage situation, this chapter will focus on the more offbeat circumstances of dictionary use and aims of users, as they are reflected in the responses. Overall, my results indicate that there is a community whose work is closely linked with dictionaries. Dictionaries are also seen as a linguistic treasure trove for games or crossword puzzles, and as a standard which can be referred to as an authority. While it is important to emphasize that my results are only preliminary, they do indicate the potential of empirical research in this area.

Keywords: contexts of dictionary use, extra-lexicographic situation, content analysis, open-ended question, user needs, user aims

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1 Introduction

Dictionaries are utility tools, i.e. they are made to be used. The "user presupposition" (Wiegand et al. 2010: 680[1]) should be the central point in every lexicographic process, and in the field of research into dictionary use, there are repeated calls for this not to be forgotten (cf. Householder 1967; Wiegand 1998: 259-260, 563; Bogaards 2003: 26, 33; Tarp 2009: 33-43). In the early days of lexicography (which, in the case of the German-speaking area for instance, were the early Middle Ages) this was taken as read. The first dictionaries compiled there were mostly very closely related to particular user groups in particular usage situations. Compiling dictionaries or glossaries was very expensive. For this reason, they were only written if they were

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1 "User presupposition: primary assumption of lexicography in general, that dictionaries are not compiled for their own sake but only in order to be used." (Wiegand et al. 2010: 680)

really needed as an essential aid. One example among many is the Latin-German *Vocabularius ex quo,* which dates from the late 14th century. Measured by the more than 270 surviving manuscripts and some 50 incunabula editions, it was the most commonly used late medieval alphabetical dictionary in the German-speaking area, a real 'best-seller' (cf. Grubmüller 1967). This high prevalence was probably due to the fact that it gave up all specializations of the older glossography. It recorded not only rare or difficult words, but all the words that appeared in the series of Latin texts, which accounted for the formation of the canon of the time. In this way, the *Vocabularius ex quo* was an effective tool for understanding the Bible and other texts. In the preface, "pauperes scolares" were explicitly named as recipients, as well as pastors who could use the book for sermon preparation (cf. Figure 1). Therefore, it was general enough to meet the needs of a broad set of users, as well as customized enough to represent an appropriate tool for certain groups of users in specific usage situations. 'Dictionary user interests make history' is the title of a chapter on the *Vocabularius ex quo* in a book about German dictionaries (Haß 2001: 46ff.).
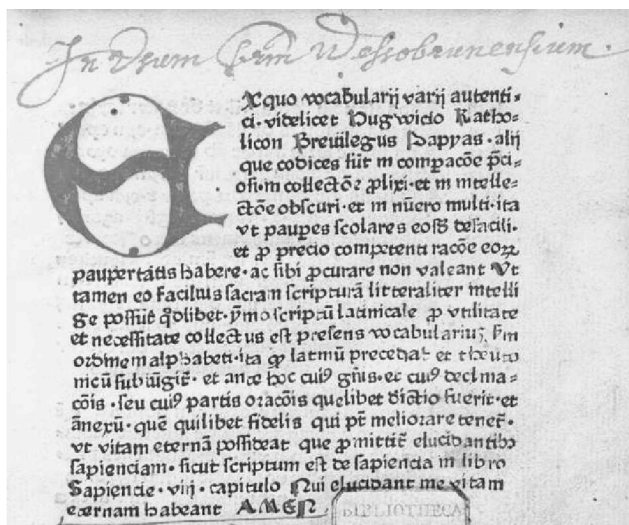

Fig. 1: Facsimile of the preface of the *Vocabularius ex quo* (Eltville 1477), (Bayerische Staatsbibliothek) http://bildsuche.digitale-sammlungen.de/index.html?c=viewer&bandnummer= bsb00034933 &pimage=5&v=100&nav=&l=de (last accessed 13 July 2013).

This fundamental property – serving as an appropriate tool for specific users in certain usage situations – still characterizes good dictionaries. However, the close relationship between dictionaries and their users has been weakened, at least in part.

"The first dictionaries ever produced may seem primitive according to the present standard, but their authors at least had the privilege of spontaneously understanding the social value of their work, i.e. the close relation between specific types of social needs and the solutions given by means of dictionaries. With the passing of the centuries and millenniums, this close relation was forgotten. [...] The social needs originally giving rise to lexicography were relegated to a secondary plane and frequently ignored." (Tarp 2009: 19)

Knowledge about the needs of the user, and the situations in which the need to use a dictionary may arise, is therefore a very important issue for lexicography.

This article is structured as follows: in Section 2, the research question is introduced, and in Section 3, an analysis of the data obtained relating to contexts of dictionary use is presented, with 3.1 focusing on contexts arranged according to the categories of text production, text reception and translation, and 3.2 on users' aims and further aspects of dictionary use. Overall, the aim of this article is to give an illustrative insight into how users themselves reflect on their own use of dictionaries, particularly with regard to contexts of dictionary use.[2]

2 Research question

To design effective electronic dictionaries, reliable empirical information on how dictionaries are actually being used is of great value for lexicographers. Research into the use of dictionaries has been focused primarily on standardized usage situations of (again) standardized user groups for which a well-functioning grid is developed, such as L1/L2-speaker, text production vs. text reception or translation (cf. e.g., Atkins 1998). In this context, Lew (2012: 16) argues that dictionaries are "most effective if they are instantly and unobtrusively available during the activities in which humans engage". To my knowledge, no existing empirical research addresses the contexts of dictionary use, or, in other words, the more external conditions or situations in which a dictionary consultation is embedded, also known as social[3]

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2 Contrary to other contributions in this volume, this chapter does not follow the IMRAD-structure (Introduction-Method-Results-and-Discussion) which is common for empirical research, because the aim here is not to present empirical facts but to offer an exploratory analysis, for which a less strict form of presentation seems more appropriate.

3 The term "social" in this context might be somewhat misleading. "Social" almost always implies, both in general language and in technical terminology, that human behaviour is directed to or guided by other humans. Cf. extracts from the entry "social" in the OED online: "Of a person: frienly or affable in company; disposed to conversation and sociable activities; sociable." (3a) "Of a group of people, an organization, etc.: consisting or composed of people associated together for friendly interaction or companionship." (3b) "Chiefly *Social Sciences*. Developing from or involving the relationships between human beings or social groups that characterize life in society" ("social, adj. and n.". OED Online. September 2012. Oxford University Press. 24 October 2012 <http://www.oed.com/viewdictionaryentry/Entry/183739>).

situations (Tarp 2008: 44), extra-lexicographic situations (Tarp 2012: 114, Fuertes-Olivera 2012: 399, 402), non-lexicographic situations (Lew 2012: 344), "usage opportunities" (Wiegand et al. 2010: 684), in German "Benutzungsgelegenheiten" (Wiegand 1998: 523) or contexts of use (Tono 2001: 56). However, knowledge about the contexts of dictionary use is very important in order to better assess how dictionaries are actually used.

> "Bergenholtz believes that the needs of potential users are not cleary definable or circumscribable. No user has specific needs unless they are related to a specific type of situation.   Consequently, it is not enough to define which types of user have which needs but also the types of social situations in which these needs may arise." (Tono 2010: 3)

Finally, it is important to know what is meant by the usage situation 'text reception in a foreign language'; because there is a big difference between reading literature for professional reasons, privately listening to music or watching a TV series in a foreign language (cf. also Tarp 2007: 171).

> "However, today it seems necessary to take further steps in order to achieve a more complete adaption of lexicography to the new possibilities offered by the new electronic media and information science in general. But this can only be done if it is solidly based upon an advanced theory, developed around the fundamental idea that lexicographical works and tools of whatever class – just as any other type of consultation tools – are, above all, utility products conceived to meet punctual information needs that are not abstract but very concrete and intimately related to concrete and individual potential users finding themselves in concrete extra-lexicographical situations." (Tarp 2012: 114)

However, it is not surprising that in this context few empirical studies exist, because these data are difficult to obtain:

> "To be useful in practice, Householder's recommendation must not only define which types of users have which needs, but also the types of situation in which these needs may arise. The needs are linked to specific situations [...]. But how can theoretical lexicography find the relevant situations? In principle, it could go out and study all the hypothetical social situations in which people are involved. But that would be like trying to fill the leaking jar of the Danaids. Instead, initially lexicography needs to use a deductive procedure and focus on the needs that dictionaries have sought to satisfy until now, and on the situations in which these needs may arise." (Tarp 2008: 44; cf. also Wiegand 1998: 572)

This approach is based only on existing dictionaries and on well-known user needs. Similarly, Fuertes-Olivera (2012: 402) writes that "extra-lexicographical situations" usually are "examined deductively". In this way he postulates, for example, that

> "My opinion, therefore, is that learners of Business English will gain more assistance by consulting sub-field business dictionaries, i.e. those that cover each of the forty or so subdomains into which business and economics is broken down, than by using a single-field Business English Dictionary. [...] My view is based on the idea that the concept of frequency [...] is not as important for compiling specialized dictionaries as it is for compiling general learners' dictionar-

ies. [...] the extra-lexicographical situation associated with specialized lexicography required the exploration of new methods [...]." (Fuertes-Olivera 2012: 404)

In contrast, for example, Bowker (2012: 382-84) and Löckinger (2012: 80-81) explain that combining different resources into one product is particularly user-friendly, especially for translators. Therefore, it seems to me to be very important to gain new empirical data relating to dictionary users in order to avoid a purely theoretical approach (cf. Simonsen 2011, 76, who criticizes Tarp for his "intuitions and desktop research").

On the other hand, any attempt to collect real empirical data involves difficulties. With most unobtrusive[4] methods in the context of dictionary use (i.e. particularly the analysis of log files), it is hard to capture data about the real-life context of a dictionary consultation: firstly, because this is personal data which in most countries cannot be collected without the explicit consent of the people; and secondly, because methods such as log file analysis do not provide data about the circumstances of use (cf. Wiegand 1998: 574[5]; cf. also Verlinde/Binon 2010; 1149, for a study that combines online questionnaires with log file analysis, see Hult 2012). Log file analysis mainly shows which headwords are the most frequently searched for, and which types of information are most frequently accessed (cf. Koplenig et al.: Log file-study, this volume). In some countries, collecting data about the URLs visited before and after the dictionary consultation is also permitted. However, what cannot be seen in log file analysis, are the contexts which lead to a dictionary consultation, e.g., for what reason text production is taking place.

However, interviews, questionnaires and laboratory studies are to a certain extent artificial situations which cannot always be generalized to everyday life (the problem of 'external validity'). Therefore, the question arises as to whether it is a hopeless undertaking from the outset to try to collect new empirical data about

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4 In general, an unobtrusive method can be understood as a method of data collection without the knowledge of the participant, whereas obtrusive measurement means that the researcher has "to intrude in the research context" (Trochim 2006).

5 „Gefragt sei nun zunächst. Was eigentlich kann in der Benutzungsforschung beobachtet werden?" Es ergibt sich, „daß die meisten Phänomene [...] der Fremdbeobachtung *in* und *ex situ* nicht zugänglich sind. Beispielsweise kann man nicht beobachten, in welcher Benutzerrolle ein Benutzer-in-actu handelt; weiterhin sind sämtliche Komponenten des Vorkontextes von Benutzungshandlungen und des inneren Benutzungskontextes Fremdbeobachtungen nicht zugänglich, und auch der Nutzen für den Benutzer ist nicht beobachtbar. Natürlich kann der Benutzer-in-actu sowohl *in* als auch *ex situ* beobachtet werden, aber mit allen Beobachtungsmethoden sind nur die äußeren Aspekte der Benutzungshandlungen erfaßbar sowie einige Komponenten des äußeren Benutzungskontextes. Schon aus diesen Überlegungen ergibt sich, daß bei weitreichenden Forschungszielen innerhalb der Benutzungsforschung die Anwendung von Beobachtungsmethoden allein nicht ausreicht. Die Beobachtungsmethoden sind allenfalls dazu geeignet, die Daten für bestimmte Teilziele zu liefern, so daß sie also in Kombination mit anderen Methoden zur Anwendung gebracht werden können." (Wiegand 1998: 574).

contexts of dictionary use. I presume that this is not the case but that it is important to use every opportunity to obtain empirical data with all the restrictions that go with it, even if it is only possible to come closer to the goal of gaining such data step by step. Our first study is a first step towards this goal.

In our first online questionnaire study (study 1, N = 684, cf. Müller-Spitzer/Koplenig: First two international studies, this volume) we asked the participants to answer an open-ended question about the situations in which they would use a dictionary. The aim was to collect data in an exploratory way. For this, an open-ended question seemed to be the appropriate solution:

> "The appeal of this type of data is that it can provide a somewhat rich description of respondent reality at a relatively low cost to the researcher. In comparison to interviews or focus groups, open-ended survey questions can offer greater anonymity to respondents and often elicit more honest responses [...]. They can also capture diversity in responses and provide alternative explanations to those that closed-ended survey questions are able to capture [...]. Open-ended questions are used in organizational research to explore, explain, and/or reconfirm existing ideas." (Jackson/Trochim 2002: 307f.)

Instead of presenting well-known facts about standardized types of usage situation (text production, text reception etc.), in this paper, I will focus on the more offbeat circumstances of dictionary use, such as: in what context exactly dictionaries are used; for what reason exactly a dictionary is consulted in a text-production situation; whether specific usage patterns, i.e. specific action routines in the use of dictionaries, are reflected in the responses; and whether there are differences between expert and non-expert users. Moreover, I am interested in the description of specific user aims (cf. Wiegand et al. 2010: 680 and Wiegand 1998: 293-298), such as: whether dictionaries are used for research; whether dictionaries are used as linguistic treasure troves for language games, and so on. As well as these concrete questions, it is interesting to see the detail in which users are willing to describe their use of dictionaries.

As it was a very general question on contexts of dictionary use that was asked, it is important to emphasize that the data obtained represent a starting point for detailed research rather than an end point. I know that these data are not about *real* extra-lexicographic situations or contexts of dictionary use, but data about potential users (Tarp 2009: 278) or non-active users (Wiegand et al. 2010: 676, Wiegand 1998: 501) who are reporting on potential situations of use as far as they remain in their minds. Accordingly, the data are inconclusive, but as new empirical data, they may provide useful pointers to contexts of dictionary use

Before the answer data are analyzed, two terminological classifications should be given: Wiegand (1998) includes numerous terminological clarifications which can be very helpful in research into dictionary use. For the analysis of open-ended questions, two terms are particularly important: *usage opportunity* and *usage experience*. A *usage opportunity* is the "social situation in which a dictionary consulta-

tion is embedded" (Wiegand et al. 2010: 684, cf. Wiegand 1998: 523[6] for more detail). The *user experience* is the "complete experience of a user following from his experience in the use of dictionaries and from generalisations of these experiences that allows for biased and foreign judgements" (Wiegand 2010 et al.: 676, cf. see Wiegand 1998: 541-553, 603-620 for more detail). Therefore, the responses to the open-ended question allow us to gather information about potential usage opportunities and the resulting usage experience.

3 Responses to the open-ended question: In which contexts or situations would you use a dictionary?

The open-ended question on contexts of dictionary use which we included in the first study was: "In which contexts or situations would you use a dictionary?" Participants were asked "to answer this question by providing as much information as possible". To gain data about real extra-lexicographic situations, i.e. the contexts in which linguistic difficulties arise with no bearing on existing dictionaries, it would have been better to ask a question such as: "In which contexts or situations do language-related problems occur in your daily life?" or "In which situations would you like to gain more knowledge of linguistic phenomena?" However, in the context of

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6 "Benutzungshandlungen stehen [...] zu anderen kommunikativen Handlungen und zu kognitiven Ereignissen in Beziehungen. Eine generelle und damit wenig präzise Kennzeichnung der Beziehung ist gegeben, wenn man lediglich die *Typen von sozialen Situationen*, in denen Wörterbücher benutzt werden können, angibt, wie sich beispielsweise [...] mit folgenden Ausdrücken erfolgen kann: *bei den Hausaufgaben, bei der Übersetzung, beim Studium von Fachtexten, [...], bei der Vorbereitung der automatischen Extraktion von lexikographischen Daten für eine lexikalische Datenbank [...]*. Soziale Situationen, welche mit Ausdrücken wie den gerade aufgezählten benannt werden können, heißen *Benutzungsgelegenheiten*. Für manche Zwecke ist die Angabe von Benutzungsgelegenheiten durchaus ausreichend [...].Für andere Zwecke der Benutzungsforschung – insbesondere in hypothesen-überprüfenden Untersuchungen – ist dagegen die Angabe von Benutzungsgelegenheiten, die ja z.T. sogar offen läßt, ob die Wörterbuchbenutzung bei der Textlektüre, bei der Textproduktion oder bei der Aneignung von Fachwissen erfolgte, zu wenig spezifisch." (Wiegand 1998: 523) – ['Usage acts [...] are related to other communicative acts and cognitive events. A general and therefore imprecise indication of this relationship is given when merely the types of social situation in which dictionaries can be used are named, as can arise for example [...] with the following expressions: when doing homework, when translating, when studying specialist texts, [...], when preparing the automatic extraction of lexicographical data for a lexical database [...]. Social situations which can be labelled using expressions such as those listed above are called usage opportunities. For some aims, it is perfectly sufficient to name usage opportunities [...]. For other aims of usage research, on the other hand – especially in studies in which a hypothesis is being verified – naming usage opportunities, which sometimes does not even specify whether the use of a dictionary arose as the result of text reception, text production or the acquisition of specialist knowledge, is not specific enough.']

this questionnaire, this would have been too unspecific and too time-consuming to answer.

We did not expect to gain large amounts of data from our open-ended question, although in web surveys the chance of obtaining more detailed and better responses to open-ended questions is higher than in paper surveys, especially when the response field is large:

> "In general, larger response fields evoke more information from the respondents" (Fuchs 2009: 214)

> "Early research has shown that open-ended questions in web surveys can produce comparable and sometimes even higher quality responses than paper surveys; people are more likely to provide a response and provide longer, more thoughtful answers when responding by web or e-mail than by paper" (Holland/Christian 2009: 198, cf. also Reja et al. 2003: 162)

This also applied to our participants: many of the nearly 700 participants gave very detailed information. However, as usual, some participants dropped out of the questionnaire at the open-ended question (drop-out rate: 67 of 906, 7.4%).

> "Nonresponse remains a significant problem for open-ended questions; we found high item nonresponse rates for the initial question." (Holland/Christian 2009: 196)

On average, the participants wrote 37 words (SD = 35.99). The minimum is unsurprisingly 0 words, the maximum 448 words. 50% of the participants wrote 15 to 47 words. To illustrate the range of length and level of detail of these answers, a few examples of 'typical' short and long answers are given in the following (the numbers at the end correspond to the participant's number).[7] Some examples of short answers:

- Looking up etymology. [ID: 267]
- For reading articles online, for writing and translating online, for doublechecking dubious Scrabble offerings played on a gameboard in another room, etc. [ID: 270]
- Consultation for work/pleasure (e.g. crossword)/to answer specific query [ID: 396]
- When I am interested in the etymology of a word or the meaning of a word for school or personal use in the library or in my room. [ID: 480]
- When I don't know the definition of a word. [ID: 524]
- Mainly when working on papers for my courses (undergraduate) [ID: 530]

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7 For those with a further interest in this, it is also possible to find the corresponding records in the raw data which are accessible through our website www.using-dictionaries.info. However, for privacy reasons, it was necessary to cut short some of the responses to the open-ended question on the website. For the responses of German-speaking participants, English translations have been added. Spelling mistakes in the responses have not been corrected.

Two examples of long, detailed answers:
– When I want to know the spelling of a word that is difficult or has potential alternative spellings, for example either while I am writing a personal or school-related email or essay When I want to know how to pronounce something – audio pronounciation is offered by the Merriam-Webster online dictionary, especially when I want to say the word in public or in a class presentation when it is important to show that I can speak clearly and have command over the language I use When I am interested in learning some fact from history that is fairly basic that I know will be in the dictionary – for example, if I wanted to know if Abraham Lincoln was the sixteenth President of the United States - this would verge on an encyclopedic use of the dictionary. This would probably be based on just personal interest in clarifying facts. If I want to know exactly what a word means so that I can be assured that I am using it correctly in the context of speech or writing (an email, essay, other school-related assignment etc), and if I want to know how a word is used in a sentence When I want to find a synonym for a word, since sometimes they are included in the dictionary, as per when I am writing an essay or assignment out For scrabble When I am bored and me and my friend have a spelling bee [ID: 256]
– To translate a word into another language. To check the meaning of a word, either in my own or in a foreign language. To find out the difference in the meanings of words in the same language, especially a foreign language I do not know very well. To find out the correct context, or the correct adpositions or cases to use with the word (for example, is it better to say "corresponds to" or "corresponds with" etc). To find out the correct spelling of a wordform - that includes finding out what that word would be in a specific case, e.g. a past form of a French verb. To find out the ethymology of a word or different words. The above cases generally occur when writing a document or a letter, both for private and work purposes, be it on computer, on paper or drafting it in my mind. Usually I would use the most accessible dictionary, be it on the internet (when I am working on a computer), a paper dictionary or a portable electronic one. If no dictionary is readily available, I might write the words down and check them in a dictionary later, sometimes much later. Another time to use a dictionary is when I am reading a text I do not fully understand or am trying to find a relevant part of the text – for example when looking for information on a Japanese web page or reading a book or article. In that case I would have a dictionary at hand, if I knew it to be a difficult text. A third case would be when I have a difference in agreement with somebody about the meaning or usage of a word or simple curiosity – for example when looking up the ethymology of words to see if they have historically related meanings. Then I would use a dictionary to look it up myself or to show the entry to the other person. [ID: 546]

It is obvious that those participants who wrote a lot have a keen interest in the subject of the research, a fact that must be borne in mind when analyzing the results.

> "[...] respondents who are more interested in the topic of an open-ended question are more likely to answer than those who are not interested. [...] Therefore, frequency counts may over-represent the interested or disgruntled and leave a proportion of the sample with different impressions of reality underrepresented in the results." (Jackson/Trochim 2002: 311)

3.1 Contexts of dictionary use relating to text production, text reception and translation

3.1.1 Data analysis

In the context of usage opportunities, the concrete extra-lexicographic situations which lead for example to dictionary use in a text production situation are of particular interest, as pointed out in Section 2. The aim is therefore to find out more than: Do you consult a dictionary, when you are a) writing a text, b) reading a text or c) translating a text? The goal is to ascertain, for example, (a) the group 'xy' of users who consult a dictionary in particular when they are listening privately to foreign-language music or watching foreign-language films, or (b) users of the group 'yz' who consult dictionaries in particular when they are writing foreign language texts in the context of a specific subject area at work. Such insights could then lead to a more accurate picture about the situations (private/professional; written texts/spoken language; music/film, etc.) in which dictionary use is embedded.

Therefore, the first stage in the analysis was to assign the responses or parts of them to contexts that relate to text production, translation or text reception. Parts of responses which were not classifiable in this way were assigned to an 'other' category. The idea behind this procedure was to structure the data first in order to then conduct a detailed analysis of the subsets, e.g., of what is said about the contexts in which text production takes place.

Methodologically, in the data analysis I have concentrated on one of the central techniques for analyzing data gained from open-ended questions, namely the method of structuring (cf., Diekmann 2010: 608-613, Mayring 2011; for more general literature concerning the analysis of open-ended questions cf. e. g., Crabtree/Miller 2004, Hopf/Weingarten 1993, Jackson/Trochim 2002). Structuring is typically conducted using the following steps: first, a (possibly temporary) category system is formulated; second, anchor examples are defined; and third, coding rules are established. Anchor examples are data which serve as examples for the subsequent coding process and therefore as a basis for illustrating the encoding rules. Coding rules

are the rules by which – based on the example of this paper – a part of a response, for example, is assigned to the category of text production, while another is assigned to the category of text reception.

Structuring is therefore a code-based approach, in contrast to a word-based approach (cf. Jackson/Trochim 2002: 309-311), which typically employs only computer-assisted coding, e.g. counting the co-occurrence of word units to identify clusters of concepts. Here, the code-based approach of structuring is in some cases combined with a word-based approach, e.g. analyzing the most frequent words in the extracts that relate to text production.

Here, the basic categories I assume are text production, text reception, translation and 'other'. In the context of function theory, these are all communicative situations (cf. Tarp 2008: 47-50, Tono 2010: 5). Typical vocabulary which leads to an assignment to text production are words such as "write", "typing", "spell", "correct"; for text reception, words such as "read", "hear", "listen to", "watching"; and for translation, all forms of "translate" (and the corresponding German words for each, because the questionnaire was distributed in English and German, cf. Müller-Spitzer/Koplenig: First two studies, this volume). Parts of responses were assigned to the 'other' category either if they were too general or if they contained aspects of dictionary use other than the three basic categories. Examples are phrases such as: "When I am researching contrastive linguistics", "solving linguistic puzzles for myself" or "during the process of designing software tools". Therefore, the coding rules for dividing responses into the basic categories are to analyze the words used in the responses and to assign them (manually) to the four categories text production, text reception, translation and 'other'.

In the data analyses, the corresponding parts of texts which relate to e.g. text production are stored as extracts in a separate field. This procedure allows all parts of texts relating to text production to be analyzed separately from those which relate to translation or text reception. Typical anchor examples are presented in Table 1. Here it is possible to see how one response may contain parts which relate to text production, parts focusing on text reception and another which is not assignable to any of the three categories, and how these parts are divided into several extracts.

Response
- When I am reading news or technical documents (primarily online) or novels (primarily on paper) and I come across a word I don't know
- When I am writing and I want to check the spelling or precise usage of a word
- When I want to find out the etymology of a word – often When discussing words with adults
- When I want a precise or clear definition to explain a word's usage to a child
- to adjudicate challenges When playing Scrabble. [ID: 277]

Text Production [extract]	Translation [extract]	Text Reception [extract]	Other [extract]
When I am writing and I want to check the spelling or precise usage of a word [...] When I want a precise or clear definition to explain a word's usage to a child [...] to adjudicate challenges When playing Scrabble		When I am reading news or technical documents (primarily online) or novels (primarily on paper) and I come across a word I don't know	When I want to find out the etymology of a word [...] often When discussing words with adults

Response

(1) I use English-language dictionaries in the preparation of technical documents to confirm spelling and grammar issues. (2) I use German, Swedish, Old English, and Old Icelandic dictionaries in historical research. I use the Cleasby-Vigfusson and Zoega Old Icelandic dictionaries the most in this connection, with the frequency of use determined by the needs of the current project. (3) I use the Online Etymology Dictionary to satisfy personal curiosity about word origins and, on occasion, to help me pin down nuance when writing for work or scholastic research. (4) I use the Urban Dictionary to investigate odd turns of phrase in current slang and internet usage. This is usually in aid of deciphering social media posts by my teenaged nieces. [ID: 499]

Text Production [extract]	Translation [extract]	Text Reception [extract]	Other [extract]
1) I use English-language dictionaries in the preparation of technical documents to confirm spelling and grammar issues. [...] on occasion, to help me pin down nuance when writing for work or scholastic research.		(4) I use the Urban Dictionary to investigate odd turns of phrase in current slang and internet usage. This is usually in aid of deciphering social media posts by my teenaged nieces.	(2) I use German, Swedish, Old English, and Old Icelandic dictionaries in historical research. I use the Cleasby-Vigfusson and Zoega Old Icelandic dictionaries the most in this connection, with the frequency of use determined by the needs of the current project. (3) I use the Online Etymology Dictionary to satisfy personal curiosity about word origins [...]

Tab. 1: Anchor examples of encoded responses relating to text production, text reception, translation and 'other'.

3.1.2 Results of the analyses

3.1.2.1 Division into basic categories

Generally, a large number of descriptions of contexts of dictionary use can be found in the responses, which confirms what would be expected. Many participants write that they consult dictionaries constantly during their work to close lexical gaps, to ensure that they have chosen the right translation, to check the right spelling etc. In most cases, allocating the parts of the responses to the four categories was straightforward, i.e. the extracts could be distinguished from one other relatively easily. To demonstrate this, the most frequent words in these extracts are illustrated using tag clouds, because this "format is useful for quickly perceiving the most prominent terms" (Bowker 2012: 385). No further analyses are performed on these tag clouds; their only purpose is to show that key words such as "write" (or the German equivalent "schreiben") in the extracts relating to text production, "read" (German "lesen") in those relating to text reception or "translate" (German "übersetzen") in the extracts relating to translation show up very clearly as the most frequent words. This may seem to be a trivial result, but it can by no means be taken as read, when one considers how interconnected and interrelated many of the descriptions of the participants are.

In order to visualize the most frequent words based on tag clouds, the relevant extracts were analyzed using the open-source web application TagCrowd[8]. The English and the German extracts were analyzed together, so that the word cloud is bilingual. The striking differences between the tag clouds of text production, text reception or translation situations in the extracts are immediately clear (cf. Figure 2-4).

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8 www.tagcrowd.com. The chosen options are language=English (which is why the lemmatization is missing for German), maximum number of words to show=50, minimum frequency=1, Show frequencies=yes, Group similar words=no, exclude unwanted words: "als and anderen auch auf bei beim bezuglich bin bzw das dem den der des die ein einem einen einer eines er es fur i ich im in ist me meine meiner meines mir nach nicht oder of or sie um und vom von we wenn zu zum zur".
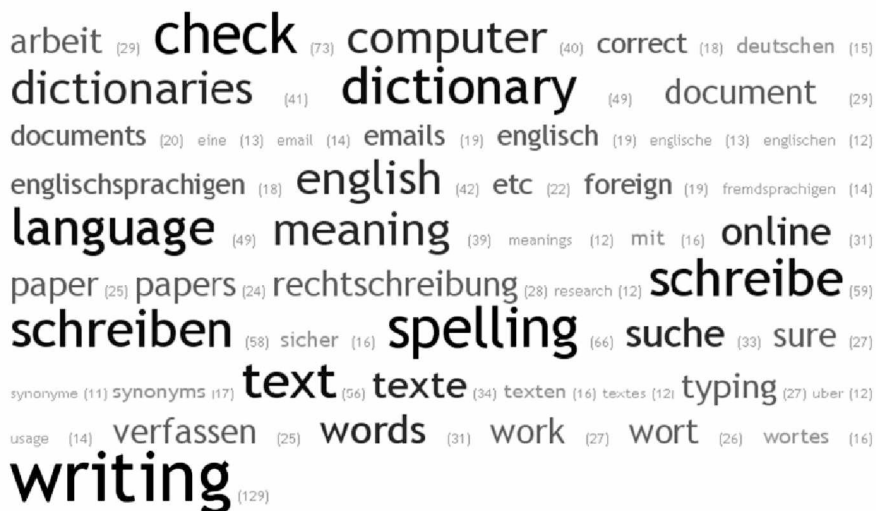
arbeit (29) **check** (73) computer (40) correct (18) deutschen (15) dictionaries (41) **dictionary** (49) document (29) documents (20) eine (13) email (14) emails (19) englisch (19) englische (13) englischen (12) englischsprachigen (18) **english** (42) etc (22) foreign (19) fremdsprachigen (14) **language** (49) meaning (39) meanings (12) mit (16) online (31) paper (25) papers (24) rechtschreibung (28) research (12) **schreibe** (59) schreiben (58) sicher (16) **spelling** (66) suche (33) sure (27) synonyme (11) synonyms (17) **text** (56) texte (34) texten (16) textes (12) typing (27) uber (12) usage (14) verfassen (25) **words** (31) work (27) wort (26) wortes (16) **writing** (129)

Fig. 2: Most frequent words in the extracts relating to text production.

arbeit (12) aus (11) benutze (9) check (11) deutsch (10) deutsche (9) deutschen (9) **dictionaries** (30) dictionary (13) document (7) documents (7) eine (13) englisch (10) englische (8) englischen (10) **english** (22) finden (12) french (9) habe (9) ins (13) **language** (24) meaning (9) muss (10) nachschlagen (13) online (17) sicher (7) spanish (7) **suche** (25) synonyme (8) text (16) texte (15) texten (12) translate (20) **translating** (44) **translation** (39) translations (14) translator (17) uberprufen (7) ubersetze (21) **ubersetzen** (35) ubersetzerin (17) **ubersetzung** (33) **ubersetzungen** (38) words (11) work (20) working (8) wort (18) worter (11) **worterbucher** (15) wortes (9)

Fig. 3: Most frequent words in the extracts relating to translation.

article (13) articles (7) bedeutung (16) book (13) computer (9) definition (8) dictionaries (21) dictionary (32) document (11) documents (11) don (30) eine (10) encounter (8) englisch (8) englischen (7) english (17) foreign (20) fremdsprachige (6) fremdsprachigen (7) fremdsprachlicher (7) internet (9) kenne (15) language (29) languages (10) lese (40) lesen (55) meaning (34) mochte (7) nachschlagen (15) newspaper (6) online (22) phrase (8) read (13) reading (113) something (11) sometimes (10) text (36) texte (27) texten (14) texts (11) understand (19) unknown (7) usually (7) verstehe (25) verstehen (12) words (23) work (9) wort (31) worter (15) wcrterbuch (7)

Fig. 4: Most frequent words in the extracts relating to text reception.

This illustrates that the separation of the extracts according to the basic categories has apparently worked well. The next step is to gain an overview of the distribution of the different types of situation: more than half of the descriptions are related to text production situations (N = 381, 56%), followed by text reception (N = 265, 39%) and, with a very similar proportion, translation (N = 253, 38%). 41% of the responses (N = 280) are also or only assigned to the 'other' category. The four categories therefore overlap, because one response may contain descriptions about text production situations and translation situations, as well as some parts which are not attributable to any of the three categories. Figure 5 shows the distribution of text production, translation and text reception in the form of a Venn diagram illustrating the relationship between different types of situation. In Figure 6, the diagram is extended by the 'other' category. Figure 5 is therefore a clearer view, while Figure 6 shows the overall distribution in more detail.

The diagrams show that – as already noted – dictionary consultations of situations relating to text production are described most often, followed by text reception and translation. However, 41% of the responses contain descriptions of situations which could not be assigned to any of the three categories. The level of overlap is high, i. e. many extracts are descriptions that have been assigned to more than one category. This is undoubtedly connected to the fact that some participants wrote in great detail.

Fig. 5: Venn diagram (N=684) showing the distribution of text production, translation and text reception.
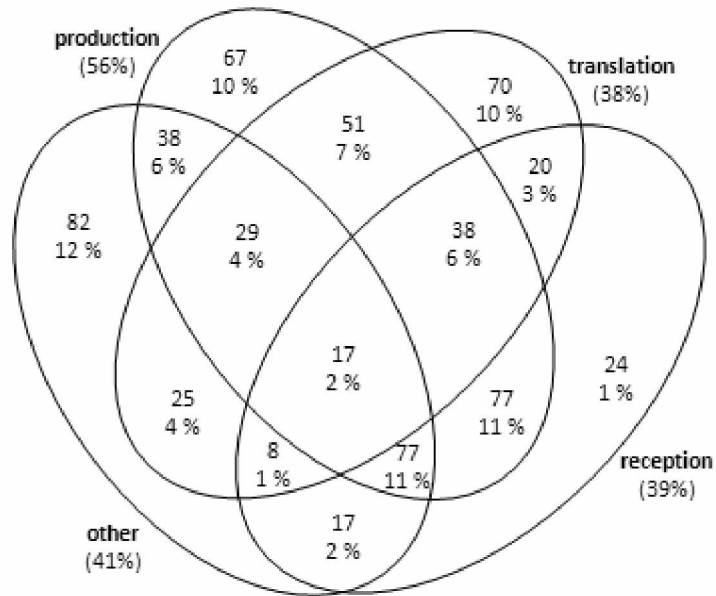

Fig. 6: Venn diagram showing the distribution of text production, translation, text reception and 'other'.

Further analyses were carried out to determine whether these distributions reveal any differences between the groups, for example, that recreational users (i. e. users who use dictionaries mainly in their leisure time and mainly for browsing) describe situations referring to text reception more frequently than experts who use dictionaries mainly for professional reasons. However, group-specific analyses revealed marginal effects in terms of the distribution of the named usage situations. It can only be stated that experts have a significantly higher value in translation ($\chi^2(7)$ = 61.46, p < .00, cf. Table 2); this, however, is due to the fact that translators are part of the expert group. Therefore, this result is simply a confirmation of known facts.

The 41% of the extracts which were assigned to the 'other' category were sometimes too general to enable a decision to be made as to whether they related to one of the three basic categories, and sometimes they really included other categories not covered by these three main terms. To gain an insight into how many of these cases included other categories, i. e. to gain relative frequency values, a more detailed analysis was done in a second step (the first step was the distribution into the four basic categories). Firstly, those extracts were selected that not only were too general to assign to the basic categories, but also contained descriptions that were attributable to other, new categories.

extracts assigned to:	non-experts	experts	Total
text reception & text pro-	7	48	55
duction& translation	4.73	8.96	8.04
text production &	8	72	80
translation	5.41	13.43	11.70
text reception &	3	25	28
translation	2.03	4.66	4.09
translation	2	93	95
	1.35	17.35	13.89
text reception &	37	104	141
text production	25.00	19.40	20.61
text production	27	78	105
	18.24	14.55	15.35
text reception	9	32	41
	6.08	5.97	5.99
none	55	84	139
	37.16	15.67	20.32
	148	536	684
Total	100.00	100.00	100.00

Tab. 2: Distribution of text production, translation and text reception according to experts vs. non-experts.

The result is that 39% (N = 110) of the 280 extracts include descriptions of potential contexts of dictionary use which are not covered by the basic categories. Thereby,

during the analysis, two categories emerged, which were often mentioned and which were then coded accordingly. These categories were: to resolve questions relating to teaching/for educational purposes, and to satisfy an interest in etymology. The percentages of responses that included other categories (N = 110) were 24% (N = 26) related to teaching, lesson planning etc., and 41% (N = 45) related to questions of the history of a word, etymology or similar. The following extracts illustrate the range of responses which are assigned to the 'other' category.

Responses which deal with questions of teaching:

– When teaching students at my University [ID:428]
– Wenn ich Studenten erkläre, wie sie nachschlagen können. [ID:1129] [When explaining to students how they can look things up.]
– Wenn ich privat für meine Kinder nach Informationen für deren Deutsch- oder Fremdsprachenunterricht suche. [ID:307] [When looking for information in a private capacity for my children for their German or foreign language lessons.]
– Showing occasional students [I am a retired foreign-language teacher] the various types of information they can find in various dictionaries, how to choose the relevant type (explaining, translating, learner's, specialist dictionary), and how to identify, understand and apply correctly the information required. [ID: 628]

Responses which deal with questions of etymology, word history:

– Wenn mich die Herkunft eines Wortes interessiert und um Kognate in anderen Sprachen zu finden. Einfach so, wenn mich interessiert, was ein Wort in einer anderen Sprache bedeutet. [ID: 935] [When I am interested in the origin of a word and to find cognates in other languages. Just when I'm interested in what a word in another language means.]
– Wenn ich etwas über die Entwicklung eines Begriffs im diachronen Verlauf erfahren möchte [ID: 1005] [When I want to find out about the diachronic development of a term.]
– I use wordnik.com to enter new word meanings and quotations. I use the OED online to research historical origins of words, find words from a given origin or time of origin. I use various online dictionaries to look up the meaning of words I do not know. [ID: 668]

Responses in the 'other' category which deal neither with teaching nor with etymology:

– I may be an unusual user because I am doing sociological research about dictionaries, especially online ones [ID: 900]
– I have also downloaded several online dictionaries, when that has been possible, for use in work in computational linguistics. [ID: 820]
– I also use sites like 'wordofthefuckingday.com' simply to increase my vocabulary. [ID: 274]

– I have to say that I love dictionaries, then sometimes I search a word and then I spend some time playing with It, checking words, meanings, even When I am not working [ID: 685]

Many of the potential usage opportunities which are assigned to the 'other' category are not new or were not unknown before, cf. for example Tarp's contributions to the different cognitive and communicative situations (Tarp 2009: 44-80) in which many of these cases are covered. It is more an empirical foundation that many actual usage situations are not covered by the usual standard questions about usage situations.

The high number of those who are interested in etymology and questions about teaching shows that we have a large number of participants who have a (more or less) professional access to dictionaries. Surely the result would look very different if we had a high number of participants who had little contact to dictionaries in their daily life.

Using the analyses presented above, it was possible to obtain an overview about how the participants' responses are distributed into the basic categories. Here, group-specific effects are barely in evidence. However, it became clear that many of the explications in the responses go beyond the basic categories of text production, text reception and translation.

3.1.2.2 Description of contexts of dictionary use

The real aim of this study, however, as outlined in the introduction, is to learn more about the closer contexts of dictionary use, for example, as a result of which context texts are written and hence in which context the user need originates. The responses contain information about this question. This will be illustrated with reference to the extracts that were assigned to text production.

For example, in many responses, indicators and clear explications are found about whether dictionary use is embedded in a personal or professional context:

– When I am writing lectures/tutorial materials at work and interested in the origin or etymology of words. [ID: 505]
– When I am typing documents at work or sending emails internally or externally and want to check on my spelling, grammar, expression, etc. [ID: 1107]
– When I am speaking with friends online – over Facebook chat, or another messaging device – if one of my friends uses a term I am unfamiliar with, I will often "Google" it, or look it up on ubrandictionary.com. [ID: 254]

In some answers, this is also specified in more detail, i.e. some participants specifically write, e.g. "When writing Facebook entries", "writing poetry":

– Glueckwuensche zum Geburtstag in der jeweiligen Sprachen schreiben wollen umd damit dem jenigen eine Freude zu machen [ID: 123] [Wanting to write

birthday greetings in the relevant language in order to bring pleasure to somebody.]
– Whenever I need to look up a word, whether [...] writing a professional document, a tweet, a Facebook message, or an email. [ID: 273]
– Um wichtige Informationen fuer meine auslaendischen Mitbewohner zu notieren [ID: 69] [In order to note important information for my foreign housemates.]
– I write poetry as a hobby, especially sonnets, I frequently (more than once per week) use a rhyming dictionary or thesaurus from several sites. [ID: 521]
– If I am writing a paper on a piece of literature that is quite old, I will look up words from that literature to make sure that my understanding of the word is the same as how the word was used at the time the literature was written. [ID: 254]

These answers contain interesting information about the contexts of dictionary use. Users' aims are also made explicit, for example that dictionaries are used to act as someone with a high level of language skills:
– When I want to know how to pronounce something – audio pronounciation is offered by the Merriam-Webster online dictionary, especially when I want to say the word in public or in a class presentation when it is important to show that I can speak clearly and have command over the language I use [ID: 256]

However, a clear distinction e.g. between private and professional activities is difficult because these are also often conflated in the responses. For example, one participant writes after the description of different usage scenarios:
– The above cases generally occur when writing a document or a letter, both for private and work purposes, be it on computer, on paper or drafting it in my mind. [ID: 546]

In addition, there are descriptions of whether the work is already taking place on the computer or in another context, with the word being looked up in the online dictionary later:
– When I'm writing a paper or story, generally on my computer, and I want to check the denotation of a word that doesn't quite seem right [ID: 1135]
– If no dictionary is readily available, I might write the words down and check them in a dictionary later, sometimes much later. [ID: 546]

However, sometimes important information is missing. See for example the following response:
– And if I'm talking with someone and i can't remember the right word. [ID: 848]

Here one might wonder: When and on what sort of device does the dictionary consultation take place? Straight away on a smartphone? Similarly:

– When I want a precise or clear definition to explain a word's usage to a child [ID: 277]

What is then looked up exactly? On what sort of device? Therefore, many questions remain unanswered. Beyond that, the descriptions cannot really be classified into broad categories, i. e. a clearly structured summary is not achievable. Therefore, what is difficult to evaluate from the data are the particular circumstances of contexts which lead to, e. g., a user need for text production and therefore to a dictionary consultation. On the one hand, the question was very general, so that the responses are sometimes very general, too. On the other hand, some responses contain interesting information on the context of dictionary use, but this information cannot easily be placed in an overview beyond the basic level of text production/reception etc. In consequence, I gained no frequency counts or a structured picture on a more detailed level. In this respect, the data, as was pointed out at the beginning, represent a starting point for further study in this field. To achieve the goal of gaining some degree of quantitatively analyzable information about contexts of dictionary use, it would therefore be advisable to use a combination of standardized and open-ended questions. Hopefully, the results of this analysis will help this eventual aim to be successfully achieved.

3.1.2.3 Description of patterns in dictionary use
The initial aim to learn more about the exact contexts of dictionary use could therefore be only partially achieved. Nevertheless, this is not the end of the analysis of the available data. Rather, other aspects of the question of contexts of dictionary use have emerged which may be of interest for many in the field of lexicography. For example, a question asked at the beginning was whether certain patterns of dictionary use, i. e. action routines relating to how dictionaries are typically used, are reflected in the responses. This is the case, as some participants gave relatively detailed descriptions of their typical usage patterns based on their usage experience. This data will be shown here as it offers useful insights into how users self-reflect on their typical use of dictionaries. However, there will be no further analysis of this particular aspect of the study. First, an example of a very detailed description:
– I am employed as a cataloguer and editor by Tobar an Dualchais, which is digitising the sound archives of the School of Scottish Studies. For summaries that I write or edit, I often use the Scottish National Dictionary in its online form at the Dictionary of the Scots Language http://www.dsl.ac.uk/dsl/ to check spellings and sometimes meanings. Occasionally I search the definitions in order to pin down a word not clearly heard. Sometimes words and phrases in Gaelic come up (there are Gaelic cataloguers dealing with material that is entirely in Gaelic). I sometimes use online Gaelic dictionaries, but more often a desk dictionary (MacLennan - the vocabulary that comes up can be quite archaic). Often I then

consult a Gaelic colleague, but the dictionary can help me to refine my question. Travellers' cant quite often comes up. For this I consult various sources including a digital version of George Borrow's standard work on Romany, downloaded from Project Gutenberg. There is quite a lot of cant in SND. I've found it useful to get a complete list by searching the etymology field. I am helping a colleague to produce a modernised reading text of Gavin Douglas's 15th c translation of Virgil's AEneid. For this I frequently consult A Dictionary of the Older Scottish Tongue, again at the Dictionary of the Scots Language http://www.dsl.ac.uk/ dsl/. I might search headword forms, then if unsuccessful, full text. Since Douglas is extensively quoted in DOST I can sometimes confirm a difficult reading of a line by searching the quotations. Occasionally I resort to guessing a meaning from the context and searching the senses. For difficult readings, I also check the Latin text at http://www.perseus.tufts.edu, which is hyperlinked to a lexicon (with statistical probabilities) and a dictionary. I sometimes write in Scots for Lallans magazine, and have also completed a novel in Scots (unpublished as yet – fingers crossed). I quite often use sense searches in SND to suggest vocabulary (in the fashion of a thesaurus). For my novel, I have also used online dictionaries of Chinese, Hindi and Uighur to provide occasional words that I wanted to quote or use as the basis of fictitious names. Also online lexicons of personal names in Chinese, Uighur and Tibetan. I found these resources through Google, but couldn't identify them again. I act as a consultant on Older Scots pronunciation for the Oxford English Dictionary. For this I have digital access to the third edition. I also refer to DOST and, less often, SND, to answer their queries. From time to time I give lectures on the Scots language. For my next one I have used screenshots from DOST and from the Historical Thesaurus of English http://libra.englang.arts.gla.ac.uk/historicalthesaurus/aboutpro-ject.html. [ID: 226]

A typical approach which was evident in several responses is that firstly a bilingual dictionary is consulted, then a monolingual one and, as a final check, a search using a search engine is carried out.

– Beim Schreiben von englischsprachigen Texten überprüfe ich anhand eines Wörterbuchs, ob meine Wortverbindungen im Englischen gängig sind. Dazu verwende ich erstmal ein zweisprachiges, dann ein einsprachiges Wörterbuch. Manchmal sichere ich das auch noch durch eine google-Recherche ab, um sicherzustellen, dass die Wendung auch in der Domäne gängig ist. [ID: 890] [When writing texts in English, I use a dictionary to check whether my word combinations are usual in English. For that, I first of all use a bilingual dictionary and then a monolingual one. Sometimes I also check using a Google search in order to be sure that the expression is also current in that field.]

– Ich arbeite als Übersetzerin und Korrektorin. Beim Übersetzen schlage ich unbekannte Wörter oft zuerst in einem mehrsprachigen Wörterbuch wie LEO nach, bei Fachwörtern auch in Fachwörterbüchern oder Glossaren, von denen ich ei-

ne ganze Menge (geschätzt ca. 50) thematisch geordnet als Favoriten gespeichert habe. Grammatik- und Rechtschreib-Informationen suche ich meist in einsprachigen Wörterbüchern (z. B. Cambridge oder Oxford Online-WB). Auch den Thesaurus benutze ich beim Übersetzen oft (sowohl im Deutschen als auch im Englischen). [ID: 486] [I work as a translator and proofreader. When translating, I often look up unknown words first of all in a multilingual dictionary such as the LEO; for specialist terms, I also use specialist dictionaries or glossaries – I have saved a whole load of these as Favourites (I estimate approx. 50) categorized by topic. I mostly look for information on grammar and spelling in monolingual dictionaries (e.g. Cambridge or Oxford online dictionaries). I also often use a thesaurus when translating (both in German and in English).]

Many participants seem to always have a number of reference books open in the browser while they are working, including specialized dictionaries.

–   Ich arbeite als Fachübersetzer (95% De>En) und benutze - Fachwörterbücher in Buchform – Oxford English Dictionary (auf Computer installiert) – Personal Translator (auf Computer installiert, von mir durch eigene Einträge und Satzarchiv erweitert, also quasi als TM genutzt) – Duden Korrektur Plus (auf Computer installiert) – PC Biobliothek Biologie (auf Computer installiert) Ausserdem greife ich oft (mit entsprechender Vorsicht) auf Glossare und Fachwörterbücher online zurück, die von Behörden, Unis, Forschungsinstituten etc. eingestellt werden, sowie auch auf Wikipedia. Dabei kann das Nachschlagen dazu dienen, – eine Definition eines mir nicht bekannten Wortes zu finden – eine Übersetzung zu finden – eine Definition oder Übersetzung, die ich im Kopf habe, zu bestätigen – einen alternativen Begriff zu finden (Thesaurus) [ID: 354] [I work as a technical translator (95% De>En) and use: specialist dictionaries in book form; the Oxford English Dictionary (installed on the computer); Personal Translator (installed on the computer, expanded by me through my own entries and sentence archive, i.e. used as a quasi TM); Duden Korrektur Plus (installed on the computer); PC Biobliothek Biologie (installed on the computer). As well as that, I often (with appropriate caution) fall back on online glossaries and specialist dictionaries which are put online by authorities, universities, research institutes, etc., and also Wikipedia. By looking up words, I can: find the definition of a word I don't know; find a translation; confirm a definition or translation I have in my head; find an alternative term (Thesaurus).]

–   [...] Eigentlich habe ich mir angewöhnt immer dict.leo.org und pons.de und dict.cc und oft noch das einsprachige meriam-webster.com in Tabs zu öffnen, sobald ich im Internet viel auf fremdsprachigen Seiten bin. Zum Übersetzen: da allerding nur die allgemeinsprachlichen Wörter. Bei Fachwörtern sollte man lieber gute Fachwörterbücher konsultieren. [...] zum Überprüfen der Online-Wörterbucher-Ergebnisse: bei leo oder pons gefundene Vokabeln in Anführungszeichen setzen und mit der erweiterten Google-Suche schauen, in wel-

chem Kontext diese Worte von Muttersprachlern verwendet werden, und - im Falle von mehreren Möglichkeiten - schauen, welche mehr und dem Sinn nach passendere Treffer hat.... [ID: 1077] [I have got into the habit of always opening dict.leo.org, pons.de, dict.cc and often also the monolingual meriam-webster. com in tabs, as soon as I am on a lot of foreign-language websites on the internet. For translation, though only everyday words. For technical vocabulary, it is better to consult good specialist dictionaries. [...] To check the results in the online dictionaries: put vocabulary found in leo or pons in inverted commas and do an advanced Google search to see in what context these words are used by native speakers, and – where there are several possibilities – see which has the most hits with that meaning.]

In addition to the setting of bookmarks, search engines are used to search for suitable reference books.

– Wenn ich die französische Übersetzung eines deutschen oder englischen Wortes suche, wenn ich einen deutschen Text beruflich ins Französische übersetze. Manchmal öffne ich zunächst das (online) Wörterbuch und suche darin das Wort (das häufig darin nicht steht, da das Wort zu spezialisiert ist oder nur eine gelegentliche Zusammensetzung ist), aber häufiger google ich das gesuchte Wort und das Wort „français", und so gelange ich häufig auf Glossare oder Lexika die das Wort enthalten – wobei jedoch die kostenlose Lexika, die auf den Google Results ercheinen, das Wort häufig nicht haben! [ID: 826] [When I am looking for the French translation of a German or English word, if I am translating a German text into French for professional reasons. Sometimes I open the (online) dictionary first and look for the word there (although it is often not in there, as it is too specialized or is only an occasional compound), but more often I Google the word I am looking for and the word "français", and that way, I come across glossaries or dictionaries, which contain the word – although the free dictionaries which appear in Google Results often do not have the word!]

All this comes as no surprise, but it is empirical confirmation of previous assumptions. However, it is interesting how precisely these patterns are explained as a response to such a general question, as it was asked in the questionnaire. This suggests that these are real action routines.

3.1.2.4 Differences between 'experts' and 'recreational users'

A general question was whether experts differ from more recreational users regarding their responses (and if so, how). These groups were formed in the following way: participants were classified as expert users if, when asked about their profession, they stated that they were a linguist, translator or teacher of DaF (Deutsch als Fremdsprache)/EFL (English as a foreign language), and answered that they used dic-

tionaries in a "mainly professional" or "professional only" capacity. A breakdown of these three groups, for example for translators and linguists, turned out to be of little use because there was too much overlap between the groups (when asked about professional activities, it was possible to answer several options with "yes"). Participants were classified as recreational users, if they used dictionaries for "mainly private" or "private only" purposes, and "often" "with no particular purpose/to browse".

In the following, 'typical' responses from the expert group are compared with those from the group of recreational users in order to show any differences. Firstly, responses from the expert group:

- finding the correct spelling for more obscure words or whether they have various accepted spellings [ID: 293]
- I work as a freelance translator and language reviser and I frequently use online dictionaries to check e.g. technical, economic or legal terms. When I cannot find a satisfactory translation between Swedish and English, I sometimes use a German-English online dictionary as an extra aid. [...] [ID: 302]
- In meiner Arbeit als Dolmetscherin und Übersetzerin: immer. Wenn ich einen Text übersetze. Wenn ich einen Dolmetscheinsatz vorbereite. Wenn ich mit einem Kunden telefoniere. (davor und auch während) Wenn ich für einen Kunden im Ausland anrufen muss. Wenn ich für einen Kunden eine e-mail schreiben muss an dessen ausländische Kunden. Wenn ich mit einem eigenen ausländischen Kunden korrespondiere. Wenn ich bei einem Kunden im Büro bin und wir gemeinsam Verhandlungen, Strategien, Anrufe, etc. im Ausland vorbereiten. [...] [ID: 341] [In my work as an interpreter and translator: always. When I am translating a text; when I am preparing an interpreting job; when I am phoning a client (both before and during the call); when I have to phone for a client abroad; when I have to write an email for a client to his/her foreign clients; when corresponding with one of my own foreign clients; when I am in a client's office and we are preparing negotiations, strategies, calls etc. abroad. [...]
- I generally rely on my own extensive vocabulary to choose a word, then use a dictionary to confirm that I have fully grasped all the nuances. [ID: 340]
- I'm a linguist and work as a consultant to several companies that develop text-to-speech products. I have to transcribe items (using phonetic symbols) of several languages using the phonological inventory of my native language. Thus, I have many questions about pronunciation of words and I use TheFreeDictionary very often to check them. This means I'm not very intersted in meaning, but in the phonetic transcription of the entries. Sometimes I check the pronunciation of entries in my own native language. [ID: 765]
- Besonders nützlich ist die Suche nach Wortfeldern/Synonymen auch, wenn sprachliche Stilmittel (z.B. Alliterationen) in die Zielsprache übertragen werden sollen - eine Art „computergestütztes Brainstorming". [ID: 1042] [The search for

semantic fields/synonyms is also particularly useful if linguistic stylistic devices (e.g. alliteration) are to be transferred to the target language – a sort of "computer-based brainstorming".]

The professional approach in the expert group is reflected in the terminology (10% of the responses contain linguistic terminology, N = 65, see Section 3.2). Vocabulary was only considered to be linguistic terminology, if it is not too common in everyday language (so not "word", for example). However, there are acts of use described by the expert group which can hardly be seen as typical, e.g. using a dictionary for fun, using a dictionary while developing a dictionary writing system, and so on. However, these non-typical activities are most likely a sign of specialization (cf. in contrast Wiegand 1998: 609).[9]

Secondly, in the group of recreational users, the contexts described relate more to activities associated with leisure, such as writing/reading facebook postings, listening to music, watching TV etc., as the following examples illustrate:

– [...] aus Spaß Beim Diskutieren, Wenn man gemeinsam überlegt, welche Bedeutung dieses oder jenes Wort hat [ID: 987] [...] for fun in discussions, when you are wondering together what this or that word means]
– [...] Wenn mir ein Wort auf der Zunge liegt [...]Eigentlich immer dann, Wenn einem mal die Worte fehlen [ID: 1117] [...] When there is a word on the tip of my tongue [...] Really whenever you can't think of a word]
– [...] Chatting to people in the internet [ID: 263]
– [...] I often use foreign-language dictionaries to find names for pets [ID: 421]
– [....] Wenn man sich einen Film doer eine Serie in der Originalfassung ansieht und etwas nicht verstanden hat - Wenn ich in einem Buch oder einer Zeitung ein Wort finde, dass ich noch nicht kenne [ID: 3] [When you are watching a film or series in the original and there's something you don't understand; whenever I find a word in a book or a newspaper that I don't know]
– [...] Wenn ich die genaue Bedeutung eines Fremdwortes suche, dass ich in einem Text lese, oder dass ich in Rahmen eines Gespräches gehört habe oder selber verwenden will in einem Text den ich schreibe. [ID: 38] [...] If I am looking

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9 A special feature is that translators apparently also use dictionaries during simultaneous interpreting, which demands firstly a remarkable memory performance on the part of the users and secondly a high speed performance on the part of the electronic dictionaries. "[...]Wenn ich Übersetzungen anfertige, und mir Bedeutungsalternativen in der ZIelsprache fehlen. Bei Übersetzungen die unterwegs angefertigt werden (Hotel, Bahn usw.) Bei Simultandolmetscheinsätzen aus der Kabine, um etwas schnell nachzuschlagen." [ID: 346] ["When I am doing translations, and I can't think of alternative meanings in the target language; for translations which I'm doing while I'm away (hotel, railway station, etc.); when doing simultaneous translation from a cubicle, to look something up quickly."]

for the exact meaning of a foreign word that I have read in a text or that I have heard during a conversation or want to use myself in a text I'm writing.]
- [...] das gilt auch fürs lesen fremdsprachlicher texte, wenn es ein wichtiges wort zu sein scheint, das ich noch nie vorher gehört habe [ID: 844] [...] that also goes for reading foreign-language texts, if there seems to be an important word that I have never heard before]
- In meiner Freizeit, wenn ich ein englisches oder spanisches Buch lese und eine Vokabel nicht weiß. Wenn ich einen engl/span Film gucke, und eine Vokabel nicht weiß. Wenn ich im Internet auf engl/span-sprachigen Seiten surfe. [...] [ID: 1077] [In my free time when I am reading an English or Spanish book and don't know a word. When I am watching an Eng/Sp film and don't know a word. When I am browsing the internet looking at Eng/Sp websites. [...]]
- I write poetry as a hobby, especially sonnets, I frequently (more than once per week) use a rhyming dictionary or thesaurus from several sites. [ID: 521]

Differences in responses between the experts and the recreational users are obvious. This is reflected in the terminology used, in the approach to dictionaries and so on. However, in both groups the overall impression is that the participants know for the most part very well exactly what dictionaries are and what they can be used for, a fact that cannot be taken for granted at a time when the development of lexicographic data is repeatedly questioned due to economic pressures.

As a preliminary summary, it is possible to say that with respect to the exact specification of contexts of dictionary use, no firm conclusions have been reached. While working on the data, however, other interesting aspects emerged which it was useful to analyze and which also give an interesting insight into what aspects of the use of dictionaries were emphasized by our participants in their responses. This concerns in particular user aims, which are presented in the following section.

3.2 User aims and further aspects of dictionary use

As well as the assignment of responses to different kinds of usage opportunities, some aspects of dictionary use were often repeated in the responses and thus emerged as a category in the analysis, particularly with regard to user aims. The user's aim means (within the meaning of Wiegand et al. 2010: 680) the action goal which enables the user to retrieve relevant lexicographic information based on appropriate lexicographic data. Many responses contain notes on that topic, for example: 'I use dictionaries for research' or 'to improve my vocabulary'. The analysis of these descriptions seemed to offer an interesting additional view on the data far from the basic categories of text production, text reception or translation. The emphasis is not, however, on the completeness of all named aspects, but more on the interesting and perhaps unusual categories that would not necessarily be expected.

3.2.1 Data analysis

The following categories were developed gradually during the first analysis regarding the distribution explained in 3.1. The nine categories which are relevant for this Section are listed in Table 3. The first five categories refer to specific user aims, the last four to further properties of responses. Once these categories were formed, the responses which are assigned to the appropriate category were marked. In the right-hand column of Table 3, the typical formulations in responses which lead to an assignment to the relevant category are presented. Examples of the encoded responses, i.e. the corresponding anchor examples, can be seen in Table 4.

Thus, Table 4 illustrates how individual responses were assigned to the different categories. In many responses, the relationship between printed and digital dictionaries and combining dictionaries with other resources, such as search engines, spell-checkers etc., is explicitly mentioned (categories 8 and 9). This is currently a much discussed topic in dictionary research, see e. g. the discussions on the Euralex-mailing list from November 5-12, 2012 that followed the announcement by Macmillan that it will cease production of printed dictionaries in the near future.[10] It is also generally observed that many usage opportunities that previously resulted in the use of a dictionary are being fulfilled more and more by a direct search in search engines or corpora, or at least in a roundabout way in combination with such resources. It was shown in the analysis of logfiles of online dictionaries that many users do not know that less factual information is usually included in a dictionary, i. e. they cannot distinguish between dictionaries and encyclopedias. I have therefore investigated whether the difference between dictionaries and encyclopedias or other related resources is addressed in the responses, or whether anything is said about using a combination of dictionaries and related resources.

The responses which were assigned to categories 8 and 9 (cf. Table 3) were therefore analyzed more closely. This detailed analysis means in this case that the relevant passages of the responses were extracted in order to be able to take a closer look at what our participants wrote about the use of printed vs. electronic dictionaries and about using additional resources such as search engines etc. Table 5 shows how, based on two anchor examples, extracts from responses are assigned to the two topics.

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10 See www.freelists.org/archive/euralex/11-2012 (last accessed 13 July 2013).

Cat. No.[11]	Category	Typical formulations in responses that resulted in a classification into the relevant category
	User aim	
2	Dictionaries used to improve vocabulary (generally, not referring to concrete text production or reception problems)	*improve vocabulary*
3	Dictionaries used as a starting point or resource for (further) research	*further research, look for statistical patterns, use the OED for historical research*
4	Dictionaries used as mediator medium	*settle questions or debates, dispute –turn to dictionary for an answer, resolve a debate, justify the use of a word, participations in discussions of word origins*
5	Dictionaries used as a resource for language games, linguistic treasure trove, for enjoyment, for personal interest etc.	*Scrabble, crossword, boggle, language games, find names for pets, entertainment, enjoyment, for private interest [also chosen if only "for enjoyment" is written]*
	Further properties	
6	Terminology in answers	*Linguistic terms (dominant stress pattern, phonetic transcription etc.), researching linguistics*
7	Wide range of dictionaries named, e.g. monolingual dictionaries and bilingual dictionaries or usage opportunities which refer to different types of dictionary	*Glossaries, bilingual or monolingual dictionaries, dictionaries for special purposes (such as medical dictionaries etc.)*
8	The relationship between printed and electronic dictionaries is mentioned	*printed, digital, electronic, paper dictionaries, e-dictionaries*
9	Combining dictionaries and other resources is mentioned	*Wikipedia, Google , search engine, encyclopedia, spell-check Microsoft Word*

Tab. 3: Coding scheme regarding user aims and further aspects of dictionary use.

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11 In an earlier version of the data analysis, there was another category (no. 1) for the user aim "dictionaries used to confirm or ensure already known information". However, a clear assignment of responses to this category proved to be too difficult, so this category was not included in the further analysis. Therefore, category 1 is missing here.

Responses	Allocated Categories
# to confirm the spelling of a word while writing a document # to confirm or discover the etymology of a word, for personal interest or to settle a discussion with colleagues # to determine the history of a word, usually either the first recorded usage or most common period of usage, as part of my historical recreation hobby # to see what the dictionary gives as the pronunciation of the word, for personal interest, to compare to my dialectal pronunciation or to settle a discussion with friends or colleagues [ID: 491]	3, 4, 5, 6
I am a writer and a historian. I use dictionaries constantly. For checking the spelling of an English word. For checking the meaning. For checking the history. For translating Greek, Turkish, Latin, Italian, French, German, or Spanish. I am also a professional editor and I frequently use a dictionary to check my work. I regularly get letters from my brother picking on the use of some word in a news story and I have to find evidence to justify the use of the word. And so on and so forth. I also find my American Heritage Dictionary useful for the history of a word, particularly for the Indo-European roots. [ID: 290]	3, 4, 6, 7
I use an online dictionary as part of my research as a linguist in private business to identify traditional attribution of parts of speech to different senses of the same word. I also use online dictionaries to look up unfamiliar words or verify "standard" pronunciation or meanings of familiar words. [ID: 871]	3, 6
For research purposes I use an online dictionary of Old Irish (www.dil.ie), both when working with early Irish texts (for translation purposes etc.) and when working on the language itself (including lexicography). I use online English dictionaries occasionally to check meanings/spellings (English is my native language). I use online Irish-language dictionaries to check meanings and spellings (www.focal.ie) I use other foreign language dictionaries in pursuit of my research work, particularly for German, French and Latin. [ID: 207]	3, 6, 7
When I am reading a text and find an unfamiliar word, especially if that word is archaic. If I am writing, and I want to confirm that I am using the word in the correct context. If I am researching and/or writing about a specific text, and I need to research the origins of a word and its meaning in a particular time period. [ID: 460]	3, 6

Tab. 4: Extract from the encoded responses regarding user aims and further aspects of dictionary use.

Response
when I want to find a translation from one language to another and I do not have a more convenient way of finding it (for example a book or handheld device might be easier at the time) I don't often look up words in my own language. If I do it would usually be a rare word or usage, and if I wasn't sure whether the word was likely to be in a dictionary or not, I might well google the word directly and work out what it meant (or click on one of the Google dictionary definition hits) [ID: 735]

Relationship printed - electronic dictionaries [extract]	Combination dictionaries - other resources [extract]
when I want to find a translation from one language to another and I do not have a more convenient way of finding it (for example a book or handheld device might be easier at the time) [...]	[...] if I wasn't sure whether the word was likely to be in a dictionary or not, I might well google the word directly and work out what it meant (or click on one of the Google dictionary definition hits)

Response
I am based in Thailand where I use English-only in my profession. My use of dictionaries (for Thai) are when I am looking to teach myself, at least once a week. I will use a online dictionary and a desktop application if I am online. When offline I use a printed dictionary. If I am looking for information as part of my work and there is none in English, I may try a Thai Google search unaided, with the use of an online dictionary for specific words. Generally, for long phrases I use my desktop dictionary application saving the online dictionaries for specific one word or phrase searches - because they are quick and easy to use, but not as thorough. [ID: 315]

Relationship printed - electronic dictionaries [extract]	Combination dictionaries - other resources [extract]
I will use a online dictionary and a desktop application if I am online. When offline I use a printed dictionary.	If I am looking for information as part of my work and there is none in English, I may try a Thai Google search unaided, with the use of an online dictionary for specific words. Generally, for long phrases I use my desktop dictionary application saving the online dictionaries for specific one word or phrase searches - because they are quick and easy to use, but not as thorough.

Tab. 5: Anchor examples of encoded responses regarding the relationship between digital or printed dictionaries and/or the relationship between dictionaries and other resources, such as search engines, spell-checkers, etc.

In the following, the results of the analyses are presented. The relative frequency values give a sense of how often specific user aims were mentioned. The focus is, however, to obtain a structured insight into the participants' responses, i. e. in the data themselves.

3.2.2 Results of the analyses

Participants sometimes referred to the fact that dictionaries are used to improve and increase vocabulary independently of concrete text reception or text production problems (category 2, although explicitly only in 1% of the responses, N = 8):
–   Basically, I use the dictionary in order to improve my vocabulary. [ID: 367]

Experts in particular use dictionaries as a starting point for research (category 3). In 68 responses (10%), this aspect is explicitly mentioned. Here, there are group differences – as would be expected – especially between linguists and non-linguists ($\chi^2(1)$ = 23.1030, p < .00, cf. Table 6). Table 6 shows that 82% of those who use dictionaries as a resource for research are linguists or have a linguistic background, i.e. particular linguists are able to use dictionaries as a resource for linguistic material.

Linguist	Dictionaries used for research		
	no	yes	Total
Yes	319	56	375
	52%	**82%**	55%
No	297	12	309
	48%	18%	45%
Total	616	68	684
	100%	100%	100%

Tab. 6: Linguists vs. non-linguists using dictionaries as a resource for research.

A special aspect in some responses is that dictionaries are apparently also sometimes used for linguistic discussions as mediator medium (category 4, 2%, N = 12). They are even explicitly designated as "Schlichtermedium" (conciliator medium) [ID: 936]:
–   Most often, to settle questions and debates with my colleagues and/or friends about accepted pronunciations of words and word origins. [ID: 918]

- Sometimes my friends and I dispute the usage of a word - one of us will have used it "wrong" by the other's definition. In this case, we will turn to a dictionary for an answer. [ID: 254]
- To settle an argument on etymology or definition when discussing words with colleagues. [ID: 920]

Although the number of these responses as a proportion of the total is not high, the few examples show clearly that a very strong authority is attributed here to dictionaries. It can be assumed that such users appreciate sound lexicographic work. The user experience which is reflected here is that dictionaries provide such reliable and accurate information that they are regarded as a binding reference, even among professional colleagues.

Similarly, dictionaries also seem to be used in connection with language games such as crossword puzzles or when playing Scrabble, and also just for enjoyment or fun (category 5). In 6% (N = 39) of the responses, this aspect arises:

- For scrabble When I am bored and me and my friend have a spelling bee [ID: 546]
- At other times I might consult the OED for information about etymology or historical use purely for personal interest or resolve a debate about word usage. [ID: 269]
- Sometimes to see if a neologism has made it into the hallowed pgs of the OED! [ID: 317]
- Solving linguistic puzzles for myself (having to do with usage, grammar, syntax, etymology, etc.) [ID: 689]

Another question relating to the data was whether a wide range of dictionaries is used or not, because it is often said that most users only use bilingual dictionaries, and rarely monolingual ones (category 7). Therefore the answers have been coded, in which either a wider range of different dictionary types were mentioned or where potential usage opportunities were named, which are, for example, only to be answered with monolingual dictionaries and dictionaries for special purposes. The result is that 12% (N = 83) of the responses contain indications on using a wide range of dictionaries.

- I often use the OED to check historical usage of English words (medieval history is a hobby of mine). I also use English/French, English/Latin, and English/Greek dictionaries when trying to read a passage or translate a phrase. [ID: 418]
- Bei der Anfertigung von Hausarbeiten schlage ich im Synonymwörterbuch nach. Beim Lesen von Sachtexten schlage ich mir unverständliche Begriffe im Wörterbuch nach. Bei der Übersetzung von anderen Sprachen ins Deutsche schlage ich im Wörterbuch nach (engl. - dt., mhd. - nhd., etc) Beim Spielen von Scrabble oder anderen „Wortspielen" schlage ich im Wörterbuch nach. [ID: 979] [When doing homework, I look in a thesaurus. When reading specialist texts, I

look up terms I don't understand in the dictionary. When translating from other languages into German, I look in the dictionary (Eng. – Ger., MHG, NHG, etc.). When playing Scrabble or other word games, I look in the dictionary.]

– (1) I use English-language dictionaries in the preparation of technical documents to confirm spelling and grammar issues. (2) I use German, Swedish, Old English, and Old Icelandic dictionaries in historical research. I use the Cleasby-Vigfusson and Zoega Old Icelandic dictionaries the most in this connection, with the frequency of use determined by the needs of the current project. (3) I use the Online Etymology Dictionary to satisfy personal curiosity about word origins and, on occasion, to help me pin down nuance when writing for work or scholastic research. (4) I use the Urban Dictionary to investigate odd turns of phrase in current slang and internet usage. This is usually in aid of deciphering social media posts by my teenaged nieces. [ID: 499]

The assumption is that the proportion of professionals in this category is high. Actually there is a great deal of overlap between those participants in whose responses linguistic terminology occurs and those who name a wide range of dictionaries. 33 participants out of 65 who use linguistic terminology also name more than one type of dictionary. Similarly, 33 out of 50 participants who name a wide range of dictionaries also use linguistic terms (see Table 7, $\chi^2(1) = 100.55$, p < .00).[12]
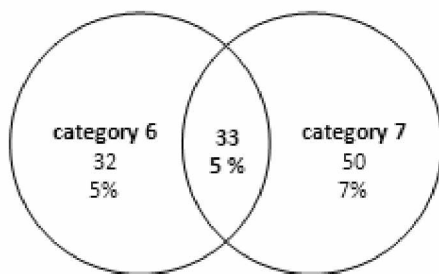

Fig. 7: Venn diagram (N=684) showing the intersection of categories 6 and 7.

4% (N = 30) of the responses include something about the relationship between printed and electronic dictionaries, for example as follows:

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12 As an aside: There are participants with a remarkable repertoire of languages, as the following example shows: "When reading a text (either on the internet or in a book) when I come across a word which I do not know and cannot deduce from the context. This is extremely rare for texts in English (my mother-tongue) and rare for texts in Latin, French, German, Greek, Italian, Spanish, Swedish, Dutch, Danish, Norwegian and Portuguese (but with increasing frequency as that list progresses). For texts in other languages it is frequent." [ID: 839]

- I think I might mention here the fact that I very often use online dictionaries in conjunction with paper ones (I have about twenty different paper dictionaries in my study). [ID: 628]
- Usually I would use the most accessible dictionary, be it on the internet (when I am working on a computer), a paper dictionary or a portable electronic one. [ID: 546]
- Sometimes, while looking up one word I will just begin to read the dictionary, distracted by all the meanings. I used to do this with hard copy dictionaries, but it's much easier with on-line ones. [ID: 899]
- Ich würde generell in allen Wörterbüchern, die ich in Buchversion verwende, lieber online bzw. auf dem PC nachschlagen, weil es schneller geht und man Belege ggf. kopieren kann. [ID: 554] [I would normally rather look in all the dictionaries that I use in book form online or on the PC, because it's quicker and you can copy instances of the use of a word if need be.]
- I use online dictionaries when the term I need cannot be found in my printed dictionaries. [ID: 297]
- I would use a physical dictionary when I'm reading a novel or other document in bed or away from my computer. I would use an online dictionary when I'm reading something (e.g., a newspaper or academic article) online or when I happen to have my computer turned on even though I'm reading a physical document. [ID: 907]
- Ich arbeite als freie Übersetzerin Deutsch-Englisch, und benutze daher Wörterbücher bei meiner täglichen Arbeit. Mein erster Zugriff ist auf leo und dict, seit neuestem auch linguee, dann Langenscheidt auf CD-Rom, dann diverse Buchausgaben, wenn ich immer noch keine Lösung gefunden habe. [ID: 249] [I work as a freelance German-English translator, and therefore use dictionaries in my everyday work. My first port of call is leo and dict, and recently linguee as well, then Langenscheidt on CD-Rom, then different book editions, if I still haven't found a solution.]

In the group of respondents who refer to printed dictionaries, it is clear that in some cases printed dictionaries are still used, either because online dictionaries do not provide the required information, or because there are no appropriate specialized digital reference works. However, it is pointed out that electronic dictionaries are faster to use than printed ones (in the standardized questions in our questionnaire, the speed of online dictionaries is also rated as one of the most important criteria for a good online dictionary, cf. Müller-Spitzer/Koplenig: Expectations and demands, this volume). Some of the participants seem to be experienced users who have been using printed dictionaries (sometimes for a long time), but – as is the general tendency – use digital ones more and more. It is not possible to draw conclusions as to whether certain contexts are related more to the use of printed or more to electronic dictionaries. Although it was mentioned by a participant that s/he used pocket

printed dictionaries when travelling, no general conclusions can be drawn from this individual statement. It seems more likely to be the case that reason for or context of use determine which dictionaries are consulted in which medium. (Which is available? Is the computer on? Etc.) Age-specific tendencies are not revealed by the analysis, i. e. it is not the case that older participants are more likely to use printed dictionaries than younger participants.

In 34 responses (5%), the topic of using dictionaries in combination with encyclopedias or other related resources is addressed:

- I mainly use the online OED as we have university access to it, but when I want a simpler or more colloquial definition I'll just see what online dictionaries on Google turn up. [ID: 615]
- I use dictionaries almost exclusively for my work as a free-lance German to English translator. I usually use other sources (reference documents found through a search engine) to back up dictionary entries. [ID: 389]
- [...] Wenn ich wissen möchte, welche Wortkombinationen in einem bestimmten Kontext konform sind, benutze ich eher Korpora und Konkordanzen. [ID: 816] [... Whenever I want to know which combinations of words are correct in a particular context, I tend to use corpora and concordances.]

All in all, there seems to be some awareness of the difference between dictionaries and encyclopedias. This is sometimes – as in the following part of an answer – even explicitly addressed:

- When I am interested in learning some fact from history that is fairly basic that I know will be in the dictionary - for example, if I wanted to know if Abraham Lincoln was the sixteenth President of the United States - this would verge on an encyclopedic use of the dictionary. [ID: 256]

This awareness may also be a sign that many of those who participated in our survey work regularly with dictionaries and therefore are not representative of all dictionary users. Besides these examples, there are of course others, in which no distinction is made between dictionaries and encyclopedias:

- Wenn ich mit jemandem einen „Streit" über etwas habe (wie z.B. woraus Vodka gemacht wird) [ID: 44] [When I have an "argument" with someone about something (e.g. what vodka is made of)]
- Wenn ich in einem Fachbericht auf ein Wort stoße, welches ich genauer nachlesen möchte, sei es Bedeutung, Hekrunft oder Verknüpfungen schaue ich eben bei Wikipedia nach. Zu letzt nachgelesen „Weihbischoff" [ID: 52] [When I stumble across a word in a technical report, and I would like to look it up more closely, be it the meaning, origin or associations, I just look in Wikipedia. The last thing I looked up was "Weihbischoff".]

In addition to encyclopedias, search engines are also seen as a way of gaining word-related information; Google in particular is explicitly mentioned 15 times. Not only are the technological features of Google used, such as the define function or the quote search, but also the general search, as the following examples show:

– For English I just use Google's "define:" feature [ID: 224]
– if one of my friends uses a term I am unfamiliar with, I will often "Google" it, or look it up on ubrandictionary.com. [ID: 254]
– I generally don't use dictionaries for spelling information; in the rare cases that I don't know how to spell a word, I can figure out the appropriate spelling by seeing which variant is most common on Google. [ID: 418]
– Meistens überprüfe ich dann noch das Ergebnis des online Wörterbuches mit einer Suchmaschinensuche (Kontext, Auftreten des Wortes etc) [ID: 580] [I usually check the result from the online dictionary using a search engine (context, when the word appeared, etc.)]
– I use one to double check common usage (but I more often will use a phrase search in Google for this). [ID: 1012]

Similarly, other tools are mentioned, such as automatic spelling corrections or translators:

– It's not often that I use the dictionary for spelling, it's easier just to use the internet or "spell-check" on Microsoft word [ID: 475]
– Und ganz faul greife ich nach Google Translate für Websites in Sprachen die ich nicht gut genug kenne (Spanisch z.B.) :-) [ID: 862] [And very lazily, I reach for Google Translate for websites in languages that I don't know well enough.]

To summarize, not only are a number of different dictionaries often used in parallel, but they are also often combined with other resources or technologies. The responses provide little information regarding contexts of dictionary use. Rather, they provide an emerging empirical foundation for something which is commonly known, namely that search engines such as Google are often used in combination with but also as a substitute for dictionaries. Again, the insight itself is nothing new, but rather an empirical basis of known facts. It is also interesting that participants discuss this switching, and that most of them are very aware of the differences.

4 Conclusion

Obtaining empirical data about contexts of dictionary use is a demanding task. In our first study, we have made an attempt in this direction. The willingness of the participants to give detailed information was significantly higher than expected. This is probably partly due to the fact that most of our participants have a keen in-

terest in dictionaries. One conclusion that can be drawn from this for further research, is that this community is apparently prepared to provide information about the contexts of potential acts of dictionary use, and that this should also be used.

All in all, the results show that there is a community whose work is closely linked to dictionaries and, accordingly, they deal very routinely with this type of text, and sometimes describe these usage acts in great detail. Dictionaries are also seen as a linguistic treasure trove for games or crossword puzzles and as a standard which can be referred to as an authority. It turns out that a few of the participants know the difference between dictionaries and encyclopedias or other related resources and also address this explicitly, as well as the different properties of printed and electronic dictionaries. What is difficult to evaluate from the data are the particular contexts of dictionary use which lead to, e. g., a user need for text production and therefore to a dictionary consultation. Although data on this could be obtained, it is still not possible to draw a clear picture. On the one hand, the question was very general, so that the responses are sometimes very general, too. This is a problem which holds for answers to open-ended questions in general:

> "They can provide detailed responses in respondents ' own words, which may be a rich source of data. They avoid tipping off respondents as to what response is normative, so they may obtain more complete reports of socially undesirable behaviors. On the other hand, responses to open questions are often too vague or general to meet question objectives. Closed questions are easier to code and analyze and compare across surveys." (Martin 2006: 6)

On the other hand, some responses contain interesting information on the context of dictionary use, but a synopsis of the many details in an overall image is almost impossible to achieve. In this respect, it is important to emphasize that my results are only preliminary, but they do indicate the potential of empirical research in this area.

This will certainly be a worthwhile path to take, as knowledge about the contexts of dictionary use touches an existential interest of lexicographers. Dictionaries are made to be used and this use is embedded in an extra-lexicographic situation. And the more that is known about these contexts, the better dictionaries can be tailored to users' needs and made more user-friendly. Particularly when innovative dictionary projects with new kinds of interfaces are to be developed, better empirical knowledge is essential, as the following quotes about the "Base lexicale du français" show (cf. also Verlinde 2010 and Verlinde/Peeters 2012).

> "The BLF's access structures are truly task and problem oriented and based on the idea that the dictionary user has various extra-lexicographic needs, which can lead to a limited number of occasional or more systematic consultation or usage situations. [...] We argue that the dictionary interface should reflect these consultation contexts, rather than reducing access to a small text box where the user may enter a word." (Verlinde/Leroyer/Binon 2010: 8)

"The Belgian BLF project seeks a different solution to the same underlying challenge: here the users have to choose between situations before they are allowed to perform a look-up. This approach looks promising but it also draws attention to a potential catch-22 situation: on the one hand, requiring too many options and clicks of users before they can get started may scare them away. And on the other hand, a model with immediate look-up and only few options may lead to inaccurate access and lack of clarity. Whatever the situation, we need more information about user behaviour to assess which solution works more effectively." (Trap-Jensen 2010: 1139)

This is particularly important at a time when people have an increasing amount of freely available language data at their disposal via the internet. Dictionaries can only retain their high value when distinct advantages (e.g. in terms of accuracy and reliability, as well as exactly meeting users' specific needs in concrete contexts) are provided, compared to using unstructured data for research.

What becomes clear in the content of our data is that there is a small but very interested group of users who consult dictionaries just out of interest, and who appreciate the reliability of content offered if there is a well-known dictionary or a publisher behind that content. Publishers or dictionary-makers could use this interest to build up user loyalty, perhaps even more closely (cf., e.g., Schoonheim et al. 2012 who discuss the effect of a language game on the use of the Allgemeen Nederlands Woordenboek). For example, it is surprising that – as far as I am aware – there is as yet no Scrabble app by a well-known dictionary, even though it is precisely the quality of the dictionary for existing Scrabble apps which is criticized.[13] Some publishers

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13 Cf. for the English version: "Every update fills me with optimism that the ludicrous censorship will be rectified. No such luck! The dictionary still won't allow the word "damn". Well, my Chambers dictionary doesn't object to any of the word's definitions. "Raping" doesn't exist either. That's telling you, Vikings. What a load of claptrap this is – dictated by the American bible belt, methinks." http://itunes.apple.com/gb/app/scrabble/id311691366?mt=8); for the German version: „Nach dem Update noch schlechter, Wo sind die Wörter im deutschen Duden oder Wörterbuch, jetzt geht nicht mehr CD oder IQ. Und der Computer legt Wörter die ich noch nie gehört habe, und beim Nach schauen gibt's das Wort nicht, total schlecht geworden vorher noch nicht gut aber jetzt der Hammer von schlecht wer macht den so was sind das alles Leute die kein Deutsch können, das Spiel ist echt super Spiel es gerne, aber mit Wörtern die es nicht gibt ist es schon schwer. Und beim Computer geht fast jede Wort, und wenn ich eins weiß sagt er steht nicht im Wörterbuch aber in meinem Duden schon sehr komisch das ganze, deswegen nur 1Stern bitte endlich gutes Update machen"; „Mir wird auch nach dem Update noch immer schlecht bei dem Wörterbuch. Vorher ging wenigstens IQ oder EC.....das ist jetzt auch noch rausgenommen. Dafür geht Räben u ä, was kein normaler Mensch kennt. Wer programmiert so etwas?" (http://itunes.apple.com/de/app/scrabble-fur-ipad/id371808484?mt=8). ["Even worse after the update, Where are the words in the German Duden or dictionary, now CD or IQ aren't accepted. And the computer puts down words which I have never heard before, and the word doesn't exist when you look it up, it's got really bad, it wasn't great before but now it's completely round the twist, who makes something like that, are they all people who don't know any German, the game is really great, I like playing it, but it's pretty hard with words that don't exist. And for the computer, almost any word is fine and when I know one, it says it's not in the dictionary but it is in my Duden, it's all very strange, that's why I'm only giving it one

have already seen this opportunity, as this statement by Michael Rundell on the Euralex mailing-list shows (mail dated November 08, 2012 at euralex-bounces@ freelists.org[14]):

> "[...] most of us are committed to producing high-quality content and to thinking about new ways of using digital media to support people learning or using (in our case) English - for example, the Macmillan Dictionary now has a couple of language-related games on its website and more are being developed. We're hopeful that if enough people find our content useful we should be able to figure out ways of staying afloat." (Michael Rundell)

My results indicate that, although these are currently difficult economic times for dictionary publishers, the participants in our study actually appreciate many of the classic characteristics of dictionaries.

Bibliography

Atkins, S. B. T. (1998). Using dictionaries. Studies of Dictionary Use by Language Learners and Translators. Tübingen: Niemeyer.

Bogaards, P. (2003). Uses and users of dictionaries. In P. van Sterkenburg (Eds.), *A Practical Guide to Lexikography* (pp. 26–33). Amsterdam/Philadelphia: John Benjamins Publishing Company.

Bowker, L. (2012). Meeting the needs of translators in the age of e-lexicography: Exploring the possibilities. In S. Granger & M. Paquot (Eds.), *Electronic lexicography* (pp. 379–397). Oxford: Oxford University Press.

Crabtree, B., & Miller, W. L. (2004). *Doing Qualitative Research* (2nd edition.). London: Sage.

Diekmann, A. (2010). Empirische Sozialforschung. Grundlagen, Methoden, Anwendungen (4. Aufl.). Hamburg: Rowohlt.

Fuertes-Olivera, P. A. (2012). On the usability of free Internet dictionaries for teaching and learning Business English. In S. Granger & M. Paquot (Eds.), *Electronic lexicography* (pp. 399–424.). Oxford: Oxford University Press.

Grubmüller, K. (1967). Vocabularius Ex quo. Untersuchungen zu lateinisch-deutschen Vokabularen des Spätmittelalters (MTU 17), München 1967.

Haß-Zumkehr, U. (2001). *Deutsche Wörterbücher – Brennpunkt von Sprach- und Kulturgeschichte*. Berlin, New York: de Gruyter.

Householder, F. W. (1962; Reprint 1967). *Problems in Lexicography*. Bloomigton: Indiana University Press.

Hult, A.-K. (2012). Old and New User Study Methods Combined – Linking Web Questionnaires with Log Files from the Swedish Lexin Dictionary. Oslo. Universitetet i Oslo, Institutt for lingvistiske og nordiske studier. In J. M. Torjusen & R. V. Fjeld (Eds.), *Proceedings of the 15th EURALEX In-*

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star, please finally make a good update."; "I'm still having problems with the dictionary since the update. Before at least IQ or „EC" were accepted...now even they have been taken out. Instead there's "Räben", and things like that, which no normal person knows. Who programmes such a thing?"]

14 See also: http://www.freelists.org/post/euralex/End-of-print-dictionaries-at-Macmillan,9.

ternational Congress 2012 (pp. 922–928). Oslo, Norway. Retrieved July 13, 2013, from http://www.euralex.org/elx_proceedings/Euralex2012/pp922-928%20Hult.pdf.

Fuchs, M. (2009). Differences in the Visual Design Language of Paper-and-Pencil Surveys: A Field Experimental Study on the Length of Response Fields in Open-Ended Frequency Questions, *27*, 213–227.

Holland, J. L., & Christian, L. M. (2009). The Influence of Topic Interest and Interactive Probing on Responses to Open-Ended Questions in Web Surveys, *27*(2), 196–212.

Hopf, C., & Weingarten, E. (1993). *Qualitative Sozialforschung* (3. Auflage.). Stuttgart: Klett.

Jackson, K. M., & Trochim, W. M. K. (2002). Concept Mapping as an Alternative approach for the analysis of Open-Ended Survey Responses, *5*(4), 307–336. Retrieved July 13, 2013, from www.socialresearchmethods.net/research/Concept%20Mapping%20as%20an%20Alternative%20Approach%20for%20the%20Analysis%20of%20Open-Ended%20Survey%20Responses.pdf.

Lew, R. (2012). How can we make electronic dictionaries more effective? In S. Granger & M. Paquot (Eds.), *Electronic lexicography* (pp. 343–361). Oxford: Oxford University Press.

Löckinger, G. (2012). Sechs Thesen zur Darstellung und Verknüpfung der Inhalte im übersetzungs-orientierten Fachwörterbuch, *57*(1), 74–83.

Martin, E. (2006). Survey Questionnaire Construction, *2006*(13), 1–14.

Mayring, P. (2011). *Qualitative Inhaltsanalyse. Grundlagen und Techniken* (8. Aufl.). Weinheim: Beltz.

Reja, U., Lozar Manfreda, K., Hlebec, V., & Vehovar, V. (2003). Open-ended vs. Close-ended Questions in Web Questionnaires, 159–177.

Simonsen, H. K. (2011). User Consultation Behaviour in Internet Dictionaries: An Eye-Tracking Study. *Hermes. Journal of Language and Communication Studies*, *46*, 75–101.

Tarp, S. (2007). Lexicography in the Information Age, *17*, 170–179.

Tarp, S. (2008). *Lexicography in the borderland between knowledge and non-knowledge: general lexicographical theory with particular focus on learner's lexicography*. Walter de Gruyter.

Tarp, S. (2009). Beyond Lexicography: New Visions and Challenges in the Information Age. In H. Bergenholtz, S. Nielsen, & S. Tarp (Eds.), *Lexicography at a Crossroads. Dictionaries and Encyclopedias Today, Lexicographical Tools Tomorrow* (pp. 17–32). Frankfurt a.M./Berlin/Bern/Bruxelles/NewYork/Oxford/Wien: Peter Lang.

Tarp, S. (2009). Reflections on Lexicographical User Research. *Lexikos*, *19*, 275–296.

Tarp, S. (2012). Theoretical challenges in the transition from lexicographical p-works to e-tools. In S. Granger & M. Paquot (Eds.), *Electronic lexicography* (pp. 107–118). Oxford: Oxford University Press.

Tono, Y. (2001). *Research on dictionary use in the context of foreign language learning: Focus on reading comprehension*. Tübingen: Max Niemeyer Verlag.

Tono, Y. (2010). A Critical Review of the Theory of Lexicographical Functions, *40*, 1–26.

Trap-Jensen, L. (2010). One, Two, Many: Customization and User Profiles in Internet Dictionaries. In A. Dykstra & T. Schoonheim (Eds.), *XIV EURALEX International Congress* (pp. 1133–1143). Leeuwarden/Ljouwert.

Trochim, W. (2006). Design. *Research Methods Knowledge Base*. Retrieved July 13, 2013, from http://www.socialresearchmethods.net/kb/design.php.

Verlinde, S., & Binon, J. (2010). Monitoring Dictionary Use in the Electronic Age. In A. Dykstra & T. Schoonheim (Eds.), *XIV EURALEX International Congress* (pp. 321–326). Leeuwarden/Ljouwert.

Verlinde, S., & Peeters, G. (2012). Data access revisited: The Interactive Language Toolbox. In S. Granger & M. Paquot (Eds.), *Electronic lexicography* (pp. 147–162). Oxford: Oxford University Press.

Wiegand, H. E. (1998). *Wörterbuchforschung. Untersuchungen zur Wörterbuchbenutzung, zur Theorie, Geschichte, Kritik und Automatisierung der Lexikographie*. Berlin, New York: de Gruyter.

Wiegand, H. E., Beißwenger, M., Gouws, R. H., Kammerer, M., Storrer, A., & Wolski, W. (2010). *Wörterbuch zur Lexikographie und Wörterbuchforschung: mit englischen Übersetzungen der Umtexte und Definitionen sowie Äquivalenten in neuen Sprachen*. De Gruyter.