

## Carolin Müller-Spitzer

# Introduction

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Research into dictionary use is the newest research area within the field of dictionary research (Wiegand, 1998, p. 259). It is to the credit of many lexicographers and researchers of recent years (cf. e.g. Rundell, 2012a, p. 3) that this area of research has increased in importance in the last few years. In fact it has long been asserted in individual publications that users should be of central importance in the conception of lexicographical processes (cf. e.g. Householder, 1962; Wiegand, 1977); now, however, in contrast to 30 years ago, it can be seen as undisputed in lexicography and dictionary research that dictionaries are utility tools, i.e. they are made to be used. And that therefore the “user presupposition” (Wiegand et al. 2010: 680) should be the central point in every lexicographic process (Bogaards, 2003, p. 26,33; Sharifi, 2012, p. 626; Tarp, 2008, pp. 33–43; Wiegand, 1998, pp. 259–260).

“Most experts now agree that dictionaries should be compiled with the users’ needs foremost in mind.” (Lew, 2011a, p. 1)

Bergenholtz and Tarp also state that one of the most important aims in the function theory established by them is to place users at the centre.

“Consequently, all theoretical and practical considerations must be based upon a determination of these needs, i.e. what is needed to solve the set of specific problems that pop up for a specific group of users with specific characteristics in specific user situations.” (Bergenholtz & Tarp, 2003, p. 172)

It may still not be clear why so much emphasis is placed on this reference to users in lexicography, when really every text is directed towards a target group. What is special about lexicographical texts in contrast to other texts is that, for the most part, the genuine aim of dictionaries is to be used as a tool. As Wiegand argues in relation to language dictionaries:

‘Generally speaking, the existence of lexicographical reference works is based first of all, in the face of a multitude of languages and language varieties (and the parts of experience which are linguistically revealed in them), on there always having been a need to achieve linguistic communication in those areas of life which are considered to be significant. Dictionaries have accompanied all kinds of written cultures; in this, it is essentially the culture-bearing, socially influential groups along with the institutions created by them who have supported lexicography. [...] Viewed in this context, dictionaries have been and will continue to be compiled with the aim of meeting individual and group-specific reference needs of the linguistic and tech-

nical kind. The aim of appropriate everyday lexicographical products has always been to promote communication between members of various language communities or groups of speakers within a language community, or to provide the necessary foundation for it in the first place [...].’ (Wiegand et al., 2010, pp. 98–99)<sup>1</sup>

Therefore, usage research does not only serve to find out more about practical dictionary use, but to improve dictionaries on the basis of the knowledge gained from it, and to make them more user-friendly.

‘The purpose of usage research, its research logic and its legitimacy arise from the fact that dictionaries are compiled in order to make their practical use possible, and that therefore academic knowledge about this cultural practice is one of the prerequisites, among others, for new dictionaries [...] being more suitable for users, in the sense that they have a higher usage value, whereby the conditions for greater usage efficiency are created, as well as enabling the proportion of successful usage actions to increase.’ (Wiegand, 1998, p. 259)<sup>2</sup>

As well as dictionaries whose main purpose is to be a suitable tool in situations in which communicatively or cognitively orientated linguistic questions or difficulties arise, and for which it is now undisputed that the user is at the centre of all conceptual considerations, there has always been documentary-orientated lexicography as well. For this documentary area of lexicography, the user presupposition does not have the same validity (Wiegand et al., 2010, p. 99).

However, it is the case for the vast majority of dictionaries that they are considered to be good if they serve as an appropriate tool for specific users in specific usage situations. In order to find out how this can best be achieved, it is necessary to

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1 „Die Existenz lexikographischer Nachschlagewerke gründet allgemein gesagt zunächst darin, dass angesichts einer Vielzahl von Sprachen und Sprachvarietäten (und der in ihnen sprachlich ausgewiesenen Erfahrungsausschnitte) die Notwendigkeit immer gegeben war, in den für bedeutsam gehaltenen Lebensbereichen sprachliche Verständigung zu erreichen. Wörterbücher haben alle Arten von Schriftkulturen begleitet; dabei sind es im wesentlichen die kulturtragenden, gesellschaftlich bestimmenden Gruppen mit den von ihnen geschaffenen Institutionen gewesen, die die Lexikographie befördert haben. [...] In diesem Kontext betrachtet, wurden und werden Wörterbücher mit dem Ziel ausgearbeitet, individuelle und gruppenspezifische Nachschlagebedürfnisse sprach- und sachbezogener Art zu befriedigen. Entsprechende gebrauchsllexikographische Produkte haben immer darauf gezielt, die Kommunikation zwischen Angehörigen unterschiedlicher Sprachgemeinschaften oder Sprechergruppen innerhalb einer Sprachgemeinschaft zu befördern bzw. dafür überhaupt erst die nötige Basis zur Verfügung zu stellen [...].“ (Wiegand et al., 2010, pp. 98–99).

2 „Der Sinn der Benutzungsforschung, ihr forschungslogischer Status und ihre Legitimation ergeben sich daraus, daß Wörterbücher erarbeitet werden, um die Praxis ihrer Benutzung zu ermöglichen, und daß daher wissenschaftliche Kenntnisse zu dieser kulturellen Praxis eine der Voraussetzungen u. a. dafür sind, daß neue Wörterbücher [...] in dem Sinne benutzeradäquater sind, daß sie einen höheren Nutzungswert haben, wodurch sowohl die Voraussetzung für eine größere Benutzungseffizienz geschaffen wird als auch dafür, daß die Quote der erfolgreichen Benutzungshandlungen steigen kann.“ (Wiegand, 1998, p. 259).

investigate how dictionaries are used, what aspects of them users value or criticize, and what improvements are needed.

On the other hand, one objection which is sometimes raised against using current dictionaries as the subjects of research into dictionary use is that research carried out in this way could impede innovation, since it is based on dictionaries which are already available, and therefore ideas for possible innovations cannot be developed. Since innovations – no matter how constructive and helpful they are in the long term – are initially unfamiliar and therefore also a hurdle. In this spirit, Johnson quotes Richard Hooker<sup>3</sup> in his now famous “Preface to a dictionary of the English Language” as follows: “Change, says Hooker, is not made without inconvenience, even from worse to better” (Johnson, 1775, p. 5). However, this only applies to research into dictionary use in a limited way, because by usage research we do not always just mean that currently already available dictionaries are chosen as a starting point. For example, it is also possible to make an evaluation of innovative features the object of an investigation, as we have in our studies (see below for more details). As well as research into actual dictionary use, however, it is important to identify and examine linguistic tasks that need to be managed in everyday life, as stressed in the following quote:

“[...] the present study leads me to believe that the starting point should be the language problem rather than the dictionary. If we want learners to use dictionaries well, it is important to begin by helping them become aware of language problems that they are not used to confronting.” (Frankenberg-Garcia, 2011, p. 121; Pearsall, 2013, p. 3)

It is therefore essential that from both sides, a contribution is made to a better knowledge of the use of dictionaries and possible improvements to this, through the observation of linguistic tasks in which lexicographical tools can be used (more on this at the end of this introduction), and also through better empirical research into the use of those dictionaries which are already available. On this topic, Bogaards states as recently as 2003 that “nevertheless, uses and users of dictionaries remain for the moment relatively unknown” (Bogaards, 2003, p. 33). In relation to this, non-native speaker users of dictionaries are still the most researched area:

“Most progress in meta-lexicography has been made in relationship with L2 learners. Next to nothing is known when it comes to the use that is made of dictionaries by L1 users, or by the general public outside L2 courses.” (Bogaards, 2003, p. 28). (For a similar statement, cf. also Welker and, on research needs for translators, Bowker (Bowker, 2012, p. 380; Welker, 2010, p. 10).)

On the one hand, experimental dictionaries are the objects of usage studies in which “metalexigraphers are also part of the dictionary development team” as well as

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<sup>3</sup> See [http://en.wikipedia.org/wiki/Richard\\_Hooker](http://en.wikipedia.org/wiki/Richard_Hooker) (last accessed 13 July 2013).

commercial dictionaries from large publishing houses (Nesi, 2012, p. 364). There are also some studies on the comparison of printed vs. electronic dictionaries (cf. Dziemanko, 2012). But even if, in the last ten years, some studies in the field of the use of dictionaries have been published, the need for research is still great. In particular, there are few comprehensive studies which deal with the use of online dictionaries. It is for this reason that the studies presented in this volume were specifically focussed on online dictionaries.

Many experts are of the opinion that online dictionaries are the dictionaries of the future. For many publishing houses and academic dictionary projects, the internet is already the main platform:

“Today lexicography is largely synonymous with electronic lexicography and many specialists predict the disappearance of paper dictionaries in the near future.” (Granger, 2012, p. 2; cf. also Rundell, 2012a, p. 201, 2013)

Because of this, it seems reasonable for research into dictionary use to concentrate on online dictionaries. On the other hand, this is risky, because the dictionary landscape in this field changes very quickly and empirical studies take a long time to analyze. This can cause problems, since in “a rapidly growing area such as e-dictionaries, user research may find itself overtaken by events” (Lew, 2012, p. 343). In this respect, the results presented here can also be interpreted as a sort of historical snapshot, at least in those areas where, since 2010, when the first of the studies presented here were carried out, fundamental things have changed, e.g. with respect to the use of devices such as smartphones and tablets.

The studies in this volume, with the exception of a log file study (Koplenig et al., this volume), were carried out as part of the project “User-adaptive Access and Cross-references in *elexiko*”, an externally financed project which was carried out from 2009 to 2011 at the Institut für deutsche Sprache (Institute for German Language)<sup>4</sup>. This project had several research focuses, one of which was research into dictionary use. Usage research is time-consuming and labour-intensive, and therefore it mostly takes place either in an academic context, in which case it is concentrated on the needs of the users taught there (e.g. L2 users), or it is carried out by individual projects, in which case it is focused on improving the dictionary being examined. In contrast to this, there is no room for the collection of general data in most of the studies. However, we were able, independently of a dictionary project, to first of all settle such general questions as: What is it about online dictionaries that is particularly important to users? What forms of layout do they prefer and why? We placed fundamental questions such as these at the centre of the first two studies. It was only in the studies which follow these that monolingual dictionaries, in particular *elexiko* (Klosa et al., this volume), and with them L1 users, became the

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<sup>4</sup> [www.ids-mannheim.de](http://www.ids-mannheim.de).

focus, or particular design decisions for the relaunch of the dictionary portal OWID were examined in an eye-tracking study.

In addition to this, our aim was to ‘try out’ the different data collection methods for research into dictionary use, and thereby also to make a contribution to the sometimes rather unobjective discussion of which methods are best for which questions in research into dictionary use. For example, Bergenholtz & Bergenholtz (2011, p. 190) make sweeping criticisms of the methodological quality of most usage studies. It is precisely this sweeping negative evaluation that Rundell rejects (cf. also Lew, 2011a, p. 1):

“Among so much varied research activity, there is inevitably some unevenness in quality. But this hardly justifies the view of Bergenholtz and Bergenholtz (2011: 190) that ‘most of the studies of dictionary usage [have been] carried out in the most unscientific way imaginable, as they were conducted without any knowledge and without use of the methods of the social sciences’. This does not chime with my experience.” (Rundell, 2012b, p. 3)

For this reason, in all of the chapters in this volume, the methodology of the empirical investigation in question is presented as precisely as possible. Because we placed particular value on the reader being able to reproduce and criticize the reported findings, we also decided to present our findings according to the so-called IMRAD structure, which stands for introduction, method, results, and discussion (cf. Sollaci & Pereira, 2004), and which is the usual structure for a scientific paper in the empirical social sciences and the natural sciences. In addition to this, we have put the questionnaires and raw data (as far as copyright will allow) all together on the accompanying website ([www.using-dictionaries.info](http://www.using-dictionaries.info)), in order to make our results even easier to understand.

This anthology is divided into four parts. The first part contains chapters on fundamental issues: a research review of the empirical studies on digital dictionaries which have already been carried out (chapter 2), and methodological guidelines for carrying out empirical studies from a social science point of view. This latter chapter does not claim to present anything new, but rather it is a summary aimed at researchers in the field of lexicography who want to carry out empirical research. This seemed to us to be particularly important in view of the discussion about methodological quality quoted above (chapter 3).

The second part contains the results of our general studies of online dictionaries. The key data from the two studies, how the studies were set up, and information about the participants are put together in the chapter “The first two international studies on online dictionaries: background information” (chapter 4). “Empirical data on contexts of dictionary use” are the subject of the fifth chapter. Here, response data for a very general, open question about this topic is presented. As well as being of interest in terms of the content, this analysis is also methodologically interesting, since it uses a method of data analysis which has hardly ever been used before in dictionary usage research. Particularly in the case of online dictionaries,

there is a danger that, “without proper guidance, users run the risk of getting lost in the riches” (Lew, 2011b, p. 248). For this reason, the focus of our first study was on finding out which criteria, according to our participants, make a good online dictionary. Equally, we wanted to know how users assess innovative features, such as the use of multimedia data or the option of user-adaptive adjustment to an online dictionary. As well as “general issues of online dictionary use”, chapters 6–8 contain the main results from the first two studies in respect of the “expectations and demands for online dictionaries and the evaluation of innovative features”, as well as “questions of design”.

The third part of this volume brings together more specific studies of online dictionaries. As mentioned earlier, the use of different data collection methods was one of the aims of our research project. We therefore evaluated some decisions which had been taken in relation to the redesign of the dictionary portal OWID prior to the relaunch in an eye-tracking study. However, we can see some weaknesses in this study ourselves, which is why the subtitle is “an attempt at using eye tracking technology” (chapter 9). The second chapter attempts, with the help of the log files of two frequently used German dictionaries (Digital Dictionary of the German Language and the German version of Wiktionary), to get to the bottom of the question of whether users look up frequent words, i.e. whether there is a connection between how often a word is looked up and how often it appears in a corpus. This study is therefore a continuation of or an answer to the question asked by De Schryver and colleagues in 2006, “Do dictionary users really look-up frequent words?” (De Schryver et al. 2006). Up until now, there have been few publications on log file studies in which it is really possible to understand how the data has been collected, in what form it has been analyzed, etc., with the result that the studies can only be replicated and understood in a very limited way. In this chapter (chapter 10), we have tried to document the different steps of the study as precisely as possible. In the last chapter in this thematic group, the question of how users receive a combination of written definition and additional illustration in illustrated online dictionaries is addressed. To approach this question empirically, a questionnaire-based study and a small eye-tracking study were carried out in the context of a dissertation project, and these are reported in chapter 11.

Another important topic for our research project was the use of monolingual dictionaries, in particular the German online dictionary *elexiko*, which is being developed at the IDS. For this topic area, two online questionnaire-based studies were carried out, the entire results of which are presented in chapter 12, which, due to its size, makes up the fourth part of the volume on its own. These latter two chapters are in German, since the studies on *elexiko*, for example, were only carried out in German. We hope that with this bilingual structure, we will reach a wide audience, and also be able to make a contribution to active multilingualism in Europe.

From every activity, much can be learnt. We asked ourselves at the end of our research project what we had learnt from our studies, and whether, with the knowl-

edge we now had, we would do things differently in the future, so as not to make the same “mistakes” twice, as Gouws emphasizes with reference to lexicography in general:

“What should be learned from the past, and this applies to both printed and electronic dictionaries, is to conscientiously avoid similar traps and mistakes, especially in cases where what are now seen as mistakes were then regarded as the proper way of doing things. [...] In these new endeavours, we as lexicographers are still bound to make mistakes in the future, but we have to restrict ourselves to making only new mistakes.” (Gouws, 2011, p. 18)

We had good reasons for raising very general questions about online dictionaries. However, the group differences, e.g. between different user groups, that we assumed would arise and that were well supported throughout the literature often did not materialize in the data. This means that in the results, the data was more uniform in some places than expected, and because of that, it could also not be used, for example, as a basis for developing a possible user-adaptive representation of lexicographical data, as had originally been thought. Did we therefore use some of our resources examining things that were too general or “the all but obvious”?

“In the real world, where time and resources are limited, we should think twice before using too many resources on expensive procedures only to confirm the all but obvious.” (Lew, 2011c, p. 8)

Even with the current state of knowledge, I would not view the survey with the general questions about online dictionaries as pointless. As Diekmann also asserts, an empirical investigation of assumed correlations also represents an advance in knowledge, if the assumptions are confirmed (which, however, was not always the case in our studies, by any means) (Diekmann, 2010, p. 30)<sup>5</sup>. What we underestimated, however, was the cost of such empirical studies. It is true that in the literature, this is often referred to in some detail, but just how much it costs to develop, evaluate and analyze a questionnaire-based study, for example, can only really be learnt through practical experience: the famous ‚learning by doing‘. In this respect, it was not possible in our research project to investigate both general questions and, to a

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5 “[...] even in the less impressive case of a confirmation of our previous knowledge, the test represents an advance in knowledge. It would be arrogant to judge an empirical study to be ‚trivial‘ for this reason alone, because it proves what we had already *assumed*. Because everyday knowledge is uncertain, systematic test processes are needed, in order to increase the level of trust in assumed correlations or possibly to prove their limited validity or lack of validity.” “[...] auch in dem weniger beeindruckenden Fall der Bestätigung unseres Vorwissens stellt die Prüfung einen Erkenntnisfortschritt dar. Es wäre hochmütig, eine empirische Studie einzig aus diesem Grund als ‚trivial‘ zu bewerten, weil sie nachweist, was wir schon immer *vermutet* haben. Weil das Alltagswissen unsicher ist, werden systematische Prüfverfahren benötigt, um den Grad des Vertrauens in vermutete Zusammenhänge zu erhöhen oder eventuell deren bedingte Gültigkeit oder Ungültigkeit nachzuweisen.“] (Diekmann, 2010, p. 30).

greater extent, specific questions. So since we investigated questions surrounding the use of online dictionaries in a breadth which did not exist before now, we would in future first of all concentrate more on smaller comparative studies, as Dziemianko suggests (2012, pp. 336–337), as this increases the reliability of the empirically investigated correlations. It would also be interesting to observe potential users actually resolving the linguistic tasks in which lexicographical data could play a role, and in that way approach empirically the question of how particular groups use dictionaries or indeed whether they still use dictionaries at all, whether they consciously distinguish them from other language-related data on the internet, etc. For that, it would be necessary to create a test structure, which does not stipulate the use of particular reference works, but which tries to bring the test situation as close as possible to an everyday situation. An empirical investigation of this kind would be costly, but it could deliver very interesting data at a time when lexicography is “at a turning point in its history” (Granger, 2012, p. 10), which is where the journey could lead in the future. In this, I, like Lew, am convinced that such investigations cannot be managed just by using the method of ‘deduction’, i.e. by consulting experts.

“The studies [...] here show over and over again that expert opinion, intuition, or purely deductive reasoning cannot replace solid empirical evidence from user studies: dictionary use is just too complex an affair to be that predictable.” (Lew, 2011a, p. 3)

The results which are brought together in this volume should contribute a whole range of new “solid empirical evidence” to the field of online lexicography. On the basis of empirical studies such as these, we can gradually familiarize ourselves with the potential users, their preferences, their behaviour, and much more, and in this way make a contribution to how lexicographical tools can be developed more effectively.

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