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## Integrating Wiktionary in the Linguistics Curriculum of the B. A. in German Philology\*

Integrando el Wikcionario en el currículum de Lingüística en el grado en Filología Alemana

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**Resumen:** Los diccionarios colaborativos han ganado popularidad recientemente en el mercado lexicográfico. Los sistemas de información léxica, como Wikcionario, son accesibles y fáciles de usar, y presentan no solo información lingüística, sino también datos enciclopédicos y terminológicos. En este artículo, presentaremos una propuesta didáctica sostenible, socialmente responsable y democrática basada en el enfoque AICLE para estudiantes del grado de Filología Alemana. Se utilizará Wikcionario para resolver problemas lingüísticos relativos a la interfaz semántica, planteados en forma de actividades. Asimismo, se destacará el papel crucial que desempeñan los léxicos colaborativos hoy en día en la construcción de una nueva lexicografía. **Palabras clave:** lexicografía colaborativa; Wikcionario; Filología Alemana; AICLE; semántica.

**Abstract:** Collaborative dictionaries have recently gained popularity within the lexicographic market. Lexical information systems such as Wiktionary are accessible and user-friendly and present not only linguistic information, but also encyclopedic-terminological data. In this paper, we will lay out a didactic proposal that is sustainable, socially responsible and democratic, based on the CLIL approach for students of the B. A. in German Philology. Wiktionary shall be used to solve linguistic-oriented problems concerning the semantic interface, given as activities. The crucial role that collaborative lexicons play in the construction of a new lexicography will thus be highlighted.

**Keywords:** collaborative lexicography; Wiktionary; German Philology; CLIL; semantics.

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## 1. Introduction

In the past decades, a paradigm shift within practical lexicography has taken place as several lexicographic information systems began to adopt a bottom-up approach (cf. Carr, 1997: 214). This implied that all users, not exclusively expert lexicographers, could contribute to the compilation of online lexicons. Several collaborative dictionaries, such as Wiktionary, have arisen since then.

Dictionaries have always been used as pedagogical reference resources in the (foreign) language classroom (cf. Bogaards, 2010; Valcárcel, 2017). Not only can (collaborative) lexicons be consulted in order to meet communicative needs, but they can also be utilized in cognitive learning situations (cf. Tarp, 2015) for users to deepen their knowledge of any discipline. As Wiktionary includes domain-specific terms (cf. Rundell, 2016), it may be consulted to solve problems concerning, e. g., theoretical aspects of linguistics.

The aim of this article is to design a didactic proposal that integrates the German version of Wiktionary<sup>1</sup> as a sustainable and socially responsible tool to teach Semantics in the German Undergraduate Program (B. A. in German). For that purpose, the Content and Language Integrated Learning (hereinafter, CLIL) approach will be implemented. In this specific case, the semantic-lexicographic interface will constitute the subject matter. To reach this goal, we will firstly tackle the key points of collaborative lexicography, Wiktionary, and its uses (§2); secondly, a five-session didactic proposal will be explained (§3); and, finally, the main conclusions of the study will be drawn (§4).

## 2. Collaborative lexicography and Wiktionary: key points

Research into dictionary use has demonstrated that collaboratively built lexicographic information systems are frequently consulted by language learners, as they are perceived to be reliable sources (cf. Domínguez & Valcárcel, 2015). Keeping this in mind, in this section we will briefly explain to what extent this change has affected practical lexicography and its description (§2.1.). We will

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<sup>1</sup> We will be working with the German version of Wiktionary. Following Müller-Spitzer et al. (2015), the term German Wiktionary will be used when referring to German lexical units included in the German version. This is important because of its multilingual conception, which enables the existence of German headwords in other languages (e.g., lexical units in more than 200 languages are present in the German Wiktionary). German Wiktionary: <https://de.wiktionary.org/wiki/Wiktionary:Deutsch> (last access: 10/01/2023).

then focus on Wiktionary's sustainability and democratic character (§2.2.). Finally, we will describe its use in the foreign language class (§2.3.).

## 2.1 *Lexicography and collaborative dictionaries*

According to Wiegand (1998), lexicography is defined as the cultural practice which aims to create dictionaries. One could say that lexicographers as well as editors are the primary creators responsible for lexicographic resources. Nevertheless, the digital era has introduced different approaches concerning dictionary compilation. The most remarkable transformation concerns the bottom-up editing process (cf. Carr, 1997: 214), which radically contrasts with the traditional top-down procedure. This new compilation method is based on the "wisdom of crowds" (cf. Meyer & Gurevych, 2012), where any user can contribute their own opinion to the development of online dictionaries<sup>2</sup>.

Regarding its typology and compilation<sup>3</sup>, Wiktionary is a free multilingual dictionary which is compiled from organic user entries, since it does not utilize any other resources to create its database. Furthermore, Wiktionary belongs to "Ausbauwörterbücher" ('dictionaries in construction') because it is in constant development and users do not interact with a completely finished resource (cf. Engelberg & Storrer, 2016).

As for the lexicographic process underlying Wiktionary, Meyer & Gurevych (2016) reach the conclusion that the traditional phases of dictionary compilation can no longer be seen in Wiktionary. Although they affirm that it can still be distinguished between the preparation and the editing phase, discussions might be found in both, and the reiterative interaction of various users makes it difficult to establish clearly completed phases. A lexicographic article is frequently created by one user, but anyone is allowed to edit it afterwards (*ibid.*).

## 2.2 *Wiktionary: a sustainable and socially responsible resource*

Wiktionary is sustainable in its nature, as it has been conceived of as a collaborative and democratic resource to which anyone is allowed to contribute. In accordance with Rundell (2016), the lexicographic process as well as the

<sup>2</sup> In some cases, such as in Wiktionary, there are policies and guidelines which should be followed, and the articles may be reviewed by other Wiktionarians and experts.

<sup>3</sup> Some of these points may as well be true for other collaboratively built lexicons.

criteria of Wiktionary are completely transparent. Additionally, thanks to the discussions which take place on the forums, Fuertes-Olivera (2009) holds the opinion that it is not difficult to reach a broad consensus.

Concerning the microstructure of the resource, Hanks (2012: 82) affirms that it is “eminently suitable as a model for the electronic dictionary of the future”<sup>4</sup>. However, it could be criticized that a predefined microstructure does not exist in Wiktionary, meaning that each lexicographic article might include different lexicographic items. The freedom to vary the microstructure of the articles may thus lead to difficulty when a potential user is, for instance, looking for specific information on a list of headwords (cf. Fuertes-Olivera, 2009)<sup>5</sup>. To balance this, the lexicographic articles in Wiktionary tend to be well referenced and they are updated on a daily basis (Rundell, 2016), turning it into a resource easy to sustain.

The aspects mentioned demonstrate the sustainability as well as the social responsibility<sup>6</sup> of the resource. In addition, it should be noted that Wiktionary is available in more than 150 languages, among which some local, minority languages are to be found<sup>7</sup>. Both the coverage of the languages and the vocabulary included in Wiktionary are impressive. Rundell (2016) expresses that the area of terminology is one of its strengths, since not many general language dictionaries include domain-specific lexical units. Moreover, Wiktionary is playing a significant role in the consolidation of a new lexicographical paradigm due to its applications<sup>8</sup>, yet the most prolific one is to be found in didactics.

<sup>4</sup> This implies that Wiktionary’s microstructure is easy to maintain, as the hyperlinked interface helps both users and editors to move from one website to another, which also facilitates its user-friendliness.

<sup>5</sup> As an example, the lexicographic article for “Hund” (‘dog’) in the German Wiktionary (status as of 12/01/2023) entails information on the semantic interface (synonyms, antonyms, hypernyms, hyponyms...) of the lexical unit, whereas the article for the headword “Kuh” (‘cow’) includes much less information on semantic-related concepts (there is no reference to hypernyms or synonyms, for instance).

<sup>6</sup> Regarding this, Fuertes-Olivera (2009) demonstrates that the lexicographic entries should be compiled as unbiasedly as possible.

<sup>7</sup> The inclusion of minority languages (such as Galician or Catalan) reveals that the project itself reflects different social realities and pleads for their conservation. Meyer & Gurevych (2012: 266) mention that “the main regions of the world are covered by a Wiktionary language edition”, although they argue that the Indo-European language family is more present than, for instance, other American native languages.

<sup>8</sup> To cite just some examples, Meyer & Gurevych (2012: 280) already highlighted its importance by stating that Wiktionary has been implemented in different NLP-based tasks. Müller-Spitzer

### 2.3 Wiktionary for teaching language and linguistics

Regarding this connection, there are a number of methodologies that have raised in importance since the implementation of the communicative approach: Task-Based Learning (TBL), Project-Based Learning (PBL) and Content and Language Integrated Learning (CLIL) (cf. among others Nunan, 2004; Haataja, 2009; Krumm et al., 2010; Krajcik & Shin, 2014; Valcárcel, 2017). Whereas the TBL distinguishes two task types that end with a final project (those focused either on the meaning or on the form; cf. Valcárcel, 2017: 380-381; Nunan, 2004), in the PBL, students adopt a less guided, more autonomous way of working. This ends with the completion and presentation –written or oral– of the project results (e. g., Krajcik & Shin, 2014). In comparison to these methodologies, learning the foreign language is not the main goal in CLIL, but rather a vehicle to teach other content, such as linguistics<sup>9</sup>.

Even though there are several didactic proposals in which lexicographic information systems should be used in the language classroom (e. g., Valcárcel, 2017), very little has been designed for the Linguistics classroom. In this sense, we claim that CLIL offers the most effective methodology to include Wiktionary<sup>10</sup> as a tool to teach linguistics at university. This will be shown in the special case of semantics in the five-session didactic proposal depicted in the following section.

## 3. Teaching Semantics with Wiktionary

Exploring the current didactic situation is a necessary precondition for making a proposal for improvement<sup>11</sup>. Considering the above theory, this proposal aims to provide a guide to implement Wiktionary as a method of teaching Semantics at the university level. The difference with other proposals (e. g.,

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et al. (2015) presented another application of Wiktionary by using log files to analyze how dictionary users look for information on Wiktionary.

<sup>9</sup> Albeit it is not without controversy, CLIL has proven great results in teaching and learning over the last few years (Haataja, 2009; Krumm et al., 2010).

<sup>10</sup> Fuertes-Olivera (2009) and Rundell (2016) emphasize that Wiktionary has a great potential when defining lexical units from specific domains and that it may well be used for specific purposes.

<sup>11</sup> However, due to space limitations, the objectives, competencies, contents, methodologies and evaluation systems taken as reference and compared for two Spanish universities will be detailed in further research.

Hurford et al., 2007) is the emphasis placed on its sustainable and socially responsible character (§3.1.), which is explained throughout the five didactic sessions planned (§3.2.).

### 3.1 *Preliminary remarks*

This proposal is characterized by the attention paid to reusing already existing knowledge to improve, update, and expand it. The resources consulted must be used sustainably, and the didactic methodology applied should also be applied in the same terms. As in scaffolding (Nunan, 2004: 35), the contents, competencies and skills tackled here are to be dealt with cyclically, so that the knowledge acquired serves as a basis for future learning.

In line with recent studies (cf. Rodríguez Barcia, 2018; Fuertes-Olivera & Tarp, 2022), the proposal selects a traditionally undervalued topic in society –social minorities– to act as a common thread throughout the sessions. In this manner, the socially responsible ways of teaching and making a collaborative, lexicographic contribution are always present. For this proposal, the contents<sup>12</sup> are restricted to the notions related to lexical meaning and lexicography: (a) lexical field, semantic field, and lexical family; (b) denotation and connotation; (c) loanwords and neologisms; and (d) dictionary parts and semantic information.

The didactic proposal is based on five sessions to be given in combination with other methodologies (e. g., explanation of theory), and whose duration ranges from 30 to 105 minutes each. This set of activities incorporate an inductive approach, a task-based orientation, and information and communication technologies (ICT). Furthermore, the sessions follow the principles of CLIL as well as foreign language teaching (Kaiser et al., 2007; Haataja, 2009; Krumm et al., 2010) in order to highlight a gradation in the goals pursued and the language used: from strongly guided and mirroring exercises to freer and more creative ones. The five sessions designed are explained in terms of aims, contents, duration and group dynamics.

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<sup>12</sup> These are extracted from the teaching guides used at the University of Santiago de Compostela and the University of Valencia and correspond to the aspects that are best suited for the introduction of active, practical exercises. An analysis of the current state of the teaching and learning of Semantics in the B. A. of German Philology is left for further research.

### 3.2 *A five-step didactic proposal*

#### 3.2.1 Session 1

The aim of Session 1 is to introduce learners to the applied study of lexical units related to the general topic of social minorities and to recall their previous knowledge. The overall duration of Session 1 is around 30 minutes, and combines collaborative learning in small discussion groups of 3 to 4 members with the discussion in plenum.

The session's details can be extracted from table 1 below. Its sustainable nature is justified by the scaffolding teaching technique (Nunan, 2004: 35) by virtue of which the completion of the previous task is mandatory for the successful accomplishment of the following one. A socially responsible approach is guaranteed by the selection of topics and subtopics.

<i>Activity</i>	<i>Duration</i>	<i>Group dynamics</i>
<i>1) Social minorities – what are they?</i>		
The students must brainstorm about social minorities and create a sociogram.	10 min	In small groups
<i>2) Identifying word groups</i>		
2.1. The students must classify the previous lexical units into the following four categories: (a) ethnic groups, (b) religion, (c) functional diversity and (d) gender and sex identities.	5 min	In small groups
2.2. The students must complete all four categories (a) to (d) with related vocabulary.	5 min	In small groups
2.3. The students must comment on and discuss in plenum the vocabulary chosen.	10 min	In plenum

Table 1. Session 1

#### 3.2.2 Session 2

Session 2 is designed to introduce key semantic concepts, to introduce students to the parts and information within dictionaries, to familiarize them with Wiktionary, and to systematize a sustainable way of learning and working in Semantics and Lexicography. The emphasis is placed on reusing, improving, and expanding the information given. To do so, the terminological

notions of lexical field, semantic field and lexical family are tackled, and the parts of information and semantic information of Wiktionary are analyzed. This session lasts for approximately 100 minutes and links individual work with work in pairs, in small groups and in plenum.

<i>Activity</i>	<i>Duration</i>	<i>Group dynamics</i>
The students must sign up for on Wiktionary and select the information necessary for a terminological definition.	5 min	Individually
<i>3) Lexical fields</i>		
3.1. The students must search for “lexikalisches Feld” on Wiktionary, read it, and analyze the descriptors found.	10 min	In pairs
3.2. The students must compare the information found and comment on the descriptors that should be required for terms like “lexikalisches Feld”.	10 min	In plenum
3.3. The students are divided into small groups and must develop a lexical field of one of the four categories: (a) ethnic groups, (b) religion, (c) functional diversity and (d) gender and sex identities.	5 min	In small groups
3.4. The students must comment on and discuss in plenum the lexical units chosen.	5 min	In plenum
<i>4) Hands on Wiktionary</i>		
4.1. The students are assigned one of the following notions: “lexikalisches Feld”, “semantisches Feld” and “lexikalische Familie”. They must look for information on the internet <sup>13</sup> and select the one that is necessary for a terminological definition.	15 min	Individually + in small groups
4.2. The students must access Wiktionary and either correct and improve the entry of “lexikalisches Feld” or create (or improve) an entry for “semantisches Feld” or “lexikalische Familie”.	20 min	In small groups
4.3. The students must present and explain in plenum their entries in Wiktionary.	30 min	In plenum

Table 2. Session 2

As can be seen in table 2, importance is given to reusing already existing materials. The entry of “lexikalisches Feld” in Wiktionary:Deutsch (point 3.1.) serves as a tool for getting to know the dictionary’s (micro)structure and developing critical thinking, since it represents an entry that stays underspecified. Knowledge from Session 1 and from other sources are also revisited (points

<sup>13</sup> The following website from the University of Erfurt may be consulted: [https://www.christian-lehmann.eu/ling/lg\\_system/sem/index.html](https://www.christian-lehmann.eu/ling/lg_system/sem/index.html) [access 28/10/2022].



3.3. and 4.1.), and the students contribute responsibly to the improvement of lexicography – and, hence, society (point 4.2.).

### 3.2.3 Session 3

The objectives of Session 3 are to familiarize students with the analysis of general lexicon, to practice the formulation of definitions, to develop the necessary abilities to systematize the search of lexical units in dictionaries, and, finally, to critically examine definitions and examples. In this regard, linguistic terms are left aside to deal with general, non-specialized lexicon now. The concepts through which these aims may be achieved are denotation, connotation, and polysemy, which are treated by means of practical exercises. Activities 5 to 7 in table 3 have a duration of 75 minutes, alternating between work in pairs and groups.

<i>Activity</i>	<i>Duration</i>	<i>Group dynamics</i>
<i>5) Types of meanings</i>		
5.1. The students must provide a definition of the following words: e. g., sp. “hombre público”, “fulana”, dt. “Jungfer”, “Pfleger”, en. “slut-shaming”.	10 min	In pairs
5.2. The students must read the definitions in plenum and relate them to the notions of denotative meaning, connotative meaning and polysemy.	10 min	In plenum
<i>6) Connotation in examples</i>		
6.1. The students must look for the following lexical units in open access corpora <sup>14</sup> , select from two to three examples of actual use and analyze the connotative meaning conveyed through the contexts: dt. “feminin”, “extremist” and “behindert” (adj.) <sup>15</sup> .	20 min	In pairs
6.2. The students must read some of the examples found, compare them, and explain the connotative meanings associated.	15 min	In plenum

<sup>14</sup> Both the DWDS-Kernkorpus 21 (2000-2010) (<https://www.dwds.de/d/korpora/korpus21>) and the Referenz- und Zeitungskorpora (<https://www.dwds.de/d/korpora/public>) can be consulted [access: 26/09/2022].

<sup>15</sup> The students should be aware that it is not about an ideological debate, but rather an analysis of the connotations transmitted linguistically through the context shown.

<i>Activity</i>	<i>Duration</i>	<i>Group dynamics</i>
6.3. The students must create one <i>ad hoc</i> example for every lexical unit and incorporate them (together with the real examples found in 6.2.) to the corresponding Wiktionary entries.	20 min	In pairs

Table 3. Session 3

As in the previous sessions, the sustainable approach relies on the consultation of already existing definitions and resources (not only dictionaries, but also digital corpora) to improve and reuse them. From a teaching perspective, the results of 5.1. are integrated into 5.2., and 6.1. into both 6.2. and 6.3. The latter is evidence of the social contribution of the session to the improvement of knowledge and society, as well as the lexical units chosen, which are strategically picked to question students' social awareness.

### 3.2.4 Session 4

Session 4 is planned to introduce students to the notions of loanword and neologism, to practice the search in digital corpora and collaborative dictionaries, and to train the analysis and formulation of lexicographic examples. Thus, the contents displayed in table 4 revolve around the topics mentioned. This session lasts for approximately 50 minutes.

The resources used sustainably here correspond to activities 7.2. and 7.4., and the socially responsible character is drawn by means of the neologisms chosen –mainly originating from the English language. The session ends in 7.4. with a contribution to improve the examples provided in two different Wiktionary entries.

Activity	Duration	Group dynamics
7) <i>Loanwords and neologisms</i>		
7.1. The students must discuss the meaning of the following loanwords in German and/or Spanish and link them to one of the categories mentioned above in 3.3.: “mansplaining”, “pinkwashing”, “slutshaming”, “bullying”, “manspreading” and “mobbing”. They may use all online resources required.	15 min	In pairs
7.2. The students must choose three of the words in 7.1. and look for them in an open corpus <sup>16</sup> . They must also select and save an example of actual use and provide another <i>ad hoc</i> example, respectively.	15 min	In pairs
7.3. The students must read some of the examples found, compare them, and discuss their suitability.	10 min	In plenum
7.4. The students must look for “bullying” and “mobbing” on Wiktionary and improve the entries with the examples of 7.2.	10 min	In pairs

Table 4. Session 4

### 3.2.5 Session 5

The aim of Session 5 is to let students demonstrate the knowledge acquired throughout sessions 1 to 4 and to develop an autonomous project with a positive impact on society. Activities 8.1. and 8.2. are, hence, devoted to the final creation of a still non-existing Wiktionary entry related to the cross-cutting theme of social minorities. To do so, all contents, resources, and skills treated up to this point must be revisited and assimilated.

As shown in table 5, the session’s duration lasts for 50 to 55 minutes, and it is designed to test individually one’s knowledge and skills. Therefore, it should ideally be conducted outside the classroom, yet its fulfillment in person in an IT classroom is also possible. To increase the students’ motivation, a certain percentage of the final grade could be reserved for this specific task.

<sup>16</sup> As in §4.2.3., the students are invited to use, e. g., the Referenz-und Zeitungskorpora (<https://www.dwds.de/d/korpora/public>) or the DWDS-Kernkorpus 21 (2000-2010) (<https://www.dwds.de/d/korpora/korpus21>) [access: 26/09/2022].

<i>Activity</i>	<i>Duration</i>	<i>Group dynamics</i>
<i>8) Entry creation project</i>		
8.1. The students must read the entry “Minderheit” in Wiktionary and pay attention to the descriptors.	10 min	Individually
8.2. The students must choose one of the four following lexical units without an entry in Wiktionary (“mansplaining”, “pinkwashing”, “slutshaming” or “manspreading”) and create it. They must imitate the microstructure of the entry in 8.1.	40-45 min	Individually

Table 5. Session 5

#### 4. Conclusion

The proposal presented here has aimed to bridge lexicography and society by paying attention to the sustainability and social responsibility of Wiktionary as a didactic tool. As explained above, Wiktionary serves as a sustainable and democratic lexicographic information system thanks to its original conception as a free, multilingual, collaborative, and integrative resource (cf. Fuertes-Olivera, 2009; Meyer & Gurevych, 2012). The didactic proposal, based on five sessions with a duration of 30 to 105 minutes each, has followed a scaffolding approach (cf. Nunan, 2004) for the conclusion of the practical tasks.

The selection of lexical units originating from social minorities has reinforced the proposal’s socially responsible character. Additionally, an important contribution has been made by incorporating domain-specific terms (e. g., “lexikalisches Feld” or “semantisches Feld”) and neologisms (e. g., mansplaining or bullying), among other lexical units, into Wiktionary.

Apart from raising awareness on social minorities, students have been asked to think critically throughout the different exercises, such as in Session 5, where they had to consult and improve the Wiktionary lexicographic article for “Minderheit”. Applying the CLIL methodology has ensured that students not only gain knowledge of semantics and lexicography, but also develop their competence in the foreign language. German becomes, thus, the vehicular language during the different project phases.

In conclusion, Wiktionary has proven to be crucial for the construction of a new sustainable and socially responsible paradigm for practical lexicography. By means of this didactic proposal, this paper has contributed to the

consolidation of an innovative approach to improve lexicography, didactics and, thus, society.

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