DICOADVENTURE

User Manual

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1. Description and functioning of *DicoAdventure*

The *DicoAdventure* dictionary is a specialised online resource developed within the DicoAdventure project, co-funded by the ERDF Operational Programme 2014-2020 and the Ministry of Economy, Knowledge, Business and University of the Regional Government of Andalusia. It is led by Dr. Isabel Durán-Muñoz (University of Cordoba).

This resource aims to host the terminology of adventure tourism discourse incorporating different grammatical categories (nouns, adjectives, verbs and adverbs), both in English and Spanish, although it is currently under construction. It is a new resource that purports to offer a new way of representing the terminological information in its entries. It is intended for fulfilling the consultation needs of any user interested in adventure tourism, albeit it especially meets the needs of professional translators and interpreters.

The methodology followed for the elaboration of this dictionary is based on a specialised corpus, the ADVENCOR corpus, which is composed of promotional texts on adventure tourism originally written in English and Spanish and recently published by companies or public institutions (Durán-Muñoz and Jiménez-Navarro, 2021). Based on the corpus, the methodology is divided into five steps : 1) Extraction and selection of terminological units, 2) Semantic and syntactic annotation of contexts, 3) Definition of the argument structure of each unit, 4) Detection and distinction of meanings of each unit, and 5) Search for linguistic, semantic and pragmatic information of each unit (Durán Muñoz and L'Homme, 2020). This methodology, in turn, is influenced by Charles Fillmore's Frame Semantics theory (Fillmore, 1976, 1982; Fillmore and Baker, 2010) and his *FrameNet* project (Ruppenhofer et al., 2016), as well as by previous projects dealing with the terminology of some specialised domains, such as the *Kicktionary* project (Schmidt, 2009), the *JuriDiCo* resource (Pimentel, 2013), the *DiCoInfo* database, a *Framed* version (Ghazzawi, 2016), the *Frame DicoEnviro* resource (L'Homme, 2018) and the *EcoLexicon* database (Faber et al., 2016).

We will now describe the *DicoAdventure* resource, both in terms of its macro and microstructure.

2. Macrostructure of *DicoAdventure*

The *DicoAdventure* resource currently hosts entries of motion verbs and adventure activities, both in English and Spanish. However, we are still working on it to add more entries that cover all grammatical categories (nouns, verbs, adjectives and adverbs) of this discourse terminology.

The resource offers different types of search:

1) Alphabetical list in each language, i.e., all entries are shown in a list in alphabetical order from A to Z, as shown in Figure 1.
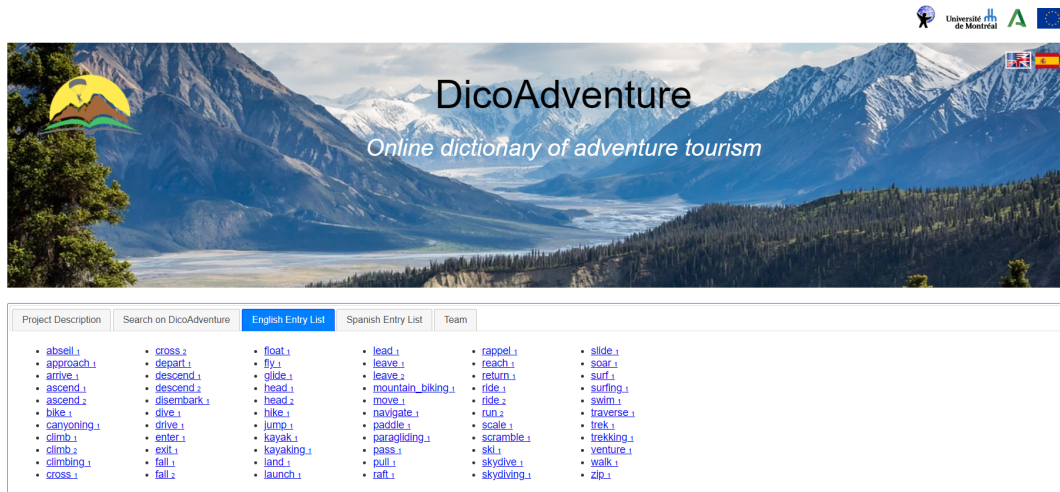

Figure 1: *List of English entries in alphabetical order.*

2) Hyperlinks between entries to facilitate search and access to information within the resource itself.

3) Search by specific term, i.e., the user is offered the possibility of searching for a specific term in the two working languages by entering the term in the search box. In addition to searching the entry for each term, the resource offers the possibility of searching within each section of the entry, i.e., you can search for the term you want within the definition, the argument structure, semantic relations, etc. (Figure 2). These searches can be refined by indicating whether you want to search for the specific term, whether it has a specific beginning or ending, and, in addition, you can search directly in one or both languages.
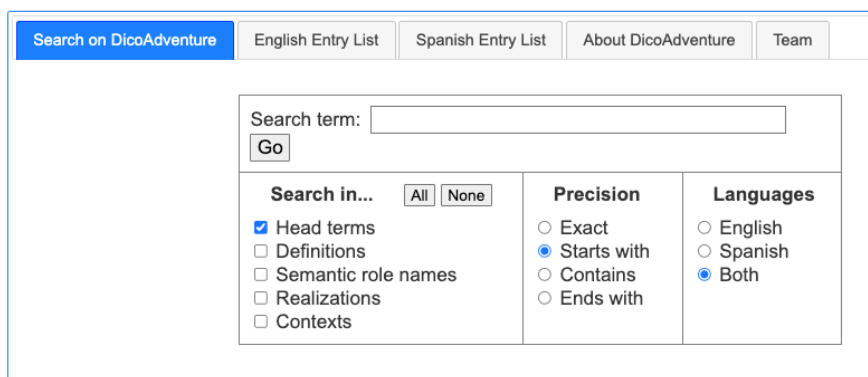

Figure 2: DicoAdventure *search options.*

In addition to the search forms, the resource also allows the user to select the language of the interface on the top right corner, by selecting either the English or Spanish version.

3. Microstructure of *DicoAdventure*

The microstructure of this specialised resource is aimed at meeting the needs of potential users, mainly professional translators. For this reason, it offers complete linguistic, pragmatic and semantic information easy to access and consult. In addition, each entry in the resource is organised in such a way that, at a glance, users can obtain a large amount of information related to the entry they are looking up, as shown in Figure 3.

enter ₁ vt/vi

1 **2** **3** **10** [ID: 2018-09-05] Top

Definition | Argument structure

4 A **TOURIST** goes into a particular place (**DESTINATION**).

6 Linguistic realizations of arguments and examples

Click on the EX buttons to see examples found for the different arguments

Tourist EX	Destination EX
hiker	area
jumper	canyon
trekker	cave
	environment
	gorge
	park
	rainforest
	world

5 Source: Wikipedia

7 Equivalents

Spanish

acceder (vi)
adentrarse (vi)
entrar (vi)

8 Contexts | Annotated contexts | Summary

Until 10 years ago only the fittest and most courageous hikers have dared to enter its narrow gorges. [ADVENCOR]
To enter, you build a tripod over the hole and fellow divers lower you down via climbing gear and ropes. [ADVENCOR]
Remember you may be entering an animal's home (bats, snakes, spiders, etc.) and just like any home you visit all respect should be given. [ADVENCOR]
Duck your head and enter an underground world formed some 15 million years ago. [ADVENCOR]
After a clear safety briefing by the guides, you enter the truly remote environment of the canyon. [ADVENCOR]

Related Meanings | Collocations | Opposites | Different Parts of Speech and Derivatives

9

Explanation	Term
Get closer to a **DESTINATION**	approach (vt/vi)
Arrive at a **DESTINATION**	reach (vt)
Reach a **DESTINATION**	arrive (vi)
Go back to a **DESTINATION**	return (vi)

Figure 3: *Entry of the verb* enter *in* DicoAdventure.

In *DicoAdventure*, all entries are structured in the same way:

1) Term of the entry in bold on the top left together with a number, which indicates the meaning it conveys, as some verbs can have more than one meaning (see *fall*, for example).

2) Number of the meaning of the head.

3) Grammatical category: "n" for noun, "adj" for adjective, "v" for verb and "adv" for adverb. Verbs are further divided into several types: 1) transitive verbs ("vt"), 2) intransitive verbs ("vi"), 3) verbs that can be transitive or intransitive with the same meaning ("vt/vi"), and 4) pronominal verbs ("vpron").

4) The definition of the unit and its argument structure.

5) A descriptive image that helps to understand the concept and supports its definition.

6) The linguistic realisations of the arguments accompanied by examples. To see the examples, it is necessary to click on the EX button.

7) The equivalents in the other language of the resource.

8) The usage contexts in two different forms: on the one hand, the context is unnanotated, only emphasising the term of the entry ; on the other hand, semantically annotated contexts are included showing the specific semantic roles created within the project. Next to these tabs, a summary of the semantically and syntactically annotated information is also provided.

9) Semantic relations with other terms, both generic and associative, i.e., synonyms, antonyms, hyperonyms and hyponyms, collocations, related meanings, among others, are included. It is important to highlight that not all the entries include the same semantic relations, as this will depend on the relations observed in the ADVENCOR corpus.

10) Metalinguistic information about the authorship and date of creation of the entry.

Both the definition and the argument structure of the unit are based on frame semantics and provide a description of its lexico-semantic properties. By default, the definition is the field that appears first, but the argument structure is easily accessible by clicking on the tab that appears right next to *Definition*. Both contain the same semantic information based on semantic arguments, although organised differently as they pursue different goals. That is, definitions aim to describe or clarify the meaning of a terminological unit, while argument structures show the relationship of the unit with respect to its main semantic arguments in the form of a structure and show how each unit functions in its context.[1]

For its part, the table of linguistic realisations provides terms related to each entry and thus works as a mini-dictionary for the semantic frame of that entry. Sometimes, the abbreviation [IMP] (implicit) is included, which indicates that there is some participant of the verb implicit in its meaning and no linguistic realisations are found for them. For example, in the case of the verb *row*, the instrument *oar* is understood to be included in its meaning and there will be no contexts where the verb *row* and *oar* are found in the same sentence.

In the case of the verb *enter*, the definition (Figure 4) and the argument structure (Figure 5) are presented below:

Figure 4: *Definition of the verb* enter *in* DicoAdventure.

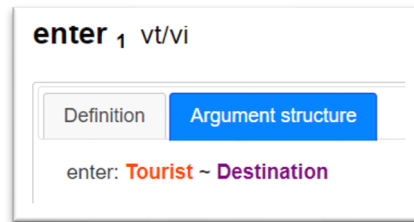[1] Both semantic and circumstantial arguments are explained in the following section.

Figure 5: *Argument structure of the verb* enter *in* DicoAdventure.

Both the definition and the argument structure show the same arguments (or semantic roles), but each one is organised in a different way to accomplish their objectives, which, as we indicated before, are: on the one hand, the definition of *enter* aims to describe the meaning of the unit in the context of adventure tourism, and, on the other hand, its argument structure shows how this verb works in context and how it is related to its arguments, both occurring before and after the verb. Thus, we see how the arguments of this verb are TOURIST and DESTINATION.[2]

In this same section, both linguistic or pragmatic notes can also be included in the *Definition* tab, and syntactic or semantic notes in the *Argument Structure* tab. As an illustration, such notes can provide information about the syntactic properties of the unit by indicating that it can be used both transitively and intransitively, about some argument that is implicitly included in the unit, about the frequent or regional use of a unit, among others.

The table of the linguistic realisations and the examples of the arguments of the terminological unit in question includes terms related to that entry as a mini-dictionary, which permits direct access to the concepts that revolve around that entry. The number of columns in the table will depend on the number of arguments of the particular unit. In the case of *enter₁*, we only find two different arguments (Figure 6).

Figure 6: *Linguistic realisations and examples of the arguments of the verb* enter₁ *in* DicoAdventure.

In each of these columns we find the realisations that have been detected in the corpus. We can see how the argument TOURIST is linguistically instantiated as *hiker, jumper,* and *trekker,* while the argument DESTINATION offers more options: *area, canyon, cave*, etc. Moreover, by clicking on the *Ex*

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[2] The different arguments are always coloured in the same way throughout the resource in order to show homogeneity and coherence.

[Examples] button, the resource allows access to the different instances that have been annotated in the corpus (Figure 7).

Figure 7: *Examples of the* DESTINATION *argument of the verb* enter$_1$ *in DicoAdventure.*

Following the linguistic realisations, the equivalents of the entry in the other language of the resource are shown. In addition to indicating the equivalent, the hyperlink allows access to the equivalent entry, provided that it is included in the resource.

Below the *Equivalents* section we find the section dedicated to real contexts. Here we distinguish three subsections: 1) real contexts extracted from the corpus where the query unit can be easily spotted, as it is marked in green (Figure 8); 2) the same contexts as in 1), but syntactically and semantically annotated (Figure 9), and 3) a summary of the annotated elements (arguments and circumstantials), including the annotated examples from the corpus and the syntactic specifications (Figure 10).

Figure 8: *Contexts extracted from the corpus for the verb* enter$_1$ *in DicoAdventure.*

Figure 9: *Annotated contexts for the verb* enter$_1$ *in DicoAdventure.*

Figure 10: *Summary of the annotations in the contexts of the verb* enter$_1$ *in DicoAdventure.*

In the summary table, three different types of information can be observed: 1) the corresponding semantic role, 2) the syntactic function and the type of phrase (nominal, prepositional, etc.), and 3) the instances extracted from the contexts analysed.

This section of the entry is of great interest to potential users for two reasons : first, it allows them to access real contexts extracted from a specialized corpus and, second, it makes it possible to observe the different arguments (and circumstancials) of the units at once. Thus, both the annotated contexts and the summary table of arguments and circumstantials provide quality information on how the unit functions in context, how it relates to its arguments and which are the most frequent arguments and circumstancials.

Finally, the list of semantic relations of the resource is very varied, but in each entry only those detected in each unit will be shown. For the case of *enter$_1$* (Figure 11), we find the following: 1) units that carry a related meaning, 2) collocations of the unit, 3) antonyms, and 4) different parts of speech and derivatives. Each of these relations will occupy a different subsection in the form of a tab, as shown in Figure 11. In this way, to access information about, for example, units belonging to different grammatical categories, the user will only have to click on the tab *Different parts of speech and derivatives.*

Related Meanings	Collocations	Opposites	Different Parts of Speech and Derivatives
Explanation		**Term**	
Get closer to a **DESTINATION**		approach (vt/vi)	
Arrive at a **DESTINATION**		reach (vt)	
Reach a **DESTINATION**		arrive (vi)	
Go back to a **DESTINATION**		return (vi)	

Figure 11: *Lexical relations of the verb* enter$_1$ *in DicoAdventure.*
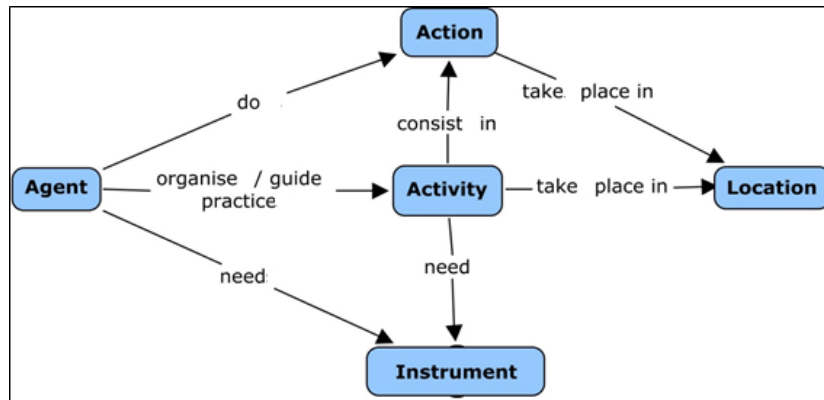
As can be seen in Figure 11, a term carrying a meaning related to the verb *enter$_1$* is the verb *approach*, which appears in the table with a hyperlink, allowing the user to directly access the verb by simply clicking on it. Like this, all the terminological units connected to the entry, either as equivalents or as lexical relations, are accessible through hyperlinks.

Finally, all the sections of the resource entries complement each other and provide an overview of the terminology related to the every unit, as well as an adequate understanding of the meaning of the unit and how it works linguistically, semantically and syntactically. In short, they provide relevant information so that users can use the term appropriately.

4. *DicoAdventure* semantic roles

The semantic arguments, i.e., the most frequent participants in the meaning of a lexical unit in *DicoAdventure*, are the following: 1) the people who are involved in the adventure activities (Tourist, Responsible), 2) those referring to the place where the activity occurs (Path, Place, Source, Destination), 3) the equipment needed to carry out the activity (Safety_Instrument, Clothing, etc.) and 4) the action that is performed (Figure 12).

Figure 12: *Prototypical conceptual representation of an adventure activity.*

In addition to the arguments of the units, other participants which are not essential to their meaning can also be found, albeit they are relevant to demonstrate their use in context. These include TIME, PURPOSE, MANNER, DISTANCE, DURATION, FREQUENCY, METHOD, PURPOSE, and SEQUENCE, and are called circumstantials

A list of the most frequent participants in this domain, along with their description, is shown in Table 1.

TOURIST	Person engaged in an adventure activity, e.g., *hiker.*
RESPONSIBLE	Person responsible for the adventure activity, e.g., *guide*.
PLACE	Place where an adventure activity occurs, e.g., *mountain*.
DIRECTION	Direction of the action, e.g., *upwards.*
SOURCE	Starting point of the adventure activity, e.g., *cave*.
DESTINATION	End point of the adventure activity, e.g., *ground.*
PATH	Path along which the adventure activity takes place, e.g., *trail.*
INSTRUMENT	Object used as an instrument in an adventure activity, e.g., oar.
VEHICLE_WITH_ENGINE	Motorized vehicle used in an adventure activity, e.g., *car.*
VEHICLE_WITHOUT_ENGINE	Non-motorised vehicle used in an adventure activity, e.g., *canoe.*
SAFETY_EQUIPMENT	Equipment required in an adventure activity to ensure the safety of the participant, e.g., *helmet.*

CLOTHING	Pieces of clothing required in an adventure activity, e.g., *wetsuit.*

Table 1. *Participants in the argument structure of lexical units and their general categories.*

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