

Selecting and annotating knowledge-rich contexts in the segment of adventure tourism

Eva Lucía Jiménez-Navarro and Isabel Durán-Muñoz Universidad de Córdoba, Spain

<u>lucia.jimenez@uco.es</u> / <u>iduran@uco.es</u>



CONTENTS

- 1. Introduction and background
- 2. Hypothesis and objectives
- 3. Methodology
- 4. Results
- 5. Conclusions
- 6. References



INTRODUCTION AND BACKGROUND

1. INTRODUCTION



What is adventure tourism?

- Alternative tourism (Fennell, 2003) → Opposite to mass tourism (e.g., sun and beach)
- New products
- Distinctive characteristics:
 - Outdoor activities (nature)
 - Unfamiliar places
 - Active tourism
 - Elements of risk at different degrees
 - Physical challenge





1. BACKGROUND

DicoAdventure Project

(http://www.uco.es/dicoadventure/index.php)



DicoAdventure resource

(http://olst.ling.umontreal.ca/dicoadventure/)







© OLST 2018-2022

HYPOTHESIS AND OBJECTIVES





Knowledge Rich Contexts (KRCs) (Meyer, 2001) are one of the usual data categories contained in terminological knowledge bases, as they express conceptual information of a term. Thus, they are used by terminographers to construct definitions and to acquire domain knowledge.

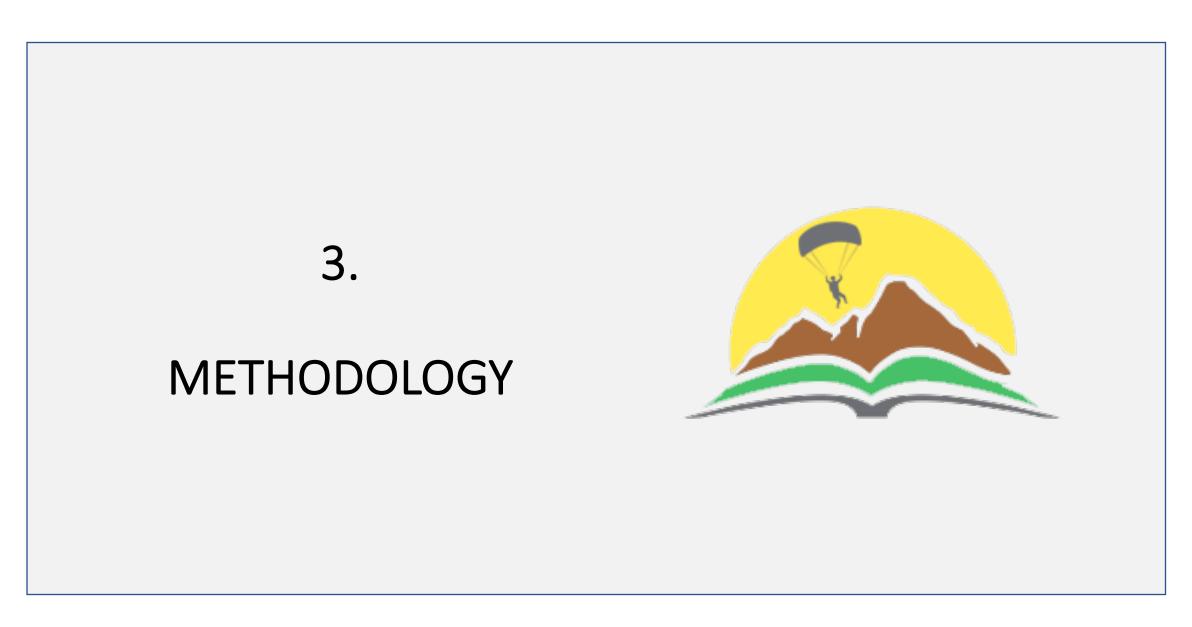
2. HYPOTHESIS AND OBJECTIVES

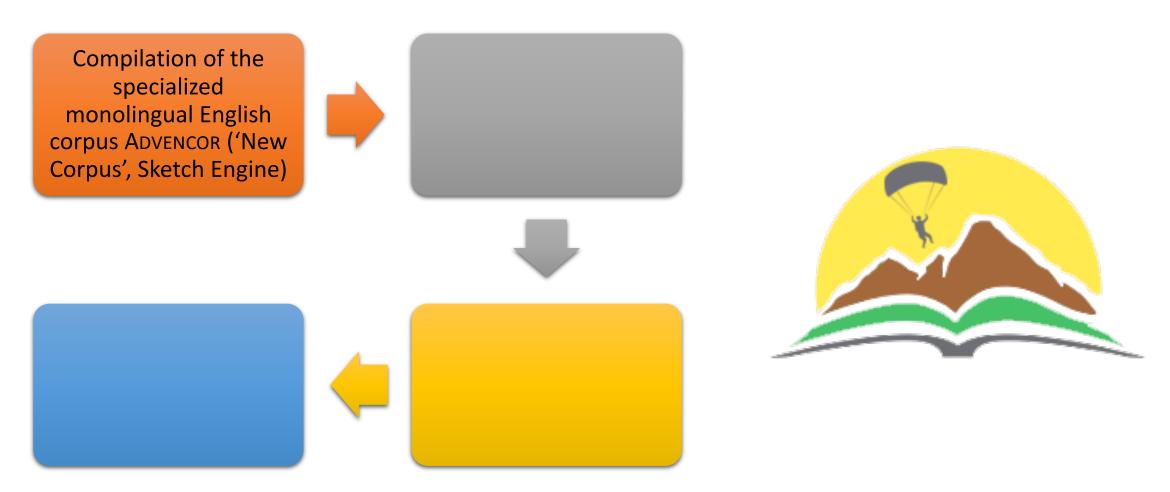


Knowledge Rich Contexts (KRCs) (Meyer, 2001) are one of the usual data categories contained in terminological knowledge bases, as they express conceptual information of a term. Thus, they are used by terminographers to construct definitions and to acquire domain knowledge.



- 1. To describe the methodology followed in the framework of the DicoAdventure project to select this kind of contexts from a corpus.
- 2. To explain how they are syntactically and semantically annotated with specific labels in the Oxygen XML editor.





Extraction of the Compilation of the concordance lines of specialized monolingual English the terms corpus Advencor ('New ('Concordance', Corpus', Sketch Engine) Sketch Engine)



Compilation of the specialized monolingual English corpus Advencor ('New Corpus', Sketch Engine)



Extraction of the concordance lines of the terms ('Concordance', Sketch Engine)







Selection of 15-20 contexts as KRCs (manually)



Compilation of the specialized monolingual English corpus ADVENCOR ('New Corpus', Sketch Engine)



Extraction of the concordance lines of the terms ('Concordance', Sketch Engine)

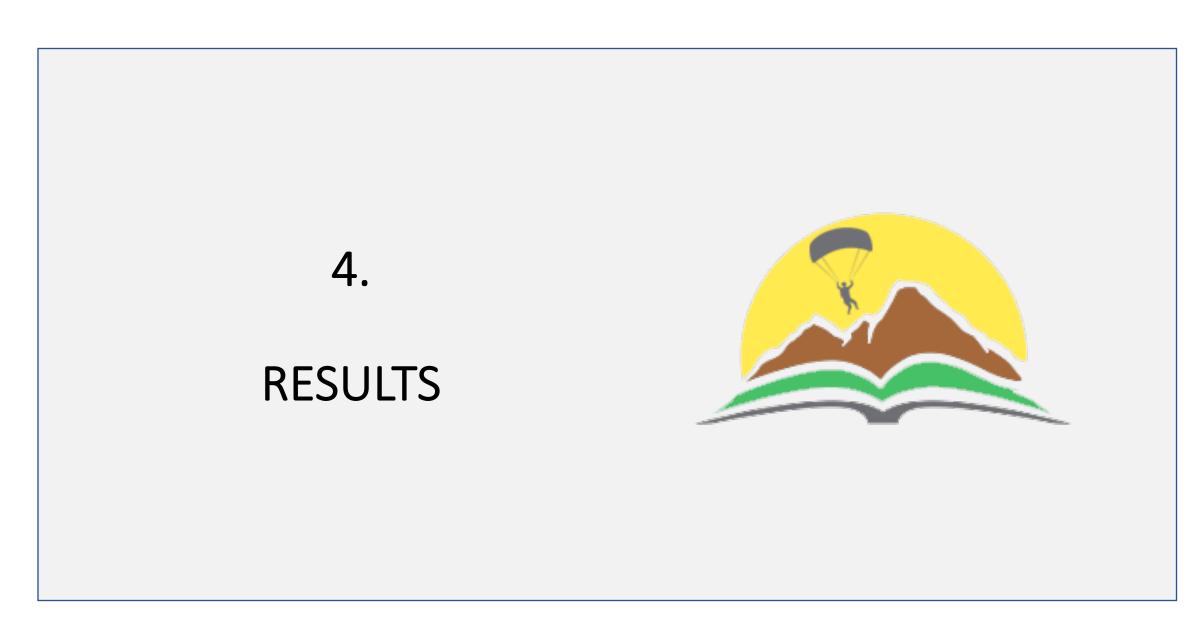


Semantic and syntactic annotation of the contexts selected (manually, Oxygen XML editor)



Selection of 15-20 contexts as KRCs (manually)





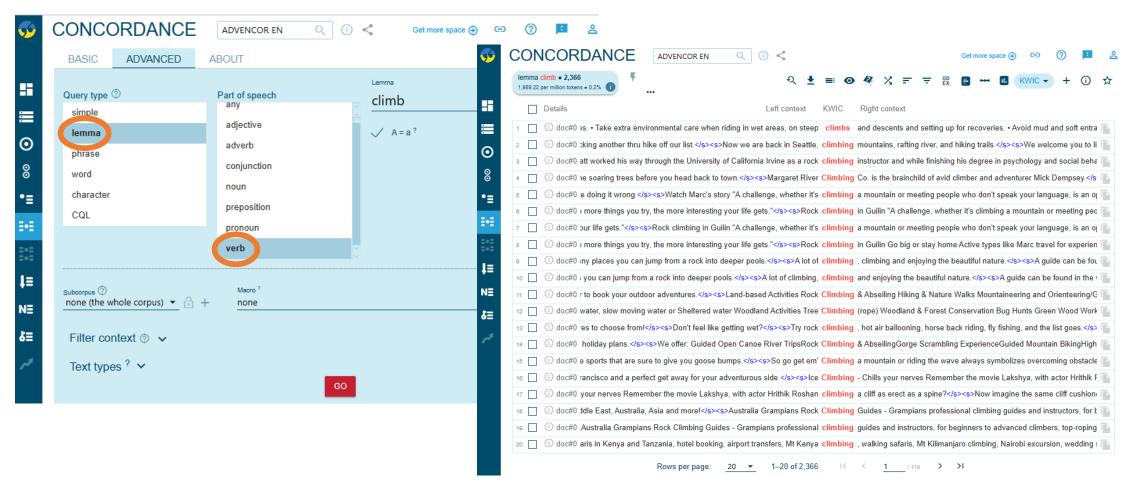


4. RESULTS (I): COMPILATION OF ADVENCOR

Number of tokens	1,189,409	
Number of types	1,005,480	
Type of corpus	Specialized / electronic	
Mode	Written	
Language	English	
Domain / Subdomain	Tourism / Adventure tourism	
Genre	Promotional	
Text length	Full texts	
Purpose	Terminological and phraseological analysis	
Communicative situation	Semi-specialized	
Publication date	Recent	
Source of texts	Websites	
Authorship	English-speaking public and private institutions	

4. RESULTS (II): EXTRACTION OF THE CONCORDANCE LINES





4. RESULTS (III): SELECTION OF 15-20 **CONTEXTS AS KRCs**

http://olst.ling.umontreal.ca /dicoadventure/#climb_1_e



Contexts -Annotated contexts Summary

Explore the area's rugged mountain parks and climb its iconic rocks. [ADVENCOR]

You can climb more than 1000 feet in a day as long as you come back down and sleep at a lower altitude. [ADVENCOR]

Every day we can climb a different via ferrata in the area. [ADVENCOR]

It is the safest way to climb a 300 mt rock face. [ADVENCOR]

Using the famous via ferratas (Italian for "iron roads") we climb awesome routes on the craggy heights. [ADVENCOR]

He's climbed difficult routes on the Eiger, Matterhorn and fabled peaks in Europe and South America. [ADVENCOR]

We will provide you with the canyoning skills you need to climb waterfalls, jump into pristine pools and abseil down normally inaccessible waterfalls. [ADVENCOR]

Experienced guides will show you how to climb your way to the top using the same climbing techniques mountain climbers do. [ADVENCOR]

In order to climb and conquer these peaks successfully, trekkers and climbers must be sufficiently acclimatized to the challenges. [ADVENCOR]

The last day we climb the highest peak of the Dolomites, the Punta Penia in Marmolada. [ADVENCOR]

You will get to hike and climb upriver using secured ropes. [ADVENCOR]

If you are unable to fit into one of our harnesses, you will be unable to climb. [ADVENCOR]

Thrill-seeking is an understatement when you climb to the top of the waterfall surrounded by majestic views of the Yorkshire Dales. [ADVENCOR]

You need to climb on a big, wide side ridge in front of you that eventually narrows and bends to the right. [ADVENCOR]

Learn to climb on rock in stunning surroundings in the Lake District or further afield. [ADVENCOR]

Climb on small crags, big multi pitch cliff faces or even on sea cliffs, there is so much to offer! [ADVENCOR]

In winter, learn to climb on spectacular ice formations with expert guides, [ADVENCOR]

Though the techniques used in ice climbing are the same as in rock climbing, the difference is that you need a few more tools which will help you climb on vertical ice sheets. [ADVENCOR]

There are plenty of very tall mountains that are easy enough for beginners to climb. [ADVENCOR]

Then we climb steeply up to a ridge marked by a Chorten. [ADVENCOR]

Climb up to the cliff line on the left hand side of the creek at the top of the waterfall. [ADVENCOR]

With the help of a rope, climb up through a qushing waterfall to find more secluded hot pools. [ADVENCOR]

You can climb at your own pace. [ADVENCOR]

The rock scramble is an easy 35 ft. rock face that participants will need to climb up using a rope as a hand line for assistance. [ADVENCOR]

As well we offer single climbing where you can use our auto-belay system allowing you to climb the walls without someone belaying you. [ADVENCOR]

The vertical walls of fixed rope routes offer us the possibility to climb high walls under optimal safety conditions, due to the continuous fixation to a rope, the so called "line of life" supported by clamps and metallic hoops. [ADVENCOR]

Guests are attached to a safety cable system as they climb the mountain, enjoying the views of the canyon and Ogden on their way up. [ADVENCOR]

When you go with us, you won't just climb the mountain; you'll meet the people who live on and around it and come away with a greater sense of alpine life. [ADVENCOR]

4. RESULTS (IV): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED





```
<contexte source="ADVENCOR" annotateur="MCLH" mise-a-jour="2018-01-06" statut="0"><contexte-texte> Explore the area's rugged mountain parks and climb its iconic rocks. </contexte-texte> Explore the area's rugged mountain parks and <lexie-att lemme="climb">climb</lexie-att><participant type="Act" role="Path"><fonction-syntaxique nom="Object">
```

<groupe-syntaxique nom="NP"> its iconic <realisation lemme="rock">rocks</realisation></groupe-syntaxique>
</fonction-syntaxique></participant>. </contexte>

<contexte source="ADVENCOR" annotateur="MCLH" mise-a-jour="2019-01-06" statut="0"><contexte-texte>You can climb more than 1000 feet in a day as long as you come back down and sleep at a lower altitude.</contexte-texte>

<participant type="Act" role="Tourist"><fonction-syntaxique nom="Subject"><groupe-syntaxique nom="NP"><realisation>You</realisation></groupe-syntaxique></fonction-syntaxique>

</participant> can <lexie-att lemme="climb">climb</lexie-att><participant type="Circ" role="Distance"><fonction-syntaxique nom="Object">

<groupe-syntaxique nom="NP"> more than 1000 <realisation>feet</realisation>/groupe-syntaxique></fonction-syntaxique>

</participant><participant role="Duration" type="Circ"><fonction-syntaxique nom="Complement">

<groupe-syntaxique nom="PP" preposition="in">in a <realisation>day</realisation>/groupe-syntaxique></fonction-syntaxique></participant>

as long as you come back down and sleep at a lower altitude. </contexte>

<contexte source="ADVENCOR" annotateur="MCLH" mise-a-jour="2019-01-06" statut="0"><contexte-texte>Every day we can climb a different via ferrata in the area.</contexte-texte>

<participant type="Circ" role="Frequency"><fonction-syntaxique nom="Complement"><groupe-syntaxique nom="NP">Every <realisation>day</realisation></groupe-syntaxique>

</fonction-syntaxique></participant><participant type="Act" role="Tourist"><fonction-syntaxique nom="Subject">

<groupe-syntaxique nom="NP"><realisation>we</realisation>/fonction-syntaxique>/participant>

can <lexie-att lemme="climb">climb</lexie-att><participant type="Act" role="Path"><fonction-syntaxique nom="Object">

<groupe-syntaxique nom="NP">a different <realisation>via ferrata</realisation>/groupe-syntaxique>

</fonction-syntaxique></participant><participant type="Act" role="Place"><fonction-syntaxique nom="Complement">

<groupe-syntaxique nom="NP">in the <realisation>area</realisation></groupe-syntaxique>

</fonction-syntaxique></participant>. </contexte>

4. RESULTS (V): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED

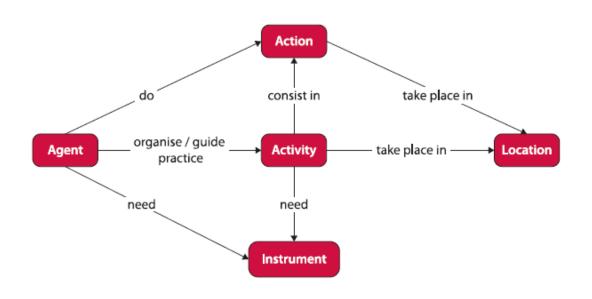


- The semantic roles represented in the contexts are classified according to their primacy in the meaning of the terms:
 - 1) Arguments (core participants) -> central to the meaning
 - 2) Circumstantials (non-core participants) -> optional
- The semantic roles are annotated according to a series of labels created ad hoc (e.g., Tourist, Place, Path, etc.).
- These labels are based on a prototypical conceptual representation of an adventure activity developed by Durán-Muñoz (2016) and first put into practice by Durán-Muñoz & L'Homme (2020) in the analysis of motion verbs.

4. RESULTS (VI): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED

- The categorization framework contemplates five categories.
- The access to one of them activates the other four.
- The categories <agent>, <location> and <instrument> were subdivided and gave rise to a total of 12 potential participants (semantic roles) in the argument structures of the motion verbs.





4. RESULTS (VII): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED



Broad conceptual category	Semantic role	Definition
<agent></agent>	Tourist	Person practicing the adventure activity (e.g., hiker)
	RESPONSIBLE	Person in charge of taking care of, guiding or briefing the TOURIST (e.g., guide)
<location></location>	PLACE	Location or area where the adventure activity takes place (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)
	Ратн	Path along/through which the adventure activity is developed (e.g., trail)
<instrument></instrument>	Instrument	Object employed as instrument in a specific adventure activity (e.g., paddle)
	VEHICLE_WITH_ENGINE	Vehicle with engine employed in a specific adventure activity (e.g., car)
	VEHICLE_WITHOUT_ENGINE	Vehicle without engine employed in a specific adventure activity (e.g., canoe)
	SAFETY_INSTRUMENT	Gear required in an adventure activity to guarantee TOURIST's safety (e.g., helmet)
	CLOTHING	Pieces of clothes required in an adventure activity (e.g., wetsuit)

4. RESULTS (VIII): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED





climb 1 vt/vi

Definition Argument structure

A **TOURIST** follows a **PATH** on an inclined surface (**PLACE**) in an upward **DIRECTION** and with effort from the ground (**SOURCE**) to a higher point (**DESTINATION**). Special safety equipment (**SAFETY_INSTRUMENT**) is often required.

<contexte source="ADVENCOR" annotateur="MCLH" mise-a-jour="2019-01-06" statut="0"><contexte-texte>Every day we can climb a different via ferrata in the
area./contexte-texte>

<participant type="Circ" role="Frequency"><fonction-syntaxique nom="Complement"><groupe-syntaxique nom="NP">Every <realisation>day</realisation></groupe-syntaxique></fonction-syntaxique></participant></participant>

<participant type="Act" role="Tourist"><fonction-syntaxique nom="Subject"><groupe-syntaxique nom="NP"><realisation>we</realisation></groupe-syntaxique></fonction-syntaxique></participant>

can <lexie-att lemme="climb">climb</lexie-att>

<participant type="Act" role="Path"><fonction-syntaxique nom="Object"><groupe-syntaxique nom="NP">a different <realisation>via ferrata</realisation></groupe-syntaxique></fonction-syntaxique></participant>

<participant type="Act" role="Place"><fonction-syntaxique nom="Complement"><groupe-syntaxique nom="NP">in the <realisation>area</realisation></groupe-syntaxique></fonction-syntaxique></participant>.

</contexte>



4. RESULTS (IX): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED

http://olst.ling.umontreal.ca/dicoadventure/#climb_1_en

Contexts + Annotated contexts Summary

Explore the area's rugged mountain parks and CLIMB its iconic rocks.

You can CLIMB more than 1000 feet in a day as long as you come back down and sleep at a lower altitude.

Every day we can CLIMB a different via ferrata in the area.

It is the safest way to CLIMB a 300 mt rock face.

Using the famous via ferratas (Italian for "iron roads") we CLIMB awesome routes on the craggy heights.

He's CLIMBED difficult routes on the Eiger, Matterhorn and fabled peaks in Europe and South America.

We will provide you with the canyoning skills you need to CLIMB waterfalls, jump into pristine pools and abseil down normally inaccessible waterfalls.

Experienced guides will show you how to CLIMB your way to the top using the same climbing techniques mountain climbers do.

In order to CLIMB and conquer these peaks successfully trekkers and climbers must be sufficiently acclimatized to the challenges.

The last day we CLIMB the highest peak of the Dolomites, the Punta Penia in Marmolada.

You will get to hike and CLIMB upriver using secured ropes.

If you are unable to fit into one of our harnesses you will be unable to CLIMB.

Thrill-seeking is an understatement when you CLIMB to the top of the waterfall surrounded by majestic views of the Yorkshire Dales.

You need to CLIMB on a big, wide side ridge in front of you that eventually narrows and bends to the right.

Learn to CLIMB on rock in stunning surroundings in the Lake District or further afield.

CLIMB on small crags, big multi pitch cliff faces or even on sea cliffs, there is so much to offer!

In winter learn to CLIMB on spectacular ice formations with expert guides

Though the techniques used in ice climbing are the same as in rock climbing, the difference is that you need a few more tools which will help you CLIMB on vertical ice sheets.

There are plenty of very tall mountains that are easy for beginners to CLIMB.

Then we CLIMB steeply up to a ridge marked by a Chorten.

CLIMB up to the cliff line on the left hand side of the creek at the top of the waterfall.

With the help of a rope, CLIMB up through a gushing waterfall to find more secluded hot pools.

You can CLIMB at your own pace.

The rock scramble is an easy 35 ft. rock face that participants will need to CLIMB up using a rope as a hand line for assistance.

As well we offer single climbing where you can use our auto-belay system allowing you to CLIMB the walls without someone belaying you.

The vertical walls of fixed rope routes offer us the possibility to CLIMB high walls under optimal safety conditions, due to the continuous fixation to a rope, the so called "line of life" supported by clamps and metallic hoops.

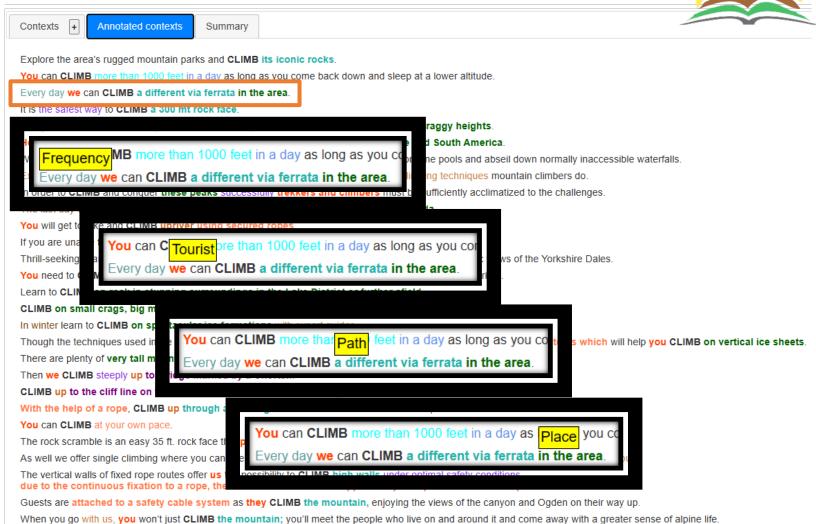
Guests are attached to a safety cable system as they CLIMB the mountain, enjoying the views of the canyon and Ogden on their way up.

When you go with us, you won't just CLIMB the mountain; you'll meet the people who live on and around it and come away with a greater sense of alpine life.



4. RESULTS (X): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED

http://olst.ling.umontreal.ca/dicoadventure/#climb_1_en



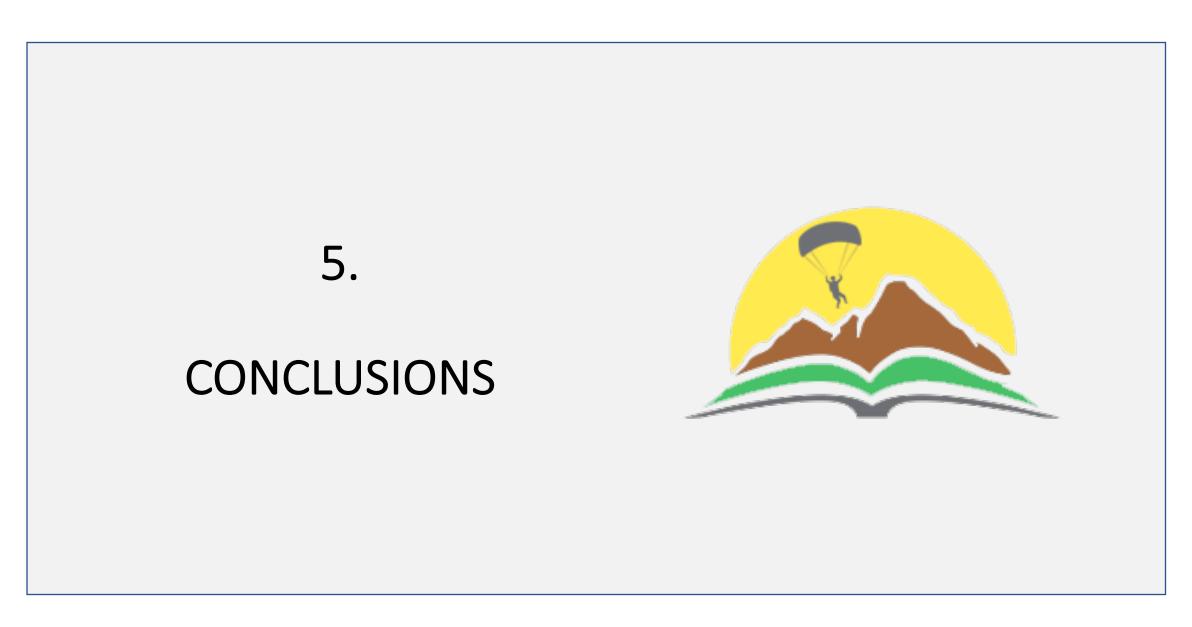
4. RESULTS (X): SEMANTIC AND SYNTACTIC ANNOTATION OF THE CONTEXTS SELECTED



http://olst.ling.umontreal.ca/dicoadventure/#climb_1_en

Contexts - Anno	otated contexts Summary	1		
			Arguments	
Destination	Complement (PP-to)	to a ridge marked to the cliff line (1) to the top (1) to the top of the w		
Direction	Complement (PP) Complement (AdvP) Modifier (AdvP)	up (4) upriver (1)		
Path	Complement (PP-through) Object (NP)	a 30-meter tree (1 a 300 mt rock fact a 300 mt rock fact a cliff (2) a different via ferr a single face (1) awesome routes (difficult routes (1) high walls (1) its iconic rocks (1) the 5000-foot fact the mountain, (1) the steep waterfalt walls (1) through a gushing trees (1) waterfalls (1)	é (1) ata (1) (1)) e (1) Ils and snow couloirs. (1)	1)

		Others	
Degree	Modifier (AdvP)	easy (1)	
Distance	Object (NP)	more than 1000 feet (1)	
Duration	Complement (PP-in)	in a day (1) in less time than most hikers (1)	
Frequency	Complement (NP)	every day (1)	
Manner	Complement (NP) Complement (PP-under) Complement (AP) Modifier (AdvP)	as erect as a spine (1) steeply (1) successfully (1) the safest way (1) under optimal safety conditions, (1) your way (1)	
Method	Complement (VP) Complement (PP-without)	using the famous via ferratas (italian for "iron roads") using the same climbing techniques (1) without someone belaying you (1)	
Purpose	Complement (VP)	to find more secluded hot pools (1)	
Responsible	Complement (PP-with) Indirect link (NP)	experienced guides (1) with expert guides (1) with us, (1)	
Sequence	Complement (AdvP)	then (1)	
Speed	Complement (PP-at)	at your own pace (1)	

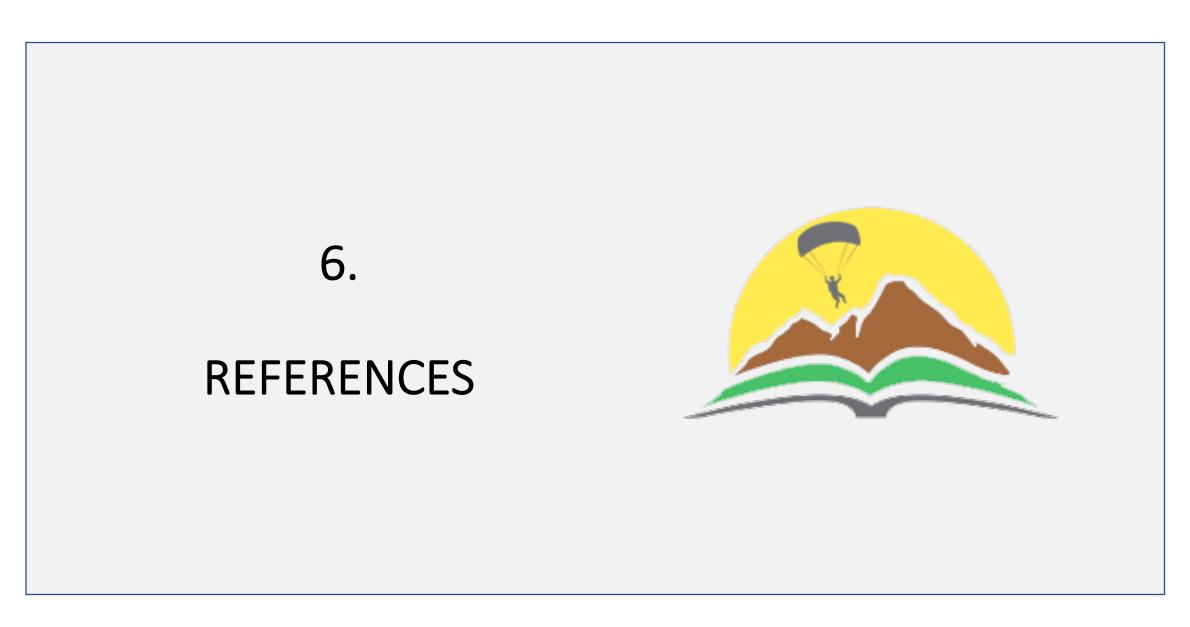


5. CONCLUSIONS



- Knowledge Rich Contexts (KRCs) (Meyer, 2001) are useful to identify the conceptual information of a term.
- KRCs allow terminographers to construct definitions and to acquire domain knowledge by paying attention to the context around the term.
- KRCs are a valuable instrument to create entries in terminological knowledge bases.

• The methodology followed in this research to select KRCs is implemented for all the entries in the *DicoAdventure* resource.



6. REFERENCES

- DicoAdventure. An online dictionary of adventure tourism. (2022). Montréal, Canada: OLST.
- Durán-Muñoz (2016).
- Durán-Muñoz & L'Homme (2020).
- Fennell, D. (2003). *Ecotourism. Second edition*. London/New York, England/NY: Routledge.
- Meyer (2001).
- Oxygen XML editor
- Sketch Engine [Computer software]. (2022). Brno, Czech Republic: Lexical Computing Limited.

THANK YOU FOR YOUR ATTENTION



Selecting and annotating knowledge-rich contexts in the segment of adventure tourism

Eva Lucía Jiménez-Navarro and Isabel Durán-Muñoz Universidad de Córdoba, Spain

<u>lucia.jimenez@uco.es</u> / <u>iduran@uco.es</u>

