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Jihočeská univerzita  
v Českých Budějovicích  
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in České Budějovice

**Jihočeská univerzita v Českých Budějovicích**

Pedagogická fakulta

Katedra anglistiky

**Lexikální komplexita schopností a talentů ve  
World of Warcraft**

**The lexical complexity of ability and talent  
tooltips in World of Warcraft**

Bakalářská Práce

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České Budějovice 2022

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V Českých Budějovicích dne July 7, 2022

Filip Niederberger

## Poděkování

Zde bych rád vyjádřil poděkování Mgr. Jaroslavu Emmerovi za odborné vedení práce, užitečné připomínky, podporu a vstřícnost při konzultacích a vypracovávání práce.

## Anotace

Tato bakalářská práce se zabývá pokročilostí jazyka užívaného v oblasti "ability/-talent tooltips" v počítačové hře World of Warcraft. Teoretická část se zaměřuje na sémantiku, rozdíly mezi aktivní a pasivní slovní zásobou, rozdíly mezi mluveným a psaným textem a na závěr teoretické části v krátkosti popsany Společný evropský rámec pro jazyky. V praktické části jsou s použitím korpusového programu #LancsBox vytvořené tři tabulky s 20 nejvíce použitými substantivy, adjektivy a slovesy, které se v "ability/talent tooltips" objevují a jsou následně podrobeny analýze z hlediska úrovně pokročilosti podle CEFR.

## Abstract

This Bachelor thesis deals with the advancement of language used within the field of "ability/talent tooltips" in the computer game World of Warcraft. The theoretical part focuses on semantics, the differences between active and passive vocabulary, the differences between spoken and written text, and at the end of the theoretical part, the Common European Framework for Languages is briefly described. In the practical part, using the corpus program #LancsBox, three tables are created with the top 20 most used nouns, adjectives and verbs that appear in the "ability/talent tooltips" and are subsequently analysed from the point of view of the level advancement according to the CEFR.

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# 1 INTRODUCTION

Nowadays, computer games are considered a primary source of English language exposure, most notably among youths. Although many games are translated into various languages, linguistically rich games usually will not get their translations due to their complexity and the amount of text. World of Warcraft is definitely one of the most extensive games in terms of sophistication and content which leads to huge linguistic diversity. This thesis intends to examine the vocabulary to which the players of this game are exposed.

The theoretical part deals with the main aspects of semantic fields, differences between active and passive vocabulary, and basic features of written and spoken forms of language, along with a brief description of a Common European Framework of Reference for languages.

In the practical part, I present a text corpus of words from "ability/talent" tooltips which players encounter directly. Therefore the assumption is that players need to understand this area of vocabulary as much as possible in order to enjoy the gameplay. Also, using a text corpus software #LancsBox I created a frequency lists of words of "ability/talent tooltip" area and analysed them in terms of levels (by CEFR).

I chose World of Warcraft as a topic of study for this thesis mainly because of my positive experience in improving my English vocabulary through playing this game over the years and due to its popularity worldwide despite being almost two decades old.

## 2 THEORETICAL PART

### 2.1 Semantics

#### 2.1.1 What is semantics?

Semantics is a relatively new part of linguistics with the first stages of lexical semantics starting roughly in the early nineteenth century. Its primary focus is on word meaning changes, identification, classification and explanation of semantic changes (Geeraerts, 2010).

Semantics goes by the Oxford Advanced Learner's Dictionaries description as a study of meanings of words and phrases (Oxford Advanced Learner's Dictionaries, 2022). The word semantics was shaped by many derivations of the Greek verb *sēmainō*, which translates as "to mean" or "to signify" (Britannica, 2022).

As a crucial element in social organization, semantics is primary to the study of communication and, most importantly, the human mind - thought processes, cognition and conceptualization are all connected in how we organize and deliver our experience through language (Leech, 1985).

"Philosophy, psychology and linguistics all claim a deep interest in the subject. But their interests tend to differ because of their different starting points: psychology the understanding of the mind; linguistics the understanding of language and languages; philosophy the understanding of how we know what we know, of the rules of right thinking, and the evaluation of truth and falsehood." (Leech, 1985).

Both Leech (1985) and Lipka (1992) see semantics as an area of linguistics to be on par with other studies of linguistics such as phonology or syntax which study respectively speech and sound and formal patterns of language.

Semantics is a study that concentrates on the meanings that can be expressed. The syntax and phonology, on the contrary, are studies about the design of expressive opportunities (Leech, 1985).

"All three levels, phonology, lexicology, and syntax are subsystems of the entire language system. They may be described at a particular point in time, i.e. synchronically, or in their historical evolution, i.e. diachronically. Phonology, which is concerned with the sound system of the language, has a formal, but no

semantic aspect. Lexicology has both a morphological and a semantic dimension, and both may be regarded from a diachronic or a synchronic point of view. The same holds for syntax, which is concerned with larger linguistic units." (Lipka, 1992).

I have recreated Lipka's (1992) three-dimensional linguistic model that he described above.

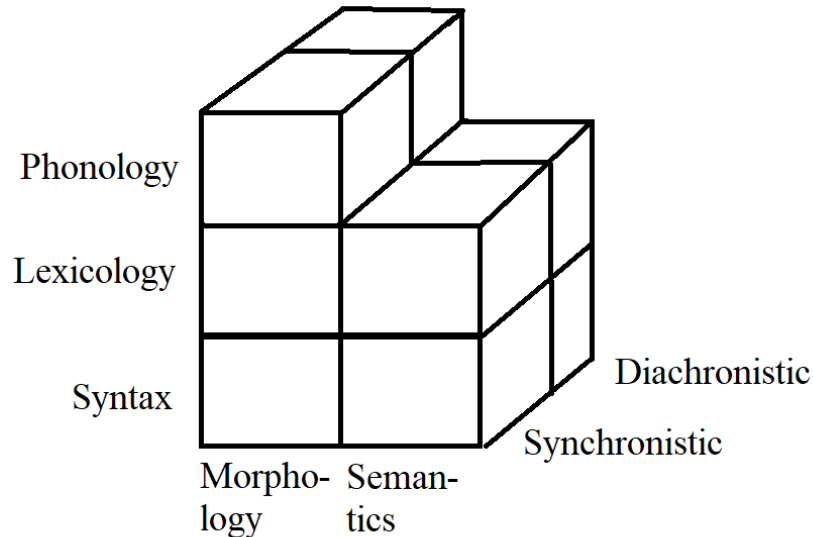


Figure 1: Lipka's model of semantics relations

### 2.1.2 What are semantic fields?

According to Geeraerts (2010), it was Trier who first made the most important study in the history of lexical field theory and defined the concept of lexical fields back in the 1930s, meaning that if words under certain deliberation are given shared distinction only then can they give us a conclusive answer regarding their value. Geeraerts (2010) also states that lexical, word, and semantic fields are usually treated as the same thing (Geeraerts, 2010, p. 56).

It is essential that we first look at a language's vocabulary as it is not just a mass of words randomly scattered and lying around. The words are at least partially structured and sorted at different levels. These structures in the vocabulary can have a phonological, grammatical or semantic basis (Cruse, 2000).

The semantic structure of the lexicon (the vocabulary) directly suggests that



the structure is a network of meaning relationships clustering words together. No words are in complete solitude, because if we think of, e.g. 'sword', there might be other lexemes that would help us define it as 'blade or saber' or even close in meaning such as 'claymore, falchion or broadsword'. But since English vocabulary is quite vast in capacity, not much has been defined yet (Crystal, 2019).

The semantic fields represent the structure in the lexicon. It is a rich part of the semantic structure that is determined as a specific range of meaning in which words or phrases are linked and characterize each other in certain manners. To simplify, we can all think of 'colours', 'vegetables' or 'Greek Gods', and thus we should have no problems attaching 'potato', 'Hades' or 'yellow' to their relevant field. (Crystal, 2019)

Nevertheless, the task may not be as straightforward since some lexemes may be a part of a field that can not be so easily described e. g. what field should 'tough' reside in? Some words may fit into at least two fields such as 'nail' is it a 'body part' or a 'fastener'. Some expressions might take place in between two fields for instance is 'tomato' a 'fruit' or 'vegetable'. Although there may be some complications, many lexemes can be assigned almost effortlessly into various fields and sub-fields (Crystal, 2019).

### 2.1.3 Hierarchies

Linear fields, for instance 'age' or 'temperatures', comprise many objects. They are called non-hierarchic. On the other hand, the hierarchic fields are based on a certain sense-relation of inclusion. (Lipka, 1992)

One of the most relevant hierarchies is the branching hierarchy (Cruse, 2000). For this matter, I have created a simplified form based on Cruse's Fig. 10.1 (2000) which I use to clarify the relations below.

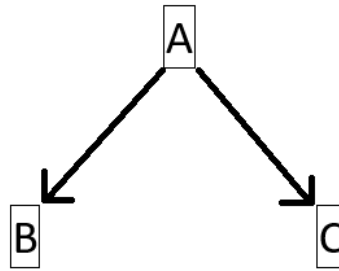


Figure 2: Branching Hierarchy

Cruse explains that given types of hierarchies have two characteristic relations. "The relation of dominance is the one which holds between A and B, A and C, and is symbolized by the lines joining the nodes (branching points). The relation of difference is the one which holds between B and C. In a well-formed hierarchy, the relations of dominance and differentiation are constant throughout the structure." (Cruse, 2000).

This lexical hierarchy is significant since A, B and C resemble specific lexical units as objects of a particular sense. Cruse mentions that there are two major types of lexical hierarchies, taxonomic and meronomic (Cruse, 2000).

The taxonomic hierarchy is described as a typical structure with classificatory elements that reveals a form in which language speakers identify and categorize their experience, because an accurately shaped taxonomy can give us a systematic and effective array of categories at different levels of distinction (Cruse, 2000).

The meronomic hierarchy is based around a "part of" relationship. Cruse explains that this hierarchy has some points open for discussion, as if we think, for example, of body parts, should then, shoulders be part of an arm or a torso? He also states that most of our understanding and perception takes the shape of bits of meronomies (Cruse, 2000).

According to Cruse (2000), the considerably large difference between the two hierarchies is that a meronomic hierarchy does not have clear generalized levels. This means that meronomy describes "parts of a whole", whereas taxonomy has separate units or their respective classes.

## 2.2 Active and passive vocabulary

Crystal (2019) reported that an average English speaker's vocabulary is determined by their hobbies and educational background. Undoubtedly, if someone reads extensively, they are going to be exposed to a larger number of words than someone who does not read at all. Naturally, degrees in certain subjects such as chemistry or linguistics will also affect one's vocabulary development (Crystal, 2019).

Whilst each person has their own vocabulary range, there are always two quantities given that ultimately express one's overall vocabulary size. Firstly, there is the "active vocabulary" represented by words and phrases that the speaker can produce in speech or writing. Secondly, there is the "passive vocabulary" represented by words known to the speaker, however, they would not be able to generate these words in communication (Crystal, 2019).

Crystal tried measuring different people's both passive and active vocabularies where he made an experiment that: "For anyone with the time and energy, it would be perfectly possible to go through a medium-sized dictionary (of c. 100,000 entries) and mark it up in this way. However, most people wishing to live an otherwise normal life will prefer to opt for a small sample - say, 1 per cent (20 pages from a 2,000-page book, but taken from several parts of the alphabet), which gives quite a good first approximation. An office secretary, a businesswoman (and a voracious reader), and a lecturer all carried out this exercise: their active totals (respectively) were 31,500, 63,000, and 56,250; their passive totals were 38,300, 73,350, and 76,250 – an average increase of 25 per cent." (Crystal, 2019, p. 133).

"Most English vocabulary arises by making new lexemes out of old ones – either by adding an affix to previously existing forms, altering their word class, or combining them to produce compounds. These processes of construction are of interest to grammarians as well as lexicologists." (Crystal, 2019, p. 138).

One of the points to be linguistically an adult is to achieve a vocabulary that can reach 50 000 or more words in active vocabulary, and a passive ability to understand about half as many again. (Crystal, 2019, p. 478).

## 2.3 Spoken and written language

The ability to speak and listen comes to us considerably earlier than the ability to read and write, assuming one is born with standard competence to learn. But it is quite a paradox that in our typical current-day teachings, we do not learn the spoken language first prior to learning at least the basics of written language (Crystal, 2019, p. 248).

Generally, there is one huge difference between spoken and written language. In written language, it is possible to plan ahead, pause, start again or change our minds almost without a problem as we have time for this. In spoken language, it is common to have second thoughts, interruptions, or to be at loss for words at the specific time when we are talking continuously (Crystal, 2019).

In an everyday natural conversation it would be nearly impossible to catch the melody, stress and tone of the voice if it was written in extracts as printed out written text as it would look plainly weird (Crystal, 2019).

Lipka (1992) employs term "medium" which is usually used to distinguish the written form from spoken form. "Thus, a dictation is "spoken to be written", while a radio news bulletin is "written to be spoken". Many legal expressions and specific grammatical peculiarities are only found in written texts, such as documents and contracts." (Lipka, 1992, p. 19).

One major difference between the written and the spoken medium is that in written forms we have numerous typographical ways and also headings and paragraphs at our disposal to give message an arrangement. In the spoken form we make use of our intonation and speech tempo, while also employing gestures and eye contact (Lipka, 1992).

Also, it is written that concerning lexicon, literary and poetical words and archaic and extinct words appear practically only in the written form and barely in the spoken form (Lipka, 1992).

### 2.3.1 Specifications of spoken forms

Starting with vowels, they provide a decent example of how big of a difference there is between spoken and written language, in written language, in our alphabet we have 6 vowels, but in spoken language, there are about 20 vowels. The

exact number depends on the system being evaluated, with accents playing a significant role in the sound qualities (naturally, British vowel sounds are going to be different from Australian vowel sounds). After all, the vowel difference provides us with the most information about other people's individuality, which we link to an appropriate accent (Crystal, 2019).

"When we talk about the 'sound system' of English, we are referring to the number of phonemes which are used in a language, and to how they are organized. To say there are '20 vowels' in a particular accent means that there are 20 units which can differentiate word meanings: /e/ is different from /i:/." (Crystal, 2019, p.248)

All vowels have in common noticeable features from consonants. From a phonetic standpoint: "vowels are articulated with a relatively open configuration of the vocal tract: no part of the mouth is closed, and none of the vocal organs come so close together that we can hear the sound of the air passing between them. Consonants have a very different method of articulation." Meanwhile, consonants usually have a closing movement of one of the vocal organs (it can be the lips, the tongue, or the throat) (Crystal, 2019, p. 250).

From a phonological standpoint, vowels are usually found in the middle of a syllable. On the other hand, consonants are found at the sides of syllables (Crystal, 2019).

The case of consonants, on the other hand, has significantly less of an impact on the difference between spoken and written language in terms of the number of letters and sounds. While in written language there are 21 consonants in total, in spoken language there are around 24 consonant sounds in most English accents (Crystal, 2019).

A considerable amount of cases have interesting points where one consonant letter can represent more than one sound (such as the x in box sounds as /boks/) or one consonant sound is spelled by more than one letter (such as th in this) (Crystal, 2019).

Crystal (2019) further describes that consonants and vowels do not work alone. They work in a combination with each other to create syllables. "People are also able to count the number of syllables in a word, by beating out its rhythm. The

rule is basically simple: each syllable contains one vowel or vowel-like nucleus." (Crystal, 2019).

Furthermore, from syllables we create words that we then combine into sentences and phrases. (Crystal, 2019).

### 2.3.2 Specifications of written forms

One kind of graphic interpretation is the writing as a way of communication, which consists of making visual marks on some type of surface. Other kinds of expressions are, for instance, drawings, musical notations or math equations. Graphic marks, such as those found in the English alphabet, are presented as individual speech sounds (with changing regularity) (Crystal, 2019).

Orthography is a standardised language writing system; specifically, English orthography contains a set of letters (the alphabet) and their possible form (capitalized or lower-case letters), the spelling system and a series of punctuation marks. While studies of spoken form can be divided into phonetics and phonology, in a similar way, the written form is divided into graphetics and graphology (Crystal, 2019).

Graphemes are abstract units that can appear in various forms. Like phonemes, graphemes are the smallest meaningful units in a writing system and have no peculiar meaning, therefore it does not make much sense to ask, for instance, "What does n mean?" or "What does y mean?". There are thousands of possible physical variations of how to write for example "E" (E, E, e, e). Thus, their main role is to combine into linguistic units while each of the 26 letters plays a contrastive role (Crystal, 2019).

"Each type-face (e.g. Times) is represented by several alphabets (e.g. roman, bold, italic, upper-case, lower-case), and these consist of letters, punctuation marks, and other symbols. The symbols may then be combined into larger units of text, such as words (which have a spoken language equivalent) and lines (which do not), paragraphs (which have a partial spoken equivalent) and pages (which do not)." (Crystal, 2019).

Texture has also been described as the dominant visual quality of typeset text, it includes complex interactions of type-faces, type sizes, letters and line

spacings, colours and other such variables combined (Crystal, 2019).

Nevertheless, meanings expressed by the words and sentences can be modified with extra dimensions of emphasis by picking certain kinds of typography and laying out the text on the page in a specific way. These dimensions can have more than one meaning at the same time, for example, when the meanings bolster each other (emphasis), when the meanings differ (irony), when the meanings point out other features of the story (atmosphere), and when the meanings are absurd (humour). This is possible due to the choice of elements such as colour, type size and line direction, etc. (Crystal, 2019).

### 2.3.3 Usage of spoken and written forms

To create a sequence of speech or writing, we continuously use our lexical and grammatical capabilities of the language to disclose the meaning that we try to pass on while at the same time we are trying to make our structure flow efficiently (Crystal, 2019).

Using English means more than just using our knowledge of linguistic structures to make conversations and several sentences. One of the major points is that a person has to be aware of a variety of situations in which English can be used in specific ways and they can't always be easily defined, unless we begin making sense of them by looking at the communicative products with which they are associated.

For instance, prayers, posters, road signs, lectures, sports commentaries, visual novels, speeches, interviews, recipes, and even computer games, have a different function of communication each, e.g. a speech is going to be more formal than a poster (Crystal, 2019).

Crystal (2019) also defines stylistic features in relation to these varieties, as they identify personal preferences in usage such as humour or poetry, or the arrays associated with certain groups, for example, lecturers, lawyers or journalists. Nevertheless, as we have at least some conscious control over this feature of our spoken and written language, they are relatively temporary. We often use different language styles as the day goes by (e. g. family, job, religion, sports), and so we frequently change our speaking or writing style to make a specific effect.

As stated above, spoken and written forms have differences in terms of phonetics, phonology and other parts of linguistics.

The spoken and the written forms each have individual ways of communication, despite being historically linked together, writing usually is intended as something more than just "speech written down", and even though speech is looked upon in a similar way as it is criticized by its closeness to the writing, they are still separate (Crystal, 2019).

The difference between the spoken and the written forms is further ensured by the fact that the written formulations, typically treaties, are generally needed to make agreements as a legal binding. For example, historical documents and inscriptions, first editions, etc. are mostly given a respect, in opposition to speech which rarely gets one. Since the written forms have been established in our society for more than hundreds of years, it became a standard among us, that we value (Crystal, 2019).

As a study of sentence structure, Syntax is introduced to us from early school years, as we learned to imagine that we speak in sentences and are taught to write in a particular order. "Word order is at the heart of syntax, and most of English grammar is taken up with the rules governing the order in which words, and clusters of words, can appear." (Crystal, 2019).

Most syntactic structures ordinarily have a united set of words or phrases that are regularly used with real texts, as analysis presents, although syntax and lexicon are generally treated as individual subsystems of the English language.

Each grammatical unit can be defined in terms of its syntactic role in building up larger syntactic units. Although there is no one-to-one correspondence in structure and syntactic roles, it is worth noting that each phrase type characteristically has many different syntactic roles (Biber, 1999).

"The independence of words is shown phonologically by the fact that they may be preceded and followed by pauses; orthographically by their separation by means of spaces or punctuation marks; syntactically by the fact that they may be used alone as a single utterance; and semantically by the possibility of assigning to them one or more dictionary meanings." (Biber, 1999, p. 51).

Biber (1999) explains that we use our vocabulary and grammar for communi-



cation, it is influenced by many factors such as the context, the people with whom we are communicating and whether we are speaking or writing, also together they give us systematic patterns of use in English.

While speech and writing have obvious distinctions e.g. writing uses a "graphic substance" as a medium, and speaking uses a medium of "phonic substance" for air-pressure movements produced by vocal organs, these differences are fundamental when it comes to speakers and writers in communications.

Nevertheless, the grammar and lexicon of speech are not all the same as that of the writing and neither are the contradictions that are available in graphology to the ones available in phonology, these are the divergences within the language structure (Crystal, 2019).

Whenever we choose to either write or speak, we should give a thought about the other, as that is what affects the nature of our language usage. (Crystal, 2019).

## 2.4 Common European Framework of Reference for Languages

Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR henceforth) as the title states, is a framework of reference. The Council of Europe developed it to establish and compare descriptors of language proficiency back in 1992 as a research group in Switzerland was chosen for this task.

Nowadays, the CEFR gives language learners ideas on what new knowledge and abilities they should develop to act effectively and how to use language for communication. The CEFR also provides us with 6 levels of proficiency (first launched in 2001) which are graded accordingly from lowest to highest as A1, A2, B1, B2, C1, and C2. These can be grouped into more straightforward levels as follows: A1 (beginner) and A2 (elementary English) are basic users, B1 (intermediate English) and B2 (upper-intermediate English) are independent users, C1 (advanced English), and C2 (proficiency English) are proficient users. These levels provide learners with the measurement at each level of learning, with evidence of attained level for a lifetime. However, CEFR is not just about the English language, but rather deals with foreign languages in general.

The main objective of CEFR (as stated on their website) is the promotion of diversification in the choice of languages, support of the development of plurilingual profiles of individuals, expanding and reviewing language curricula's content, designing and improving textbooks and teaching materials, aiding teacher education and their participation with teachers of other languages and maintaining transparency in testing and similarities of certifications. However, universally, it is about enhancing the quality and success of learnings, teachings and assessments.

## 3 PRACTICAL PART

### 3.1 What is World of Warcraft?

World of Warcraft (WoW) a massively multiplayer online role-playing game (MMORPG) was released in November 14, 2004, by an American company Blizzard Entertainment. MMO- indicates that thousands or even millions of players can play together online typically in games with fantasy or sci-fi settings. As for the -RPG, WoW allows players to create characters symbolic to the WoW universe, with which they are able to explore this specific gaming world, and interact with non-player characters (NPCs) and other players (PCs) (Britannica, 2022).

WoW became very quickly popular as millions of players were playing it, allowing the company behind it to release several expansions over the course of years, offering players new quests, gear, maximum attainable level, classes, continents and lore.



Figure 3: World of Warcraft Logo

As stated on their website: "Azeroth is home to a large variety of races, some native to its lands and some hailing from other realms. Whether as a stalwart defender of the Alliance or a fierce guardian of the Horde, deciding which race to play will define who you'll fight for in this neverending war." (World Of Warcraft, 2022). Players, when creating their character get to choose out of a set of races within the two warring factions, Alliance and Horde. In Alliance, players can choose from being either Human, Dwarf, Night Elf, Gnome, Draenei or Worgen. Horde on the other hand has Orcs, Undead, Taurens, Trolls, Blood Elves and Goblins. There are also Pandarens who get to choose which faction they want to join. With recent expansion called "Battle for Azeroth" new races have allied with Alliance and Horde. Alliance got allied with Void Elves, Lightforged

Draenei, Dark Iron Dwarves, Kul Tiran and Mechagnomes, while the Nightborne, Highmountain Tauren, Mag'har Orcs, Zandalari Trolls and Vulpera joined the Horde.



Figure 4: WoW Character Creation

"From knights in shiny armor to skulking stalkers and cunning spellcasters, each class in World of Warcraft presents unique challenges and gameplay for you to master. What is your calling?" (World Of Warcraft, 2022)

After choosing a race, character creation also comes with picking an appropriate class. Where players have to choose a class based on the race they have chosen, as not a single race has all classes available, but some classes for example Warriors or Hunters can be played by every single race. So far there are in total 12 classes (Death Knight, Demon Hunter, Druid, Hunter, Mage, Monk, Paladin, Priest, Rogue, Shaman, Warlock and Warrior).

When players finish their character creation, they are then set on a path to improve their newly made character by getting more gold, gear and items by completing various quests and skirmishes either alone, in a party or in a guild. For each completed quest or successful conflict, players gain experience and with enough experience, they gain new levels unlocking new abilities, talents and more quests (Britannica, 2022).

### 3.1.1 Abilities and Talents

Each class in WoW has a unique array of abilities that affects the player's way of playing the game. These spells can have damage dealing or healing properties others usually are utilities or upgrade already learned abilities. Abilities can be divided into 2 major groups "Passive abilities" and "Active abilities". Passive abilities are always active and do not need any further manipulation, while active abilities need to be used by the player for them to activate.

When a character reaches level 10, they receive access to "Specialisations" that define their class's role further, whether they want to be melee or ranged damage dealers (mDPS or rDPS), healers or tanks (those who absorb the damage and make sure the enemy is attacking only them), that is if the class allows these specialisations. After choosing one, players get access to new abilities and at certain levels specialisation-specific talents.



Figure 5: WoW Druid Specialisations

Talents are abilities that either modify the character's already existing spells or give new skills. These talents come in seven rows with three talents available

in each row. Players can only choose one in each row. Rows are unlocked by players leveling up their character.

WoW also offers Player versus Player (PvP) talents that enhance player's abilities in a similar way that normal talents do but PvP talents are only active when the player enables "Warmode" making their character open to attacks from other enemy players that also have "Warmode" on and vice versa in the open world while getting increased experience and quest rewards gains. Or when the player enters Arena or Battleground (BG) with their character which are team-based PvP Deathmatches where teams have to prevail against the other team where in arenas players fight until their team is the last one standing, in BGs it is about objectives that each team has to honor in order to secure a victory. Players can always choose three talents out of those available, some are accessible by all specialisations and some are usable only by certain specialisations.

### 3.2 Method of research and data collection

Tooltips, as the main point of this thesis research, are small windows in square brackets that pop up when you use your mouse cursor to hover over in-game items, abilities/talents, NPCs, PCs or objects in WoW. But I have decided to focus on the most important part of the game and those are Abilities and Talents.

For both abilities and talents it is important that for a player they give a brief description of what is the name of the ability or talent, what it does, whether it is in melee range or it has a possible maximum range, whether it is instant or player has to wait until their character finishes the incantation to cast the spell, whether a player has to wait before using this ability again or not, which and how much of certain resource its casting would cost.

For example, I took a screenshot of Druid's ability "Regrowth" to show what the tooltip looks like below.

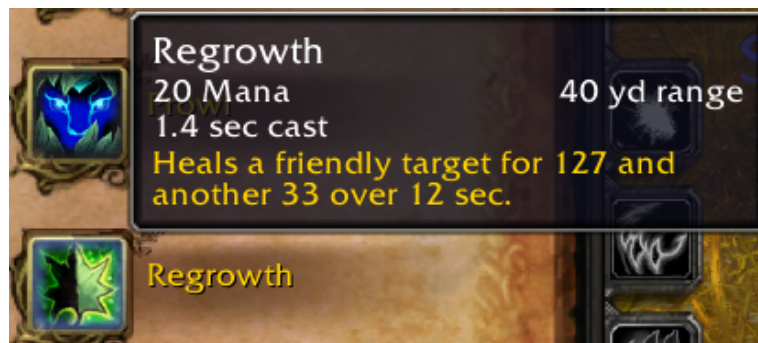


Figure 6: WoW "Regrowth" tooltip

Players have to understand exactly what each tooltip of abilities and talents their class has to offer, in order to use their character's potential to the fullest.

They need to be able to reproduce the names of their abilities (Fig. 6: "Regrowth"), because players can't just say that they use "this healing spell", as is not going to be informative for the player or other players, while their class offers over seven different healing spells.

Next, the players have to realize that certain abilities, depending on the class, have only a melee range or can be used from afar. Tooltips in WoW give this measurement in yds (yards) where one yard is 36 inches or roughly 0.9 meters. For players who do not know how big is one yard they have to try out their assumptions on a practice target (Fig. 6: "40 yd range").

Certain abilities have a resource cost (Fig. 6: "20 Mana"), where players have to practically calculate how much of a certain resource are they going to be left with after using a sequence of spells.

Players also have to look out for "cast time" as while some abilities marked as "Instant" are instantaneous, other spells need to be "chanted out" meaning that player has to stand in one place and without moving their character, click on the spell and wait until their character finishes the incantation (Fig. 6: "1.4 sec cast").

The description is what is the most meaningful thing for players, where they have to determine, through the ability description, what is going to happen after using the ability (Fig. 6: "Heals a friendly target for 127 and another 33 over 12 sec.").

All of these tooltips are managed by the WoW game developers, as they can change the name, range, cast time, resource cost or description as they deem fit and so, with regard to the language, developers try to make the language of tooltips to be factual, standardized and phrased accordingly to make sense and not being misleading even for non-native English speakers, but the clarity is not always achieved and the tooltip has to be reworked, so they have to release patches and define in patch notes which tooltip has been rewritten, so that it would be clear what each repaired ability/talent does according to the tooltip.

With help of [www.wowhead.com](http://www.wowhead.com) as a database for almost everything regarding the WoW in-game world, while checking each individual ability and talent tooltip inside the game, I was then able to copy the text data of all of the classes' abilities, talent and PvP talent tooltips, strip it into just name and description, as those are the most important things to analyse, and save them in a text document, in order to use it in #LancsBox software to create the most frequent words appearing in the text data.

The ability/talent tooltips were chosen for this research, because I believe that more players are rather influenced by ability and talent text description than that of a lore or quest descriptions. As a direct gameplay feature, it is important for those who not only play the game as hardcore fans but also to casual or new players in general.



### 3.3 #LancsBox

"#LancsBox is a new-generation software package for the analysis of language data and corpora developed at Lancaster University."

Its main functions are working with your data or existing corpora, visualizing and analysing language data in any language and automatically annotating data for part-of-speech all of which can be used by linguists, language teachers, historians, sociologists, educators and anyone interested in language. (#LancsBox, 2022).

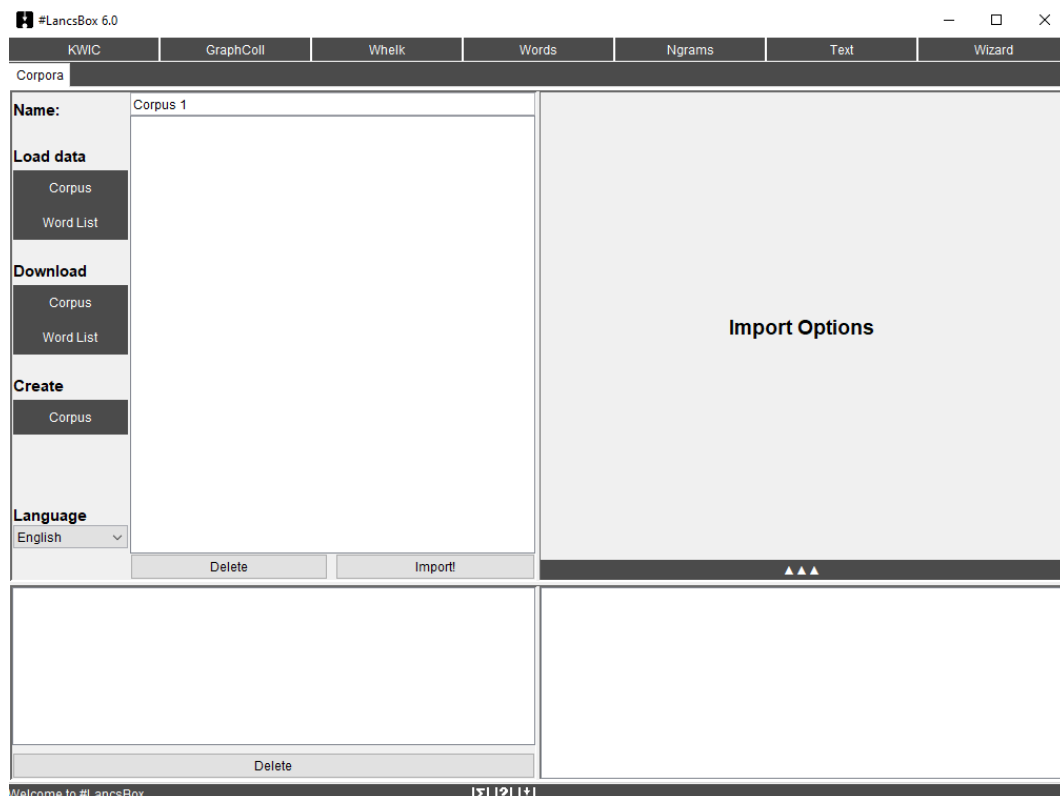


Figure 7: #LancsBox on startup

#### 3.3.1 The "Words"

The Words function in #LancsBox is the main utility that I use in this thesis. It allows in-depth analysis of frequencies of types, lemmas and POS categories as well as comparison of corpora using the keywords technique. I have used this function to create tables of the top 10 most frequent Noun Phrases, Adjectives and Verb Phrases within all class Abilities and Talents tooltips. The tool can be easily used to specify which part of speech I am looking for.

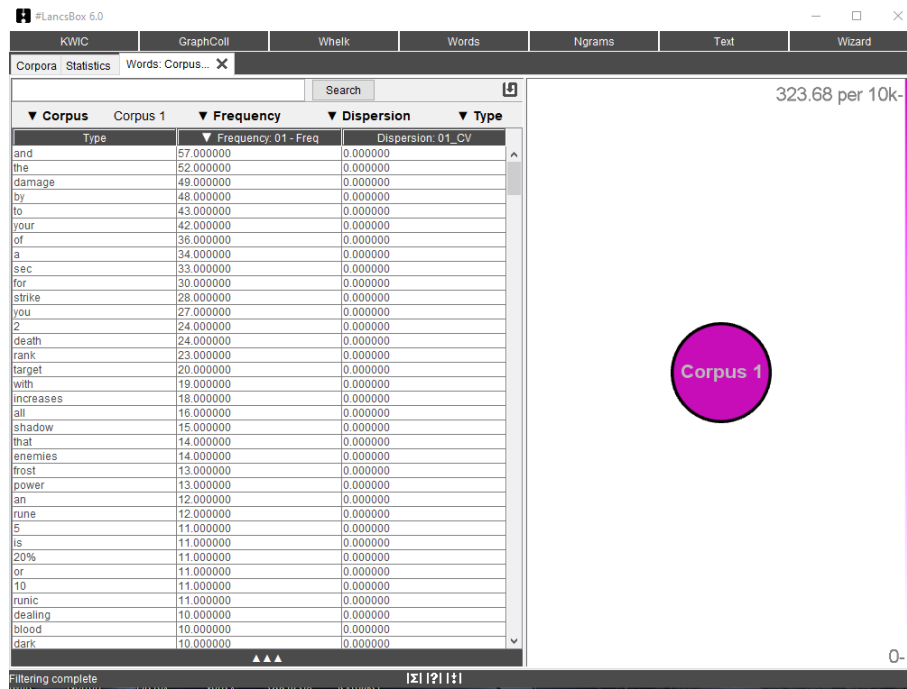


Figure 8: #LancsBox Words Function

### 3.4 The analysis

The analysis mainly consists of inspecting each individual word using Cambridge Online Dictionary (Cambridge, 2022) (CD henceforth) to determine their CEFR level and examine their meaning. As said above, I have used the Noun, Adjective and Verb tables from #LancsBox for all of the WoW class abilities and talents to make this analysis possible. I also have used etymonline.com (2022) to check on the word's historical meaning. Although one of my points in this analysis is not a research of collocations, some are unique to this specific type of language. As the "new keywords" they work as specific in-game mechanisms, therefore they are worth mentioning.

#### 3.4.1 Noun analysis

These are the top 20 most frequent nouns that appear in all of the ability and talent tooltips in WoW.

▼ Corpus	Corpus 2	▼ Frequency	▼ Dispersion	▼ Lemma
Lemma	Frequency: 01 - Freq	Dispersion: 01_CV		
damage_n	1156.000000	0.000000		
target_n	755.000000	0.000000		
enemy_n	452.000000	0.000000		
sec_n	451.000000	0.000000		
rank_n	318.000000	0.000000		
effect_n	239.000000	0.000000		
cooldown_n	212.000000	0.000000		
time_n	201.000000	0.000000		
strike_n	192.000000	0.000000		
health_n	185.000000	0.000000		
chance_n	176.000000	0.000000		
healing_n	163.000000	0.000000		
yard_n	158.000000	0.000000		
movement_n	153.000000	0.000000		
shadow_n	147.000000	0.000000		
speed_n	145.000000	0.000000		
attack_n	141.000000	0.000000		
spell_n	133.000000	0.000000		
fire_n	126.000000	0.000000		
power_n	124.000000	0.000000		

Figure 9: #LancsBox top 20 nouns

DAMAGE noun

The word damage is the most frequently used noun within the WoW tooltips, it literally means a harm or injury and is listed as B1 level by the CD. In WoW

tooltips damage means exactly the same as CD defines the word damage.

#### TARGET noun

The word target, historically meaning shield (etymonline.com, 2022), literally means "an object that is shot at". The literal meaning is listed as B2 level by the CD. The figurative meaning "a person something is directed at" is listed as C2 because the original sense of physical attack of the meaning is diminished. The meaning in WoW tooltips is best interpreted as an extension of the literal meaning while still retaining the "physical attack" sense. Therefore, it could be categorised as B2-C1 level.

#### ENEMY noun

The word enemy is historically defined as "one hateful toward and intent on harming (someone)," (etymonline.com, 2022). According to the CD the enemy is described as "a person who hates or opposes another person and tries to harm them or stop them from doing something". This meaning is listed as B1. In the WoW tooltip scenario, it is best explained as the CD's definition of the meaning, thus it counts as B1 level.

#### SEC noun

The word sec. is a clipped form of "second", and is historically described at etymonline.com (2022) as "one-sixtieth of a minute of degree," also "sixtieth part of a minute of time,". The sec is defined by the CD as "a very short period of time", but as a clipped form it does not have a listed CEFR level, while as a whole form it is classified as level B1. The meaning in WoW tooltips is best defined as how the CD explained it, therefore it has a level B1 classification.

#### RANK noun

The word rank, historically meaning "row, line, or series;" (etymonline.com, 2022), is defined as "a particular position, higher or lower than others". This particular meaning does not have a CEFR level listed by the CD. In WoW tooltips the word "rank" is used to give a player information that when they reach a certain level, one of their abilities is going to attain a new rank, upgrading the ability, usually in collocation with number as (Rank 2 or Rank 3).

#### EFFECT noun

The word effect is historically characterised as "execution or completion (of

an act)," (etymonline.com, 2022). According to the CD, the effect literally means "the result of a particular influence". And is listed as level B1. The meaning in WoW tooltips is best defined as the literal meaning.

#### COOLDOWN noun

The word cooldown, unavailable as a word with historic meaning, is a closed compound that came to an existence most probably because of a phrasal verb "cool down" which is described as "to continue to exercise gently to prevent injury after you have done more difficult exercises" by the CD. This term is generally used in gaming, in terms of the WoW meaning specifically, it means that the ability has a certain amount of time that has to pass until it is able to be used again. The phrasal verb has not been classified with any CEFR level.

#### TIME noun

The word time is historically defined as "limited space of time," (etymonline.com, 2022). The CD describes its generally used meaning as "the part of existence that is measured in minutes, days, years, etc., or this process considered as a whole", listed as an A2 level noun. On the other hand, time can also be defined as "an occasion when something happens, or the experience connected with it" and is labeled as A2 level. In terms of WoW tooltips, time is used as the CD describes the occasion.

#### STRIKE noun

The word strike, historically meaning "act of striking," (etymonline.com, 2022), comes as conversion from a strike ("to hit or attack someone or something forcefully or violently" by the CD) as a verb. The meaning is defined as "a sudden and powerful hit or attack" by the CD and is classified as B1 level. In the meaning of WoW tooltips, strike is usually used in the name or description of the ability/talent or in collocation with an adjective critical (as critical strike).

#### HEALTH noun

The word health is historically defined as "wholeness, a being whole, sound or well," (etymonline.com, 2022). Literally defined as "the condition of the body and the degree to which it is free from illness, or the state of being well". It is listed as A2 level by the CD. In terms of WoW tooltips, health represents NPC's and PC's health points which in gaming stands for "life" in general, when one's

life falls to 0, they die in-game, it is usually used in collocation with maximum (as maximum health).

#### CHANCE noun

The word chance is historically described as "something that takes place, what happens, an occurrence" (etymonline.com, 2022). The meaning is described as "an occasion that allows something to be done" and is labeled as B1 level by the CD. The meaning in WoW tooltips is the same as the CD describes.

#### HEALING noun

The word healing is historically described as "restoration to health," (etymonline.com, 2022). The CD defines it as "the process of becoming well again, especially after a cut or other injury, or of making someone well again", it is very similar to the verb "heal" and thus we can classify it as level B2. The WoW tooltips meaning remains unchanged, as it means the same thing as the CD's definition.

#### YARD noun

The word Yard is historically characterised as "rod, staff, stick; measure of length," (etymonline.com, 2022). Defined as "a unit of measurement equal to three feet or approximately 91.4 centimetres" and listed as a B1 noun by the CD. In WoW tooltips it is commonly used exactly as a unit of measurement.

#### MOVEMENT noun

The word movement, historically a "change of position; passage from place to place," (etymonline.com, 2022) is defined by the CD as "a change of position" and is listed as level B2. In WoW tooltips it is mostly used in collocation with speed or (movement speed).

#### SHADOW noun

The word shadow, historically defined as "the effect of interception of sunlight, dark image cast by someone or something when interposed between an object and a source of light," (etymonline.com, 2022) is described by the CD as "an area of darkness, caused by light being blocked by something" and labeled as B1 level. The meaning in WoW tooltips is usually interpreted as a damage type that collocates together as shadow damage, other times it means as the CD's description, though rather in a supernatural way. It is also used in WoW tooltips

as compounds to name abilities and talents (Shadowstep, Shadowstrike).

#### SPEED noun

The word speed is historically described as "success, a successful course; prosperity, riches, wealth; luck; opportunity, advancement,"(etymonline.com, 2022). By the CD it is defined as "very fast movement" and listed as B2 level. In the WoW tooltip scenario it means exactly as the CD describes, also works in collocation with movement (movement speed).

#### ATTACK noun

The word attack, historically meaning "violent onset, a falling on with violence and force,"(etymonline.com, 2022), is described by the CD as "a violent act intended to hurt or damage someone or something" and is listed as level B1. In the WoW tooltips, it means exactly as the CD states their definition, often works in collocations with melee or auto (melee attack, auto attack).

#### SPELL noun

The word spell is historically characterised as "story, saying, tale, history, narrative, fable; discourse, command,"(etymonline.com, 2022). While the meaning specified by the CD is "spoken words that are thought to have magical power, or (the condition of being under) the influence or control of such words", but does not have a CEFR classification. In the WoW tooltips, the word spell means the same thing as the CD describes.

#### FIRE noun

The word fire is historically defined as "a fire" (etymonline.com, 2022) and the meaning is described as "(material that is in) the state of burning that produces flames that send out heat and light, and might produce smoke" and is listed as A2 level by the CD. In terms of WoW tooltips, the fire is often used as a type of damage (similarly to Shadow above), usually in collocation with damage (Fire damage), otherwise the meaning is at least partly similar to the CD's description as "flames that send out heat and light" though in a supernatural way. Fire is also used to make compounds for ability and talent names (Demonfire, Fireball).

#### POWER noun

the word power is historically described as "ability; ability to act or do; strength, vigor, might," (etymonline.com, 2022). It is defined only as "strength"

and labeled as level C1 by the CD. In the WoW tooltips, it is interpreted exactly as the CD states.



### 3.4.2 Adjective analysis

These are the top 20 most frequent adjectives that appear in all of the ability and talent tooltips in WoW.

▼ Corpus	Corpus 2	▼ Frequency	▼ Dispersion	▼ Lemma
Lemma	Frequency: 01 - Freq	Dispersion: 01_CV		
sec_adj	598.000000	0.000000		
additional_adj	218.000000	0.000000		
next_adj	155.000000	0.000000		
physical_adj	141.000000	0.000000		
maximum_adj	101.000000	0.000000		
nearby_adj	91.000000	0.000000		
active_adj	86.000000	0.000000		
critical_adj	67.000000	0.000000		
more_adj	57.000000	0.000000		
friendly_adj	48.000000	0.000000		
usable_adj	35.000000	0.000000		
other_adj	34.000000	0.000000		
instant_adj	25.000000	0.000000		
harmful_adj	25.000000	0.000000		
fast_adj	19.000000	0.000000		
normal_adj	19.000000	0.000000		
magical_adj	18.000000	0.000000		
injured_adj	18.000000	0.000000		
current_adj	17.000000	0.000000		
immune_adj	17.000000	0.000000		
equal_adj	17.000000	0.000000		

Figure 10: #LancsBox top 20 adjectives

It is worth noting down that #LancsBox added "sec" as the most used adjective despite "sec" being used only as a noun within the data collection. It is therefore a software malfunction.

#### ADDITIONAL adjective

The word additional, historically characterised as "added, supplementary," (etymonline.com, 2022), stands literally for "extra" and is listed as level B2 by the CD. The meaning in WoW tooltips stays the same as the CD describes.

#### NEXT adjective

The word next is historically described as "nearest in place, position, rank, or turn," (etymonline.com, 2022). The CD defines meaning as "being the first one after the present one or after the one just mentioned" and is labeled as an A1 level adjective. In terms of WoW tooltips, its meaning stays the same as the description of literal meaning.

**PHYSICAL** adjective

The word physical, historically meaning "medicinal" (etymonline.com, 2022), can be described as "relating to the body" and is classified as level B2 by the CD. Or as "relating to things you can see or touch, or relating to the laws of nature" which is classified as C2. The meaning in WoW tooltips is best interpreted as a physical force (as a type of damage) usually in collocation with noun the "Damage" and would be categorized as B2-C1 level.

**MAXIMUM** adjective

The word maximum, historically meaning "greatest, at the maximum," (etymonline.com, 2022), is defined as "being the largest amount or number allowed or possible" and listed as a B1 level according to the CD. In WoW tooltips, the word maximum is as the CD describes and is usually used in collocations with in-game class resources (maximum health).

**NEARBY** adjective

The word is not available in terms of historic meaning as an adjective. It is defined by the CD as "not far away", as something close. It is labeled as level B1 adjective. In terms of WoW tooltips, the word nearby means exactly as the CD defines, while it mostly collocates with words such as target, enemy, or ally (nearby target, nearby enemy, nearby ally).

**ACTIVE** adjective

The word active is historically characterised as "a doing" (etymonline.com, 2022). The CD literally defines active as "involved in a particular activity" and is listed as a level B2 adjective. The meaning in WoW tooltips is usually the same as the CD explains active as being involved. It is mostly being set as a "connector" in ability and talent descriptions (while/when ... is active ... "something happens").

**CRITICAL** adjective

The word critical, historically meaning "censorious, inclined to find fault," (etymonline.com, 2022), is in terms of meaning described as "extremely serious or dangerous" which is classified as level B2 by the CD. In WoW tooltips it usually works in collocations with nouns such as strike or chance (critical strike, critical chance, these are also formed into acronyms as CS and CC), in WoW and usually in gaming overall it describes that something is going to happen where

the effect is going to be greater than it would normally be (e.g. a critical strike, would mean that a hit that would normally deal normal amount of damage is going to deal twice as much instead).

#### MORE adjective

The word more is historically described as "greater, relatively greater, more, stronger, mightier," (etymonline.com, 2022). By the CD it can either be defined as "a larger or extra number or amount" or as a word "used to form the comparative of many adjectives and adverbs", they are both listed as A1 level. In terms of WoW tooltips, it is used as the CD's description of "the larger amount".

#### FRIENDLY adjective

The word friendly, historically meaning "well-disposed, kindly;" (etymonline.com, 2022), is represented as "behaving in a pleasant, kind way towards someone" and is listed as A2 level by the CD. The meaning in WoW tooltips is friendly described as someone who is allied to the same faction as PC. It is frequently used in collocation with the noun target (as friendly target).

#### USABLE adjective

The word usable, historically meaning "available, in use" (etymonline.com, 2022), is described by the CD as something "that can be used" but is not classified by any CEFR levels. In WoW tooltips it means exactly the same thing as the CD described it.

#### OTHER adjective

The word other is historically described as "second, the second of two; additional, further" (etymonline.com, 2022). While the CD defines it "as more of the same kind as the item or person already mentioned", the CD does not specify a CEFR level. It can also be used as a determiner with similar meaning "as well as the thing or person already mentioned" which is listed as level A1. The WoW tooltips employ both parts of speech (either adjective or determiner), but mostly the adjective.

#### INSTANT adjective

The word instant is historically classified as "now, present, of the moment, current," (etymonline.com, 2022). Its meaning is described as "happening immediately, without any delay" and it is labeled as B2 level by the CD. The meaning

in WoW tooltips is same the as the CD defines and usually works in collocation with "cast" (instant cast).

#### HARMFUL adjective

The word harmful is not available with historic meaning and is only defined by the CD as "causing harm" and is classified as level B2. In the WoW tooltip meaning the word is same the as CD defines, and mostly works in collocation with effect or spell (harmful effect, harmful spell).

#### FAST adjective

The word fast, historically meaning "firmly fixed, steadfast, constant; secure; enclosed, watertight; strong, fortified," (etymonline.com, 2022), it is defined as "moving or happening quickly, or able to move or happen quickly" and is listed as A1 level by the CD. In the WoW tooltips, the meaning is the same, but it is mostly used in its comparative form (faster).

#### NORMAL adjective

The word normal is historically described as "typical, common;" (etymonline.com, 2022). The CD defines it as "ordinary or usual; the same as would be expected" and listed it as A2 level. In terms of WoW tooltips, it is used as the CD describes and is regularly employed in collocation with damage or speed (normal damage, normal speed).

#### MAGICAL adjective

The word magical, historically meaning "of or pertaining to magic;" (etymonline.com, 2022), is described by the CD as "produced by or using magic" and classified as B2 level. In the WoW tooltips, it means exactly as CD defines, it also is mostly used in collocation with damage (magical damage).

#### INJURED adjective

The word injured is not available with a historic meaning, and is described as "hurt or physically harmed" and labeled as B2 level by the CD. The WoW tooltips description fits the CD description, and the adjective injured is commonly used in collocation with allies (injured allies).

#### CURRENT adjective

The word current is historically defined as "running, flowing, moving along" (etymonline.com, 2022). It is described by the CD as "of the present time" and

is listed as B2 level. The WoW tooltips use the meaning as CD states.

#### IMMUNE adjective

The word immune is historically described as "free, exempt" (etymonline.com, 2022). The CD defines it as "not able to be punished or damaged by something" but gives no classification in terms of CEFR level. The meaning in WoW tooltips is similar to that of the CD's definition and is mostly used in collocation with damage (immune to damage).

#### EQUAL adjective

The word equal, historically meaning "identical in amount, extent, or portion;" (etymonline.com, 2022), is described by the CD as "the same in amount, number, or size" and is listed as B1 level. In terms of WoW tooltips, the adjective equal has the same meaning as described by CD.

### 3.4.3 Verb analysis

These are the top 20 most frequent verbs that appear in all of the ability and talent tooltips in WoW.

▼ Corpus	Corpus 2	▼ Frequency	▼ Dispersion	▼ Lemma
Lemma		▼ Frequency: 01 - Freq	Dispersion: 01_CV	
be_v		566.000000	0.000000	
increase_v		542.000000	0.000000	
reduce_v		454.000000	0.000000	
deal_v		381.000000	0.000000	
have_v		207.000000	0.000000	
cause_v		206.000000	0.000000	
heal_v		199.000000	0.000000	
take_v		167.000000	0.000000	
will_v		138.000000	0.000000	
cast_v		115.000000	0.000000	
can_v		104.000000	0.000000	
grant_v		93.000000	0.000000	
generate_v		92.000000	0.000000	
do_v		66.000000	0.000000	
gain_v		63.000000	0.000000	
attack_v		57.000000	0.000000	
use_v		55.000000	0.000000	
strike_v		54.000000	0.000000	
hit_v		53.000000	0.000000	
apply_v		51.000000	0.000000	

Figure 11: #LancsBox top 20 verbs

BE verb

The word be, historically meaning "be, exist, come to be, become, happen" (etymonline.com, 2022), is the most used verb in the data collection and probably the most used verb in the world, as it has a set amount of variations (e.g. is or are). The CD describes the following meanings accordingly, as something "used to say something about a person, thing, or state, to show a permanent or temporary quality, state, job, etc." and is listed as A1 level. It can also be used as an auxiliary verb for continuation "used with the present participle of other verbs to describe actions that are or were still continuing", (-ing), which is classified as A2 level. Or it can be described as a past participle "used with the past participle of other verbs to form the passive", (-ed), also listed as level A2. This word uses many of its variations in WoW tooltips, therefore it is assumable that all meanings by the CD above apply, so the word be is jumping between A1-A2 levels depending on its form of usage.

## INCREASE verb

The word increase is historically described as "become greater in size or number" (etymonline.com, 2022). The CD defines the meaning as "to (make something) become larger in amount or size" and labels it as B1 level. In WoW tooltips the word means exactly as the CD states.

## REDUCE verb

The word reduce, historically meaning "bring back" (etymonline.com, 2022), is described as "to become or to make something become smaller in size, amount, degree, importance, etc." and is listed as level B1 by the CD. The meaning in WoW tooltips stays the same as the CD describes it.

## DEAL verb

The word deal, historically meaning "to divide, distribute, separate;" (etymonline.com, 2022), is defined by the CD as "to give or share out something, especially playing cards". It is left without a CEFR classification. In terms of WoW tooltips meaning, the verb is often used as a way to inform players that abilities and talents give out a certain amount of and a type of damage.

## HAVE verb

The word have is historically characterised as "to own, possess; be subject to, experience," (etymonline.com, 2022). It is described as "to own" by the CD and accordingly listed as an A1 level verb. In terms of WoW tooltips, it has the same meaning as the CD defines.

## CAUSE verb

The word cause, historically meaning "produce an effect," also "impel, compel," (etymonline.com, 2022), is defined by the CD as "to make something happen, especially something bad" and is classified as level B2. In the WoW tooltips meaning, it is defined as "to make something happen" in general.

## HEAL verb

The word heal is historically defined as "cure; save; make whole, sound and well," (etymonline.com, 2022). The CD describes it as "to make or become well again, especially after a cut or other injury" and is listed as B2 level. The meaning in WoW tooltips stays the same as the CD's meaning.

## TAKE verb

The word *take* is historically described as "to take, seize," (etymonline.com, 2022). The CD defines it as "to accept or have" and is labeled as a level B1 verb. The meaning in WoW tooltips is used similarly as the CD describes, usually in collocations with damage (damage taken, take damage).

#### WILL verb

The word *will*, historically meaning "to wish, desire; be willing; be used to; be about to" (etymonline.com, 2022), is defined as "used to talk about what is going to happen in the future, especially things that you are certain about or things that are planned" and is listed as level A2 by the CD. The WoW tooltips share the same meaning as the CD's description.

#### CAST verb

The word *cast* is historically characterised as "to throw, throw violently, fling, hurl," (etymonline.com, 2022). It is defined as "to use words thought to be magic, especially in order to have an effect on someone" and is classified as a level C2 verb by the CD. The WoW tooltips use this verb to define a spell usage.

#### CAN verb

The word *can* is historically defined as "to have power to, to be able," (etymonline.com, 2022). It is described by the CD as "to be able to" and is listed as an A1 level verb. In WoW tooltips it is commonly used as a modal verb with the same definition as the CD.

#### GRANT verb

The word *grant* is historically described as "to allow, permit (something); consent to (a prayer, request, etc.)," (etymonline.com, 2022). The CD defines this verb as "to give or allow someone something, usually in an official way" and is labeled as a B2 level verb. In terms of WoW tooltips, it is defined exactly as the CD's description.

#### GENERATE verb

The word *generate* is historically defined as "to beget (offspring)" (etymonline.com, 2022). It is classified as "to cause something to exist" and is listed as B2 level by the CD. In WoW tooltips, the verb has the same meaning as the CD's, it is commonly used in collocation with the WoW's class resources (e.g. to generate energy/rage).



**DO verb**

The word do, historically meaning "perform, execute, achieve, carry out, bring to pass by procedure of any kind," (etymonline.com, 2022), is defined by the CD as "to make, produce, or create something" and is listed as A2 level. It can also mean an auxiliary verb which is described as "used with another verb to form questions and negative sentences, including negative orders, and sometimes in affirmative sentences for reasons of style" which is classified as an A1 level verb. In WoW tooltips it is mostly used as "to make something" in collocation with damage and used as a past participle (...damage done by...) but it is also very rarely used as an auxiliary verb with another verb to create negative sentences (...you do not have active...), therefore depending on the usage in a sentence its CEFR level is either A1 or A2.

**GAIN verb**

The word gain is historically classified as "obtain as profit," (etymonline.com, 2022). The CD describes it as "to get something that is useful, that gives you an advantage, or that is in some way positive, especially over a period of time" and is labeled as B1 level. In WoW tooltips its meaning is the same as the CD's definition.

**ATTACK verb**

The word attack is historically described as "assault, assail, begin hostilities against," (etymonline.com, 2022). It is defined as "to try to hurt or defeat using violence" and is listed as B1 level by the CD. In terms of WoW tooltips, it fits the same meaning as the CD's definition.

**USE verb**

The word use, historically meaning "employ for a purpose," (etymonline.com, 2022), is interpreted as "to put something such as a tool, skill, or building to a particular purpose" and classified as A1 level by the CD. The meaning in WoW tooltips is the same as the CD's description.

**STRIKE verb**

The word strike is historically defined as "pass lightly over, stroke, smooth, rub," also "go, move, proceed," (etymonline.com, 2022). Its description is defined as "to hit or attack someone or something forcefully or violently" and it is listed

as a B1 level verb by the CD. In WoW tooltips the meaning is the same as the CD's description.

#### HIT verb

The word hit is historically described as "come upon, meet with, fall in with, 'hit' upon," (etymonline.com, 2022). The CD defined it as "to move your hand or an object onto the surface of something so that it touches it, usually with force" and classified it as A2 level. In terms of WoW tooltips, it is best interpreted as CD's description.

#### APPLY verb

The word apply is historically classified as "join or combine (with); attach (to something), adhere," (etymonline.com, 2022). It is described as "to make use of something or use it for a practical purpose" and labeled as C1 level by the CD. The meaning in WoW tooltips is the same as the CD's, it is commonly used in collocation with ability names (ability 1 applies ability 2).

### 3.4.4 Results



Figure 12: Table of overall results

I concluded that there is a total of 9 A1 level words (4 adjectives, and 5 verbs), 9 A2 level words (3 nouns, 2 adjectives, and 4 verbs), 18 B1 level words (9 nouns, 3 adjectives, and 6 verbs), 15 B2 level words (3 nouns, 8 adjectives, and 4 verbs), 2 C1 level words (1 noun, and 1 verb), and 1 C2 level word as a verb. There were also two words whose CEFR level is in-between B2 and C2 (1 noun, and 1 adjective), they were not counted among the results as it is hard to determine their exact level. And another two words were either of two CEFR levels (A1 and A2) which changes depending on their meaning, so they were both counted in both levels. And 6 words did not have any level at all. In total there are therefore 56 records of words with CEFR levels.

I am unsurprised by the number of words spread at these exact CEFR levels. The B1 along with B2 have the highest count of words among these two levels. The words in level B1 lead the players to improve their language skills so that they are able to understand the main points of clear standard inputs on familiar matters. The words in level B2, on the other hand, guide the players to raise their English skills so that they can understand the main ideas of complex and

abstract texts, and debates within the field of their activity.

The second highest count of words is among the A1 and A2 levels, surprisingly the amount of words contained within these two levels makes them on par with each other. Starting with level A1, these words are very basic and aimed to create a fundamental core of everyday English usage. While level A2 is focused on making the players understand English in a more frequent way than level A1.

The least used number of words is amidst the C1 and C2 levels. The C1 level words can improve the player's language skills in order to make them understand a variety of longer texts and understand their implicit meaning, on the other hand, the word within the C2 level is supposed to make the players perceive basically anything heard or read. Despite the words' high influence, the amount of words within these two levels is so low, that their help in English language understanding is practically tenuous.

I believe the words within the A1 and A2 levels are immensely important as they create a starting way to learn English. While the words in B1 and B2 levels give the players specific ideas of how these words can be used within the area of activity (in this case the game World of Warcraft). And as stated above, the C1 and C2 levels regardless of their importance, their numbers are very few, therefore the impact on the language skills of a basic user of English is low.

## 4 CONCLUSION

This thesis aimed to bring out an overview of the areas of the lexicon in the theoretical part, specifically semantics, passive and active vocabulary, and differences between spoken and written forms. The practical was focused to create a corpus from the WoW's ability and talent tooltips which was done by copying wowhead's (wowhead.com, 2022) tooltips database into a text document whilst checking their correctness in the game, World of Warcraft.

After collecting all the data needed for this research, the data was then imported into the #LancsBox software and its function "Words" was used to create the frequency list of the top 20 nouns, adjectives, and verbs.

Then the Cambridge Online Dictionary (2022) and the Online Etymology Dictionary (2022) were used to evaluate each word in terms of their historical meaning, literal meaning, and their meaning in the WoW tooltips, I have also added examples of collocations used within the WoW tooltips.

After that, I was able to make results out of the analysis and then upon further inspection, I managed to determine that the most words are in levels B1 and B2 as "Independent User" words, and the second of the most words are within the levels A1 and A2 as "Basic User" words, and the least amount of words are in the levels are C1 and C2 as "Proficient User" words. These levels were then explained further as to how each level influences a typical player of WoW and how it impacts their English learning capabilities.

I believe the research to be a successful one since I used the collected data to find the most frequent nouns, adjectives, and verbs and then analyse the top 20 words of each group using the Cambridge Dictionary in terms of their meaning, although not every word had a CEFR level specified, and I managed to point the results out of the analysis.

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