

## Research on the Construction of Teaching Application of the Animation Special-Purpose English Corpus

Rongjian Li

Jilin Animation Institute, Changchun, Jilin Province, China

**Keywords:** Animation, English for special purposes, Corpus, Teaching English

**Abstract:** There are a few English teaching materials for animation majors that have been issued, and each has its own advantages, both common and individual. However, there are still problems such as outdated text selection, different levels of difficulty, monotonous writing form, and lack of supporting resources for teaching materials. The selection of the teaching materials should be closely related to the basic knowledge of animation, introduce professional cutting-edge information, and the degree of difficulty should be progressive, taking into account the needs of learners in different professional directions. This corpus is favored by foreign language learners at home and abroad for its richness and authenticity, fast and convenient retrieval. Foreign language teaching has always been criticized for its high investment cost but little output. This paper comprehensively introduces the application of an animation special-purpose English corpus in English teaching, especially in vocabulary, writing and translation teaching. With the help of the corpus, it can improve students' familiarity and cognition of English expressions, improve their language use ability and summary ability, so as to improve students' ability to use and summarize the language, to a certain extent, the teaching effect can be improved.

### 1. Introduction

The rapid development of the Internet and computer-generated image technology has brought huge market demand and development space for the animation and game industry. With the rapid development of animation in China, the demand for innovative animation talents is increasing. This requires the construction of a systematic and innovative animation talent training curriculum system. International exchanges can promote the expansion and innovation of technology. An innovative animation talent must have good foreign language skills. Animation English teaching in general education can not meet the needs of students for professional ability development. English for animation majors belongs to the English for Special Purposes (ESP) courses in animation, and is an indispensable professional basic course for animation professional personnel training and international integration [1]. The course should be able to provide students with the latest international information in the field of professionalism, broaden students' professional horizons to improve their artistic innovation ability. At the same time, it cultivates students' ability to carry out international exchanges in the field of animation. As the carrier of the course and the content of students' learning, the teaching material "English for Animation" plays an important role in the research of the course system. It determines whether the teaching content of the course can fundamentally meet the students' learning needs, whether it can inspire students' innovative thinking, whether it can really improve professional foreign language communication skills, and whether it can give students inspiration from the perspective of ideology and politics, and achieve the goal of morality and cultivating people [1].

### 2. The Current Situation and Existing Problems of English Teaching Materials for Animation Majors

In terms of the difficulty of selecting texts, articles involving animation production technology are

generally somewhat difficult due to the large number of technical terms, while the words and sentences of articles involving video introduction are easier. The different levels of learning objects also determine the difficulty and length of the article. For example, “Animation (Professional) English Complete Manual” divides the teaching materials into three levels: “beginner, middle and high”, and introduces the basic theory and overview of animation, animation production technology, animation production and market [2]. Each of the above teaching materials has certain advantages and characteristics, but there are also some problems:

First, the selected texts are outdated and unable to keep pace with the times. These teaching materials were first published nine years ago, and some of the selected texts are older. For example, a selected article is an introduction to the 2005 Seoul International Animation Festival, and the data and information in it are outdated. For another example, the history of Chinese animation development also stayed before the publication of teaching materials [2].

Second, the difficulty level of the selected texts varies. For example, the selected articles in “English for Animation” published by China Construction Industry Press are highly specialized, rich in specialized vocabulary and long in length. It may be more suitable for students with a good English foundation in this major. It is difficult for English learners of animation majors with a low starting point. The “College Animation English” published by the University of International Business and Economics Press aims at higher vocational college students, so the language difficulty is relatively low [3]. From the perspective of subject matter, articles on animation history, animation festivals, animators and other topics are easier to understand, while articles on animation technology are relatively difficult due to the large professional vocabulary.

Third, the preparation of teaching materials is not rigorous enough. There are grammatical or spelling errors in them. The teaching of professional English should be a subject teaching that combines both professionalism and English education. In addition to the professional content, the teaching materials should also ensure the accuracy of the language and pass on the correct professional English expression to the students [3]. Proofreading and revision are also indispensable links in the publication and use of teaching materials.

Fourth, the teaching materials are written in a single form, mostly text reading, which cannot improve students' professional English ability in many ways. Almost all of these English teaching materials for animation majors for undergraduate teaching tend to include even only chapter readings of professional literature. The ultimate purpose of the animation professional English curriculum is to cultivate learners' English application ability in the field of animation professional international communication. English language ability mainly includes the ability of listening, speaking, reading, writing and translation. English for animation professional should not stop at the reading of traditional professional literature [4]. The compilation of teaching materials guides teachers' teaching ideas to a large extent, and its form should reflect the actual goals of professional English teaching more.

Fifth, the set of exercises is single, which does not fully conform to the rules of English learning. Most of the after-school exercises in the teaching materials are text reading question-and-answer and sentence translation, which fail to reflect the systematicity and coherence of the text and exercises, and also fail to strengthen the consolidation and improvement of knowledge from the simple to the deep [2]. There is very little involved in speaking or listening practice.

Sixth, the content of teaching materials is not targeted for students in different directions of animation majors. The content of teaching materials is more about animation overview and animation creation process and technology. However, in fact, animation majors also have different professional fields, such as animation art, cartoon comics, architectural animation, animation peripherals, etc. The selection of teaching materials should also take into account the professional learning interests of students in different directions and meet their learning needs on the basis of the overview [4].

Seventh, the construction of teaching materials and teaching resources is seriously poor. Only two of these teaching materials are provided with text audio CDs. In the wave of university curriculum teaching reform, micro-courses, MOOCs, and online and offline hybrid teaching are no longer new topics. Whereas, the construction of teaching materials and teaching resources for English courses for

animation majors is far from keeping pace with the times [4].

Eighth, the composition of teaching materials editors is single. Even if the teachers of animation majors have high English proficiency, they have rarely received foreign language education and teaching training, and do not know much about foreign language teaching rules. However, the teaching materials written for English teachers are not as accurate and professional as animation professional teachers, and they do not know much about cutting-edge professional knowledge.

### 3. The Conception of Construction of the English Corpus for Animation Special Purpose

English for animation special purpose should not only pay attention to ordinary corpus texts, but also pay attention to the corresponding subject knowledge, which brings new challenges to corpus research. The contemporary animation special-purpose English corpus shows three major development trends - animation specialization/miniatrization of the corpus, (communication) multimodalization of corpus data, and localization of the corpus [5]. Sinclair pointed out at the International Conference on Corpus Linguistics as early as 2003 that the momentum of building large corpora has been slowed down and replaced by small corpora. While striving to build a very large and comprehensive corpus, establishing more professional and relatively small ESPA corpora will be the trend of corpus linguistics development in the future.

#### 3.1 Identify the Software Platform to Build on

The construction of the multimodal corpus requires the help of text, audio and video processing technologies and data management and retrieval technologies. Multimodal discourse research such as speech, gestures and body postures can be completed with the help of ELAN software, which is also suitable for the multimodal corpus construction, as shown in Figure 1. Most domestic multimodal corpus transcription and annotation use the ELAN tool. This software is widely used in discourse analysis, situational language research, language archiving, and spoken language corpus construction [5]. Through literature review and preliminary trials, we believe that ELAN is more suitable for the construction of a multimodal corpus of English for animation special purposes due to its characteristics.

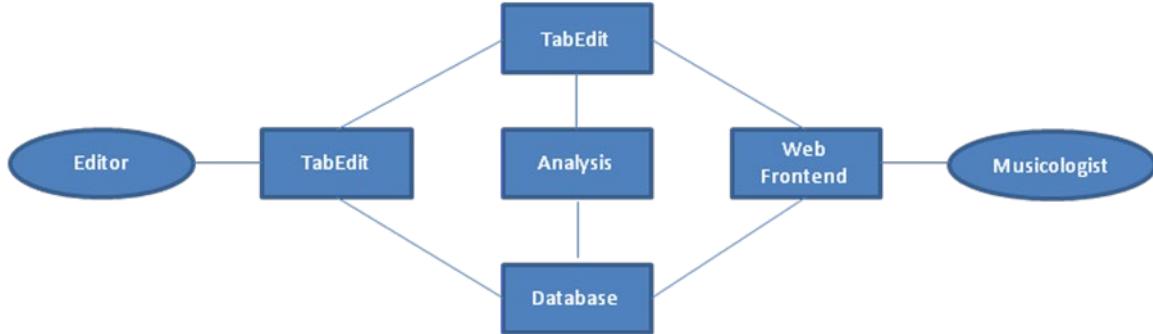


Fig.1 System Framework of the Corpus Platform

#### 3.2 Collection of the Corpus

In the process of determining the source of the corpus, it is necessary to select the corpus that is pertinent and represents the English language characteristics of the professional field according to the characteristics of English for special purposes of animation, and pay attention to the rationality of the distribution of different types of corpora. It is necessary to cover the various situations of the research content as much as possible in the real English conversation literature in the professional field, and the professional teaching materials with relatively high reputation in the related professional field, and select the representative corpus [6]. In the selection process of the corpus, it should be able to reflect the language characteristics of relevant majors to the greatest extent and reflect the authenticity of their discourses. In the real English conversational communication in this professional field, the corpus includes professional textbooks, reference books, conversation literature,

professional treatises and other materials. Their distribution is different [7]. Therefore, the selection ratio of the corpus should be as consistent as possible with the actual situation of the specialization, so as to enhance the utility of the animation-specific-purpose English corpus. For example, the analysis of high-frequency words with professional characteristics, sentence patterns in discourse, rhetorical features, etc., can sort out the rules for the formation of professional English syntax.

### **3.3 Creation of Metadata**

In the process of creating the multimodal corpus, it is usually necessary to give the corpus some specific information according to the research needs. First, it is necessary to determine the metadata specification used to describe the attributes of the corpus, and label the collected corpus by categories [8]. The construction of the corpus needs to be representative of the sampled corpus. Information such as the environment in which the utterance is generated and the background of the speaker will affect the multimodal analysis. This information is the metadata of the corpus (also called Meta-data). For animation special purposes, in the construction of the corpus, it is necessary to mark the common attributes of these corpora, and also need to formulate its unique attributes for each type of the corpus. First of all, using the tool Arbil to create the metadata of the corpus, mainly to mark the nature of the corpus , subject, time, location, length and other information, so as to create a new metadata file [7]. Then save the metadata file in IMDI. Finally, use ELAN and other software to segment and label the specific audio and video corpus according to certain requirements.

### **3.4 Segmentation and Transcription of the Corpus**

Due to the particularity of the multimodal corpora, corpus segmentation is a difficult point in multimodal corpus processing. The segmentation unit in ELAN software is usually a segment composed of pauses of speech in audio and video. ELAN software provides a more convenient transcription interface. The software will automatically play the voice of the segmented segments, and the transcriber can directly input the content they hear in the interface [6]. After the transcription is completed, the corpus is then kept and output in some format (including Text Grid, TXT, etc.). The output corpus is then segmented, and then re-entered or imported into software such as ELAN. Finally, transcribing the speech into text truthfully and in detail requires formulating a transcription specification based on the initial transcription of a small amount of multi-type corpus, and revising it continuously with the enrichment of the corpus and the deepening of the transcription.

### **3.5 Annotation of Corpus**

In the labeling process, special attention should be paid to “the scientificity and reliability of the labeling set, try to avoid subjectivity and one-sidedness, and make the labeling of the corpus reflect the true face of the language as much as possible; pay special attention to the standardization and normalization of the labeling set of the corpus to improve the labeling results. degree of sharing” [8]. When building a multi-modal corpus for animation, detailed annotation information can be set according to the retrieval requirements of the corpus.

## **4. Pedagogical Applications of Special-Purpose English Corpora.**

### **4.1 The Application of Corpus in Vocabulary Teaching**

The advantage of the corpus is that it can learn the meaning of words through the language environment and sentences, such as word collocation, analysis of synonyms, observation of word order and syntactic structure, etc. First of all, the concept of word frequency must be established. The corpus software can count the words with the highest word frequency in spoken and written English, and understand the collocation rules of words through the index [9]. Most learners' learning of words is isolated and one-sided, and the corpus shows the concept of “word frequency”. According to COBUILD research, the 700 words with the highest word frequency in English account for 70% of language usage. In this way, the corpus word frequency can be used to let students understand the key

points of vocabulary learning and better grasp the collocation of vocabulary, so as to avoid learners spending time on very common vocabulary and improve the efficiency of vocabulary learning.

The order in which learners acquire vocabulary depends on the frequency of the language components appearing in the input, so the repetition rate of vocabulary in English teaching should be an important basis for vocabulary teaching and the main indicator of vocabulary teaching design. For example, in the vocabulary teaching in intensive reading, all the texts and exercises of the animation English textbook can be built into a lesson library and an exercise library. The corpus software is used to analyze and count the total frequency of words appearing in the text database and exercise database, and the correlation degree and matching relationship between the words in the text and the exercises are clarified [9]. Then the vocabulary is summarized into productive vocabulary and accepting vocabulary. Productive vocabulary needs to achieve the purpose of language output. In the teaching process, emphasis is placed on the meaning, collocation, grammatical information, stylistic information and pragmatic information of words, the information of language use is clearly displayed, and students are allowed to practice output.

## 4.2 The Application of Corpus in Writing Teaching

Writing teaching has always been a weak link in foreign language teaching, with huge investment but little effect. Traditional teaching methods mainly focus on text structure and error analysis, while ignoring students' subjectivity research. The corpus tool can help students discover the laws of language use, reflecting the student-centered teaching philosophy. The five functions of the online corpus BYU-BNC: (1) query and present context for words, word strings, phrases and parts of speech; (2) search for word collocations; (3) Multiple sub-collation frequencies are compared; (4) the vocabulary can be retrieved in various fields; (5) the corpus can be arbitrarily added to the table containing the corpus. The corpus provides a large number of real, reliable and rich corpus resources, and the contextual co-occurrence of keywords is carried out by using the corpus central word index, which provides a rich context for the vocabulary and presents its pragmatic information. The grammatical structure is difficult to present in a single discourse, which provides learners with the opportunity to observe the rules of language use and help learners to solve idiomatic collocations and difficult usages [10].

## 4.3 The Application of Corpus in Translation Teaching

The problems existing in traditional translation teaching are: firstly, translation teaching is centered on teachers, ignoring the initiative of students; secondly, translation teaching emphasizes the imparting of knowledge and neglects the training of skills; thirdly, the teaching method is single and lacks the support of teaching theory; fourthly, the translation teaching materials are not unified and the content is outdated; fifthly, the translation teaching content emphasizes literature and ignores the translation of practical style. These problems lead to the disconnection between translation teaching and society, which is not conducive to the long-term development of translation teaching [10]. The corpus analysis of part-of-speech distribution, segment length and structural capacity can be applied to the teaching process, which can improve the efficiency and effect of translation learning, as shown in Figure 2. The bilingual corpus can be used to retrieve words and get rich and diverse bilingual translations. Most words in English and Chinese are not in one-to-one correspondence as in the dictionary., you can feel the different contexts in which the words are located, so as to choose the most suitable translation. Multiple translation versions are also available for common sentence structures and discourse patterns, and these multi-translation corpora can provide reference for learners and lecturers.

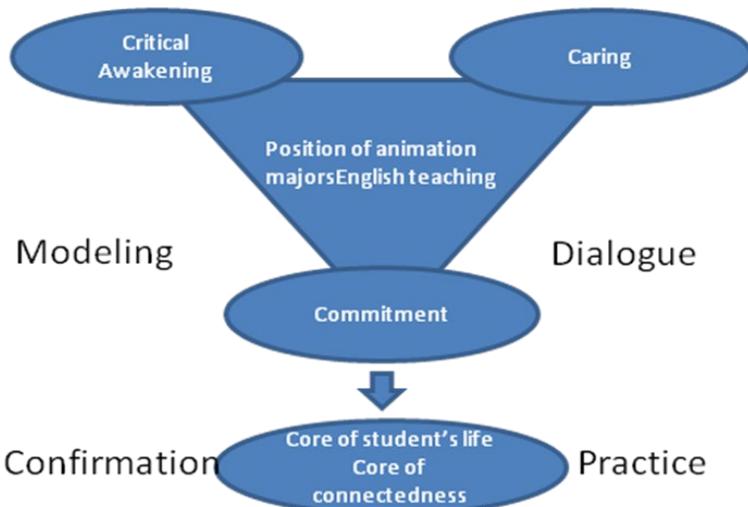


Fig.2 The Application of Corpus in Animation English Teaching

Further annotation of the corpus can also play a certain role in promoting teaching, including annotation of translation methods and techniques, annotation of grammatical errors, language features, grammatical errors, and teachers' evaluation of students' translations. In the corpus teaching mode, the teacher is no longer the leader of the teaching process, but the guide and facilitator. Students give full play to their initiative and use the bilingual corpus to retrieve real and typical translation examples, so as to better grasp the bilingual conversion strategy [10]. It is also possible to obtain a more comprehensive understanding of the quality and style of the translated text by retrieving data such as sentence length, word frequency, type-to-sign ratio, and lexical density statistics by the software.

## 5. Summary

The construction of the corpus of English for special purposes in animation is conducive to the deepening development of English for special purposes in animation. It can realize and ensure the authenticity of language materials, provide a large number of real conversations, professional literature and other cases in real contexts, highlight professionalism and practice. It provides a new means and method for the teaching and research of English for special purposes of animation, and provides resource support for students' personalized learning, fragmented learning and inquiry-based learning.

## Acknowledgment

Project source: Jilin Province Education science “14th Five-year plan” 2021 general subject.

## References

- [1] Ricardo-Adán Salas-Rueda: Design, Construction and Evaluation of a Web Application for the Teaching-Learning Process on Financial Mathematics. *Int. J. Emerg. Technol. Learn.*, 15(8): 100-115, 2020.
- [2] Hasan Köse, Mine Sönmez-Kartal: The effectiveness of video prompts created with animations in teaching car wash skills. *Educ. Inf. Technol.*, 27(2): 2083-2097 (2022).
- [3] Y. Liu: Research on the Teaching Model of English for Special Purposes in Animation under the View of Multimodal Discourse Theory. *Journal of Chengdu Aviation Vocational and Technical College*, 11(2), 32-34, 2019.
- [4] Pedram Asef , Christos Kalyvas: Computer-Aided Teaching Using Animations for Engineering Curricula: A Case Study for Automotive Engineering Modules. *IEEE Trans. Educ.*, 65(2): 141-149

2022.

- [5] Daniel A. Russell: Interactive (adjustable) plots and animations as teaching and learning tools. Proc. Meet. Acoust., 33(1):12-19, 2018.
- [6] Hadeel Mohammed Jawad, Samir Tout, Munther Abualkibash, Yichun Xie: Integrating Art and Animation in Teaching Computer Programming for High School Students Experimental Study. EIT, 2018: 311-317.
- [7] Rosana Marar, Edward Jaser: Technology Enhanced Learning using Virtual and Augmented Realities: An Applied Method to Improve the Animation Teaching Delivery. KMIS, 2018: 101-108.
- [8] Andrea Sanna, Fabrizio Valpreda: An Assessment of the Impact of a Collaborative Didactic Approach and Students' Background in Teaching Computer Animation. Int. J. Inf. Commun. Technol. Educ., 13(4): 1-16, 2017.
- [9] D.G. Huang, Y.Qin and S.Y. Xu: A Corpus of English for Animation Special Purposes: Challenges, Rationale and Vision. Journal of Ningbo University (Humanities), 10(5), 48-51, 2020.
- [10] Ladislav Végh, Veronika Stoffová: Algorithm Animations for Teaching and Learning the Main Ideas of Basic Sortings. Informatics Educ., 16(1): 121-140, 2017.