

Illustrations Configuration in Electronic Learner's Dictionaries Based on Reception Theory: Taking OALD10th for Android as an Example

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Abstract: Illustrations are of salient importance to the comprehension of the entries. The dictionary app OALD 10th boasts hundreds of illustrations in different forms, and it was analyzed as an example in the present study. This article aims to explore how the illustrations are configured in electronic learner's dictionaries based on the reception theory. In the research, the presentation format, characteristics and classification of the illustrations on the app were demonstrated by certain screenshots as examples. Inspired by the illustrations configuration of the app, three standards of configuring the illustrations in electronic learner's dictionaries were proposed from the users' perspective. In conclusion, the illustrations configuration should meet the users' needs first, and apart from it, the heuristic value should be provided by the illustrations, particularly in learner's dictionaries. Furthermore, it was suggested that the difficult verbs should also be illustrated in special forms. Suggestions for further research in this area were presented in the end.

1. Introduction

Illustration is a salient source of information that helps explain words in dictionaries. It deals with the world rather than with linguistic signs. In language dictionaries, the illustrations provide visual supports for the verbal description of the semantic content of the linguistic items [1]. More recently, with the advance of Information and Communication Technologies (ICTs) and the use of digital media in dictionary compilation, multimodal dictionaries have become a focus of discussion in the dictionary community. This change has resulted in the digitization of dictionaries, particularly medium and publication. Therefore, electronic dictionaries tend to be multimodal, which are better for definition. Without too many worries about space, the electronic dictionary can apply media to help elucidate the meaning of some words. More specifically, pictorial illustrations may be the most ostensive among the media in electronic dictionaries. They are full of colours, and some of them may even be vivid photographs. Thus, the users can quickly match the illustrations with the things existing in their cognitive experience and finally, to a large extent, get the words they are retrieving across before looking up the verbal description.

Electronic dictionaries are in different forms: software installed on tablet computers or laptops, apps in smart phones and web applications. Nowadays, dictionary apps seem to be much more popular among users regarding the lightness of the device, immediate information retrieval, large capacity and dynamic information they provide. According to the previous survey, 82 percent of the college students preferred dictionary apps, and it was generally acknowledged that most of them thought that dictionary apps could contribute a lot to learning English [2]. Oxford Advanced Learner's Dictionary is generally regarded as a leading English learner's dictionary in English learning. It is also considered one of the most influential English advanced learner's dictionaries for non-native English speakers worldwide [3]. Its counterpart in the form of an app for Android will be short for "the OALD10th app" or "the app" in the following text. The OALD10th app boasts 8,600 words and 95,000 phrases [4]; among them, the number of words with illustrations is at least 2200 [3].

With the introduction of the research on the dictionary users' cognition and communicative

lexicography proposed by Heming Yong [5], the focus of dictionary compilation has been transformed from lexicographer-centered to user-centered. In this way, the strategies of dictionary-making, therefore, increasingly consider users' needs; hence the selection and position of the pictorial illustrations in electronic dictionaries cannot be taken lightly.

The present study is guided by the reception theory, which Hans-Robert Jauss proposed in the late 1960s. The cultural theorist Stuart Hall was one of the leading proponents of this theory. He proposed the encoding/decoding model of communication, which is a form of textual analysis that focuses on the scope of "negotiation" and "opposition" by the audience [6]. Lexicographically, it means that the dictionary information is not simply passively accepted by the users, but in turn, the users actively interpret the meaning of the dictionary information based on their cultural background and life experiences. In essence, the meaning of dictionary information is not inherent within the information itself, but is created within the relationship between the dictionary and its users. Electronic dictionary compilers can bear in mind that "the greatest poet is not the one who creates the most, but the one who inspires the most", commented on the reception theory by Charles A. Sainte-Beuve. Drawing the evidence from the OALD10th app, the following research questions are addressed in the article:

(1) What are the presentation format and characteristics of the illustrations on the OALD10th app?

(2) How are the illustrations classified on the OALD10th app?

(3) How can the illustrations be configured in electronic learner's dictionaries based on the reception theory?

2. Previous Research

Several researchers have classified illustrations in dictionaries [1,7-9]. Their taxonomy, however, was restricted to print dictionaries. Under such circumstances, Dziemianko [10] combined their classification and modified it to the compilation in electronic dictionaries. Her article addressed and studied three types: colour pictures, greyscale pictures, and line drawings. Klosa [11] analyzed and demonstrated the illustrations in electronic dictionaries with examples. The function of the illustrations differs in different kinds of dictionaries. Svensén [1] emphasized that "illustrations are encyclopedic by nature". It is salient that the primary purpose of the illustrations is to provide support for comprehension [12]. On what word class can be equipped with the illustrations, Klosa [11], Nesi [13], and Stein [14] claimed that a large group of concrete nouns, some verbs, adjectives and prepositions were the suitable ones to be illustrated. Different parts of speech may be equipped with different types of illustrations in light of existing lexicographical practice [15].

Colour is an essential factor in dictionary illustrations, especially in electronic dictionaries. It can increase the degree of authenticity, vividness and attractiveness. Nevertheless, illustrations with too many colours may, to some extent, encourage sweep generalization [16]. On the effectiveness of colour, according to the research done by [17], there was not enough evidence to prove that colour illustrations were more effective than the traditional simple iconic line drawings.

The usefulness of the illustrations is discussed from different perspectives. On the one hand, it may be acknowledged that illustrations are used to "support comprehension as a scaffolding tool to help students quickly associate unfamiliar words with concepts" [18]. As a result of the cultural differences, the non-native language learners may, to a considerable degree, resort to the illustrations to disambiguate the senses, broaden their knowledge, improve retention, and get the grammatical information across [10,19]. On the other hand, except for the reference skills, the cognitive abilities related to prior knowledge and effective learning are essential to the users in interacting with the illustrations. Cognitive schemata of the necessary prior knowledge may not be activated if the users lack such abilities [20]. It implies that the cognitive load can be considered in the studies of the illustrations in electronic dictionaries. Kalyuga et al. [21] conducted two experiments, and finally, the results revealed that "using too many colours simultaneously may itself impose a significant load on working memory and eliminate any positive effect of colour-coding".

Few researchers have discussed the application of the reception theory in the lexicographical

studies [22-23]. There are three key points in their studies: (a) users are the implied readers; (b) the retrieval behaviour of dictionary users is reflected in the interaction between their role as implied readers and system of the dictionary text; (c) the dictionary text should be of heuristic value to the users. From here, it tells the idea of the reception theory can also be applied in lexicography.

3. Illustrations on the OALD10th App

In this section, the presentation format of the illustrations on the OALD10th app will be dealt with in the first place. Then, their characteristics and the classification will be listed step by step.

3.1. Presentation Format

The OALD10th app boasts hundreds of illustrations. These illustrations will display when the users look up a word (see Figure 1). Small images are attached to some entries, and such images will be zoomed in when the users tap on them. A larger picture that often contains related words will come to light subsequently (see Figure 2).



Figure 1 Part of the interface before tapping on the illustration (entry: *acorn*).

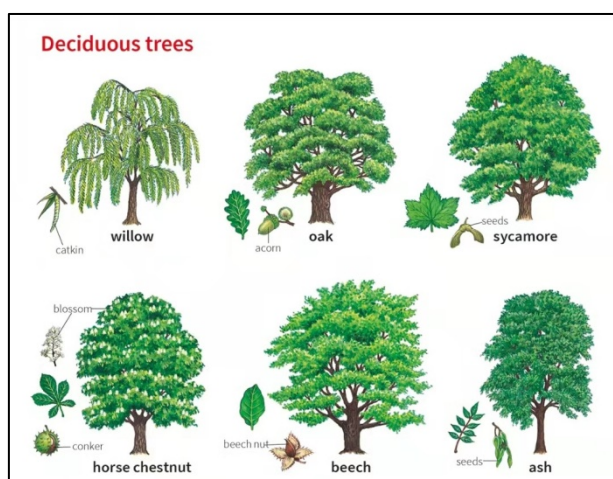




Figure 2 The enlarged illustration (entry: *acorn*).


Regarding the position, it can be seen from Figure 1 that the illustration is well placed on the right of the entry, or more specifically, next to the pertinent sense of the entry (see Figure 3). The enlarged illustration contains several vector images with captions, that is, the inserted words pointed by the lines (see Figure 2). Those images specifically illustrate different types of "acorn" in different trees. The captions, like the indicators, provide immediate support for the users to get a general


view of each image and help them understand the entry as soon as possible.

archi·tec·ture *noun*


 A2


 /'ɑ:kɪtektʃə(r)/

 /'ɑ:rɪtektʃər/

1  A2 [uncountable] the art and study of designing buildings

- *to study architecture*
- *She's a professor of architecture at the University of Oregon.*
- *an architecture student/critic*

2  A2 [uncountable] the design or style of a building or buildings



- *the architecture of the eighteenth century*

Figure 3 Part of the interface before tapping on the illustration (entry: *architecture*).

Regarding the distribution, not all the entries with illustrations are equipped with the unique ones, which means there is an overlapping of the illustration selection among the entries and they share the same illustrations. Figure 3 and Figure 4 demonstrate such a situation in which more than one object is presented in the same illustration. It tells that the illustration inserted in the entry "architecture" contains several specific pictures of the same kind. Such pictures are combined and placed in one illustration to help clarify the entries, which are also the inserted words (see Figure 5). In light of the semantic relation, the generic noun "architecture" is the superordinate of the specific noun "tower". Thus, it may be one reason why the dictionary makers equip the same illustrations with different entries.

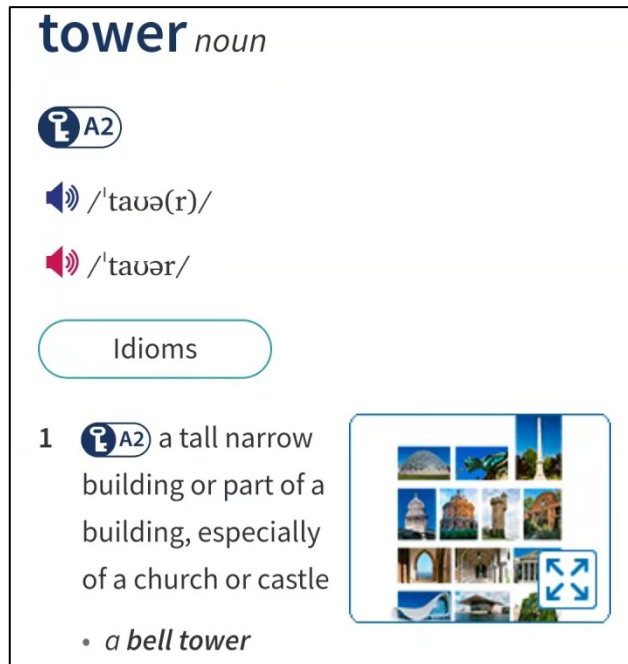


Figure 4 Part of the interface before tapping on the illustration (entry: *tower*).

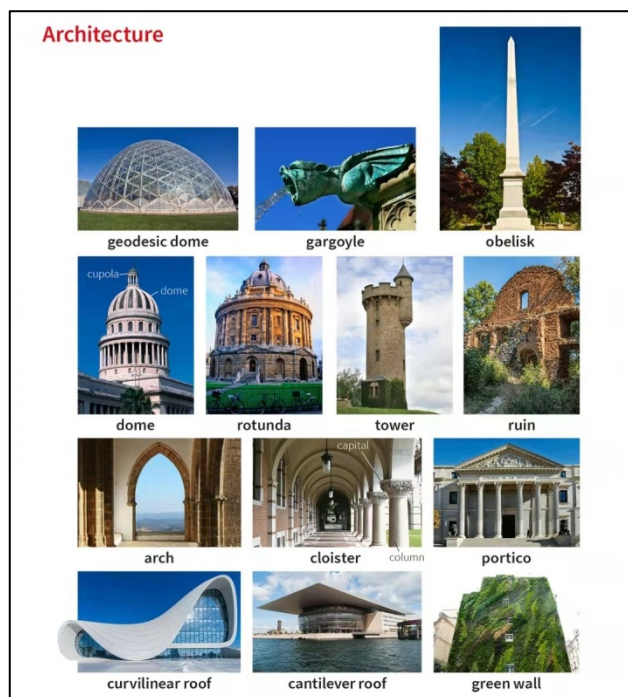


Figure 5 The enlarged illustration (entry: *architecture*).

The presentation format is of extreme salience for the illustrations [1]. Regarding the form, the app does not merely apply one single form. Coloured drawings and photographs are frequently selected. More specifically, coloured drawings are of two forms: plane and three dimensional. Three-dimensional models can be seen when illustrating a particular scene (see Figure 6). In print dictionaries, the photographs are likely more realistic than the drawings. However, with the advance of technologies, the drawings in electronic dictionaries, especially the simulated drawings produced by some special techniques, are even as realistic as the photographs. It is suggested that the photographs should be used cautiously. Society has been focusing more on intellectual property rights and portrait rights; hence, the electronic dictionary companies have to pay much heed to the infringement if they do not have their own photograph collection websites or database. Besides, photographs often include "visual noise" [24], which means they include something irrelevant for a

particular context and are potentially distracting [25]. Photographs with this trouble may hinder the comprehension of the users in turn.

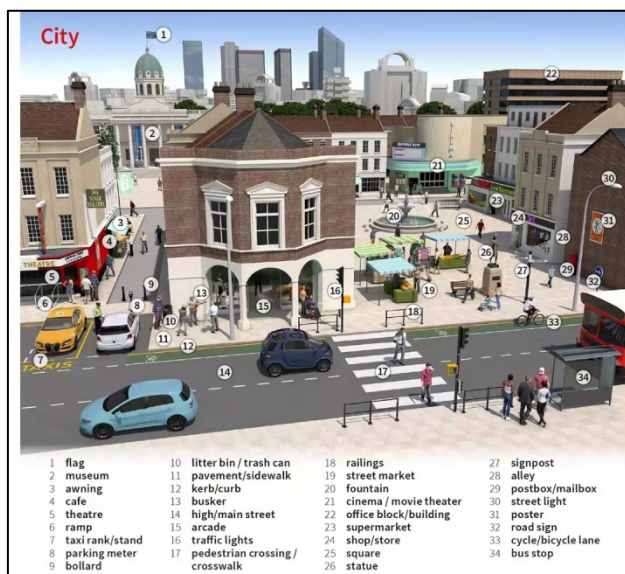


Figure 6 The enlarged illustration (entry: *city*).

3.2. Characteristics

The language learners have their own cognition and experience about the world, but they lack enough experience about the language they are learning. As a result, the illustrations in dictionaries can assist in defining words when the verbal definitions are complex, incomplete and inaccurate [24]. As a leading English learner's dictionary, the OALD10th app should, to a large extent, meet the English learners' needs. The illustrations on the app boast the characteristics as follows:

(1) Informative. Some illustrations on the app are sources to broaden the users' knowledge. They are not merely a single picture; instead, they contain much additional information by using captions and inserting relevant words of the same kind. After consulting the illustrations, the users may get a deeper understanding of the words they are retrieving and expand their vocabulary.

(2) Aesthetic. Colour pictures, three-dimensional models and photographs are configured on the app. They are not haphazardly and discretely placed in the dictionary; instead, they are well organized and put in uniformity, that is, on the right of the entry and close to the pertinent sense. The users can immediately access what they need at such a structural interface.

(3) Scientific. The illustrations on the app are not configured in chaos. Apart from this, the selection and production are systematic and scientific. The illustrations are reused many times; hence the dictionary makers can save a lot of time on considering other elements. Also, the users are presented the same pictures repeatedly so that their retention may, to a large extent, be improved.

(4) Practical. The users may refer to the illustrations when encountering words that are quite hard to understand from their verbal interpretations. The commonly-used words are not equipped with the illustrations on the app if they are not worth being extended. Considering the presentation space [26], the OALD10th app does not apply too many illustrations at the interface.

In a nutshell, depending on the reception theory, the users actively receive the information the app provides [23]. As for the English learners, the app is conducive to memorizing words, quickly understanding the entries and broadening their horizons.

3.3. Classification

Feng [7] classified the illustrations in light of the content (see Figure 7). His classification is much organized and structural. It is, however, also restricted to print dictionaries. In the digitized age, a change of it has to be made in electronic dictionaries. Based on his classification, a modification is made here to adjust to the OALD10th app.

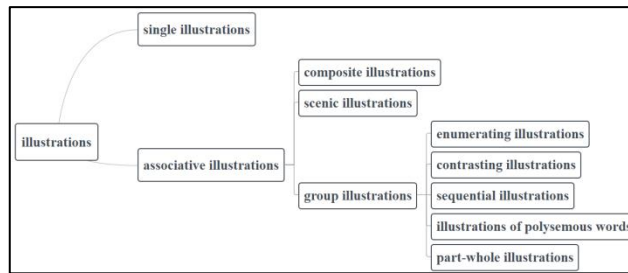


Figure 7 Feng's classification.

The OALD10th app features in applying associative illustrations, that is, such kind of illustrations involve a wider range of words and can serve not only as an aid to the interpretation, but also to the reconstruction of the semantic relationships disrupted by the alphabetical arrangement of words [7]. The classification of the illustrations on the OALD10th app is demonstrated as follows:

(1) Structural illustrations. Such illustrations present only one object, but they use lines and captions to emphasize the components of that object. Figure 8 shows every component of a hand.

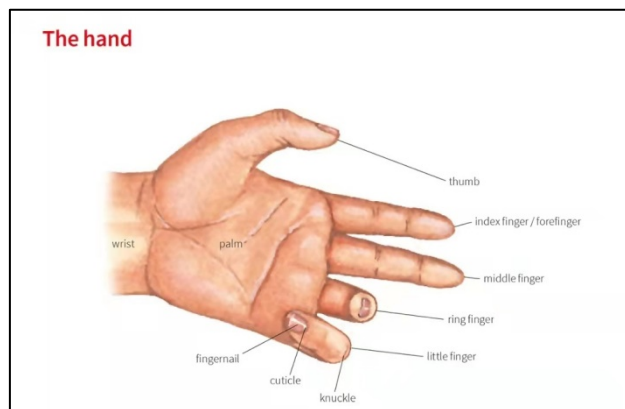


Figure 8 The enlarged illustration (entry: *hand*).

(2) Scenic illustrations. The illustrations of this type are often related to human beings' life and event venues. Figure 6 well illustrates this type. As an English learner's dictionary, the app makes the best use of such illustrations so that the English learners can actively understand the English countries' culture.

(3) Numerating illustrations. This type puts objects of the same kind into a single illustration (see Figure 9). In terms of semantic relations, the words with individual images are coordinated to each other. The words on the top left corner and brushed in red are their hypernyms. Thus, such illustrations reveal not only the congruent relationships but also the subordinate ones.

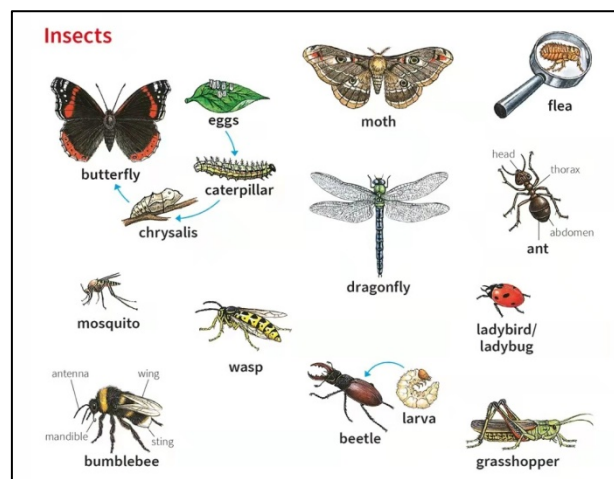


Figure 9 The enlarged illustration (entry: *butterfly*).

(4) Part-whole illustrations. This kind of illustration emphasizes the semantic relationship between generic words and their specific words. Figure 9 is also of this type. The word "insects" in red can be seen as the topic or, more specifically, the generic word of the other words.

It can be indicated that the types of illustrations on the app are not as rich as those in the traditional print dictionaries. Also, many illustrations share the same types.

4. Standards of Configuring the Illustrations in Electronic Learner's Dictionaries

Combined with the reception theory and communicative lexicography, lexicography is viewed as a communication activity, in which the dictionary is the medium, the definition is the content. How the definition is presented or expressed directly determines the effectiveness of the dictionary [27]. Every item in the dictionary plays a significant role in providing the users with the heuristic value. Inspired by the OALD10th app, the standards of configuring the illustrations in electronic learner's dictionaries are listed as follows:

(1) The number and types of the illustrations are considered based on the purpose and target users of the dictionary. For learner's dictionaries, the users are often non-native language learners. From the user's perspective, the cognition and the degree of reception when consulting the dictionaries should be considered first. The illustrations should be typical and salient without irrelevant background. Although the problem of space is not that serious in electronic dictionaries, the presentation space must be emphasized. The illustrations should be adequate in case they exacerbate the cognitive load. Otherwise, the loss outweighs the gain.

(2) The form of the illustrations should adhere to the features of the time. Unlike print dictionaries, electronic dictionaries are able to fully apply technologies and techniques. Drawings and photographs are frequently used as illustrations. Nevertheless, they are static, and most of them merely assist in elucidating the nouns. Graphics Interchange Format (GIF) can also be applied as illustrations. Utilizing it, many tricky verbs, the momentary verbs, in particular, can be further and vividly illustrated.

(3) The presentation of the illustrations should be structural and well-layered. Aesthetics is emphasized in the reception theory. Without space restriction, some dictionaries tend to put everything at the interface. Coloured signposts or guide words can be employed to indicate the dictionary information. It means that the basic information such as pronunciation, part of speech, illustrations, definition and some key examples can be presented first at the interface. The folds and pop-up windows can be used when presenting additional and not that vital dictionary information, such as collocations, synonyms, grammatical information etc. Bear in mind that the choice of which ones are presented or hidden rests with the dictionary type.

5. Conclusion

The reception theory's main idea is that the educational and recreational functions of words are to be realized in the readers' active reading. From lexicography, the two functions are to be realized in the users' active consultation [23].

The OALD10th app makes best use of illustrations in different forms and types. The illustrations on the app are placed on the right at the interface. Some entries even have more than one illustration, and some other entries even share the same illustrations. According to the analysis, they are informative, scientific, aesthetic and practical. In light of the classification of Feng [7], a modification which adjusts to the app was revealed in the present study. In order to assist the language learners in understanding the words, the illustrations are made associative. There are mainly four types: (a) structural illustrations; (b) scenic illustrations; (c) numerating illustrations and (d) part-whole illustrations. As mentioned above [11,13-14], the illustrations help elucidate the definition of a large group of concrete nouns, some verbs, adjectives and prepositions. On the app, many thematic or generic nouns are illustrated by pictures. Few verbs are equipped with illustrations. It is suggested that dynamic illustrations like GIFs can be applied in electronic learner's dictionaries. Inspired by the OALD10th app, three standards of configuring the

illustrations in electronic learner's dictionaries were proposed: (a) the number and types of the illustrations are considered based on the purpose and target users of the dictionary; (b) the form of the illustrations should adhere to the features of the time and (c) the presentation of the illustrations should be structural and well-layered.

Future research in this area can focus on the illustrations' innovative and operational electronic forms. Apart from it, how to illustrate the tricky verbs in electronic learner's dictionaries can also be explored in future studies.

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