

Cross-Disciplinary Language Teaching

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ABSTRACT

For the reason that the labor markets is increasingly demanding for workforce with multi-specialization, cross-disciplinarity is growing more and more important. Therefore, foreign languages teaching must match what society is demanding from professions to have a cross-disciplinary role with a focus on results-oriented to keep up with the fact that leading sciences nowadays proceed by solving complex problems cutting across disciplines. Moreover, there are permanent language barriers and cognitive differences between languages, cultures and disciplines, which have caused difficulties for learners and teachers. Thus, we suggest using cognitive linguistics techniques and approaches to process the problems within the background of cross-disciplinarity because, in the viewpoint of cognitive linguistics, a linguistic term does not exist exclusively from its syntagmatic or paradigmatic relationships with the others, but also the foundation knowledge based on the culture and conventionalization. Cognitive linguistics has integrated advancements in philosophy, history, neurology, anthropology, language, psychology, and computer science. For that reason, a procedure with a cognitive perspective provides satisfactory conceptual techniques for the teaching practice. From the research, we have gained four principles for language teaching and applications in teaching vocabulary, teaching prepositions and teaching clauses. This approach combines traditional methods with modern ones as a problem-solving, case study, etc., which aims at having practicable, time-saving, but most authentic and effective applications.

Keywords: *cross-disciplinary, integrated, language teaching, cognitive linguistics, cognitive approach*

1. LANGUAGE LEARNING AND COGNITIVE LINGUISTICS

Language is a separate system that consists of compartmentalized subsystems, i.e., lexis, phonetics, syntax, morphology, and semantics. Besides, the language system is seen as being uninfluenced by the interactive activities and experience of a normal human being with the physical-spatial surroundings. Language operates with its own attributes and rules that are individual, arbitrary, and unusual. Language is a set of rules, a lexical stock in which there are rules and exceptions beyond the rules. The approach to learning a language is that to learn by heart the rules and exceptions. And while we use the language, so many doubts appear without any explanation.

For example, we all have learned one rule to make compound nouns in English is that to attach a noun with a noun. As a result, we will have a mailman, chairperson, stomachache, etc. However, no one will

explain to students why there is swineherd but not pigherd, stomachache but not heartache, mailman but not letterman, etc. Students will also doubt the difference between the two sentences:

Doing well in the exams is important *to* Mary.

Doing well in the exams is important *for* Mary.

And no student can clearly tell the difference between the two sentences:

She threw the book *to* me.

She threw the book *at* me.

The cognitive linguistics approach carefully observes how linguistic units are manipulated by language users in contexts. It explains language as speakers actually use it. The linguistic form is the reflection of our cognition arising from our cognitive abilities and our embodied experience with the world. Conceptualization is equated with meaning, and meaning is the focus of Cognitive linguistics analyses.

Cognitive linguistics considers that language is indispensable to social-communicative experiences. Another major claim of Cognitive linguistics is that social happenstances and human interactions with the physical world are included in language [7] [30]. In fact, language reflects what humans think of the social events which they have experienced on a daily basis [23]. Embodiment theory in Cognitive linguistics shows the inherent linkages of language with cognition as aspects of human life. It is a way of conceptualizing the nature of language very different from the traditional models, which are generally assumed to be by descriptive grammar and foreign language teaching materials. The cognitive linguistics approach forces us to profoundly rethink our assumptions about the nature of language. Michael Tomasello's work on L1 learners constructing their language and Nick Ellis's forceful arguments for the compatibility of a Cognitive linguistics theory of language and the psychological theory of associative learning bring us to rethink many assumptions about the way language is processed and learned [29] [2] [10]. In particular, Ellis' usage-based arguments, which combine input frequency with principled explanations of learner perceptions of saliency, begin to allow predictions about which elements of the L2 are most likely to be learned implicitly and which appear to need explicit intervention [2] [10].

Cognitive abilities play an important role in language learning. Langacker [24], Croft [5] [6] [7] and Littlemore [27] assert that human's experiences in a vast number of language elements in life and all such language elements, commonly called usage events in Cognitive linguistics, are accumulated as an inventory of linguistic units within the mind in cognitive processing. With repetition of human interactions with events in society, language learning takes place, and humans form linguistic knowledge and image schemas, which gives implications for L2 instruction [3]. The central task of Cognitive linguistics is to describe and explain the intrinsic cognitive structure and motivation of the speaker and also the listener. They're viewed as an information processing system containing a certain number of independent elements to distribute linguistic information on different levels. Cognitive linguistics methods bring forth diagnostic devices for bringing to the learners' attention the semantic relations that underlie a given construction or polysemous item. Achard [1] [2] notes, this provides for a chance to show grammar in similar ways to teaching lexis, which centralize directly on the meaning beyond the forms. Accordingly, grammar is considered a context-based phenomenon. It is not a context-

independent phenomenon. It is consistent with the importance of creating a communicative context in teaching a foreign language. The implication for L2 teaching is that learners are presumably to benefit from an approach to grammar that emphasizes its meaning-making potential and the way L1 speakers exploit linguistic form to make meaning. This can be a model of language which suggests that engaging learners in analysis of naturally occurring text and providing them opportunities to use language to express meaning will be of real benefit. Ron Langacker argues that being focused on linguistic structure through concrete factual interpretation makes the model of cognitive linguistics be much more exposed, illustrative, and comprehensive than the other models that are dominating the teaching of foreign language [25]. Finally, adopting a Cognitive linguistics-based specialization in meaning permits learners to put a speaker's point of view in the focus of communicating activities. Achard argues that this view of language results in the understanding that "specific uses of expressions relate to the speaker's preference more than the system's own attributes" [2] and that this empowers the learner to view the L2 as a means of expression rather than a list of forms to be mastered. Such focus successively demonstrates how meaning motivates the form that has to be acquired. Sentence patterns are understood in terms of scenes [14] populated with participants in particular relationships to each other, like actor and undergoer. As Littlemore [27] has emphasized, this is a very important different way of conceptualizing grammar and lexis from the formal descriptions of subject, direct object, indirect object, etc.

Verspoor and Tyler [33] make the point that at a very practical level, equipped with the conceptual tools; teachers can treat much of the information presented in existing textbooks as representing only "typical" examples and orient their students to the understanding that used in language are dynamic and flexible because the precise interpretation of language forms shift with the context during which they're used. This implies that teachers supplement their materials with a judiciously chosen authentic discourse that illustrates the wider scope of language forms used by L1 speakers, always with the main target on the manner language is used to shape the sense. The research by Achard [2] and Holme [16] [17] emphasize the usefulness of close analysis of L1 discourse with a spotlight on L1 speakers' choice of linguistic units to convey a particular meaning, in conjunction with various student-centered activities during which students investigate how the choice of form is linked to meaning. Instead of asking learners

to conceptualize less prototypical uses of linguistic units as lists of exceptions to be memorized, learners are often alerted to how native speakers may extend meaning senses and use words and constructions in a range of non-prototypical senses. Being sensitized to the possibility of such non-central uses, L2 learners could also be better able to appropriately interpret and see the input and eventually integrate it with their existing knowledge base.

2. CROSS-DISCIPLINARY CONTEXTS AND TEACHING LANGUAGE

The role of cross-disciplinarity is growing more and more significant because the labor markets require wider specialization. It is through the crossing point of different disciplines that can advance, and development be accomplished in particular knowledge fields, as Dogan and Pahre asserted [8]. Cross-disciplinarity ought to be seen as an intuitive and viable errand, an action to utilize for regular proficient practice. And numerous different ways to create its practice imaginatively and initiatively have been applied. Empirical results from viable usage of cross-disciplinary activity in language education are suggested. Driving science these days develops not step by step inside a single field but by understanding complex issues that cut over numerous disciplines.

Linguistic patterns are always used within a context, and particular linguistic forms that occur in particular contexts of use contain particular inferences. The language user himself will find helpful resources to try to understand a new linguistic pattern. Those resources consist of language units, personal skills and other general backgrounds. Any practical use of language will help form an event of linguistic usage [25].

Language teaching must meet the needs of society for working competence in a cross-disciplinary environment with high efficiency. Teachers need to be acknowledged with the learners' background for good teaching of foreign language. Their background includes economic, psychological, social and professional attributes. Teachers should take references from scientific journals, university libraries, or daily life newspaper columns to enrich their cross-disciplinary knowledge for teaching language. Teachers can also gather information by giving students interviews, questionnaires, etc. [9]. Cross-disciplinarity must be the keyword in all stages of curriculum construction for learners. The cognitive linguistic model of language acquisition must be taken into consideration from a cross-disciplinary viewpoint.

3. METHODOLOGY

This article outlines a number of techniques for language teaching in a cross-disciplinary context based on cognitive linguistics so as to best serve the optimal goal of language teaching and learning. They're based on the fundamental principles of cognitive linguistics, like language is not an ability of cognitive autonomy; semantics and linguistic structures are conceptualized category; language competence arises with the utilization of language, etc.

In Cognitive linguistics, we cannot help paying attention to a very basic principle that Cognitive linguistics studies language in relation to human - thinking human, acting human (anthropocentrism). The object of Cognitive linguistics is the natural language of human beings which is viewed as a fundamental piece of awareness. Language reflects the interaction between psychological, communicative, cultural and social factors. As a result of human intelligence, language and its structure specify how intelligence works. The structure of the language reflects functional criteria based on linguistic utilization as a conversational device. Although the relationships between many linguistic forms and their meanings are arbitrary, they're often symbolic. Language reflects many cultural attributes when it is used for communicating among people of a society. Language is structured with two vital agents: the background knowledge inside every speaker and the outside cultural elements of the speaking community. Cognitive linguistics is an element of cognitive science and is directly associated with psychology, culturology and neuroscience, as well as anthropology and philosophy. Therefore, language educating is additionally indivisible, independent of the other incalculable variables that have an awesome effect on language acquisition, such as the elements of social, cultural, intellectual, etc. Here is another example. The theory of image schema originated from embodiment and ground cognition. Consequently, the experience of the human body is the source of cognitive capabilities. This perspective has gotten to be progressively upheld by discoveries from both neuroscience and brain research [11] [13] [34]. Image schemas are viewed as mental expressions by the theory of embodiment, and they are our involvements with the world outside. Clausner & Croft [5] said that an image schema is a cognitive construction used to explain the physical experiences of humans and the connections of human mental concepts. In other words, the thinking of humans is reflected in the

process of language use [18]. With the human sense of the direction and position of things in the real world, surrounding senses as UP, DOWN, LEFT, RIGHT are constructed. Image schema is described as the "sensory-motor nature of various structures of our conceptualization and reasoning" by Hampe [15].

Besides, the subject taught is a second language for students, so we not only study those elements within the language but also within the students' languages so that the communication of the second language is highly effective and fast.

4. RESULT AND DISCUSSION

4.1. Principles for language teaching

First of all, in view of Cognitive linguistics, language is not an autonomous ability. This means that linguistic knowledge is not different from any conceptual structures. The competence of language use is basically the same as other cognitive capabilities. Therefore, we shouldn't separate linguistic ability and mechanism from the general cognitive ones of a human being. In the process of learning a language, the learner must pay a certain duration of time for it in exactly the same way as when they learn other different knowledge. No one can learn a language in a flash. We can only reduce the time spent by making use of their knowledge, helping them use their knowledge to push foreign language learning quicker. Teachers should know the average background of a different class of learners to choose the best strategic plan for teaching them because each learner has their distinct features of intellect, reflex and thinking. People of different working environments will have various competencies in learning a language. As a result, their skills in language are also diverse. For each type of learner, we should construct a suitable program to help them learn a language. That program should consist of hierarchical systems from easy to complex, from elementary to advanced levels in which the knowledge and skills are expanded gradually with numerous practical aspects of life, language intrinsically, and social contexts.

The knowledge of a language comprises mental structures and expressions. Cognitive linguists assumed that expressions of phonetics, phonology and syntax basically belong to the mental concepts. In the process of speaking, listening, writing, reading, linguistic patterns are created in the mind of the broadcaster and interpreted in the mind of the receiver. These are conceptualization processes. For that reason, in language learning, contrasting the

difference and similarities between the mental structures of L1 and L2 will be very effective for learners to catch the regulations of each language. Similarities should be taught first, and then the differences come. For illustration, when English speakers study other languages, they should be taught in a manner that is nearest to the way they conceptualize their English, such as, for the structure "I am a student.", it should be "Sono un students." (in Italian), "Tôi là sinh viên." (in Vietnamese), "我是一名学生." (in Chinese), etc. and then it can be more alien as "Я студент." (in Russian); "저는 학생입니다." (in Korean), "私は学生です." (in Japanese), etc.

Next, the construction and operation language in the mind of a human is the same way as of general knowledge. When we communicate, the cognitive properties we use are the same as those we use for other different cognitive processes. Cognitive linguistics view linguistic events as real-time perceptual processes and linear strings of linguistic units. Consequently, language should be established as data, and learners should be equipped well with tools for data processing to get the appropriate language styles and usages of the language community. And all those processes should be with the utmost lively and authentic ways as in reality. Teachers should not teach language intrinsically but should combine it with profitable conceptualizations for the brain such as videos, simulation spaces or even reality spaces. Learners will be immersed in the language environment with contexts as in the coffee shop, in the restaurant, in the movie theatre, at the airport, in a company meeting, at an interview for a job, etc., where they have to be survival with their language skills and competences.

The following cognitive linguistics principle, which is not less important, is that grammar and meaning are also conceptualized events in the human mind. Therefore, Cognitive linguistics is different from Generative grammar in the aspect of the linguistic approach. From a Cognitive linguistics viewpoint, language constructions do not necessarily obey the rules of being true – false to the objective world outside. But the important point here is that learners should conceptualize language communication experience for practical use. And teachers should be acknowledged of the conceptualization structures of the language they teach, such as linguistic categories, aspects, time and tense, etc.

That's why many researches have shown that in all stages of language learning, learners immerse in

the language with thinking, doing activities and living. Between any pair of languages, there is nothing one hundred percent the same. Learners should be helped to be acknowledged that in school education, just the legitimate things are taught; however, in real life, there may be countless alternative forms that they need to experience by themselves. In learning Vietnamese, foreigners will be taught “Tôi tên là John.” (I name is John.), but in the community, they will encounter variants like “Tôi tên John.” (I name John.), “Tôi là John.” (I am John.), “John là tên tôi.” (John is my name.), etc. Likewise, teachers should deal effectively with linguistic phenomena like metaphors, metonymy, implicature, polysemy, etc.

Furthermore, at early levels, learners should be taught simple, easy-to-understand, easy-to-use language materials. And then, at advanced or higher levels, they can learn at a depth of human linguistic thinking and reasoning. Any arrangements suggested should be logical, scientifically and helpful for language learners.

The following point is that Cognitive linguistics shares the same point of view with researches in other fields of sciences that language consciousness knowledge and skills come from using it in real contexts. The structure of language knowledge and its grammar and semantics attributes are not just on the edge of linguistic essence as assumed by true – false condition semantics or generative grammar. Lexical semantic, grammar, phonetic, etc., structures are constructed in our mind as the cognition of language using under the perspective of Cognitive linguistics. The elusive difference among structures and conversational implicatures are subtly conventionalized in the learner's mind. Delicate shifts of behaviors in syntax, semantics will be analyzed thoroughly to build categories in the grammar model in which specific and universal forms are expressed. Fillmore [12] and Cruse [7] have demonstrated this point in their theory of usage-based models, dynamic structural views and semantics of understanding. For language teaching, common models of usage should be categorized. Teachers should know which models are suitable for learners at different periods of learning. For example, in teaching English, we should take for reference the CEFR (Common European Framework of Reference). It is a helpful and appropriate framework for learning, teaching and assessing learners' language competence for all other languages which are taught as a second language; Vietnamese for instance, a framework like this need to be constructed for performing activities related to language teaching and learning. Besides, researches

need to be done on investigating what actually takes place in the learners' mind when they use the language they learn for communicating and how they feel. The way the learners use that language expresses their cognition of the new language in receiving, interpreting, and trying to communicate. Their exposures to the community can help them collect knowledge, experience and skills effectively. Therefore, learners should be motivated all the time to experience the language they learn with as many experiments as possible. The common models and errors corrections given to them will help their language usage be perfect more and more. In teaching Vietnamese to Korean people, the way we construct the information has a certain degree of similarity. Accordingly, they are motivated to apply their language models to Vietnamese. However, with people from the Western, these models are different. They say "an attractive girl", but Vietnamese say "một cô gái hấp dẫn" (a girl attractive) with an adjective following the noun. In this case, they can perceive that Vietnamese has an inverse way of putting noun and adjective together.

Finally, in language learning, we should not ignore cognitive psychological factors such as:

Memory models to study the organization of linguistic knowledge in frames/domains and the organization of grammar knowledge in the network of taxonomic relationships and other relationships.

Models of categorizations (especially the prototypes), classification centrality and models of category structures to study semantic and grammatical categories.

And finally is the Gestalt psychology focus on perception and attention models in the human mind of the cognitive actions to the observations.

This requires us, when teaching language, to have a system from low to high, from simple to complex, related and hierarchical. We should teach the universal, the most practical templates that can be used for any discipline; the rest is for students to grasp and be creative in their abilities and knowledge. For example, in elementary class, we should teach only short and simple sentences. Then we expand the grammatical components of the sentence.

Besides, while teaching language, we should pay close attention to the students' ability to focus attention. According to scientific researches in the world, this ability of humans only accounts for 20% of the time. So we should take advantage of this precious short time to teach new and difficult things. Besides, we should also apply all appropriate

methods to increase attention, increase the attractiveness for the lesson, increase the interest for students to avoid stress, boredom and monotony.

4.2. Some applications

4.2.1. Teaching vocabulary

Firstly, according to Fillmore [12], the semantic frames are the conceptual systems that are related to each other in a special manner. It is that to apprehend a part of those; we need to acknowledge the overall construction that the idea is put in with. For example, an idea such as "hand" cannot be defined without the "body" field; nor can a concept as "child" be defined but ignore the "parents" frame. And a concept as "weekend" cannot be understood without the background knowledge of the calendar (divided into 7 days and nights) and cultural conventions (divided into working days and holidays).

Each linguistic unit elicits a semantic frame. The meaning of a language unit must be defined, taking into account both "concepts" and "frames." Cross-language semantic differences are more often related to the information specified in a frame than the internal structure of the concept. Therefore, words are defined by frame relations under the viewpoints of Cognitive linguistics. No concept exists autonomously. To interpret the expressions of deictic, semantic frames with reference to deixis of space, tense, person, speech act, etc., should be rendered for. Contexts are required for concepts to be understood. For example, holidays need working days to be context. There are many similar words with subtle differences in their semantics, not because of the concepts profiled but due to their differences in frame or domain. Here are examples: roe and caviar (in relation with fish reproduction/ in relation with food); land and ground (in relation with sea/ in relation with air); stingy and thrifty (in relation with generosity/ in relation with wastefulness); etc.

Secondly, as Sweetser [28] argues that there are widespread and well-structured metaphor systems to prove that there is a tendency to use vocabulary from the outer domain to talk about the inner domain. When we use a word from another domain to convey ideas in this domain, this is called metaphor. Normally, words from well-known and concrete domains are more often be used in the abstract domains. This explains why metaphor appears so much in scientific and technical texts because of their nature of being abstract. In English, we can find metaphors in lots of technical discourses. *Stress, strain, torsion, tension, fatigue, age, fracture, be dynamic, have degrees of freedom*, etc., are the words

used with metaphors in describing the structures in the field of civil engineering. Or *sweat, weep, bleed, cured*, etc., are the words used with metaphors in describing the concrete. For these metaphors, there is a mapping from the domain of living things, which is called the "experiential basis of metaphor," as stated by Lakoff [22] [20] [13]. Words in the domain of body experience, which are more closely, easier to understand, are used to express the phenomena of a more abstract domain of technical describing to make the concepts be easy to comprehend.

Mapping	Source Domain	Target Domain
	BODY	ENGINEERING STRUCTURES
	CORRESPONDENCES	
Engineering structures undergo physical damage		stress strain fatigue torsion fracture collapse

Mapping	Source Domain	Target Domain
	BODY	CONCRETE
	CORRESPONDENCES	
Concrete has physical reactions		bleed sweat weep

Figure 1 The mapping from domain of body to technical discourses

From that event, we can learn that there are easier ways for learners of abstract, more technical majors to apprehend, learn, memorize the lexical units, language expressions for technical descriptions.

4.2.2. Overcoming the obstacles of prepositions

Meanings of the prepositions are usually taught to learners with vague and dictionary-like definitions by methods of traditional linguistics. Those definitions are either not truly what the preposition's meaning is or hard to differentiate in contexts of use. And learners have only one way to deal with the prepositions is to learn them by heart.

Nevertheless, central tenets of Cognitive linguistics, like embodiment, conceptual metaphor, prototypes and categories, and the meaningfulness of grammar, have great potential for a more systematic presentation of complex L2 phenomena, which have traditionally been understood as disorganized, chaotic, and unteachable. This point was most evident within the analysis of prepositions. Tyler & Evans [31] [30] [33], with the model of principled polysemy, proved that prepositions also have a systematic network of meanings.

From what we see, it can be a great difficult for learners to memorize the usage of the English prepositions in various contexts with tactful differentiation. However, those prepositions' meanings are found to have systematic semantic networks by Lakoff [20] [13] [22], Brugman [4],

Vandeloise [32], Tyler and Evans [31] [30] [33]. According to them, the cognitive semantic networks can tell more exactly the meaning of each preposition and supply better tactics for learning the semantics of the prepositions. During the process of investigating the semantic networks of the prepositions, many factors of Cognitive linguistics and L2 teaching are taken into consideration, such as the spatial nature, the communicative aspects, the experience of embodiment, the force dynamics of the reality, the metaphor mapping, the conceptualization, etc.

For speakers of mother tongue, they all know well the difference in the meaning of every preposition and in which context it can be used. Our experience of using standard, propositional definitions of the prepositions is insufficient to give insightful representations of the individual prepositions or explanations for why native speakers choose one rather than the other. However, foreigners meet lots of difficulties in telling their difference in meaning. Lam [21] tested this with the case of prepositions in Russian. What he found once again proves that cognitive semantic networks of prepositions are more helpful for learner to deal with the meanings and usage of the prepositions. Now we consider these cases of teaching prepositions applying Cognitive linguistics perspectives as follows.

First of all, how to teach the prepositions: "in" and "out." As moving from broad, open, wide space to narrow, closed place, we will say this "going in." On the contradiction, when going from a closed and narrow space to a larger, bigger and more open space, we say "going out." This is a universal conceptualization. This is also a common concept in language. We can find numerous evidence, such as, get in, go out, in the house, in my mind, in stock, in the budget, in hard circumstances, etc. This phenomenon appears in all languages. In Vietnamese, one equivalence of this pair (in-out) is vào – ra. When teaching learners of the Vietnamese language, we just introduce them to this universal general conceptualization together with some facts about the history of Vietnam. In history, Vietnamese people used to live in the vast delta in the North. Then they moved toward the very narrower land of the Central. And the South of Vietnam was formed the last. As a result, the overall rule here is that moving from the North to South Vietnam, we say "vào"; and for the opposite direction, we say "ra." After having acknowledged with the information given above, learners can appropriately give expressions in Vietnamese as Huế ra Hà Nội (Hue to Hanoi), Nha Trang vào Sài Gòn (Nha Trang to Saigon), etc. and later, vào nhà (get in the house), ra đường (get out to

the street), áp dụng vào giảng dạy (apply in teaching), etc.

Now, three other prepositions: "to," "for," and "at," will be examined. As a learner, the student usually meets a lot of difficulties in doing a practice exercise like this.

- a. John is walking _____ the building.
- b. Daisy sends a gift _____ Andy.
- c. Peter has done _____ the best of his competence.
- d. Matt attached the panel _____ the wall.
- e. This door looks _____ the west.
- f. David is gentle _____ me all the time.
- g. These dish looks awful _____ us.
- h. They are sitting cheek _____ cheek on the bench in the park.

After struggling for a long time, students can still finish the blanks filling them with different prepositions that are supposed to be suitable. Some may be correct, but some bring them doubts. No one can be sure of the results one hundred percent. And when they see the answer below, they will be surprised.

- a. John is walking to the building. **target**
- b. Daisy sends a gift to Andy. **Recipient**
- c. Peter has done to the best of his competence. **Maximum**
- d. Matt attached the panel to the wall. **Affixing**
- e. This door looks to the west. **towards**
- f. David is gentle to me all the time. **Experience recipient**
- g. This dish looks awful to us. **Perceptual experience recipient**
- h. They are sitting cheek to cheek on the bench in the park. **proximity**

The issue that makes students hard to give appropriate answers to these sentences is that it's very hard for them to catch the meaning of each preposition in each specific context. To help them more effectively, the teacher should introduce them to the semantic network of the preposition "to." After that, the exercise above won't be such a complicated problem for them anymore. That semantic network of the preposition "to" can be shown as follows.

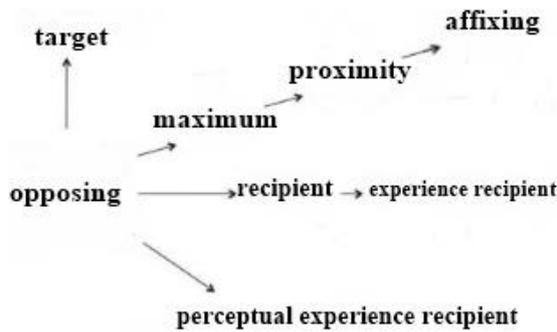


Figure 2 Semantic network of the preposition “to” (According to Tyler [30])

Now, we move to another exercise. This time, learners tell the difference within each group of sentences.

- A1. John threw the ball to Nick.
- A2. John threw the ball for Nick.
- A3. John threw the ball at Nick.
- B1. The alert bystander shouted to the policeman.
- b2. The alert bystander shouted for the policeman.
- B3. The frightened bystander shouted at the policeman.

However, as for the preposition, we give learners the meaning maps of for, at before they tell the difference.

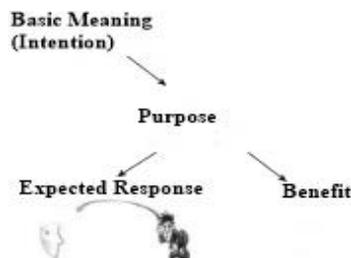


Figure 3 Semantic network of the preposition “for” (Tyler [30])

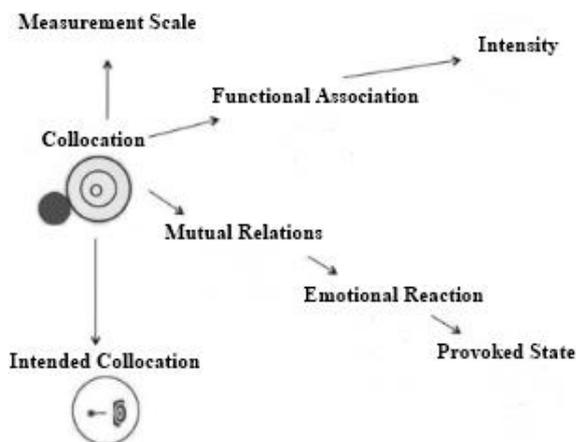


Figure 4 Semantic network of the preposition “at” (Tyler [30])

At this point in time, learners can easily state the differences in the meanings of the prepositions used.

- A1. John threw the ball **to** Nick. **Target**
- a2. John threw the ball **for** Nick. **Intention**
- a3. John threw the ball **at** Nick. **Intended Collocation**
- b1. The alert bystander shouted **to** the policeman. **Target**
- b2. The alert bystander shouted **for** the policeman. **Intention**
- b3. The frightened bystander shouted **at** the policeman. **Intended Collocation**

4.2.3. A new way for clause teaching

Words are put together to form a string in which there is at least one subject and one verb, and this string can convey certain thinking with a pragmatic meaning. And for a long time, under the viewpoint of traditional linguistics, parts of a clause are assigned with grammar terms that are hard to understand and alien to learners like below.

She put a book on the table.

Subject-verb object complement

In contrast with the above, in 1995, a way that is friendlier with a human was suggested by Goldberg [14] that there can be associations of pragmatic meaning, structure and formula to describe the linguistic events in the community which are closer to learners’ experience as in the example below.

Pragmatic meaning	Structure	Formula
Cause to receive	X CAUSES Y to RECEIVE Z	Sub V Obj Obj2 Pat faxed Bill the letter.
Caused motion	X CAUSES Y to MOVE Z	Sub V Obj Oblique Pat sneezed the napkin off the table.
Resultative	X CAUSES Y to BECOME Z	Sub V Obj Xcomp She kissed him unconscious.
Intrans. motion	X MOVES Y	Sub V Oblique The fly buzzed into the room.

Figure 5 Example of clause teaching closer to learners’ experience

And now, we examine one example of building the polysemy network for the construction of Caused

motion. Goldberg [14] explained that the polysemy found in most English constructions is able to be explained by well-ordered meaning expansion processes. For the construction of Caused motion, its nuclear denotation is (“performer causes something moves somewhere”) can be expanded with various constructions of relative connections as shown below.

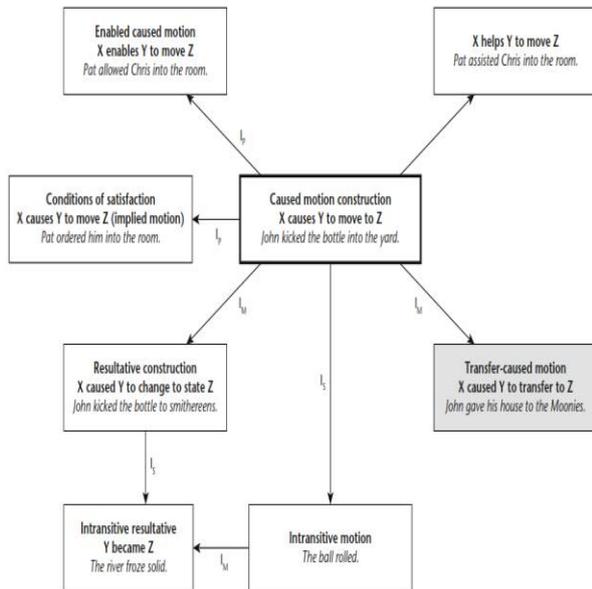


Figure 6 Caused motion polysemy network (Goldberg [14])

Goldberg [14] proposed that the number of major construction types will tend to be limited. The reason is that the feasible kinds of linguistic events are supposed to be limited when they are constructed into cognitive contexts like somebody does something, someone does something, somebody causes somebody to do something, etc.

From the discussions above, there is an urgent need that learners should be taught with things that are most closed to them, to their cross-disciplinary identities, their experience with surroundings, with the working environment, social life and community rather than they are introduced with numerous linguistic terms which are not helpful at all for their study, work but have caused so many obstacles for their study of language. It is strongly suggested that this way of study should be changed.

He sends a parcel to his sister.
S V O1 O2

Because if students learn this way, they have to memorize terms like S, V, O1, O2, which are nonsense and complicated to them, besides learning the language intrinsically. And to reduce the burden

of learning a language for learners, an alternative way of teaching like below should be applied.

Someone sends something to someone
He sends a parcel to his sister.

It is clear that, if learners are acknowledged with cognitive frameworks and semantic contexts first, it will be easier for them to catch the usage of language in reality contexts precisely, effectively with motivations.

5. CONCLUSION

With the rapid development of the world today with tendencies of multi-cultural, multi-national, multi-disciplinary integration and globalization, language teaching also needs to be changed to be as much pragmatic and useful as possible. For which, cross-disciplinary is an orientation because it has been promoted, applied and set as a target for researches of all fields and majors, not just in language teaching. Besides, cross-disciplinary teaching can help train versatile workers to supply the need of the society on the workforce in the new information technology era. Time-saving, cost-saving, effectiveness-enhancing, versatility are the compulsory aims that language teaching should focus on to help the learner achieve the goals they need when learning a language. A cross-disciplinary should be put as the first thing throughout teaching language by associating the best approaches, the most practical, productive methods and the least expense of time, money, memory, etc., for language learners.

With these orientations, in language teaching, regardless of teaching any language, whatever method used, whether teaching mother tongue or foreign language, learners must perceive the language before being able to regenerate to use that language. Cognitive linguistics studies the process of language cognition. Therefore, teaching language applying the theory, the perspectives of cognitive linguistics is an appropriate, reasonable thing and should be implemented.

Within the scope of this article, we propose ideas, formulate constructive arguments, provide suggestions for an orientation to apply language teaching in a new way from the perspectives of cognitive linguistics, according to the basic principles of cognition, taking into account the universal and cross-disciplinary elements.

In order to promote and leverage the language, we should invest in researching the optimal method of

teaching language, building supplementary materials to teach language in the most realistic and vivid ways. At the same time, it is also necessary to develop sets of international accredited language proficiency assessment criteria as the world has done for English, such as TOEIC, TOEFL, CEFR, etc.

Finally, language teachers are the key contributors to language promotion abroad. In this manner, they ought to continuously attempt utmost to do scientific research to find the ideal strategies and techniques to help language learners achieve their goals as efficiently and speedily as possible as well as complete the learning solicitations in the climax way for language students. We must teach the language in a way that communicates and fosters the love of learners for the language, country, culture, people and thinking of the native speakers. This is the success for us who are teaching language.

However, due to the limited framework of this article, comprehensive statistics have not been able to be listed, covering all the issues, the advantages and disadvantages of other teaching methods and teaching language in perspectives of applying Cognitive linguistics. Further research will be conducted on these issues in subsequent studies.

AUTHORS' CONTRIBUTIONS

Clarifying principles of language teaching and learning in the current digital era with interdisciplinary and cross-disciplinary nature to meet with the settings of nowadays worldwide internationalization, integration and globalization along with wide specialization demanded by job markets.

Proposing ideas, formulating constructive arguments, providing suggestions for an orientation to apply language teaching in a new way from the perspectives of Cognitive linguistics, according to the basic principles of cognition, taking into account the universal and cross-disciplinary elements.

Giving discussions and suggestions to promote and leverage languages other than English, such as Vietnamese, for an instant, in teaching to foreigners and promoting to the world.

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