

# The Contribution of Lexical Modal in Facing Industrial Revolution 4.0 for Teaching English Language Based on Corpus Linguistics

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**Abstract.** *The corpus is an authentic collection of texts, both written and transcript of conversations in large numbers that are stored electronically. The corpus has often been used in various areas of linguistics research. Includes translation, forensic linguistics, discourse analysis, teaching and so on. The advantage of the corpus is easy to access and corpus-based analysis can be made quantitatively generalized. In teaching, the corpus can be a source that provides descriptive data about how language is used that can be used by teachers or students as a medium to find evidence or confirm their intuition about the knowledge of a language. One of the uses of the corpus in pedagogy is lexical modal. The results of this research have implications that the use of the corpus is very beneficial for encourage students to learn independently because it can be accessed anywhere. However, the amount of language information that we can get from the corpus may not be fully suitable for all levels of students.*

**Keywords:** *Lexical Modal, Industrial Revolution 4.0, Teaching English Corpus Linguistics.*

## 1. INTRODUCTION

The industrial revolution 4.0 is a national issue that must be faced. The industrial revolution has become a part of life human where every human activity is required to be completely technology. The industrial revolution 4.0 was marked by massive developments information Technology. All aspects of life are based digital. The massive industrial revolution 4.0 is a deep base human life starts from simple activities to which determine. It can be seen in business processes and entrepreneurship also now accelerated by the existence of an online system. Buy and sell online even schools and learning are online. As e-learning and the rise of homeschooling schools where all digital based activities.

The industrial revolution 4.0 not only facilitates activity humans, but also has a negative impact. Industrial Revolution 4.0 reduces labor where replaced by the system machines and robots that shift human values. One of them has negative and positive impact towards the survival of life. From the positive aspects of the industrial revolution 4.0 it opens up wider employment opportunities and helping human work be easier to do. The industrial revolution 4.0 provides an opportunity for person able to follow it. The industrial revolution 4.0 is a challenge new for every person who is unable to follow the competition increasingly competitive global.

Likewise, for the world of education. So as not to run over in the conditions of the 21st century in the face of the industrial revolution 4.0 the field of education is improving itself to redesign learning. Learning is redesigned according to human needs and changing needs. Redesign learning from a variety of aspect. Learning as an interaction between students and educators must carry out complementary collaborations. Learners have a number of potentials. Educators guide, directing and fostering the potential, talents and interests of students. Educators

must have expertise and skills in the field technology. Educators master learning applications, the progress of developing digital-based learning. Through learning redesign is expected in the face of revolution industry 4.0 the quality of life of students increases by a number competence, creativity and innovation. One of them is lexical modal for Teaching English Language Based on Corpus Linguistics

According to Nugraha (2019:105) the word corpus may sound foreign to our ears. Especially for those who are not linguists or linguists. The corpus is an authentic collection of texts, both written and transcript of conversations in large numbers that are stored electronically. The corpus has often been used in various areas of linguistic research. Includes translation, forensic linguistics, discourse analysis, and teaching. The strength of the corpus is that it is easy to access and corpus-based analysis can be made quantitatively generalized.

In teaching, the corpus can be a source that provides descriptive data about how language is used that can be used by teachers or students as a medium to find evidence or confirm their intuition about the knowledge of a language. One of the uses of the corpus in the world of pedagogy is to study modal lexical.

According to Islamiyah (2019:19) the use of the corpus is very beneficial for study the context in which words that have identical meanings are usually used so as to avoid unwanted implications and connotations. In connection with teaching English equivalents, the corpus can be an effective learning medium. Much information not found in dictionaries can be learned using the corpus.

## **2. LITERATURE REVIEW**

### **2.1 Lexical Modal**

One of the functions of language is a tool for communication. In communicating, humans convey their thoughts and attitudes. This concept is known as modality. According to Nazareth (2019) modality is semantic system in which humans use language to express attitudes or his thoughts in his speech. Modality has an important position in every language and is one of the phenomena of language universal. According to Huddleston (2002:173) states that “we use this term for items expressing the same kind of meaning as the modal auxiliaries, but which do not belong to the syntactic class of auxiliary verbs. It covers adjectives like possible, necessary, likely, probable, bound, supposed, adverbs like perhaps, possibly, necessarily, probably, certainly, surely, verbs like insist, permit, require, and nouns like possibility, necessity, permission, and similar derivatives.

According to Hsiao (2019) “lexical meaning contains words which refer to a thing, equality, state or action and which have meaning when the words are used alone”. While Martínez (2019) states that lexical meaning provides the information about the meaning of individual words relevant to the interpretation of sentences”. Zhang (2019) said that the lexical meaning is the actual meaning that is as it is in the dictionary,

According to Huddleston (2002:172) the distinction between mood and modality is like that between tense and time, or aspect and aspectuality: mood is a category of grammar, modality a category meaning. Mood is the grammaticalisation of modality within the verbal system, while Nugraha (2019) states that modality in linguistic terms is the classification of propositions in terms of presenting, denying, or requiring; can also mean the way the speaker in expressing his attitude to an event with the meaning of possibility, certainty, necessity, prohibition, and others, while the mode is a grammatical category in the form of verbs that express the psychological atmosphere of action according to the speaker's interpretation or the speaker's attitude about what he said.

### **2.2 Industrial Revolution 4.0**

The era of the industrial revolution 4.0 changed the perspective of education. Changes made do not only change the way of teaching, but far more essential, namely changes in the way A view of the concept of education itself. Minimal education must be able to help their students argue industrial revolution 4.0. From the historical development of the industrial revolution 4.0 still has to do the understanding done, where its development has not been directed because each human and the world has different activities. (Sutopo, 2018).

In educational institutions industrial development can be faced by using several scientific approaches. Approach Islamic religious knowledge can be linked to the direction of the industrial revolution 4.0. Refer to the results of research from McKinsey in 2016 that impacts of the industrial revolution 4.0 in the next five (5) years 52.6 million types of work will experience a shift or disappear from the face of the earth. The results of this study give the message that: Every self who still wants to have a deep existence global competition must prepare mentally and skillfully has a competitive advantage of the other. The main road to prepare the skills that are easiest to go is having good behavior (behavioral attitude), improve self-competence and have a literacy spirit. Provision self-preparation can be passed by the educational path (long life education) and self-concept through the experience of working together across generations / across disciplines (experience is the best teacher). (Suwardana, 2017)

Based on the results of this study there needs to be a redesign or redesign in learning education learning English. Muhadjir Efendy in his speech said that there needed to be reform school, capacity building, and teacher professionalism, curriculum dynamic, reliable facilities and infrastructure, as well the latest learning technology for education nation can adjust to the dynamics of the times. (Syaputro, 2018)

For that the teacher can enter the world work so that it can survive in this era of the fourth industrial revolution, must: First, professional, in order to operationalize digital learning devices, secondly, be able to replace the human brain with computerization still has commitment in the context of forming the nation's character and values (nation's and character building). Build professional teachers is one of the styles in carrying out development paradigmatic in humans (human-centered development), so that the success of an educational investment program is achieved (Asfiati, 2016) in order to prepare students to be highly competitive human resources (HR).

The 4.0 industrial revolution in the world of education is delivering learning has its own complexity. Learning increasingly pay attention to perseverance and creativity. (Edusainstek, 2019). Learning collaborates between the presence of participants' students with morality which is a comprehensive performance from self. In the context of learning religious education Islam as a subject in the 4.0 industrial revolution is expected give a big charge on the education of moral values. Process learning embodies ideal moral values. The era of revolution industry 4.0 which makes technology a lifestyle. A combination of learning or education promote computerization and digitalization as well as cyber with expectations of educator participation are also highly prioritized.

From various roles of educators who switch functions from the manual becomes digital. The role of educators in the Industrial Revolution era 4.0 specifically focuses on, (Harahap, 2018):

1. Teaching for Learning an understanding of how students learn and how to design effective learning activities and experiences. Understanding about things students do in learn and how to design activities and experiences effective learning. The design of learning activities gives each other activities and produce experiences who are highly competitive.
2. Curator A producer and consumer of appropriate educational resources through sharing and development. Educator as producer, producing students as a resource results that can be developed and can provide knowledge. Students are consumers, consumers who have the skills and abilities so be the right source of education who can share experiences.
3. Fluency technology uses educative learning technology effective way. Educators must use the technology fluently Learning in an effective way in education
4. Collaborator Sharing and improving own education approach through collaboration within, across and between disciplines. Share and improve education educators someone through collaboration between disciplines.
5. Scholar Effective awareness and appreciation. Research based on a pedagogical approach that is disciplined. Awareness and effective appreciation. Based on research proper pedagogical discipline

6. Experimenter an openness to try, reflect and learn from new approaches, pedagogy and technology to support student learning. Open, try and learn from New supports, pedagogy and technology to support student learning.

### 2.3 *Corpus Linguistics*

According to Nugraha *et al.* (2020:108) (in McEnery, T. & Hardie, A., 2012) corpus linguistics is also referred to as an area that focuses on a series of procedures or methods for studying language. Svartvik (in Facchinetti, 2007) further argues that corpus linguistics is the study of the use of language in reality that is observed by collecting data from written and spoken languages, then analyzed using a computer (corpus software) and described based on specific points of view and goals.

Based on the form and purpose, Yli-Suvanto, (2019: 9) defines 'corpus' as a collection an example of natural language, consisting of several sentences from a set of written or text recordings that have been collected for linguistic studies. Text in the form of spoken language and the written language is then arranged systematically. The corpus is said to be "natural" because the text collected is text that is produced and used fairly and not made-up (as is). These texts include textbooks, journals, textbooks, novels, newspapers, magazines, recorded broadcasts of interviews, interviews, and more. Meanwhile Calixto (2012) defines corpus linguistics as a field that focuses on a set of procedures or methods for learn languages. Based on these definitions, it can be concluded that corpus linguistics is language research that uses examples of everyday or natural language stored in the corpus.

## 3. METHODS

The method used is descriptive research method. According to Gay & Diehl (1992: 217), descriptive research involves collecting data in order to test hypotheses or to answer questions concerning the current status of the subject of the study. A descriptive study determines and reports the way things are. Descriptive research is scientific research that describes about event, phenomena or fact systematically dealing with certain area or population. The data is analyzed by revealing both syntactic and semantic aspects. Based on the method used, the interpretation of data used various techniques, such as deletion, substitution and transfer techniques. The data was taken from British National Corpus (BNC). BNC contains 100 million written and oral texts from various genres of writing so that you can say the representation of British English.

## 4. RESULT AND DISCUSSION

In this research, found 5 complex verb phrase data of type AD (Modal Auxiliary + Auxiliary Be + the -ed participle of a verb) with the meaning of deontic modality. The analysis is as follows:

### Data 1.

*The assessment of music teachers **have got to be guided***

Det penilaian prep musik guru mod aux dipandu

*by the criteria and principles outlined in the two sets*

Prep det kriteria konj prinsip digariskan prep det dua set

*of workbooks and worksheets published by*

Prep buku kerja konj lembar kerja terbit prep

*the National Association for Music Education (NAfME)*

det pron

*For ensembles and for general music.* (TF: 31)

prep ansambel konj prep umum musik

,

*Penilaian guru musik seharusnya dipandu oleh kriteria dan prinsip-prinsip yang digariskan dalam dua set buku kerja dan lembar kerja yang diterbitkan oleh Asosiasi Nasional untuk Pendidikan Musik (NAfME) untuk ansambel dan untuk musik umum'. (TI: 68)*

Syntactically, based on the structure of the verb phrases have got to be guided including AD complex verb phrases in which the structure of phrases consisting of (Modal Auxiliary + Auxiliary Be + the -ed participle of a verb).

Semantically, based on the context of the sentence, the verb phrase has got to be guided is a compulsion that is based on an authority and belongs to the deontic modality which has the meaning of a subjective order. This is indicated by indications of authority involving speakers. The speaker uses have got to because the speaker is in a superior position to the speaker, so he has the authority to ask the speaker to have an have got to be guided action. The deontic source in the data above is a deontic source based on social rules in the form of official authority derived from the provisions or regulations that have been mutually agreed upon to regulate the community group concerned. In this case it can be seen by the sentence The assessment of music teachers has got to be guided by the criteria and principles outlined in the two sets of workbooks and worksheets published by the National Association for Music Education (NAfME) for ensembles and for general music (Assessment Music teachers should be guided by the criteria and principles outlined in two sets of workbooks and worksheets published by the National Association for Music Education (NAfME) for ensembles and for general music).

Based on the inherent meaning of verbs, this sentence belongs to a static verb of perception with a slow understanding of verbs that describe the reception of knowledge or information through the senses or mind. This is expressed by the existence of guided verbs.

The equivalent of having got to in Indonesian in the context of this sentence is 'should' and is included in the extracurricular expression, where there is a tendency of the speaker to state that the expressed obligation must originate from himself, not from others. In addition, 'should' tend to be used in connection with something that has happened.

## Data 2.

*Our schools **have got to be supported** by a vast program*  
Pron sekolah mod aux dukung prep det besar program

*of teacher-led research to develop new curricula*  
Prep guru bimbingan penelitian prep mengembangkan baru kurikulum

*and new teaching methods and new assessment techniques*  
Konj baru mengajar metode konj baru penilaian teknik

*and to find ways to create a dynamic,*  
Konj prep menemukan jalan prep menciptakan det dinamis

*exciting learning environment in every school in America. (TF: 100)*  
menarik belajar lingkungan prep setiap sekolah prep Amerika

*'Sekolah kami **seharusnya didukung** oleh program besar penelitian dibimbing guru untuk mengembangkan kurikulum dan metode pengajaran yang baru dan teknik penilaian baru dan menemukan cara untuk menciptakan lingkungan belajar yang menarik yang dinamis di setiap sekolah di Amerika'. (T1: 31)*

Syntactically, based on the structure of the verb phrases have got to be supported including the type AD verb phrases in which the structure of phrases consisting of (Auxiliary Capital + Auxiliary Be + the -ed participle of a verb).

Semantically, based on the context of the sentence, the verb phrase has got to be supported is a compulsion that is based on an authority and belongs to the deontic modality which has the meaning of a subjective order. This is indicated by indications of authority involving speakers. The speaker uses have got to because the speaker is in a superior position to the speaker, so he

has the authority to ask the speaker to have an have got to be guided action. The deontic source in the data above is a deontic source based on social rules in the form of official authority derived from the provisions or regulations that have been mutually agreed upon to regulate the community group concerned. In this case, it can be seen from the sentence Our schools have got to be supported by a vast program of teacher-led research to develop new curricula and new teaching methods and new assessment techniques and to find ways to create a dynamic, exciting learning environment in every school in America. (Our school should be supported by a large program of research guided by teachers to develop new curricula and teaching methods and new assessment techniques and find ways to create interesting and dynamic learning environments in every school in America).

Based on the inherent meaning of verbs, this sentence belongs to a static verb of perception with a slow understanding of verbs that describe the reception of knowledge or information through the senses or mind. This is expressed by the existence of supported verbs.

The equivalent of having got to in Indonesian in the context of this sentence is 'should' and is included in the extracurricular expression, where there is a tendency of the speaker to state that the expressed obligation must originate from himself, not from others. In addition, 'should' tend to be used in connection with something that has happened.

### Data 3.

*They have got to be given the authority they need,*  
Pron mod aux berikan det kewenangan pron butuh

*as professionals, to do their jobs. These are the lessons*  
Konj professional prep lakukan poss pekerjaan det kop det pelajaran

*we can learn from McDonalds and Disney and IBM. (TF: 98)*  
Pron mod belajar prep pron konj pron konj pron

*'Mereka harus diberikan kewenangan yang mereka butuhkan, sebagai profesional, untuk melakukan pekerjaan mereka. Ini adalah pelajaran yang dapat kita pelajari dari McDonalds dan Disney dan IBM'. (TF: 113)*

Syntactically, based on the structure of the verb phrase has got to be taught including complex verb phrases of type AD where the phrase structure consists of (Modal Auxiliary + Auxiliary Be + the -ed participle of a verb).

Semantically, based on the context of the sentence, the verb phrase has got to be given is a compulsion that is based on an authority and belongs to the deontic modality which has the meaning of a subjective order. This is indicated by indications of authority involving speakers. The speaker uses have got to because the speaker is in a superior position to the speaker so he has the authority to ask the speaker to have the have got to be given action. The deontic source in the data above is a deontic source based on social rules in the form of official authority derived from the provisions or regulations that have been mutually agreed upon to regulate the community group concerned. In this case, it can be seen from the sentence They have got to be given the authority they need, as professionals, to do their jobs. These are the lessons we can learn from McDonalds and Disney and IBM (They must be given the authority they need, as professionals, to do their work. These are lessons we can learn from McDonalds and Disney and IBM).

Based on the inherent meaning of verbs, this sentence is included in the dynamic verbs of activity, that is, verbs that describe the activities or actions carried out by the subject. This is expressed by the given verb. The Indonesian equivalent of in the context of this sentence must be 'must' and is included in the intraclausal expression. This is indicated by the word 'must'.

### Data 4.

*I don't think this is a hard case at all,*  
Pron neg berfikir det kop det sulit kasus prep semua

The International Conference on Innovations in Social Sciences and Education  
(ICoISSE) Bandung, Indonesia, July 25<sup>th</sup>, 2020  
" says *Brian Leiter*, author of "*Why Tolerate Religion?*"  
Berkata pron penulis prep mengapa mentolerir agama

*"I'm not surprised she's lost everywhere;*  
Pron neg heran pron kop hilang dimana-man

*she has got to be fired. The government can't function*  
Pron mod aux pecat Det pemerintah neg mod fungsi

*If officials of the state do not comply*  
Konj resmi prep det pemerintah lakukan neg mematuhi

*with the law. (TF: 71)*  
konj det hukum

*'Saya tidak berpikir ini adalah kasus sulit sama sekali, "kata Brian Leiter, penulis" Mengapa Mentolerir Agama? " Aku tidak heran dia kehilangan di mana-mana; dia harus dipecat. Pemerintah tidak dapat berfungsi jika para pejabat negara tidak mematuhi hukum' (TI: 100)*

Syntactically, based on the structure of the verb phrase *has got to be fired* including the verb phrase type AD where the phrase structure consists of (Modal Auxiliary + Auxiliary Be + the -ed participle of a verb).

Semantically, based on the context of the sentence, the verb phrase *has got to be fired* is a compulsion that is based on an authority and belongs to the deontic modality which has the meaning of a subjective order. This is indicated by indications of authority involving speakers. The speaker uses *has got to* because the speaker is in a superior position to the speaker, so he has the authority to ask the speaker to have the action *has got to be fired*. The deontic source in the data above is a deontic source based on social rules in the form of official authority derived from the provisions or regulations that have been mutually agreed upon to regulate the community group concerned. In this case it is seen by the sentence *I don't think this is a hard case at all, "says Brian Leiter, author of" Why Tolerate Religion? "" I'm not surprised she's lost everywhere; she has got to be fired. The government cannot function if officials of the state do not comply with the law (I don't think this is a difficult case at all, "said Brian Leiter, author of" Why Tolerate Religion? "I'm not surprised he lost everywhere; he must be fired. The government cannot function if state officials do not obey the law).*

Based on the inherent meaning of verbs, this sentence is included in the dynamic verbs of activity, that is, verbs that describe the activities or actions carried out by the subject. This is expressed by the existence of *fired* verbs. The Indonesian equivalent of in the context of this sentence must be 'must' and is included in the intraclausal expression. This is indicated by the word 'must'.

#### Data 5

*Those questions have got to be answered honestly,*  
Det pertanyaan mod aux jawab jujur

*and responsibly, and now's the time.*  
Konj bertanggung jawab konj sekarang det waktu

*SCFD comes up for a 10 year reauthorization in 2016*  
SCFD datang prep det 10 tahun otorisasi ulang prep 2016

*and, as a seven county community;*  
Konj konj det 7 negara komunitas

*we should be talking about how our arts organizations*

*can work best.* (TF: 120)  
mod bekerja terbaik

*'Pertanyaan-pertanyaan harus dijawab dengan jujur, dan bertanggung jawab, dan sekarang adalah saatnya. Scfd muncul untuk mengotorisasi kembali 10 tahun pada tahun 2016 dan sebagai komunitas tujuh negara, Kita harus berbicara tentang bagaimana organisasi seni kami dapat bekerja yang terbaik' (TI: 180)*

Syntactically, based on the structure of the verb phrase have got to be answered including the verb phrase type AD where the phrase structure consists of (Auxiliary Capital + Auxiliary Be + the -ed participle of a verb).

Semantically, based on the context of the sentence, the verb phrase has got to be answered is a compulsion that is based on an authority and belongs to the deontic modality which has the meaning of a subjective order. This is indicated by indications of authority involving speakers. The speaker uses have got to because the speaker is in a superior position to the speaker, so he has the authority to ask the speaker to have the action have got to be answered. The deontic source in the data above is a deontic source based on social rules in the form of official authority derived from the provisions or regulations that have been mutually agreed upon to regulate the community group concerned. In this case, it can be seen from the sentence Those questions have got to be answered honestly, and responsibly, and now it's the time. SCFD comes up for a 10-year reauthorization in 2016 and, as a seven county community; we should be talking about how our arts organizations can work best. (The questions must be answered honestly, and responsibly, and now is the time. Scfd appears to authorize 10 years back in 2016 and, as a community of seven countries, we must talk about how our art organization can work the best)

Based on the inherent meaning of verbs, this sentence belongs to a static verb of perception with a slow understanding of verbs that describe the reception of knowledge or information through the senses or mind. This is expressed by the existence of answered verbs. The Indonesian equivalent of in the context of this sentence must be 'must' and is included in the intraclausal expression. This is indicated by the word 'must'.

## CONCLUSION

The role of educators in the 4.0 industrial revolution proves educators become the torch of educational success. Education in the era industrial revolution 4.0 leads to creativity, development skill and expertise in technology. Industrial Revolution 4.0 in the world of education is to proceed like learning make students process to success. Revolution industry 4.0 in education makes educators and students participate in collaboration and initiative and work together independent. Industry 4.0 revolution in the world of education involves all elements of the education component. The education component starts from educators, students, educator leaders, the environment, learning facilities, facilities, software and hardware. In the world of education, the industrial revolution 4.0 is a factor boosters and triggers for success.

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