CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

This study aims to analyze the use of complex sentences and to classify the subtypes of complex sentences frequently occurring in different genres. For further understanding of the overall concept of the study, this chapter elaborates the following: the definition of sentences and clauses, characteristic of sentences, characteristic of clause functions, classification of complex sentences, and related research studies.

Sentences and clauses

According to Choy, Clark and McCormick (1998), a sentence can be thought of as a statement describing an actor performing a particular action. For example in "The dog ran," the actor or person performing the action is **the dog.** The action that the dog performed is **ran.** This actor-action pattern can be found in most sentences. The actor in a sentence is called the subject. The action word in a sentence is called the verb. Together, the subject and verb form the core of the sentence.

Some sentences have more than one subject. Others have more than one verb. Many sentences have more than one subject and more than one verb. Although in theory a sentence can have any number of subjects and verbs, these are the most common patterns:

S-V	one subject and one verb
S-V-V	one subject and two verbs
S-S-V	two subjects and one verb
S-V/S-V	two subjects and two verbs

Any group of words that contains at least one subject and one verb is called a clause. A single sentence may have one clause or more than one clause.

S-V	one clause	The dog ate his pizza slice.
S-V-V	one clause	Sonja danced and sang.
S-S-V	one clause	The judge and jury joked.

S-V/S-V	two clauses	The dog barked/ and we laughed.
S-V-V/S-V	two clauses	He hiked and fished/ when the sun rose.

A clause can be also joined by a conjunction such as **but, although, because, or when** or by a pronoun such as **that or which** (Werner and Nelson, 2007, p. 8). A clause can be either of two types of structures: the independent (or main) clause and dependent (subordinate) clause (Werner and Nelson, 2007; LeTourneau, 2001; McIlvain, 2003; Choy, Clark and McCormick, 1998; Lester and Beason, 2005; Bergman and Senn, 1987; Carter and McCarthy, 2006).

An independent clause can stand alone as a complete sentence. For example,

I was ill.
We loved the play.

(Choy, Clark and McCormick, 1998, p. 105)

A dependent clause, however, cannot stand alone as a complete sentence. Instead, a dependent clause must be attached to, or depends upon, an independent clause in order to form a grammatically complete sentence and to express a complete idea. A dependent clause is not a complete sentence. Below are some examples.

When he comes over…
If we come to the play…
Before we saw the movie…

(Choy, Clark and McCormick, 1998, p. 105)

Carter and McCarthy (2006) suggested that the sentence is normally considered to be the largest unit of grammar. Longer stretches of text, such as paragraphs and segments of conversations, are usually regarded as a unit of discourse. The sentence is principally a unit of written grammar and is normally easily identified by an initial capital letter on the first word and a full stop after the last word. Sentences in spoken language are more problematic than in written language. Speakers take turns to speak, these turns are the basic units of conversation. A turn ends when the speaker changes. Many turns in everyday speech consist of long strings of clauses (e.g. when

someone is talking a story), unfinished sentences, or just phrases, adjective phrases or adverb phrases standing alone.

Sentences are composed of clauses. The clause is the core unit of grammar. A sentence must include at least one main clause. A clause is consists of two parts: a subject and a predicate. The subject is a noun phrase or its equivalent (e.g. a nominal clause: **writing novel** is not easy) which indicates the doer or agent of the action, state or event, and the predicate is a verb phrase and any other accompanying elements (e.g. an object or complement).

Characteristics of sentences

Sentences are classified according to the number and kinds of classes within them. The three basic kinds of sentences are simple, compound, and complex (Alexander, 1992; Ehrlich, 2000; Emery, Kierzek and Lindblom 2000; Wannaprasert, 2004; Na Kalasin, Utawanit, and Lemchuen, 2007; Werner and Spaventa, 2007).

Simple sentences

Simple sentences contain at least one subject and one verb and can stand alone as an independent clause. **"They are still friends."** can stand alone as a complete sentence. There are five basic sentence patterns in English:

subject + verb	The building collapsed.
subject + verb + object	They bought a new car.
subject + verb + indirect object + direct object	She wrote him a letter.
subject + verb + subject predicate	Janet is my friend.
subject + verb + object + object predicate	She makes me happy.

(Celce-Murcia and Larsen-Freeman, 1999, p. 20)

A simple sentence can have a compound subject and a compound verb. For example:

Compound subject: The **Joker** and the **Penguin** are Batman's enemies. (Both subjects share the verb **are**)

Compound verb: **Batman** rides in his speedy **Batmobile** and flies in his swift **Batplane**. (Both verbs share the same subject, **Batman**)

(Bergman and Senn, 1987, p. 99)

Compound sentences

A compound sentence, as Feigenbaum (1985, p. 189) mentioned, contains two or more independent clauses. These clauses are joined by a coordinate conjunction (for example, **and** or **but**) or a **semicolon** between the independent clauses. For instance:

Independence Day is a national holiday, **but** Easter is a religious holiday.

This sentence has two independent clauses. The first clause -Independence Day is a national holiday- is an independent clause. The second clause -Easter is a religious holiday- is another independent clause. The coordinate conjunction '**but**' joins two independent clauses together in one single sentence.

A compound sentence is most effective when used to express the **balance of** or contrast between two or more equally important piece of information, (McIlvin, 2003).

According to Choy, Clark and McCormick (1998, pp. 90-92), the way to join independent clauses in order to form a compound sentence, is to put a conjunction between the clauses. The conjunctions that are used in compound sentences are called coordinating conjunctions. The following coordinating conjunctions are used to join the clauses of compound sentences: **and, but, for** (when it means because), **or, so, yet.** Below are examples:

She diets constantly, **but** her weight remains the same.

I rarely prepare casseroles, **for** my family refuses to eat them.

We must hurry, **or** we will miss the first part of the movie.

The defendant was ill, **so** the trial was postponed.

He earns only eight hundred dollars a month, **yet** he lives quite comfortably.

The second way to join the clause in a compound sentence is to use a semicolon (;). For example:

She could not find her keys; they must have fallen somewhere.

Mark is always late for work; he oversleeps every morning.

Compound sentences with semicolons occur less frequently than those with coordinating conjunctions because some type of connecting word is usually needed to show the relationship between the clauses.

Celce-Murcia and Larsen-Freeman (1999, pp. 522-524) suggested that another way to show the relationship between the clauses of a compound sentence is to use a conjunctive adverb or a conjunctive adverbial. Conjunctive adverbs or conjunctive adverbials are complete adverbials unto themselves. They do not subordinate a clause, but they connect independent clauses, as in:

Sam should leave; **however,** Larry will object.

The inventory of English conjunctive adverbials is given below:

additionally	furthermore	likewise
after all	however	moreover
also	in addition	nevertheless
alternatively	in any case/event	on the contrary
as a result	indeed	on the other hand
in contrast	in fact	otherwise
consequently	in other words	rather

conversely	in particular	similarly
despite that	in spite of that	still
first.. second..finally	in sum	that is
for example/instance	in turn	therefore

The conjunctive adverbials are capable of appearing in different places in a clause; they may be found at the beginning, in the middle, or at the end of the independent clauses in which they occur. Here are some examples:

Raccoons and bears are related animals. {
However, raccoons are much smaller.
Raccoons are much smaller, **however.**
Raccoons, **however**, are much smaller.
}

It is possible for conjunctive adverbials to follow coordinating conjunctions. For examples:

This is a possum **and therefore** not a true mammal.

You can raise the car **or, alternatively,** lower it to remove the engine.

She is on the one hand very helpful **and on the other hand** completely untrustworthy.

Complex sentences

A complex sentence joins two or more clauses of unequal importance. Each complex sentence includes at least one main (independent) clause and one dependent clause. The most important idea is generally placed in the independent clause (Werner and Nelson, 2007, p. 137). Every dependent clause begins with a subordinating conjunction (Choy, Clark and McCormick, 1998, p. 106).

The subordinating conjunctions such as **after, although, because, if, what, when, while,** are used in order to link these clauses as shown in the following example:

Although my friend invited me to a party, I do not want to go.

This complex sentence contains one independent clause -I do not want to go- and one dependent clause -Although my friend invited me to a party. The subordinating conjunction **'although'** is used at the beginning of the dependent clause (Subphachat, 2004, p. 25).

According to Celce-Murcia and Larsen-Freeman (1999, p.20), there are two types of complex sentence.

One type contains a main clause and one or more subordinate clauses. For example:

Peggy frequently calls **because she wants to stay in touch.**

In this sentence the main clause -Peggy frequently calls- is followed by a subordinate clause -because she wants to stay in touch.

In the second type of complex sentence, a dependent clause is embedded, or included, in an independent clause. Embedded clauses can take the place of the subject:

That he didn't want to go to the ballet was obvious. (It was obvious.)

or an object:

I argued **that it would be a mistake.** (I argued my position.)

or even of an adjective:

The person **who was responsible for the accident** fled. (The person responsible fled)

Fergenbaum (1985) said that a dependent clause cannot stand alone as a sentence and must always be connected to an independent clause. The dependent clause can be a noun-equivalent, an adverb-equivalent, or an adjective-equivalent. The

sentence, which consists of a combination of both an independent clause and a dependent clause, is called or referred to as a complex sentence. The dependent clause is connected to the independent clause with a subordinate conjunction. The type of conjunction appears at the beginning of a dependent clause. There are many dependent clauses that begin with wh-words. Some clauses have the same wh-subordinate clause but have the different functions.

A. I would like to know **where John is living now.**

B. She went to the apartment **where John is living now.**

C. We decided to meet **where John is living now.**

(Fergenbaum, 1985, pp. 216-217)

Three sentences above have the same subordinate conjunction –where– which has three different functions. In sentence (A), the subordinate clause has the function like noun clause. In sentence (B), the subordinate clause has the function like adjective clause. The last sentence (C) has the function like adverb clause.

Steffani (2007) defined a complex sentence joins one or more dependent clauses to an independent clause; the dependent clauses can be found at the beginning, or the end of the sentence, or embedded within it. This sentence usually has a subordinating conjunction (e.g. because, when, although) or relative pronoun (e.g., that, which, who), for examples:

After I went to work, I went to the gym.

I went to the gym **after I went to work.**

The crowd clapped **while the children danced.**

It makes me happy **that you are here.**

Downing and Locke (2006) explained that complex sentences are a unit consisting normally of two clauses of equal status, or two clauses of unequal status. Coordinated clauses and those in an appositional relationship have equal status. Dependent clauses have an unequal status with respect to a main clause. Clauses embedded as adjuncts are constituents of the superordinate clause in which they are

embedded. The next example is the complex sentence which has one independent clause with two subordinate clauses successively embedded as adjuncts:

> A boy saved the lives of his brother and two sisters yesterday (1)
> when fire broke out (2) while they were at home alone (3).
>
> (Downing and Locke, 2006, p. 273)

The three clauses are organized in a hierarchical relationship. An independent clause (1) encodes the main content - a boy saved the lives of his brother and two sisters yesterday. Two subordinate clauses (2 and 3) encode the circumstances of time - when fire broke out, and while they were at home alone. The first of these circumstantial clauses functions as adjunct in the independent clause, the second as adjunct in the previous subordinate clause.

Clause functions

According to Carter and McCarthy (2006), clause functions can be classified into four types: declarative, interrogative, imperative, and exclamative clauses.

1. Declarative clauses

The word order in declarative clauses is subject - verb - x, where x is any other element present (e.g. object/complement). Declaratives are most typically used to make statements and assertions.

> I saw him in the distance.
> These days he seems quite happy.
> Bob often annoys people.
> I don't put salt on my food.
>
> (Carter and McCarthy, 2006, p. 532)

An affirmative declarative clause makes a statement about something that is, as opposed to something that is not.

> He is a good teacher.
> She works in the mornings.
>
> (Carter and McCarthy, 2006, p. 533)

Negative declarative clauses negate a proposition. They have the word order subject – auxiliary/modal verb – negative particle – verb – x, where x is any other element present (e.g. object/complement).

> The lights were not working.
> He could not afford it.
> He didn't phone me.

> (Carter and McCarthy, 2006, p.533)

2. Interrogative clauses

Interrogative clauses typically function to ask questions to which the answer is yes or no (yes-no questions), or questions with x or y? (alternative questions), where the respondent must choose between alternatives.

> Were you staying in Cardiff?
> Do you know the way to the market?
> Haven't you phoned your sister yet?
> Are you going by boat or train?
> Have you got a pair of scissors or a sharp knife?

> (Carter and McCarthy, 2006, p. 534)

Negative yes-no interrogatives are typically used to ask questions which function to check or confirm something which the speaker believes or expects to be the case, or which the speaker considers to be a viable course of action.

> Wasn't he here at the party?
> Don't you want any tea or coffee?

> (Carter and McCarthy, 2006, p. 537)

Wh-interrogatives (clauses introduced by **what, when, where, which, who, whose, why, how**) typically function to ask questions which seek information, and cannot be answered simply with yes or no.

Who wants more coffee?

What can I do to help?

Why have they got to sit and wait?

When are you leaving?

Which one **didn't** you use?

Why can't I say 'Good afternoon, gentlemen and ladies'?

(Carter and McCarthy, 2006, pp. 538-539)

3. Imperative clauses

Imperative clauses typically function to give directives (e.g. commands, orders, and instructions). The bare imperatives may also function to make an offer or an invitation.

Give me a clue.

Don't move!

Let's go home now.

Have some more coffee.

Please don't tell him until he rings me.

Don't be silly.

Let's not be silly about it.

I'll tell her. Don't say anything.

(Carter and McCarthy, 2006, pp. 541-543)

4. Exclamative clauses

Exclamatives usually express a reaction of surprise or shock, or express a strong impression of something on the part of the speaker. Exclamatives are phrases beginning with the words **what** or **how** (or a clause with how) followed by a subject – verb – x construction.

What a lovely cake they bought you!

How happy they both seem!

How I wished I could have been there!

What a wonderful thing!

How awful!

How sad! How terribly sad!

(Carter and McCarthy, 2006, p. 544)

Classification of Complex Sentences

From the definition of complex sentence, we can see that complex sentences contain an independent clause and one or more dependent clauses. Therefore, the classification of complex sentences for this study will focus on the different types of dependent clauses occurring in complex sentences.

Quirk, et al.'s framework

According to Quirk, et al. (1972), dependent clauses may be classified either by structural type or by function.

Analyzing by structural type, dependent clause can be categorized into three main clauses: finite clause, non-finite clause, and verb less clause.

Finite clause is a clause whose verb element is a finite verb phrase. The finite clause always contains a subject as well as a predicate, except in the case of commands and ellipsis. For examples:

John has visited New York.

Because John is working, he…

(Quirk, et al., 1999, p. 310)

A non-finite clause is a clause whose verb element is a non-finite verb phrase. Non-finite clause can be constructed without subject. The four classes of non-finite verb phrase serve to distinguish four classes of non-finite clause:

Infinitive with **to**

The best thing would be **to tell everybody.**

Infinitive without *to*

All I did was **hit him on the head.**

-ing participle

Leaving the room, he tripped over the mat.

-ed participle

Covered with confusion, I left the room.

(Quirk, et al., 1999, pp. **310-311**)

Verbless clause can usually infer ellipsis of the verb *be*, the subject, when omitted, can be treated as recoverable from the context. For example:

Dozens of people were stranded, many of them children. **(many of them being children)**

Whether right or wrong (Whether he is right or wrong), he always comes off worst in an argument.

(Quirk, et al., 1999, p. 312)

Analyzing by function type, a dependent clause can be categorized into five main clauses: nominal clause, adverbial clause, comparative clause, comment clause, and relative clause.

1. Nominal clauses

A nominal clause is the kind of clauses having a function as a noun phrase, which may occur as a subject, an object, a complement, an appositive, and a prepositional complement, so every nominal clause may occur in some or all of these roles. But the occurrence of nominal clauses is limited by the fact that they are nominal clauses is limited by the fact that they are normally abstract; they refer to events, facts, states, ideas, etc. Nominal clauses can be divided as follows:

1.1 That-clauses

Regarding the function of finite nominal clauses in the sentences, **that-clauses** can be used as follows:

Subject: **That she is still alive** is a conclusion.

Direct object: I told him **that he was wrong.**

Subject complement: The assumption is **that things will improve.**

Appositive: Your assumption, **that things will improve,** is unfounded.

Adjectival complement: I'm sure **that things will improve.**

(Quirk, et al., 1999, pp. 316-317)

1.2 Wh-interrogative clauses

Regarding the function of finite nominal clauses in the sentences, Wh-interrogative clauses can be used as follows:

Subject: **How the book will sell** depends on its author.

Direct object: I can't imagine **what made him do it.**

Subject complement: The problem is not **who will go,** but **who will stay.**

Appositive: My original question, **why he did it at all,** has not been answered.

Adjectival complement: I wasn't certain **whose I was in.**

Prepositional complement: No one was consulted on **who should have the prize.**

(Quirk, et al., 1999, pp. 317-318)

1.3 Yes-no interrogative clauses

The dependent yes-no interrogative clause is formed with **if** or **whether**:

Do you know if/whether the banks are open?

(Quirk, et al., 1999, p. 318)

The dependent **alternative** question has if/whether...**or**:

I don't know **whether it will rain or be sunny.**

I don't care **if your car breaks down or not.**

(Quirk, et al., 1999, p. 319)

1.4 Nominal relative clauses

The nominal relative clause, also introduced by a **wh-element, can be:**

Subject: **What** he is looking for is a wife.

Direct object: I want to see **whoever** deals with complaints.

Indirect object: He gave **whoever** came to the door a winning smile.

Subject complement: Home is **where your friends and family are.**

Object complement: You can call me **what (ever)** you **like.**

Appositive: Let us know your college address (that **is, where you live in term time.)**

Prepositional complement: Vote for **which (ever)** candidate you like.

(Quirk, et al., 1999, p. 319)

1.5 To-infinitive nominal clauses

The to-infinitive nominal clause can occur as:

Subject: **For** a bridge to collapse like that is unbelievable.

Direct object: He likes everyone **to** be happy.

Subject complement: My wish is **to** be a pilot.

Appositive: His ambition, **to** be a straight actor, was never fulfilled.

Adjectival complement: I'm glad **to** help you.

(Quirk, et al., 1999, p. 320)

1.6 Nominal -ing clauses

The to-infinitive nominal clause can occur as:

Subject: **Telling lies** is wrong.

Direct object: No one enjoys **deceiving** his own family.

Subject complement: His favorite pastime is **playing** practical jokes.

Appositive: His hobby, **collecting** stamps, absorbed him.

Propositional complement: I'm tired of **being** treated like a child.

Adjectival complement: The children were busy **building** sandcastles.

(Quirk, et al., 1999, p. 321)

1.7 Bare infinitive and verbless clauses

The **to** of infinitive is optionally omitted in a clause which supplies a predication corresponding to a use of the pro-verb **do**:

All I did was **(to) turn off the gas.**

When the infinitive clause is initial, **to** has to be omitted:

Turn off the gas was all I did.

(Quirk, et al., 1999, p. 322)

2. Adverbial clauses

Adverbial clauses, like adverbial general, are capable of occurring in a final, initial, or medial position within the main clause. Adverbial clauses can be categorized into 10 main clauses.

2.1 Clauses of time

Finite adverbial clauses of time are introduced by such subordinators as **after, since, before, until, as soon as,** and **when.**

When I last saw you, you lived in Washington.

Buy your tickets **as soon as** you reach the station.

(Quirk, et al., 1999, p. 322)

2.2 Clauses of place

Adverbial clauses of place are introduced by **where or wherever.**

They went **wherever** they could find work.

Where the fire had been, we saw nothing but blackened ruins.

(Quirk, et al., 1999, p. 323)

2.3 Clauses of condition

Finite adverbial clauses of condition are introduced by such subordinators **if** (positive condition) and **unless** (negative condition).

He must be lying **if** he told you that.

Unless the strike has been called off. There will be no trains tomorrow.

(Quirk, et al., 1999, p.324)

2.4 Clauses of concession

Clauses of concession are introduced by **though,** or its more formal variant **although.** Other conjunctions include **while, whereas, even if,** and **if.**

No goals were scored, **though** it was an exciting game.

Although I enjoyed myself, I was glad to come home.

Whereas John seems rather stupid, his brother is clever.

Even if you dislike music, you would enjoy his concert.

(Quirk, et al., 1999, p. 326)

2.5 Clauses of reason or cause

Clauses of reason and cause are most commonly introduced by the conjunctions **because, as,** or **since.**

I lent him the money **because** he needed it.

As/since Jane was the eldest, she looked after the others.

(Quirk, et al., 1999, p. 327)

2.6 Clauses of circumstance

Clauses of circumstance express a fulfilled condition or a relation between a premise (in the subordinate clause) and the conclusion drawn from it (in the main clause. **Because, since,** and **as** can convey this meaning, but in addition there is a special circumstantial compound conjunction, **seeing (that):**

Seeing that the weather has improved, we shall enjoy our game.

(Quirk, et al., 1999, p. 327)

2.7 Clauses of purpose

Finite clauses of purpose may be introduced by **so that** or (more formally) **in order that** or **(so) that.**

$$\text{John visited London} \begin{Bmatrix} \textbf{in order that} \\ \textbf{(so) that} \end{Bmatrix} \text{he could see his MP.}$$

(Quirk, et al., 1999, p. 328)

2.8 Clauses of result

They are introduced by so **that,** informally **so.**

We planted many shrubs, **so (that)** the garden soon looked beautiful.

(Quirk, et al., 1999, p. 328)

2.9 Clauses of manner and comparison

Clauses of manner are introduced by **(exactly) as, (just) as.**

Please do it **(exactly) as** I instructed ('in the way that…').

(Quirk, et al., 1999, p. 328)

Clauses of comparison are introduced by as if, as though.

He looks **as if** he is going to be ill.

(Quirk, et al., 1999, p. 328)

2.10 Clauses of proportion and preference

Proportional clauses are introduced by **as** (with or without a formal corrective **so**) or by fronted corrective **the…the** plus comparative.

As he grew disheartened, **(so)** his work deteriorated.

The more he thought about it, **the** less he liked it.

The harder he worked, **the** happier he left.

(Quirk, et al., 1999, p. 329)

Clauses of preference are introduced by **rather than, sooner than,** with a bare infinitive structure; but **rather than** is less restricted.
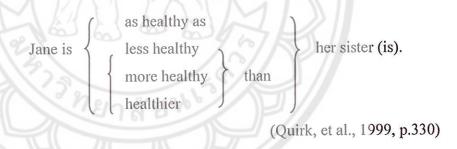
Rather than } go there by air, I'd take the slowest train.
Sooner than }

Rather than { sitting quietly at home, he preferred to visit his friend.

a new car, he bought a colour television.

(Quirk, et al., 1999, p.329)

3. Comparative clauses

Comparative clauses are difficult to fit into any the major functional categories. They often have the appearance of adverbial or adjectival modifiers. The comparative element is linked with the subordinate clauses by a correlative sequence: equational **as…as,** or differentiating **less…than, more…than.**

Jane is { as healthy as / less healthy / more healthy / healthier } than } her sister **(is).**

(Quirk, et al., 1999, p.330)

4. Comment clauses

Comment clauses are somewhat loosely related to a superordinate clause, and may be classed as disjuncts or conjuncts. In general, they may occur initially, finally or medially, and have a separate tone unit. The comment clauses vary in form:

4.1 Like a main clause:

At the time, **I believe,** labour was cheap.

(Quirk, et al., 1999, p. 335)

4.2 Like an adverbial clause (introduced by as):

I'm a pacifist, **as you know.**

(Quirk, et al., 1999, p. 336)

4.3 Like a nominal relative clause as a conjunct:

What's more, we lost all our belongings.

(Quirk, et al., 1999, p. 336)

4.4 To-infinitive clause as a style disjunct:

I'm not sure what to do, **to be honest.**

(Quirk, et al., 1999, p. 336)

4.5 -ing clause as a style disjunct:

I doubt, **speaking as a layman,** whether television is the right medium.

(Quirk, et al., 1999, p. 336)

4.6 -ed clause as a style disjunct:

Stated bluntly, he has no chance of winning.

(Quirk, et al., 1999, p. 336)

5. Relative clauses

Relative clauses are the post modification which modifies the noun head. The relative clauses can be divided into two main types: restrictive or non-restrictive clauses.

In restrictive relative clauses, frequent use is made of a general pronoun **that** which is independent of the personal **that** which in dependent

of the personal or non-personal character of antecedent and also of the function of the pronoun in the relative clause:

> The boy **that** is playing the piano… (or **who**)
> The table **that** stands in the corner…(or **which**)
> The boy **that** we met … (or **who(m)**)
> The table **that** we admire… (or **which**)

<div align="right">(Quirk, et al., 1999, p. 380)</div>

The non-restrictive relationship is often semantically indistinguishable from coordination (with or without conjunction) or adverbial subordination. The repertoire of pronouns is limited to the **wh**-items:

> Then he mat Mary, ⎧ **who** invited him to a party.
> ⎩ **and she** invited him to a party.
> Here is John Smith, ⎧ **who(m)** I mentioned the other day.
> ⎩ ; I mentioned **him** the other day.

<div align="right">(Quirk, et al., 1999, p. 383)</div>

Biber, et al.'s framework

According to Biber, et al. (1999), dependent clauses can be classified into two main types: finite dependent clauses and non-finite dependent clauses.

1. Finite dependent clauses

Finite dependent clauses contain a verb phrase which is marked for tense or modality. There is regularly a subject except under conditions of ellipsis. Ellipsis is the omission of elements which are precisely recoverable from the linguistic or situational context. Finite dependent clauses are regularly marked by a clause link, either a subordinator or a **wh**-word.

> He was screaming **because** he had to go home.
> The two people **who** found it are expected to receive the value of the brooch.

<div align="right">(Biber, et al., 1999, pp. 134-135)</div>

The grammatical roles of finite dependent clauses are many and varied. There are degrees of integration, ranging from clear subordination to loosely attached structures. These dependent clauses can be divided into seven main types, which are nominal clauses, adverbial clauses, relative clauses, comparative clauses and other degree clauses, reporting clauses, comment clauses, and other peripheral clauses.

1.1 Nominal clauses

Nominal clauses are the category of clauses having a function approximating to that of a noun phrase. Nominal clauses are used as subject, subject predicative, or direct object in the main clause. They are introduced by the (omissible) subordinator **that** or by a **wh-word.** According to Biber, et al. (1999), nominal clauses can be divided as follows:

1.1.1 That-clauses

That-clauses are finite nominal clauses which are introduced by the (omissible) subordinator **"that".** That-clauses are commonly used to report the speech, thoughts, attitudes, or emotions of humans. Regarding the function of finite nominal clauses in the sentences, **that-clauses** can be used as follows:

1) Subject (S)

A subject is a noun or noun-equivalent that names the topic of the sentence. It is in the nominative case of pronouns and occurs with all types of verbs. It refers to the person or thing which does the action expressed by the verb. Examples:

> **That** Ranger won both matches was a great achievement.
>
> (Hewings, 2005, p. 80)

> **That** prepositional phrases and verb phrases can function as subject is surprising.
>
> (Kosur, 2009)

> **That** he can't speak English surprises me.
>
> (Anh, Mai, Nunh, and Viet, n.d.)

That this was a tactical decision quickly became apparent.

That it might happen just never crossed their mind.

That it would be unpopular with colleges or students was obvious.

That you don't fit their image of a fairy princess annoys them.

<div align="right">(Biber, et al., 1999, pp. 193, 660, 676)</div>

2) Extraposed Subject (Se)

The extraposed subject **it** is frequently used in the ordinary subject position. The extraposed subject **it** may also be used to anticipate a following object clause where there is an intervening obligatory clause element. Examples:

It surprises me **that** your niece lives in Navada.

<div align="right">(LeTourneau, 2001, p. 282)</div>

It is true **that** coffee grows in Brazil.

It was sad **that** he lay dead in the street.

<div align="right">(Kesorncam, 2008, p. 641)</div>

It is inappropriate **that** he (should) receive the award again.

We believe it is important **that** she should take the exam next year.

<div align="right">(Hewings, 2005, p. 78)</div>

It's a wonder **(that)** he's got any business at all.

It now appears **that** I will be expected to part with a further portion of my income as a graduate tax.

Maybe it annoys them **that** you don't fit their image of a fairy princess.

<div align="right">(Biber, et al., 1999, pp. 670, 676)</div>

3) Subject Predicative (Ps)

Subject predicative is found with a copular verb only. It is in the nominative or accusative case of pronouns and typically follows immediately after the verb phrase. Examples are below:

Billy's mistake was **that** he refused to take lesson.

The truth is **that** Bill was not very smart.

The winner will be **whoever** runs faster.

(Flaming, 2005)

The problem is **that** the second question cannot be answered until Washington comes up with a consensus on the first.

The truth is **that** the country is now specializing more in processing and marketing.

Our first conclusion at this point was **that** it is necessary to support the specification and application of regulations and patterns in groups.

(Biber, et al., 1999, p. 671)

4) Direct Object (Od)

Direct object can be the target, goal or product of the action of the verb. Direct object is in the accusative case of pronouns. It is found with transitive verbs only. Examples:

They declared **that** the vote was invalid.

Why did they suggest **that** we should buy new computers for the library?

The company demands (of its staff) **that** they pay this fee by 31st December.

(Hewings, 2005, p. 66)

I persuaded myself **that** something awful might happen.

They believe **that** the minimum wage could threaten their jobs.

I suggested to Miss Kerrison **that** she sit down on the chair and wait.

I promise **that** we will take great care of him.

(Biber, et al., 1999, pp. 193, 661-662)

5) Complements in noun phrase (Cn)

Complements in noun phrase actually complete the meaning of the noun. The embedded sentence need not repeat the head noun. Examples:

Is there a chance (**that**) Kim could arrive this afternoon?

(Hewings, 2005, p. 190)

The claim **that** the earth is flat was once accepted as true.

The problem is the fact **that** you never brush your teeth before bed.

The idea **that** a parent would hurt a child makes me ill.

(Kosur, 2009)

There is a fear **that** such rules will be over-bureaucratic.

Other semiconductor stocks eased following an industry trade group's report **that** its leading indicator fell in September.

The fact **that** the medical technicians were available does not make the government's conduct any less offensive.

(Biber, et al., 1999, pp. 194, 645, 676)

6) **Complements in adjective phrase (Cadj)**

The complement in adjective phrase or adjective complement is a clause or phrase that adds to the meaning of an adjective or modifies it. The adjective complement always follows the adjective it complements. Examples:

I'm afraid (**that**) I'm rather busy.

(Eastwood, 2006, p. 86)

He is happy **that** he is learning English.
We are all afraid **that** the final exam will be difficult.

(Flaming, 2005)

He was unaware **that** a Garda Inquiry was being conducted into the allegation, he stated.
I'm glad **that** I found you again.
The minister is confident **that** Pakistan could deflect western pressure.

(Biber, et al., 1999, pp. 194, 671-672)

1.1.2 Wh-clauses

Wh-clauses are finite nominal clauses which are introduced by the subordinator **'wh-word': what, why, how, where, whatever, whether, etc.** regarding the function of finite nominal clauses in the sentences, the **wh-clauses** can occur as:

1) Subject (S)

Subjects contain a noun or noun-equivalent that names the topic of the sentence. They are in the nominative case of pronouns and occur with all types of verbs. They refer to the person or thing which does the action expressed by the verb. Examples:

Whoever ate my lunch is in big trouble.

How you will finish all your homework on time is beyond me.

<div align="right">(Kosur, 2009)</div>

How he will get the money is his own affair.

<div align="right">(Kesorncam, 2008, p. 644)</div>

"**What** I don't understand," she said, "is **why** they don't let me know any anything."

Why the NTSB was not invited to participate in the investigation by the Mexican authorities is not known.

What could be at work there is an actual enmity towards the very structure of society.

<div align="right">(Biber, et al., 1999, pp. 193, 684)</div>

2) Extraposed Subject (Se)

The extraposed subject **it** is frequently used in the ordinary subject position, and it may also be used to anticipate a following object clause where there is an intervening obligatory clause element. Examples:

It is not known **where** he went from there.

It is not clear **who** gave the order.

It is remarkable **how** Melrose always gets out of trouble.

<div align="right">(Roberts, 1968, p. 335)</div>

It was incredible **what** had happened to them.

It was not immediately clear **how**, if at all, the Soviet leadership could enforce such a ruling.

<div align="right">(Biber, et al., 1999, pp. 160, 684)</div>

3) Subject Predicative (Ps)

A subject predicative is found with a copular verb only. It is in the nominative or accusative case of pronouns and typically follows immediately after the verb phrase. Examples:

> This is **where** I found it.
> His problem was **how** he should broach the matter.
> The important thing is **what** a man does, not what he says.
>
> (Roberts, 1968, p. 336)

> My question is **where** he has been.
> The problem is **wherever** we need formal education.
>
> (Anh, Mai, Nunh and Viet, n.d.)

> "What I don't understand," she said, "is **why** they don't let me know any anything."
> What baffles me is **how** few of them can spell.
> That's **what** I'm saying.
> That's **how** it was on my old show.
> That's **why** I bought the refill.
>
> (Biber, et al., 1999, pp. 193, 683, 684)

4) Direct Object (Od)

A direct object can be the target, goal or product of the action of the verb. It is in the accusative case of pronouns. It is found with transitive verbs only. Examples:

> I can't image **what** he likes about jazz.
> Let's consider **how** we can solve the problem.
>
> (Hewings, 2005, p. 68)

Did Dad tell you **what** happened this morning?

We will briefly explain **how** these may be established.

This conference should be discussing **why** this bankrupt policy isn't working.

I didn't tell you **what** Emma thought.

(Biber, et al., 1999, pp. 685, 687)

The wh-word **whether** and its close equivalent **if** are complementizers used specifically to introduce dependent yes/no interrogative clauses expressing indirect questions. In all the below examples, it is possible to substitute 'if' for 'whether' or vice versa without changing the meaning of the sentence. Examples:

Whether-clauses:

He wondered **whether** the mestizo had stolen his mule, and reproached himself for the necessary suspicion.

Police are not talking until they know **whether** the men face charges.

Program evaluation is conducted to determine **whether** the methods have been implemented and anticipated results have been achieved.

If-clauses:

Mr. Stephen Campbell asks **whether/if** he is alone in thinking **that** personal injury awards should be increased in relation to libel awards.

One of the most common problems encountered is simply deciding **whether/if** two components in a machine clash.

(Biber, et al., 1999, p. 690)

In alternative question constructions with an elliptical negative clause, the **or not** can also directly follow the complement, **whether.** In this case, **if** could not be substituted for **whether.** Example:

We do not ask **whether or not** an axiom is 'true', just as we don't ask **if** the rules of chess are 'true'.

(Biber, et al., 1999, p. 691)

5) Prepositional Object (Op)

A prepositional object may be used to refer to the object of a prepositional verb. Example:

On the drive back to Moscow we talked about **what** was going to happen.

Any reciprocal learning will depend mainly on **what** Japanese companies choose to make available.

(Biber, et al., 1999, pp. 129, 193)

6) Indirect Object (Oi)

Indirect objects only appear when there's already a direct object in the clause. They are associated particularly with a group of verbs that express the idea of transmitting something, or making something change hands; and the indirect object is the person or thing that receives whatever is being transmitted. Examples:

The judge will give **what** you said some deliberation during her decision.

(Kosur, 2009)

Give **whoever** finishes last a consolation prize.

Send **wherever** people are on this list an announcement of our latest offer.

(Roberts, 1968, p. 341)

Give **whoever** has it your old Cub.

(Biber, et al., 1999, p. 193)

7) Object Predicative (Po)

The object predicative (in some grammar called 'object complement') occurs with complex transitive verbs. It is normally placed immediately after the direct object. Examples:

> The committee has announced the winner **whoever** wrote the essay on noun clauses.
>
> (Kosur, 2009)

> I named my son **what** my father named me.
> Stanley called Edgar **what** no man should call another.
>
> (Roberts, 1968, p. 341)

> Perhaps it is us who made them **what** they are.
>
> (Biber, et al., 1999, p. 193)

8) Complements in noun phrase (Cn)

Complements in noun phrase actually complete the meaning of the noun. The embedded sentence need not repeat the head noun. Examples:

> There is no reason **why** I cannot see you tomorrow.
>
> (Hewings, 2005, p. 190)

> We always come back to the same question **why** the devil won't he show himself.
>
> (Biber, et al., 1999, p. 646)

9) Complements in adjective phrase (Cadj)

The complement in adjective phrase or adjective complement is a clause or phrase that adds to the meaning of an adjective or modifies it. The adjective complement always follows the adjective it complements. Examples:

I'm not sure **who** she is.

I'm not certain **whether** he will come in time.

(Anh, Mai, Nunh and Viet, n.d.)

Be very careful **what** you tell me.

She wanted to be careful **what** she said.

(Biber, et al., 1999, pp. 194, 684)

10) Complements in prepositional phrase (Cpre)

The clause that follows a preposition within a prepositional phrase is called 'Prepositional complement' or 'Complement in prepositional phrase.' Examples:

She was afraid of **what** might happen **if** Chielo suddenly turned round and saw her.

She was amazed at **how** exhausted she was.

(Biber, et al., 1999, pp. 194, 684)

1.2 Adverbial Clauses

Adverbial clauses are used as adverbial in the main clause, generally as a circumstance adverbial. As with adverbial in general, they are optional and have some freedom of positioning; both initial and final placement are common. Adverbial clauses are regularly marked by a subordinator indicating the relationship to the main clause.

Adverbial clauses can be used to express clearly a great variety of semantic relationships, including time, manner, reason/cause, condition, result, and concessive.

1.2.1 Time Clauses

Adverb clauses of time indicate the time relation between the events in the subordinate and main clauses. Finite adverbial clauses of time are introduced by such subordinators as **after, before, since, until, when** or etc. Examples:

He goes to school **after** he finishes work.

Several overcrowded buses passed **as** we were waiting.

She felt better **as soon as** she took the medicine.

Whenever I don't sleep well, I feel sick the next day.

We can't leave the room **until** everyone has finished the test.

(Oshima and Hogue, 2007, p. 101)

The rain had just about stopped **when** Kramer started walking to subway.

When the units are sold, the city expects to recover all but its $825,000 initial investment.

Tom could see her in tears **as** she wrote it.

(Biber, et al., 1999, pp. 195, 818, 822)

1.2.2 Place clauses

When you want to talk about the location or something, you need to use place clauses. Adverbial clauses of places are introduced by **where, wherever or etc.** Examples:

Where Kate had stood last night, Maureen now stood.

(Collins Cobuild English grammar, 1993, p. 360)

You will find the book **where** I left it.

I will go **wherever** you go.

(Na Kalasin, et al., 2007, p. 121)

The house stood **where** the London Road meets the Brighton Road.

I have always lived **where** I was born.

(Wannaprasert, p.102)

And **whenever** you go there's such an ordeal.

<div align="right">(Biber, et al., 1999, p. 818)</div>

1.2.3 Manner clauses

When you want to talk about someone's behavior or the way something is done, you use a clause of manner. Adverbial clauses of manner are introduced by **as, as if, as though.** Examples:

He behaves **as if** he were a king.

He talks **as though** he knew everything.

He hasn't behaved **as** a gentleman should.

<div align="right">(Kesorncam, 2008, p. 663)</div>

He smoothed the short sprays of leathery green leaves between his finger and thumb **as if** their texture might tell him something.

Sarah's head was aching **as if** it had taken a direct hit from a sledgehammer.

I turned to face her, very quickly, **as though** strong hands on my shoulders had me around.

There followed an orgy of shopping **as** Lovat had predicated.

He undid his sash and ripped off his sopping kimono and, **as though** it were defiled, hurled it in a ditch.

<div align="right">(Biber, et al., 1999, pp. 819, 823, 826)</div>

1.2.4 Reason/cause clauses

When you want to indicate the reason or cause for something, you use reason/cause clauses. Clauses of reason or cause are most company introduced by the subordinators **because/cos, as, since, in that or etc.** Examples:

Jack excels at sports **because** he trains hard.

Since she works out daily, Jill is in great condition.

As they want to compete in a marathon, they run every day.

<div align="right">(Oshima and Hogue, 2007, p. 101)</div>

I didn't know that she had been married, **since** she seldom talked about herself.

As Celie had gone to school, it seemed a good time **for** Lady Revenscroft to invite her sister to stay.

We never see Henry these days, **for** Henry has grown fat and lazy.

<div align="right">(Collins Cobuild English grammar, 1993, pp. 355-356)</div>

We were laughing about it, **cos** I was telling them that we were sick of seeing the rain and that.

British Rail said the train was halted **because** there was no relief guard.

If so, it will be a gamble, **because** he flopped on his only previous internal appearance in Saudi Arabia.

<div align="right">(Biber, et al., 1999, pp. 822, **824, 826**)</div>

1.2.5 Concessive clauses

Adverb clauses of concession either concede something themselves or accompany a concession in the main clause. Clauses of concession are introduced by **though, although, while, whereas, even if,** or **if.** Examples:

I wouldn't tell you where Gail lives **even if** I knew.

You won't see all animals in the zoo **even if** you stay for the whole day.

All her sisters have dark hair, **whereas/while** Paula is blonde.

<div align="right">(Hewings, 2005, p. 165)</div>

While I admit that the problems are difficult, I don't agree that they cannot be solved.

I will not be angry with him **even if** he does not repay the money.

<div align="right">(Na Kalasin, et al., 2007, p. 122)</div>

It is possible to separate one from the others, **though** in certain situations one aspect may be more involved.

A number of field experiments have demonstrated the importance of such 'keystone predatas', **although** the great majority of studies have centered on marine and freshwater ecosystems.

<div align="right">(Biber, et al., 1999, p. 825)</div>

1.2.6 Result clauses

When you want to indicate the result of the action, you use a result clause. Adverbial clauses of result are mostly introduced by **so, so…that**, and **so that**. Example:

She tried to pull away, but he tightened his fingers **so that** she could not get free.

<div align="right">(Carter and McCarthy, 2006, p.563)</div>

I received my wages yesterday **so that** I can now pay what I owe you.

He was speaking very quietly **so that** it was difficult to hear what he said.

<div align="right">(Wannaprasert, n.d., p. 112)</div>

It was windy, **so that** the leaves now and then brushed open a star, and the stars themselves seemed to be shaking and darting light and trying to flash out between the edges of the leaves.

<div align="right">(Biber, et al., 1999, p. 826)</div>

1.2.7 Conditional clauses

Adverb clauses of condition express conditions that lead to the state of affairs in the main clause. Conditional clauses are indicated by subordinators such as **if, unless.** Examples:

If you press this switch, the computer comes on.

If Matthew is going to a job interview, he should wear a tie.

If you'll just wait a moment, I'll find someone to help you.

I can't see **unless** I wear glasses.

(Eastwood, 2006, pp. 346, 354)

Read the paper **if** you don't believe me!

If we move some of these off the table, we'll have more room to do our pictures.

It would make more money from casino-hotel **if** Louisiana approved land based gambling.

Unless they can get people in the organization to do what must be done, they will not succeed.

(Biber, et al., 1999, pp. 819, 821, 824, 825)

1.3 Relative clauses

A relative clause (also called 'adjectival clauses' in some grammar books) is characteristically a post-modifier in a noun phrase. It modifies the noun head giving additional information about the head. Relative clauses can be formed using eight different relativizers: **which, who, whom, whose, that, where, when,** and **why,** which has a grammatical role in the relative clauses in addition to its linking function. Examples:

The woman **who** lives next door is a doctor.

My brother Jim, **who** lives in London, is a doctor.

Barbara works for a company **that** makes washing machines.

We stayed at the Grand Hotel, **which** Ann recommended to us.

We met some people **whose** car had broken down.

<div align="right">(Murphy, 2002, p. 188)</div>

Please give this form to the man **whom** you will see at the front desk.

Ramadan is a time **when** Muslims fast.

<div align="right">(Oshima and Hogue, 2007, p. 136)</div>

The lowest pressure ratio **which** will give an acceptable performance is always chosen.

There are plenty of exiting owners **who** are already keen to make the move.

I could lead you to the shop **where** I bought it.

There are many reasons **why** we may wish to automate parts of the decision process.

There was a slight, furtive boy **whom** no one knew.

<div align="right">(Biber, et al., 1999, p. 608)</div>

The relativizer (or relative pronouns like that, who, whom, **which**, etc) can be omitted with many relative clauses (referred to as the zero relativizer). Examples:

The next thing she knows, she's talking to Danny.

Gwen gave the little frowning smile she used when she was putting something to someone.

She was the most indefatigable young woman he had ever met.

<div align="right">(Biber, et al., 1999, pp. 609, 615)</div>

Relative clauses may be either **restrictive** or **non-restrictive**. Restrictive relative clauses are used to establish the reference of the antecedent. In many cases, restrictive relative clauses also add new information about the head noun. In contrast, the reference of head noun with non-restrictive relative modifiers has either been previously identified or is assumed to be already known. Compare:

1. We have 30 men **who** are working from 6am to 11pm and the most of extra payments we would expect to receive may go on overtime.

2. He warned the public not to approach the men, **who** are armed and dangerous.

(Biber, et al., 1999, p. 195)

The restrictive clause (1) identifies a group of men who are working long hours. The non-restrictive clause in (2) gives information about some particular men whose identity is already known.

Celce-Murcia and Larsen-Freeman supported Biber, et al.'s explanation in term of the different character of relative clauses between restrictive relative clause and nonrestrictive relative clause.

The climbers who reached the summit were exhausted.

The climbers, who reached the summit, were exhausted.

(Celce-Murcia and Larsen-Freeman, 1999, p.591)

The first sentence contains a restrictive relative clause. The readers interpret the head noun in this sentence as representing some portion of the group of climbers who began the ascent: those who were successful at reaching the summit. Since the nonrestrictive clause in the second sentence does not restrict the meaning of the head noun, the readers understand that the head noun refers to the entire group of climbers. In other words, they were all successful in reaching the summit and were all exhausted from their efforts.

1.4 Comparative clauses and other degree clauses

Comparative expressions concern a property measurable in terms of degree by means of comparative items –er, more, less, worse, etc. together with the correlative clause introducer 'than'. A comparative construction is composed of two proportions, one expressed by the main clause and one by the comparative. The comparison may be clear from the situational context or the preceding text, but it is often given in the form of a comparative clause introduced by **as** or **than**. Examples:

I answered **more** sharply **than** I had intended.

The movie was **more** frightening **than** the book was.

"Star Trek" ships went faster **than** any had gone before.

(Laster and Beason, 2005, p. 50)

Maybe Henry would realize she was not **as** nice **as** she pretended to be.

She fled these Sunday afternoons earlier **than** she should have, and was punished by guilty dreams because of it.

(Biber, et al., 1999, p. 196)

Ellipsis is frequent in the comparative clause, which usually minors the structure of the main clause. Elements which are shared are normally left out in the comparative clause. Examples:

She looks older **than** my mother (**does**).

One result was that older people made greater head movements than younger people (**did**).

(Biber, et al., 1999, pp. 156-157)

A related type of clause expresses results or consequences in relation to a preceding degree expression. The syntactic role of the degree expression varies; most typically it is a modifier of an adjective or adverb. There are six major structural types of degree complement: **more/less...than, as...as, so...that, so...as to, too...to, ...enough...to.** Examples:

He awoke **so** cold **that** he could barely straighten his legs.

The result will be **less** effective **than** would be achieved by a teacher in harmony with the unit.

It's a good place – I mean, **as** good **as** you can get.

The murder investigation was **so** contrived **that** it created false testimony.

The stairs wouldn't be strong **enough to** hold the weight.

And if anybody was **so** foolhardy **as** to pass by the shrine after dusk he was sure to see the old woman hopping about.

(Biber, et al., 1999, pp. 196, 527)

1.5 Reporting clauses

A reporting clause accompanies direct reports of somebody's speech or thought. It specifies speaker/thinker, the addressee (sometimes), the type of act (ask, say, think, etc.), and frequently also the mode of the act (abruptly, apologetically, bitterly, etc.). Such clauses contain some kind of reporting verb, either a straightforward verb of speaking/thinking (e.g. say, think) or a verb identifying the manner of speaking (e.g. mutter, shriek), the type of speech act (e.g. offer, promise), the phase of speaking (an aspectual verb such as begin, continue), etc. Examples:

Paul said 'You're late!'

Kelly shouted 'Get away from there!'

I thought 'He doesn't really like me!'

(English for modern living: sentence structures, 2005, pp. 18)

They said, "Yes, sir," and saluted.

"Yes," thought Fleury, "she's going at it hammer and tongs for his benefit."

"Of course, dear. Please do come over," she invited.

"That's the whole trouble," said Gwen, laughing slightly.

"I'd be delighted to pair with you," continued Charles.

Councils, argues Mr. Cawley, are being hit by an unenviable double whammy.

"Do you in point of fact want us to say that Dreadnought doesn't leak?" asked Richard patiently.

(Biber, et al., 1999, pp. 196, 921-922)

1.6 Comment clauses

Comment clauses are similar in structure to reporting clauses: they are loosely connected to the main clause, they normally lack an explicit link, and they are usually short and can appear in a variety of positions. They differ from reporting clauses by being more formulaic. They are also usually in the present rather than past tense, first or second rather than third person, and comment as a thought rather than the delivery of a wording. Examples:

The conclusion, **it seems,** is intolerable.

Mind you, he was probably still as sound as a bell.

Wallace, **it appears,** created a model for scientific sociology which has an elitist appeal rather than the pluralistic one desired in the present project.

You just have to try and accept it, **I guess.**

But they do happen, **it seems.**

(Biber, et al., 1999, pp. 197, 865, 969, 983)

1.7 Other peripheral clauses

In addition to reporting clauses and comment clauses, we find two further types of loosely attached dependent clauses. They are typical of conversation, and take their name from their position in relation to the main clause.

1.7.1 Question tags

Question tags consist of an auxiliary plus a personal pronoun. The function of question tags is to appeal to addressee for agreement. Examples:

"You didn't lock the door, **did you?**"

"Mary will be here soon, **won't she?**"

"You haven't seen Mary today, **have you?**"

"Tom doesn't look well today, **does he?**"

(Murphy and Phongthongcharn, 2004, p. 102)

Well you wouldn't be ninety-five if you were weakling **would you** Stenley?

Well I don't see the point, I mean we're staying in every bloody daft day **aren't we**? You know? Stubby

(Biber, et al., 1999, p. 139)

1.7.2 Declarative tags

Declarative tags are similar to question tags, but they are far less frequent and their function is quite different, in that they emphasize the speech-act function of the main clause. Examples:

It looks terrible **it does,** I would have it one way or the other.

Yeah I thoroughly enjoyed it **I did.**

(Biber, et al., 1999, pp. 139-140)

2. Non-finite clauses

Non-finite clauses are regularly dependent. They are more compact and less explicit than finite clauses; they are not mark for tense and modality, and they frequently lack an explicit subject and subordinator. It is necessary to use clues from the main clause and often also from the wider context to interpret the non-finite clauses.

There are three main types of non-finite clause, each containing a different type of verb phrase: infinitive clauses, ing-clauses, and ed-clauses. The three types differ considerably with respect to the grammatical roles they can play. Infinite clauses and ing-clauses are the most versatile grammatically. Non-finite clauses are often loosely integrated into the main clause and may even lack a verb altogether. Examples:

I don't know what **to write about.**

Crossing, he lifted the rolled umbrella high and pointed to show cars, buses, speeding trucks, and cabs.

2.1 Infinite clauses

Infinite clauses serve a wide range of functions: in addition to reporting speech and cognitive states, they are commonly used to report intentions, desires, efforts, perceptual states, and various other general actions. Similar to that-clauses, infinitive clauses can occur in either post-predicate or subject position, and in a variety of other structures. Infinitive clauses can occur as:

2.1.1 Subject (S)

Examples:

To take a cake in a Dutch oven takes a lot of practice.

To undertake this project without further consideration is a mistake.

To admit the extent of your complicity would lead to your conviction.

(LeTourneau, 2001, pp. 375, 379)

"I believe that homosexuality is a gift from God. To deny that gift is to deny God's will, saying His way isn't good enough."

To learn the simple diagnostic features of the common minerals is still necessary.

(Biber, et al., 1999, pp. 198, 724)

2.1.2 Extraposed subject (Se)

Examples:

I consider it grossly unfair to deny the defendant a speedy hearing.

(LeTourneau, 2001, p. 380)

It's difficult to maintain a friendship.

It is a mistake to take sides.

It is still an adventure **to travel down the river of the Colorado river in a small boat.**

(Biber, et al., 1999, pp. 198, 714)

2.1.3 Subject predicative (Ps)
Examples:

My goal now is **to look to the future.**

The only way out of the dilemma is to suppose that **sometimes the photon get through and sometimes it does not.**

The only safe course is **to protect human life from beginning.**

Our objective is **to give an introduction to this broad field of knowledge.**

(Biber, et al., 1999, pp. 199, 715)

2.1.4 Direct object (Od)
Examples:

To specify the parameters for a just settlement is exposed by the negotiators.

The negotiators expect **to specify the parameters for a just settlement.**

(LeTourneau, 2001, pp. 375, 379)

Do you want me **to send them today?**

He upset you very much, and I hate **to see that.**

Widmer said he hoped **to sell Brabham.**

(Biber, et al., 1999, pp. 199, 695)

2.1.5 **Object predicative (Po)**

Examples:

He did not believe this last remark **to be true.**

Cecilia eventually forced the social workers **to come up with an alternative.**

(Biber, et al., 1999, p. 967)

2.1.6 Adverbial

Examples:

A little group of people had gathered by Mrs. Millings **to watch the police activities on the foreshore.**

To succeed again they will have to improve this fitness and concentration.

(Biber, et al., 1999, p. 199)

2.1.7 Part of noun phrase

Examples:

He is the third man **to be murdered on the corner of the Donegal Road and the Falls Road in the past two years.**

They say that failure **to take precautions against injuring others** is negligent.

(Biber, et al., 1999, p. 199)

2.1.8 Part of adjective phrase

Examples:

They're too big **to fight,** that's the trouble isn't it.

I think the old man's a bit afraid **to go to hospital.**

(Biber, et al., 1999, p. 199)

2.2 Ing-clauses

Like that-complement clauses and infinitive complement clauses, ing-complement clauses serve a wide range of functions. They are used most commonly in conjunction with an aspectual verb in the main clause, but they are also used to report speech acts, cognitive states, perceptions, emotions, and various other actions. Ing-clauses can have a range of syntactic roles.

2.2.1 Subject (S)

Examples:

Swimming a mile in cold water is quite challenging.

Running around the track three times exhausted the young runners.

(LeTourneau, 2001, p. 367)

Having a fever is pleasant, vacant.

Understanding how a planet generates and gets rid of its heat is essential if we are to understand how that planet works.

Reflectingon this and related matters took him past his stop and almost into Dinedor itself.

(Biber, et al., 1999, pp. 199, 739)

2.2.2 Extraposed subject (Se)

Examples:

Anyway I say to Alice it's not fair **getting in somebody's car feeling the way I feel I say-and puking in car.**

"There is only around five tonnes of newsprint left and it's very difficult **getting supplies into Sarajevo.**"

(Biber, et al., 1999, p. 199)

2.2.3 Subject predicative (Ps)

Examples:

Erm what I'm thinking of is **disconnecting the pipe there, and running it through-that way.**

The real problem is **getting something done about the cheap imports.**

The movement's greatest hour was **fighting against an attack on the movement.**

(Biber, et al., 1999, pp. 199, 739)

2.2.4 Direct object (Od)

Examples:

Emily and Bill enjoy **playing Monopoly.**

(LeTourneau, 2001, p. 372)

I started **thinking about Christmas.**

"It's as if the guy never stops **thinking about the issue.**"

(Biber, et al., 1999, p. 200)

2.2.5 Prepositional object (Op)

Examples:

No-one could rely on **his going to bed early** last night.

I won't report on **your wearing a non-reg shirt here.**

(Biber, et al., 1999, pp. 200, 740)

2.2.6 Adverbial

Examples:

I don't care out of it **looking particularly well,** I know.

Having established the direction of the time, we now wish to find some point on the line.

He got up and refilled the teapot, then his cup, **adding a touch of skimmed milk.**

(Biber, et al., 1999, pp. 200, 767)

2.2.7 Part of noun phrase

Examples:

I think he smashed two cars **coming down the road.**

The man **making the bogus collections** was described as middle aged.

(Biber, et al., 1999, p. 200)

2.2.8 Part of adjective phrase

Examples:

It might be worth **giving him a bell to let him know what's happening.**

The town is busy **taking advantage of its first City Challenge victory** by implementing plans aimed at **revitalizing East Middlesbrough.**

(Biber, et al., 1999, p. 200)

2.2.9 Complement of preposition

Examples:

We approve of **financing the campaign with contributions.**

(LeTourneau, 2001, p. 372)

Jordan said he would get tough with the homeless by **running identification checks on them.**

The art of expanding limited recall by **asking leading, open-ended questions** is a subtle one.

(Biber, et al., 1999, p. 200)

2.3 Ed-clauses

Ed-clauses are less versatile than the other types of non-finite clauses. They can have the following roles.

2.3.1 Direct subject (Od)

Examples:

God you're gone mad with the sugar in yours. Do you want **it topped up?**

Two-year-old Constantin will have **his cleft palate repaired.**

(Biber, et al., 1999, p. 200)

2.3.2 Adverbial

Examples:

When told by police how badly injured his victims were he said: "Good, I hope they die."

Taken in the order shown, they provide propulsive jets increasing mass flow and increasing jet velocity.

We measured a seasonal total of 56.99 cm precipitation in the two caged rain gauges, **compared to 56.78 cm on the open lots.**

(Biber, et al., 1999, pp. 200, 768)

2.3.3 Part of noun phrase

Examples:

There wasn't a scrap of evidence to link him with the body **found on the Thames foreshore at low tide.**

This, as we have seen, is the course **chosen by a large minority of households.**

(Biber, et al., 1999, p. 200)

2.4 Supplement clauses

The non-finite clauses have been clearly integrated within the main clause as clause elements or parts of phrases. Loosely integrated clauses, marked off by a comma in writing, are found in initial, medial, or final position.

Examples:

Directed by Benjamin Twist, who, incidentally, is one of the names being mentioned as a possible successor to Nowozielski, the production is a delightfully theatrical retelling of Dicken's famous novel.

The celebrated bus, **looking like two dunces' caps applied to her chest,** was encased in a puce hatter-necked sweater which left all but essentials bare.

He walked with a lilting gait, **his left Achilles tendon apparently shortened, pulling his left heel up.**

She gazed down at the floor, **biting her lip, face clouded.**

(Biber, et al., 1999, p. 201)

2.5 Verb-less clauses

Among non-finite clauses we may also include verb-less clauses.

Examples:

Though fearful of the road condition, they decided to go by car.

Weary and almost out of money, we drove into a petrol station off the motorway.

(Greenbaum and Nelson, 1991, p. 126)

She had also been taught, **when in difficulty,** to think of a good life to imitate.

Although not a classic, this 90-minute video is worth watching.

He does not believe celibacy should be demanded of priests **whether gay or not.**

Every day, **if possible,** allot time at your desk to sorting and filing everything you have collected since the previous day by way of either elicited or spontaneous data.

(Biber, et al., 1999, p. 201)

Related Research

There are a number of researchers who are interested in sentence structures, especially in complex sentences, which appear in academic books and non-academic books. The following are related previous studies which separated in three parts: overall of sentence structures, complex sentences, and subtype of complex sentences.

The studies which focused on overall of sentence structures in academic books and non-academic books were in Chanchenchop (2002; Bubphachat, 2004; Kungwanpradit, 2004).

The first study of sentence structures wasChanchenchop (2002) which analyzed the text organization patterns of the phrase and clause levels in movie handbills from 1991 to 2000. The purpose of this study was to identify the grammatical forms used in handbills of the top ten movies in the U.S. Box Office from 1991 to 2000. The data were taken from the Internet. The grammatical analysis was

based on the Biber, et al.'s framework (1999). The researcher found out that the common grammatical structures used were phrases, independent clauses and dependent clauses. In the phrase level, noun phrase appeared the most whereas verb phrase appeared the least. The dependent clause which appeared in the text showed only the clause of reason and cause, and clause of time. For the independent clause, the declarative clause appeared the most.

The second study of sentence structures was Bubphachat (2004). This research studied about the readability of language in Nation Junior Magazine features. The purpose was to explore the style of sentences structure used in Nation Junior Magazine features. The style of writing in Nation Junior Magazine features involved many uses of sentence types including a minor one. But the most commonly used sentence type was complex sentence (54.23%). Next to it was simple sentence (21.37%), compound-complex sentence (17.43%) and compound sentence (6.34%), respectively.

The last study of sentence structure was Kungwanpradit (2004). This study analyzed the writing style of movie overview on website "Yahoo! Movies." The study purposed to identify the language characteristics that the writers use in their movie overview writing. The sample population of this research was 233 in four different kinds of movies, which were 78 movie overviews for comedy, 56 for drama, 45 for romance, and 54 for thriller. The total movie overviews were from on website "Yahoo! Movie." The result of language characteristics showed that there were different uses of sentence types and figures of speech. All kinds of movies used complex sentences, compound-complex sentences, simple sentences and compound sentences respectively. The complex sentence was used mostly in drama; compound-complex sentence in romance; simple sentence and compound sentence in comedy.

The researchers who focused on sentence structures, especially in complex sentences, were Barber (1962; Chumjitt, 2001) and Inchun, 2005.

The first study of complex sentences was Barber' research (1962 as cited in Chumjitt, 2001, p. 24) which investigated three fields of textbook and research articles in electronic engineering, biochemistry, and astronomy in order to analyze sentence structures and verb forms as well as vocabulary. His study was carried out by examining sentence length, clause types, and non-finite verbs. One interesting result

showed that the occurrence of simple sentences predominated complex sentences by approximately 75%. This result was based on the specification that a complex sentence was the kind having subordinate clauses which must have finite verb. Therefore, the structures using non-finite verbs were not clauses and not considered as complex sentences.

The second study of complex sentences was done by Chumjitt (2001). It aimed to study the discourse at the sentence level and vocabulary in the field of computer usage. The study focused on "Using the Computer: Microsoft Office 97" which was published by Que and written by Ed Bott. The study investigated the frequency of complex sentences in using computers in order to analyze the specific characteristics of language used in them. Chumjitt found that the complex sentences occurred about 78.97 percent of the total sentences whereas simple sentences occurred about 21.32 percent. In this study, the researcher employed 25 subtypes of subordinate clauses from Quirk, et al.'s framework. When compared to the 25 subtypes of subordinate clauses, the result showed that condition and concession of adverbial clause occurred at the highest frequency, followed by relative clauses, to-infinitive of nominal clauses and other types of clause respectively.

The last researcher who studied complex sentences was Inchun (2005). This research studied complex sentences in research articles on transportation engineering. The purpose was to investigate the frequency of occurrence of complex sentences and to classify the subtypes of complex sentences in order to describe their characteristics and functions. The samples for the analysis were 12 research articles randomly selected from six issues of a journal in transportation engineering entitled "Journal of Transportation Engineering" published in 2003. The analysis was conducted by employing the framework developed by Biber, et al. (1999). The researcher found out that complex sentences occurred at a frequency of 41.52% in research articles in this analysis. The main type of complex sentences occurred the most was adverbial clauses, followed by nominal clauses, relative clauses, and comparative and other degree clauses. The remaining main types included reporting clauses, comment clauses, and other peripheral clauses were not found in this analysis. The nominal clauses and adverbial clauses were classified into 21 subtypes and the subtype which occurred the most was nominal that-clauses as direct object, followed by adverbial

clauses of cause/reason, adverbial clauses of time, adverbial of condition, adverbial of concession, etc.

The last part of related previous studies focused on subtype of complex sentences. The researchers who studied this part were Schleppegrel and Nuamthanom.

Schleppegrell (1996) compared strategies for conjunction in spoken English and English as a Second Language (ESL) writing. Using the conjunction **because** as a focal example, the paper illustrated how EFL writers used **because** clauses to indicate the knowledge base for their assertions, to introduce independent segments, and to display links between sections of discourse. While spoken English commonly uses **because** clauses for these functions, they are typically realized in different ways in academic writing. Recognizing such uses as inappropriate register choices identifies them as transfer of strategies common in spoken English into a genre of written English in which other strategies for clause combining are expected. This situated these infelicitous choices at the discourse rather than sentence level, showing that EFL writers' lack of experience with the lexical and grammatical resources of academic registers manifests itself even in conjunction and clause combining strategies. For EFL writers, developing their skill in new genres requires knowledge about how grammatical resources are typically used in realizing those genres. This study contributed to our understanding of the role of conjunction in the structuring of spoken and written texts, and of the role of register differences in shaping ESL writing.

Nuamthanom (2003) studied discourse functions of relative clauses from a function sentence perspective framework. This study aimed at investigating how English relative clauses can be used to convey **give/new** information in three discourse types, namely, narrative, scientific, and ESP materials. The data for this study were 600 relative clauses: 200 relative clauses were selected from each of three written discourse types. The general framework for this research was on Functional Sentence Perspective, as well as several others, which include Beaman's (1984) information-bearing (**new**) and identificatory (**given**), and Desinger and Toupin's (1994) discourse functions of relative clauses. The linguistic data from the three genres were analyzed by using a quantitative method, namely, the Chi-square Test of Association, which also involves a functional analysis of the distribution of relative patterns. Results obtained from this study confirm an expectation that scientific and ESP texts, both

within expository scientific genre: differ from narrative texts in their own respect. For example, while scientific and ESP materials reveal a great tendency of using *given* information in the relative clause, the writers of narrative texts are likely to use the same type of subordinate clause to carry **new** information. This study also reveals that **new** information in the relative clause is preferred at the end of the sentence in the three genres. On the other hand, **given** information tends to occur in the subject/topic position of the main clause in scientific for **given** information to appear after the final element of the main clause. Below is a table of summary of previous research studies.

Table 1 Previous studies regarding complex sentences in academic **and non-academic books**

Author	Title	Year	Focus
Barber, C.	Some Measureable Characteristics of Modern Scientific Prose: Episode in ESP	1962	-Sentence structures, verb forms, and vocabulary
Schleppegrell, M.	Conjunction in Spoken and ESL Writing	1966	-Conjunction "because"
Chumjitt, P.	A Study of Discourse at the Sentence Level and Vocabulary in the Field of Computer Usage	2001	- Complex sentences and vocabulary
Chanchenchop, R.	An Analysis of the Text Organization Pattern at the Phrase and Clause Levels in Movie Handbills from 1991-1999	2002	- Grammatical forms
Nuamthanom, L.	A Study of Discourse Functions of Relative Clauses from a Functional Sentences Perspective Framework	2003	-Given/new information
Bubphachat, S.	A Study of Readability of Language in Nation Junior Magazine Features	2004	- Grammatical forms
Kungwanpradit, K.	An Analysis of Writing Style of Movie Overview on Web Site "Yahoo Movie"	2004	- The writing style
Inchun, C.	Complex Sentences in Research Articles on Transportation Engineering	2005	- Complex sentence and subtype of complex sentences

In conclusion, many researchers in Thailand and oversea are still interested in sentence structures in academic books and non-academic books in terms of complex sentences. However, no single research study has been conducted by using Biber, et al. (1999)'s framework with academic textbooks. So, the present study would fill this gap to provide a complete picture of complex sentence study.