Mesleki İngilizce - Technical English

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- Notes:
  - In the slides,
    - texts enclosed by curly parenthesis, {…}, are examples.
    - texts enclosed by square parenthesis, […], are explanations related to examples.

THE CLAUSE

- a syntactic construction/group of words that
  - contains a subject and a predicate
  - functions as a sentence or as part of a sentence.
- Every subject predicate word group in a sentence is a clause
- Every sentence must contain at least one independent clause;
  - otherwise, it is a sentence fragment.

THE CLAUSE

- Subordination is a technique that writers use to show, by the structure of a sentence,
  - the appropriate relationship of ideas of unequal importance
    - by subordinating the less important ideas to the more important ideas.
- When you first begin to write, you use simple sentences.
  - Later you write more complicated sentences, in order to express your thoughts more effectively.
- One sign of maturity in writing is the use of subordination.

THE CLAUSE

- {The essay, which was chosen by the committee, is on power electronics.}
  - [An adjective clause modifies the noun *essay*.]
- {Ali hopes that it will be published.}
  - [The original sentence has become a noun clause used as a direct object of the verb *hope*.]
- {Tomorrow he will call the publisher because he wants to know his decision.}
  - [An adverbial clause shows the reason for doing something.]

THE CLAUSE

- Effective subordination can be used to achieve
  - sentence variety,
  - conciseness,
  - emphasis.
- For example, consider the sentence,
  - "The researcher's report was carefully illustrated, and it covered five pages."
- It can be rewritten, using subordination, in any of the following ways:

THE CLAUSE

- DEPENDENT CLAUSE
  - {The researcher's report, which covered five pages, was carefully illustrated.}
- PHRASE
  - {The researcher's report, covering five pages, was carefully illustrated.}
- SINGLE MODIFIER
  - {The researcher's five-page report was carefully illustrated.}

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INDEPENDENT CLAUSES

- When an independent clause stands alone, it is called a simple sentence.
  - {On Friday Ali bought a new computer.}
- It is called an independent clause only when it is combined with one or more additional clauses in a sentence.
  - {On Friday Ali bought a new computer, *but* he hasn't paid for it yet.}
    - [The conjunction but joins two independent clauses.]
  - {It is a good computer because he needs it for his work.}
    - [In this sentence the independent clause *it is a good computer* is combined with a subordinate clause.]

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SUBORDINATE CLAUSES

- cannot stand alone as sentences.
  - They are always joined in some way to an independent clause.
    - {that you bought}
    - {who the lecturer is}
    - {when they started}
- Combined with an independent clause, each of these subordinate clauses plays a part in completing the meaning of the sentence.
  - {The best computer was the computer that you bought.}
  - {Ali knows who the lecturer is.}
  - {When they started, Veli was tired.}

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The Adjective Clause

- a subordinate clause that, like an adjective, modifies a noun or a pronoun.
  - {The paper that you are writing is an interesting work of research.}
  - {The room where the equipment is kept is air-conditioned.}
  - {The first student who won the Science and Technology Award was Ali.}
    - [The subordinate clause *who won the Science and Technology Award* modifies the noun *Ali*.]
- often begin with the pronouns who, whom, whose, which, that

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Relative Pronouns

- a pronoun that begins a subordinate clause and is related to another word or idea.
- It may be the subject of the clause it begins.
  - {The principal awarded the student **who had won the contest**.}
    - [The relative pronoun *who* is the subject of the verb *had won*.]
- A relative pronoun may be the object of the verb in the clause it begins.
  - {The book **that** you want is from Oxford University.}
    - [The relative pronoun that is the object of the verb *want*.]

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The Noun Clause

- a subordinate clause used as a noun.
  - {We understood **what the lecturer explained**.}
    - [The entire clause *what the lecturer explained* is the direct object of the verb *understood*.]
- Examples show how a noun clause may be
  - the subject of the verb,
  - a predicate nominative,
  - a direct object,
  - an indirect object,
  - the object of a preposition.

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The Noun Clause

- {His interest was evident.}
  - [Interest is a noun used as the subject of the verb *was*.]
- {That he was interested was evident.}
  - [*That he was interested* is a noun clause used as the subject of the verb *was*.]
- {This is his article.}
  - [*Article* is a noun used as a predicate nominative.]
- {This is what he wrote.}
  - [*What he wrote* is a noun clause used as a predicate nominative]
- {They like your article.}
  - [*Article* is a noun used as a direct object.]

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The Noun Clause

- {They think that you wrote well.}
  - [*That you wrote well* is a noun clause used as direct object.]
- {The committee will give the best researcher the job.
  - [*Researcher* is a noun used as an indirect object.]
- {The committee will give **whoever performs the best** the job.}
  - [*Whoever performs the best* is a noun clause used as an indirect object.]
- {The efficiency of his **projects** helped him a lot.}
  - [Projects is a noun used as the object of the preposition *of*.]
- {The efficiency of what he had done helped him a lot.}
  - [*What he had done* is a noun clause used as the object of the preposition *of*.]

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The Adverb Clause

- a subordinate clause that, like an adverb, modifies a verb, an adjective, or an adverb.
- In the following examples, the adverb clauses modify the verb by telling
  - *how*, *when*, *where*, *why*, *to what extent*, or *under what conditions*.
- {Ali felt as though he already had the job.}
  - [*how* he felt]
- {Before he left, he said good-bye.}
  - [*when* he left]

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The Adverb Clause

- {They sat down wherever they could find seats.}
  - [*where* they sat down]
- {Since the office was closed, we left.}
  - [*why* we left]
- {He understands mathematics better than I do.}
  - [*how much* or *to what extent* he understands mathematics]
- {Will you apply for the scholarship if you have to go to England?
  - [*under what conditions* you will apply]

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The Adverb Clause

- ADVERB CLAUSE MODIFYING AN ADJECTIVE
  - {Ali was sure that he would obtain the scholarship.}
    - [The adverb clause *that he would obtain the scholarship* modifies the adverb *sure*.]
- ADVERB CLAUSE MODIFYING AN ADVERB
  - {Veli arrived earlier than I did.}
    - [The adverb clause *than I did* modifies the adverb *earlier*.]

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The Subordinating Conjunction

- A conjunction that begins an adverb clause is called a *subordinating conjunction*.
- It joins the clause to the rest of the sentence.
- Common Subordinating Conjunctions:

after	as though	since	when
although	because	so that	whenever
as	before	than	where
as if	if	though	wherever
as long as	in order that	unless	while
as soon as	provided that	until	

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THE SENTENCE

- A sentence is the most fundamental and versatile tool available to the writer.
- Sentences generally flow from a subject, to
  - a verb,
  - any objects,
  - complements,
  - modifiers,
- but can be ordered in a variety of ways to achieve emphasis.

THE SENTENCE

- When shifting word order for emphasis, however, be aware the word order in the meaning of a sentence.
  - {He was only the accountant.}
  - {He was the only accountant.}
- We can define a sentence as a group of words that express a complete thought
- Consider the following group of words:
  - {The weary technicians}

THE SENTENCE

- According to the definition,
  - a sentence must express a complete thought.
- *The weary technicians* create a mental image,
  - but in terms of communicating a thought to the reader, something is lacking.
  - To complete the thought started by the words, you must tell
    - what the technicians did, or
    - what happened to the technicians, or
    - what the technicians are.

THE SENTENCE

INCOMPLETE THOUGHT	COMPLETE THOUGHT
	arrived today
	were congratulated warmly
	are from TUBITAK
The weary technicians	repaired the damage
	reported the situation
	went to rest

SUBJECT AND PREDICATE

- A sentence consists of two basic parts,
  - the subject
    - a noun or a pronoun (and its modifiers) is the part about which something is being said.
  - the predicate
    - the part that says something about the subject
- Although a subject may appear anywhere in a sentence, it most often appears at the beginning.

Subject	Predicate
{Lightning	strikes}

The Simple Predicate

- A simple predicate is a verb (or verb phrase)
- A complete predicate is a verb and its modifiers and complements.
- A compound predicate consists of two or more verbs with the same subject.
  - It is an important device for conciseness in writing.
- The principal word or group of words in the predicate is called the simple predicate, or the verb.

The Simple Predicate

- The predicate is the part of a sentence that contains the main verb and any other words used to complete the thought of the sentence (the verb's modifiers and complements)
  - {Helen worked quickly and efficiently.}
    - [The complete predicate is *worked quickly* and *efficiently*. The simple predicate, or verb, is *worked*.]
  - {The secretary typed the letter fast.}
    - [The complete predicate is *typed the letter fast*. The verb is *typed*.]

The Simple Subject

- the main word or combination of words that names the person, place, thing, or idea about which something is being said.
  - {The performance of these engines shows the expertise of industrial technicians in the late 1800's.}
    - [The complete subject is *The performance of these engines*. The simple subject is performance.]
  - {Students on various specialities received awards.}
    - [The complete subject is *Students on various specialities*. The simple subject is *Students*.]

Compound subjects

- A compound subject consists of two or more subjects that are joined by a conjunction and have the same verb.
- The usual connecting words are *and* and *or*.
  - {The books and all the documents were at the library.}
    - [compound subject: books and documents]
  - {Electronics, Mechanics, and Computation are specialities at our department.}
    - [compound subject: Electronics, Mechanics, and Computation]

Compound verbs

- A compound verb consists of two or more verbs that are joined by a conjunction and have the same subject.
  - {Oya chose a seat near the door and sat down.}
    - [compound verb: chose and sat]
  - {Our institute offers academic teaching, provides workshop training, and strengthens knowledge.}
    - [compound verb: offers, provides, and strengthens]

CLASSIFICATION OF SENTENCES

- may be classified according to their purpose
  - ➢ declarative sentence
    - to make a statement
      - {Mechatronics is a branch of Mechanics dealing with electronics}
  - ➢ interrogative sentence
    - to ask a question,
      - {Have you seen the IEEE Journal yet?}
  - ➢ imperative sentence
    - to command or request,
      - {Deliver your paper in the usual way.}
      - {Please send me the data next week.}
  - ➢ exclamatory sentence
    - to exclaim.
      - {Ah, you have solved the problem!}

CLASSIFICATION OF SENTENCES

- may be classified according to their structure
  - ➢ simple sentence
    - with one independent clause and no subordinate clauses.
      - {The invention of the microchip is the beginning of personal computing.}
  - ➢ compound sentence
    - composed of two or more independent clauses but no subordinate clauses.
      - {The invention of the microchip is the beginning of personal computing but it meant the end of macrocomputers.}
    - Care must be taken not to confuse the "compound subject" or predicate of a simple sentence with the clauses of a compound sentence.

CLASSIFICATION OF SENTENCES

- {The research was made in the spring and was published in the fall.}
  - [simple sentence with compound predicate]
- {The research was made in the spring, and it was published in the fall.}
  - [compound sentence with two subjects and two verbs]
- Independent clauses may be joined
  - by coordinating conjunctions
    - and, but, for, nor, or, yet
  - by conjunctive adverbs
    - accordingly, also, besides, consequently, furthermore, hence, however, moreover, nevertheless, still, then, therefore, thus

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CLASSIFICATION OF SENTENCES

➤ complex sentence
- contains one independent clause and at least one subordinate clause.
  - {The person who looks for success often finds it.}
    - [The independent clause *is the person often finds it*. The subordinate clause is *who looks for success*.]

➤ compound-complex
- contains two or more independent clauses and at least one subordinate clause.
  - {The person who looks for success often finds it, but then he does not know what to do with it.}

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COMPLETE SENTENCE

- A sentence is a group of words containing a subject and a verb and expressing a complete thought.
- Sentence errors are among the most common faults in the writing of people.
- You must learn to watch for the two basic errors,
  - the sentence fragment
  - the run-on sentence

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SENTENCE FRAGMENTS

- A sentence fragment
  - an incomplete grammatical unit that is punctuated as a sentence.
  - a group of words that does not express a complete thought.
  - a part of a sentence used as though it were a whole sentence.
  - may be written with a capital letter at the beginning and an end mark (a period, etc.) at the end.
  - not a sentence because it does not express a complete thought.
  - lacks either a subject or a verb.
  - a subordinate clause or phrase.

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SENTENCE FRAGMENTS

- Compare the following sentence and sentence fragment
  - SENTENCE
    {Photovoltaic energy systems became an option for some people.}
    - [has a verb (became is a verb)]
    - [does express a complete thought]
  - FRAGMENT
    {Photovoltaic energy systems becoming an option for some people.}
    - [lacks a verb (becoming is not a verb)]
    - [does not express a complete thought]
- Words ending in –ing, are not verbs
  - unless helping verbs are added to them in order to make a phrase verb.

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The Phrase Fragment

- A phrase is a group of words that is used as a single part of speech but does not contain a verb and its subject.
- Phrases have one important characteristic in common:
  - they are *parts* of a sentence.
- A phrase should
  - never stand alone.
  - never be separated from the sentence in which it belongs.

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The Phrase Fragment

- Phrase fragment examples
  - FRAGMENT
    - {Photovoltaic energy systems became an option for some people. *Like the 10 million people in rural areas.*}
      - [The prepositional phrase in italic type acts as an adjective modifying the noun *people*. Like any other adjective, the parse belongs in the sentence that contains the word it modifies.]
  - FRAGMENT CORRECTED
    - {Photovoltaic energy systems became an option for some people like the 10 million people in rural areas.}
      - [Notice how the fragments are eliminated by attaching them to the sentences in which the phrases belong.]

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The Appositive Fragment

- An appositive is a word or group of words that closely follows a noun or pronoun and identifies or explains it
  - Such a word is "in apposition with" the word it explains
  - It cannot stand alone as a sentence
  - It is always part of the sentence containing the word it explains
    - {My uncle, a doctor, is moving to Ankara.}
      - [*Uncle* and *doctor* are the same person. *Doctor* is in apposition to *uncle*.]
    - {That apple, *a Golden Delicious*, is best for eating as is.}
      - [*Apple* and *Golden Delicious* are the same thing. *Golden Delicious* is in apposition to *apple*.]
    - {My *brother Ali* wants to be a lawyer.}
      - [*Brother* and *Ali* are the same person. *Ali* is in apposition to *brother*.]

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The Appositive Fragment

- An appositive phrase is the appositive and its modifiers.
  - {My uncle, *a doctor in Ankara*, is moving to Izmir.}
  - {That apple, *a variety of apple called Golden Delicious*, tastes best when eaten as is.}
- The appositive usually follows the noun it modifies.
  - {Ali, *my best friend*, is from Ankara.}
    - [The appositive noun is *friend*.]
  - {My best friend *Ali* is from Ankara.}
    - [The appositive is *Ali*.]
- An appositive that precedes the noun it modifies will be separated from the sentence by a comma.
  - {A famous Arabian *horse*, the *Darley Arabian* is one of the ancestors of many modern Thoroughbreds.}

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The Subordinate Clause Fragment

- A clause is a group of words that contains a subject and a predicate and is used as part of a sentence.
- A subordinate clause does not express a complete thought and cannot stand alone.
- Separated from the main clause, the subordinate clause becomes a sentence fragment.

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The Subordinate Clause Fragment

- The subordinate clause examples
  - FRAGMENT
    - {Everybody read the essay on "Power Oscillations." *Which was written by John Smith.*}
  - FRAGMENT CORRECTED
    - {Everybody read the essay "Power Oscillations," which was written by John Smith.}
  - FRAGMENT
    - {Students are still applying for scholarships. *Although the closing date was last week.*}
  - FRAGMENT CORRECTED
    - {Students are still applying for scholarships, although the closing date was last week.}

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RUN-ON SENTENCES (fused sentences)

- consists of two or more sentences that may be separated by a comma instead of a period or some other end mark.
- It can also be two or more sentences without punctuation to separate them.
  - RUN-ON SENTENCE
    - {The outcome of the research was postponed, everything was suspended.}
      - [This run-on sentence consists of two independent clauses, each capable of standing alone as a complete sentence.]
  - We can eliminate the error by separating the two sentences completely, using a period as punctuation.
    - {The outcome of the research was postponed. Everything was suspended.}

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RUN-ON SENTENCES (fused sentences)

- We can eliminate the error by separating the two sentences completely, using a period as punctuation.
  - {The outcome of the research was postponed. Everything was suspended.}
- We can also correct the sentence by using a semicolon.
  - {The outcome of the research was postponed; everything was suspended.}
- We can link the two main clauses by using a comma and a *coordinating conjunction.*
  - {The outcome of the research was postponed, and everything was suspended.}
- We can change one of the clauses to a subordinating clause, using a *subordinating conjunction.*
  - {The outcome of the research was postponed **because** everything was suspended.}

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RUN-ON SENTENCES (fused sentences)

- {Twenty-two children with CP (18 males and 4 females; age 5.8 ± 2.0 years) walked and sit when signals were simultaneously recorded using motion trackers and surface EMG electrodes attached at gastrocnemius medialisis (GM) and tibialis anterior (TA) muscles, Ultrasound images were recorded while sitting as well.}

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Sentence Complexity and Density

- Research indicates that sentences that are too complex in structure or too dense with content are difficult for many readers to understand.
- particular problem areas:
  - too many words in front of the subject
  - too many words between the subject and the verb, noun strings
  - multiple negatives.

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Words in Front of the Subject

- Professional writers open with something before their subjects 25 per cent of the time
- The problem occurs when the writer uses such openers beyond a reasonable length
  - What is *reasonable* is somewhat open to question and depends to an extent on the reading ability of the reader.
    - {*Because of their ready adaptability, ease of machining, and aesthetic qualities that make them suitable for use in landscape structures such as decks, fences, and retaining walls, preservative-treated timbers are becoming increasingly popular for use in landscape construction.*}

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Words in Front of the Subject

- The ideas contained in dense sentence in previous slide become more accessible when expressed over two sentences
  - {*Preservative-treated timbers are becoming increasingly popular for use in landscape construction. Their ready adaptability, ease of machining, and aesthetic qualities make them highly suited for use in landscape structures such as decks, fences, steps, and retaining walls.*}
    - [This has the additional advantage of putting the central idea in the sequence before the supporting information.]

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Words in Front of the Subject

- The conditional sentence is a particularly difficult version of the sentence with a subject too long delayed.
- You can recognize the conditional by its *if* beginning
  - {*If heat (20°-35° C or 68°-95° F optimum), moisture (20% + moisture content in wood), oxygen, and food (cellulose wood sugars) are present, spores will germinate and grow.*}

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Words in Front of the Subject

- To clarify such a sentence, move the subject to the front and the conditions to the rear.
- Consider the use of a list when you have more than two conditions:
  - {*Spores will germinate and grow when the following elements are present:*
    - . *Heat (20°-35° C or 68°-95° F optimum)*
    - . *Moisture content (20% + moisture content in wood)*
    - . *Oxygen*
    - . *Food (cellulose and wood sugars)*}

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Words between Subject and Verb

- In the following sentence, too many words between the subject and the verb cause difficulty:
  - {*Creosote, a brownish-black oil composed of hundreds of organic compounds, usually made by distilling coal tar, but sometimes made from wood or petroleum, has been used extensively in treating poles, piles, cross-ties, and timbers.*}

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Words between Subject and Verb

- The sentence is much easier to read when it is broken into three sentences and first things are put first:
  - {*Creosote has been used extensively in treating poles, piles, cross-ties, and timbers. It is a brownish-black oil composed of hundreds of organic compounds. Creosote is usually made by distilling coal oil, but it can also be made from wood or petroleum.*}

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Words between Subject and Verb

- You could break down the original sentence into only two sentences if you had an audience that you thought could handle denser sentences:
  - {*Creosote, a brownish-black oil composed of hundreds of organic compounds, has been used extensively in treating poles, piles, cross-ties and timbers. It is usually made by distilling coal tar, but it can also be made from wood or petroleum.*}
- Use uncomplicated sentences to state complex ideas.
- If readers have to cope with a complicated sentence in addition to a complex idea, they are likely to become confused

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