



Learning Strategies Used and Observations made by EFL Arab Students while Working
on Concordance-Based Grammar Activities

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Abstract

This paper reports on a study which investigated the learning strategies used and observations made by EFL Arab students while working on concordance-based grammar activities. The study was conducted at the Higher College of Technology, Oman, with twenty-five lower-intermediate students. It made use of a corpus which was compiled for the purpose of the research to suit the students' needs. The texts included in the corpus were written by EFL Arab students doing a post-foundation English language course at the same college where the study was carried out. Data were collected by examining the interactions which took place among the participants while they were working on concordance-based grammar activities in groups. The results showed that making observations about the concordance data involved the use of combinations of learning strategies, which mostly included four learning strategies: *association/elaboration*, *deductive reasoning*, *paying selective attention*, and *using linguistic clues*. The results also showed that the strategy of *monitoring* was a major strategy used when revising the observations made against concordance data. This paper describes the observations made

by the participants, identifies the strategies used when making these observations, and discusses the implications for classroom practice.

Key words: Concordances, making hypotheses against concordance data, testing hypotheses against concordance data, and learning strategies

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The present study relates to the use of corpora and concordances in language teaching. Corpora are collections “of pieces of language that are selected and ordered according to explicit linguistic criteria in order to be used as a sample of the language” (Sinclair 1996). Concordances are the outcome of analyzing corpora using software programs called concordancers (Hunston 2002). They typically take the form of lines that present a target item (morpheme, word, or phrase) in the middle, surrounded by the words that come on either side (Hunston 2002).

Hunston (2002) explains that the use of concordances in language teaching is associated with data-driven learning. This means providing students with concordances and inviting them to research the data and notice the language features in order to form and test hypotheses and draw conclusions about the language.

A lot has been written about the potential that corpora and concordances have in language teaching (see, for example, Gabrielatos (2005) and Hunston (2002)). The effectiveness of the use of corpora and concordances in language teaching has also been proven by research (see, for example, Weber (2001) and Koosha and Jafarpour (2006)). However, a number of investigations in which corpora and concordances were used in teaching reported that students found it difficult to work with concordances (see, for

example, Granath (1998) and Hadley (1996)). Therefore, it becomes important to find ways to facilitate students' task of working on concordances.

One way that could help students overcome the above described difficulty is to give them training in the use of the learning strategies needed to make and test hypotheses against concordance data. Doing this, however, requires that these learning strategies be identified, and this is what the present study set out to investigate.

Learning strategies are specific actions and thoughts that can make learning easier, faster, more self-directed, and more effective (adapted from Oxford 1990, p. 8). They have been identified in the literature through a number of classifications, such as Rubin's (1981 cited in O'Malley and Chamot 1990), O'Malley and Chamot's (1990), and Oxford's (1990) classifications of learning strategies.

Several investigations into the learning strategies used by students while working on corpora and concordances exist. Some of these, however, focus on the corpus consultation strategies used by students (see for example, Miceli and Kennedy 2002). Very few investigations look at the strategies used for analyzing concordances. Among these are the studies by Sun (2003) and Sripicharn (2004). Both of these studies, however, were done with a small number of EFL students (three Taiwanese students and six Thai students in Sun's and Sripicharn's studies respectively). Moreover, they were done during only one meeting between the researchers and the participants (50 to 70-minute meetings and 30-minute meetings in Sun's and Sripicharn's studies respectively). Furthermore, neither of the studies made any link between the data-driven learning strategies used by the participants and the strategies identified in the literature (for example by Oxford 1990). These limitations highlight the importance of the present study, especially when pointing out that the study is the first one ever that involved EFL Arab students.

Aim of the present study

This study aimed at examining the learning strategies used by EFL Arab college students while making and testing hypotheses against concordance data. It aimed at identifying these learning strategies in the light of the learning strategies identified in the literature (for example by Oxford (1990)).

To achieve this aim, two research questions were formulated for the study. These were phrased in such a way as to reflect the context of the research. The questions were:

Research question 1: What learning strategies, if any, do lower-intermediate EFL college students use to make hypotheses against concordance data when working on concordance-based grammar activities?

Research question 2: What learning strategies, if any, do lower-intermediate EFL college students use to test hypotheses against concordance data when working on concordance-based grammar activities?

In the present study, making hypotheses against concordance data meant forming new observations about the features of the concordance data. Testing hypotheses against concordance data, on the other hand, meant revising the hypotheses already made, looking for more concordance data that could validate or invalidate the hypotheses.

Methodology

The study was conducted at a college in Oman. It involved twenty-five lower-intermediate EFL Arab students, who were enrolled in an English language foundation program. It examined the learning strategies used by the students while they were working on concordance-based grammar activities. It started with a 50-minute training class to familiarize the participants with the way concordances were exploited for learning grammar, as they had not worked with concordances before. Then, six 50-minute teaching classes were conducted, one class per week. During these classes, the students were invited to actually use some concordances for grammar learning. Both the training and teaching classes were conducted by the author of this paper.

The grammar points focused on during the study were in the form of patterns relevant to the essay types the participants had to produce for an English Writing Course which they were doing. The patterns were selected on the basis of the participants' needs (see Appendix 1 for a summary of the target patterns). This was done by asking the participants to write essays before each research class and identifying the most common mistakes in these essays in order to focus on the relevant grammatical patterns in the class.

The corpus used during the study was compiled for the purpose of the study to satisfy the participants' needs. This was important to do because using concordances that are appropriate to students' needs can facilitate their task of analyzing concordances (Aston 1997). The corpus contained 30,232 words in the form of essays of the same types as the ones the participants were required to produce for the writing course they were doing. The essays were written by post-foundation EFL Arab students studying at the same college where the study was conducted. They were edited by the author to correct the grammar, spelling, and punctuation mistakes before compiling the corpus. Table 1 below gives more details about the research corpus.

Table 1: Essay types and number of essays and words included in the research corpus

| Essay type | Number of essays included | Number of words included |
|---------------------|---------------------------|--------------------------|
| Process | 26 | 6306 |
| Classification | 23 | 5058 |
| Cause/Effect | 29 | 5801 |
| Comparison/Contrast | 32 | 8313 |
| Problem/Solution | 20 | 4754 |
| Total | 130 | 30232 |

The research corpus was accessed using the software program called the AntConc Concordancer (Anthony ND) to produce the required concordance lines. The lines were used to devise concordance-based grammar activities which were based on discovery teaching/learning. Each pattern was presented through a concordance-based grammar activity that consisted of four components. These are given in the table below, with examples taken from the activity which was used to present the pattern (The + word of rank order + **step** + is + (verb+ing), as in: *The next **step** is exercising*) (the complete activity is given in Appendix 2).

Table 2: Components of the concordance-based grammar activity which was used to present the pattern (The + word of rank order + **step** + is + (verb+ing), as in: *The next **step** is exercising*)

| Component of the concordance-based grammar activity | Relevant part of the activity |
|--|---|
| (1) Three concordance lines | 4 to make preparations for your day. The next step is improving your knowledge. First, most sou 5 arn and clear up your doubts. The first step is making a good plan. Every student needs t 6 o make the water taste like tea. The final step is adding sugar. Of course, tea without suga |
| (2) Information about the concordance data provided to students to activate their prior knowledge about the target pattern | Lines 4 to 6 are from the body parts of some process essays. |
| (3) Awareness-raising questions aimed at drawing students' attention to function, meaning and form | Examples: <ul style="list-style-type: none"> • What is the function of the pattern of the word 'step' in lines 4 to 6? (used to draw students' attention to function) • Look at the two-word chunks <u>before</u> 'step' in lines 4 to 6? What is the similarity in meaning between the second words in the chunks? (used to draw students' attention to meaning) • What is the word repeated <u>after</u> 'step' in lines 4 to 6? (used to draw students' attention to form) |
| (4) Rule-writing activity | In the box below, write a rule about how the word ' step ' is used in lines 4 to 6. |

The students were asked to do the activities in six groups and were allowed to discuss them in Arabic. This was allowed because the students' English language proficiency level was relatively low. It was based on Ellis' (1997) view that awareness-raising activities, which aim at drawing students' attention to the formal features of the language input, can be done in students' L1. The students, however, were required to write down their answers in English.

In terms of data collection, this was done by audio-taping the interactions that took place among the students while they were working on the concordance -based activities in groups. The interactions were then transcribed and the content analysis technique, described by Cohen et al. (2007), was followed to detect learning strategy use evident in the transcriptions. To do this, a learning strategy framework was developed, against which the interactions were analyzed (see Appendix 3 for the framework). This drew mostly on Oxford's (1990) classification of learning strategies, but it also incorporated information taken from Rubin's (1981 cited in O'Malley and Chamot 1990) and O'Malley and Chamot's (1990) classifications. The aim was to develop a framework that was comprehensive enough to help identify all the learning strategies evident in the interactions. Oxford's classification was chosen as the main classification because it is probably the most comprehensive classification available in the literature (Ellis 1994).

The author then used the framework to establish codes to identify the learning strategies evident in the transcriptions of the students' interactions. For example, if a student based an observation on particular words in the concordance lines, this was considered as an instance of using the strategy of *using linguistic clues* and the code <ulgcl> was created to reflect the use of this strategy, where *u* stood for *using*, *lg* for *linguistic*, and *cl* for *clues*. This way of establishing codes was done following O'Malley and Chamot (1990).

The codes were then validated by an expert in the field of using corpora and concordances in language teaching, who worked in a British university. The validation was done by examining the codes against samples of the transcriptions of the students'

interactions from which they were derived and also against the learning strategy framework developed for the study.

After that, the author started coding the transcriptions. This was done using the computer software text editor called NoteTab Pro-v5.61. Strategies which were imposed by the instructions of the activities were not coded. For example, while working on the pattern (The + word of rank order + **step** + is + (verb+ing), as in: *The next **step** is exercising*), the students focused on the word that followed the word 'step' because there was an activity which read 'What is the word repeated **after 'step'** in lines 4 to 6?' (the lines referred to in the question are given in Table 2 above). So, this was not considered an instance of using the strategy of *paying selective attention*. (For more explanation of the meaning of the strategy of *paying selective attention*, see Appendix 3)

Another point which should be mentioned about the way the coding was done is that turns which suggested the use of more than a single learning strategy were given more than one code. This was done following O'Malley and Chamot (1990). For example, in one of the research classes, the students were examining the relative pronouns in the pattern (There + are + **many** + plural noun + who/that/which +verb + object, as in: *There are **many** websites that have useful information*). So, one of the students said, 'I feel it's a subject since it is followed by a verb.' This turn was given four codes: <slcatw>, <ulgcl>, <uprkn>, and <rsng>, which stood for the strategies of *paying selective attention*, *using linguistic clues*, *association/elaboration*, and *deductive reasoning* respectively. The turn was given these four codes because it suggested that the student selectively focused on the verbs in the relative clauses of the pattern (which represented the use of the strategy of *paying selective attention*) and used them as clues (which represented the use of the strategy of *using linguistic clues*). She used her prior knowledge of these clues (which represented the use of the strategy of *association/elaboration*) and thus decided that the relative pronouns were subjects (which represented the use of the strategy of *deductive reasoning*). (For more explanation of the meanings of the strategies named above, see Appendix 3).

Having done the coding, the author then recoded 10% of the transcriptions, selected randomly. This was done eight months after completing the first coding in order to measure intra-rater reliability. Intra-rater reliability was measured following Stemler (2001), and it showed that the agreement between the first coding and the second coding was 95.2%.

Results

The results are presented below in a way that describes the observations made by the students about the concordance data and identifies, in brackets, the learning strategies used to make these observations. The learning strategies identified are defined in Appendix 3. For confidentiality purposes, the students' names are not given. Instead, student numbers are used. For example, S14 means student number 14.

Results for research question 1: what learning strategies, if any, do lower-intermediate EFL college students use to make hypotheses against concordance data when working on concordance-based grammar activities?

The results show that while making hypotheses against concordance data, the students used combinations of learning strategies. For example, in one of the classes the focus was on patterns of the word '*step*' used in process essays. One of these patterns was presented to the students through the following concordance lines:

Figure 1: Concordance lines on a pattern of the word '*step*'

```
1 am in the morning is very good. The first step is that you ought to manage your time. When  
2 nt step to organize your ideas. The second step is that students have to write the essay in de  
3 to the subjects you are studying. The last step is that they have to sleep early and get up e
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Here, S14 used a combination of two strategies, *association/elaboration* and *deductive reasoning*, to work out the function performed/meaning expressed by the pattern. She did this when she said, "Remember when we took the essay of shuwa? The teacher said that this was a type of essays of guide" ('*shuwa*' is an Omani dish). This quote suggests that she linked the meaning she inferred from the concordance lines with a meaning that she

had previously learnt to be associated with process essays (*association/elaboration*) and found that the meanings were similar. Accordingly, she suggested that the function of the pattern was the same one she had learnt, namely to ‘*guide*’ (*deductive reasoning*).

In some instances, the combination of strategies used by the students included three learning strategies. One of these instances, for example, occurred while the students were examining the following concordance lines:

Figure 2: Concordance lines on a pattern of the word ‘*many*’

4 ason is getting a better life. In our life, there are **many** people who don't learn anything in thei
5 ey go to their schools, they get headaches. There are **many** people in the world who have headaches
6 the Internet to get the information because there are **many** websites that have a lot of information

Here, S09 noticed that the words ‘*there are many*’ co-occurred together in the lines. So, she recalled the rule that such words are called chunks (*association/elaboration*). Accordingly, she made the hypothesis that the words formed a chunk (*recognizing fixed chunks*) that represented one of the features of the concordance data (*deductive reasoning*).

In other instances, a combination of four strategies was used by the students. For example, one of the activities on the pattern illustrated in Figure 1 above invited the students to discover how the ‘*that*’ clauses in lines 1 and 2 were different from the ‘*that*’ clause in line 3. Here, S13 focused on the verb ‘*sleep*’ in the third concordance line (*paying selective attention*) and used his prior knowledge of this verb in terms of it being what he described as “a subject that does not need an object” (*association/elaboration*). He used this verb as a clue (*using linguistic clues*) and accordingly made the hypothesis that the ‘*that*’ clause in the third line differed from the ones in the two first lines in that it did not include an object (*deductive reasoning*).

The use of this combination of four strategies was also seen in a number of other instances where hypotheses were made against concordance data. For example, S12 used it, but in conjunction with the strategy of *grouping*, while doing an activity which required the students to work out the difference between the function of the ‘*which*’

adjective clauses without and with prepositions illustrated in the following two sets of concordance lines:

Figure 3: Two sets of concordance lines used to present the difference between ‘which’ adjective clauses without and with prepositions

4 use in college you will choose the subjects **which** you want to study. And you will also choose
 5 The teacher laughed and said that the word **which** I used meant the sound of dogs. There
 6 s when they advise tourists about the places **which** they should visit and the restaurants which
 7 nclude news about their lives, the countries **which** they live in and the clubs which they belong
 8 e countries which they live in and the clubs **which** they belong to. The last type of magazines
 9 s which they should visit and the restaurants **which** they can eat in. The last type is pronuncia

Here, S12 said, referring to the second set of lines, “it’s places: *countries, clubs, restaurants, live in, belong to.*” This means that she focused on the nouns and prepositional verbs mentioned in the quote (*paying selective attention*) and used them as clues (*using linguistic clues*). She used her prior knowledge of these clues (*association/elaboration*), which made her realize that all of them could be put under the category of ‘places’ (*grouping*). This, in turn, led her to make the conclusion that the function of ‘which’ relative clauses that included prepositions was to describe places (*deductive reasoning*).

Results for research question 2: what learning strategies, if any, do lower-intermediate EFL college students use to test hypotheses against concordance data when working on concordance-based grammar activities?

The results show that the main strategy used when testing hypotheses against concordance data was the strategy of *monitoring*. For example, one instance when a hypothesis was tested against concordance data occurred while the students were doing an activity which aimed at drawing their attention to the difference between the verbs after the word ‘*step*’ in the following sets of concordance lines:

Figure 4: Two sets of concordance lines on two patterns of the word ‘step’

4 to make preparations for your day. The next **step** is improving your knowledge. First, most stu
 5 arn and clear up your doubts. The first **step** is making a good plan. Every student needs t
 6 o make the water taste like tea. The final **step** is adding sugar. Of course, tea without suga
 7 d magazines about this language. The first **step** is to learn grammar and vocabulary. You must
 8 ortant way to lose weight. The first **step** is to brainstorm ideas. For example, when yo
 9 ens, calculators and books. The second **step** is to find a good location. Most students need

Here, S13 made the hypothesis that the only difference was about the use of ‘*ing*’ in the first set of lines, as opposed to the second set of lines. Then, he tested, or revised, this hypothesis against the concordance data. He noticed that the verbs in the second set of lines, as opposed to the first set of lines, were preceded by the word ‘*to*’. So, he corrected his initial hypothesis (*monitoring*), proposing that there were two differences between the verbs in the two sets of lines.

In most instances, however, hypotheses were tested using the strategy of *monitoring* in conjunction with the same above described four-strategy combination which was used to make hypothesis against concordance data. In one of these instances, for example, the students were examining the following concordance lines:

Figure 5: Concordance lines on a pattern of the word ‘many’

1 e. The last reason is students’ lifestyle. **Many** students don’t make a timetable or clear sys
 2 rking institutes. The final thing is money. **Many** people don’t have enough money to complete t
 3 He studies at home on the Internet because **many** colleges and universities use this service t

Here, S17 rejected an earlier made hypothesis that the word ‘*many*’ was in the beginning of the sentences in all the lines. He did this when he focused on the word ‘*because*’ (*paying selective attention*), which preceded the word ‘*many*’ in line 3, and used it as a clue (*using linguistic clues*). He used his prior knowledge of this clue (*association/elaboration*) and accordingly corrected the initial hypothesis by making a

new hypothesis (*monitoring*). This was that ‘*many*’ was in the beginning of only some of the sentences (*deductive reasoning*).

Discussion and implications

The findings highlight a number of points. One of these is that the task of making and testing hypotheses against concordance data was done using particular strategies that were used in combinations. Among these, there were four main strategies: *association/elaboration*, *deductive reasoning*, *using linguistic clues*, and the *paying selective attention*. This suggests that these four strategies are data-driven learning strategies and implies that students should be given training in how to use these strategies. The training can be provided by inviting students to do some concordance-based activities, and then asking them to describe the strategies they used while working on the activities. After that, the strategies which they should/could have used should be discussed and more activities should be used to provide students with opportunities to practice the discussed strategies. This type of strategy training is referred to by O’Malley and Chamot (1990) as direct, integrated training.

In addition to the above four strategies, the strategy of *monitoring* was also found to be a major data-driven learning strategy, as it was the basis of testing hypotheses against concordance data. This means that students should also be trained to use this strategy, stressing that it requires revising the observations made against concordance data.

Another point arising from the findings is that the participants managed to deal with concordance-based teaching/learning in spite of their low language proficiency level. One of the reasons behind this could be that they were allowed to use Arabic while discussing the activities. This might have helped them focus on the activities, rather than being distracted by thinking of how to express themselves in English.

Another reason could be that the concordances seemed to have been appropriate to their needs, as they were taken from a corpus that was compiled specially to satisfy their needs. In contrast, prior research which found that concordance-based teaching/learning was difficult for

students, such as the studies by Granath (1998) and Hadley (1996), made use of readily published corpora, which could have been inappropriate to the participants' needs.

The implication of the two above discussed points, then, is to take students' needs into consideration when using concordance-based teaching. Although this is a point which should be borne in mind in all teaching situations, it may be of particular importance in contexts where concordance-based teaching is used, as it depends mostly on discovery learning and could be new to many students.

It should be mentioned here that although the research corpus had the above discussed advantage, it also had a limitation. This is that some of the patterns it included, though were in line with the needs of the participants, are less likely to be used in academic writing. For example, the pattern of the word '*step*' shown in Figure 1 has no hits at all in the British Academic Written English Corpus (BAWE), which is a 6,506,995- word corpus of good-standard student assignments (Alsop and Nesi 2009). This limitation of the research corpus can be attributed to the English language proficiency level of the students who wrote the texts for the corpus. It implies that it is important to make sure that the corpus used for teaching can help students expand their knowledge beyond the confines of their existing knowledge.

Conclusion

The present study identifies learning strategies required to make and test hypotheses against concordance data and proposes that these learning strategies be taught to students so as to facilitate their task of working on concordances. The study suggests that strategy training is only one way that could help students succeed in exploring concordances and confirms that another way is to devise the learning situation on the basis of students' needs.

The study presents a major contribution to research into learning strategy use, as it links the strategies used when exploring the features of concordance data to the strategies identified in the classifications of learning strategies available in the literature (such as Oxford's (1990) classification). This approach has yielded findings which could explain why the use of corpora and concordances in language teaching/learning has been found to be effective (for example by Weber (2001) and Koosha and Jafarpour (2006)). This could become clear when pointing out that the strategies revealed by the study to be used when making and testing hypotheses

against concordance data, for example *association/elaboration*, *deductive reasoning*, *monitoring*, and *paying selective attention*, are considered to be part of the second language learning process described by O'Malley and Chamot (1990).

The study, however, has the limitation of having a single coder of the collected data (the author herself). This limitation, however, is minimal as the intra-rater reliability of the coding proved to be very high, besides the fact that the codes created by the author were validated by another person before starting the coding process. In spite of this, replicating the study would be useful to confirm the results of the study. Research is also required to explore the learning strategies used by students when learning other aspects of the language, such as vocabulary, through concordances. This would give insights into the learning strategies which should be focused on when providing students with strategy training to help them deal with concordance-based teaching aimed at different language teaching objectives.

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Appendix 1: Summary of the linguistic patterns presented in the research teaching classes

| Class | Essay type practiced in the Writing Course | Pattern | Example sentence |
|-------|--|---|---|
| 1 | Process | The + word of rank order + step + is + that + subject + modal verb + infinitive verb | The last step is that you should exercise. |
| | | The + word of rank order + step + is + (verb+ing) | The first step is exercising. |
| | | The + word of rank order + step + is + to+ infinitive verb | The second step is to exercise. |
| 2 | Process | The + word of rank order + step + is + not + to + infinitive verb | The next step is not to smoke. |
| | | noun + that + subject + verb | He should look up the <u>words that he doesn't understand.</u> |
| 3 | Classification | noun + which + subject + verb | He should look up the <u>words which he doesn't understand.</u> |
| | | noun + which/that + subject + verb + preposition | I like the <u>restaurants which they eat in.</u> |
| 4 | Cause/effect | Subject + has/have + effects/an effect + on + object of preposition | Poverty has effects on people. |
| | | Subject + affects/affect + object | This affects the people. |
| 5 | Cause/effect | There + are + many + plural noun + who/that/which + verb + object | There are many websites that have useful information. |
| 6 | Comparison/ Contrast | Subject + present simple verb + object + and + subject + do/does+ too | I have black eyes, and my friend does too . |
| | | Subject + don't/doesn't+ present simple verb + object + and + subject + don't/doesn't + either | I don't wear glasses, and she doesn't either . |

Key:

Word in bold = words in focus

Underlined words = part of example that represents the pattern

Appendix 2: Example of a concordance-based grammar activity used in the study

Name: _____ **Date:** _____

4 to make preparations for your day. The next **step** is improving your knowledge. First, most sou
6 arn and clear up your doubts. The first **step** is making a good plan. Every student needs t
7 o make the water taste like tea. The final **step** is adding sugar. Of course, tea without suga



Lines 4 to 6 are from the body parts of some process essays.

a. What is the function of the pattern of the word '**step**' in lines 4 to 6?

b. Look at the two-word chunks **before** '**step**' in lines 4 to 6? What is the similarity in meaning between the second words in the chunks?

c. What is the word repeated **after** '**step**' in lines 4 to 6?

d. Look at the verbs **after** '**is**' in lines 4 to 6. How are they similar?

e. In the box below, write a rule about how the word '**step**' is used in lines 4 to 6.

| |
|---|
| <p>Function: _____</p> <p>Word in focus: _____</p> <p>Pattern: _____</p> |
|---|

Appendix 3: The learning strategy framework adopted in the study

| Learning strategy | Definition and examples |
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| Adjusting or approximating the message | Altering the message by omitting some information, expressing it imprecisely, or saying another thing which means almost the same. |
| Analyzing contrastively | Comparing and contrasting elements (sounds, grammar, vocabulary) of the target language with elements of the first language. |
| Analyzing expressions | Breaking down an expression and using the meanings of the parts to understand the meaning of the whole. |
| Asking for clarification or verification | Asking the speaker to repeat, slow down, paraphrase, explain, or give example; asking if an utterance is correct; paraphrasing or repeating to get feedback on the correctness of something; asking for clarification or verification about the task. |
| Asking for correction | Asking someone to correct spoken and/or written language. |
| Association/elaboration | Relating new information to prior knowledge or relating parts of information to each other to create meaningful associations |
| Avoiding communication partially or totally | Avoiding communication partially or totally when difficulties are expected. |
| Coining words | Making up new words to communicate the intended meaning. |
| Deductive reasoning | Applying rules in new situations to produce or comprehend language. |
| Delaying speech production to focus on comprehension | Delaying speech production totally or partially to focus on comprehension. |
| Discussing your feelings with someone else | Talking with others to discover and express feelings about language learning |
| Formally practicing with sounds and writing systems | Practicing sounds in a variety of ways (but not yet in naturalistic communicative practice) or practicing the writing system of the target language. |
| Getting help | Asking a person, explicitly or through hesitation, to provide an expression in the target language. |
| Getting the idea quickly | Skimming and/or scanning. |
| Grouping | Classifying or reclassifying items (mentally or in writing) into meaningful units according to their attributes |
| Highlighting | Using different ways of emphasis techniques to focus on important points in a passage, e.g. underlining. |
| Identifying the purpose of a language task | Deciding the aim of a task, e.g. writing for persuasion. |
| Listening to your body | Paying attention to the signals given by the body whether negative signal, e.g. stress, or positive signals, e.g. happiness. |
| Making positive statements | Encouraging oneself by saying or writing a positive statement to oneself. |
| Monitoring | Identifying errors in target language comprehension or production, determining the important ones, tracking their source, and trying to eliminate them; |

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| | correcting one's own/others' comprehension or production while performing a task; evaluating strategy, plans, and acts or possibilities undertaken and using alternative approaches, plans when needed |
| Organizing | Understanding and arranging for optimal conditions of language learning, e.g. organizing a schedule, managing time. |
| Overviewing and linking with already known material | Overviewing a language task and associating it with what's already known. |
| Paying attention | Deciding to pay attention in general to the learning task ignoring the distractors before or while working on the task (direct attention) and/or deciding to focus on specific aspects of the language, situational details before or while working on the task (selective attention). |
| Placing new words into a context | Placing word or phrase in a meaningful context. |
| Planning for a language task | Planning for the language elements and functions necessary for a task. This is done in four steps: describing the task or situation, determining its requirements, checking the linguistic resources available, and identifying the additional language elements and functions required for the task or situation; proposing strategies to handle an upcoming learning task; planning for the parts and sequence of a task; planning how to express the answer. |
| Practicing naturalistically | Practicing the target language in naturalistic situations, e.g. participating in a conversation. |
| Learning strategy | Definition and examples |
| Problem identification | Explicitly identifying the aspect of a task that needs resolution or hinders successful completion of the task. |
| Recognizing and using fixed chunks and semi-fixed chunks | Being aware of and/or using single, unanalyzed chunks, e.g. "Hello, how are you?" (Oxford 1990, p. 45), and semi-fixed chunks which have at least one slot to be filled, e.g. "It's time to _____" (Oxford 1990, p. 45). |
| Recombining | Combining new elements to produce a longer sequence, e.g. combining two phrases in a whole sentence. |
| Repeating | Saying, doing, or listening to something over and over; rehearsing; imitating a native speaker. |
| Representing sounds in memory | Relating new information to concepts in memory on the basis of its sound. |
| Rewarding yourself | Giving oneself a reward for good performance in the new language. |
| Seeking practice opportunities | Seeking out or creating naturalistic language practice opportunities. |
| Self-evaluation | Evaluating one's own language progress; evaluating ability to perform task in hand. |
| Semantic mapping | Using lines to link words that relate to the same concept, thus creating a map of words. |
| Summarizing | Making mental, oral, or written summaries or abstracts of longer passages. |
| Switching to the mother tongue | Using the mother tongue for an expression without translating it, including adding word endings from the target language onto words from the mother tongue. |
| Taking notes | Writing down main or specific points using different ways of note-taking. |
| Taking risks wisely | Pushing oneself to take wise risks in a learning situation even if this results in making mistakes or looking foolish. |
| Transferring | Applying knowledge of words, concepts, or structure from one language to another language as a means of target language comprehension or production. |
| Translation | Converting the target language to the first language or vice versa as a basis for target language comprehension or production. |

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| Using a circumlocution or synonym | Expressing the desired meaning by describing the concept “circumlocution” or using a word which has a similar meaning “synonym”. |
| Using imagery | Relating new information to concepts in memory using meaningful mental or actual visuals. |
| Using keywords | Linking a new word to a word in the first language that has the same sound and then generating an image that relates the new word to a familiar one. |
| Using linguistic clues | Using knowledge of the target language, first language or any other language to guess the meaning of what’s heard or read in the target language, usage of unfamiliar language items, answer, or predict outcomes, when lacking complete knowledge of elements of the target language, e.g. grammar. |
| Using mechanical techniques | Using tangible techniques, e.g. movement. |
| Using mime or gesture | Using physical motions, e.g. mime or gesture, to express the meaning. |
| Using other clues | Using nonlinguistic clues, e.g. knowledge of context or situation, to guess the meaning of what’s heard or read in the target language when lacking complete knowledge of elements of the target language, e.g. grammar |
| Using physical response or sensation | Acting an expression physically, e.g. going to the door, or relating an expression mentally to a physical feeling or sensation, e.g. warmth. |
| Using progressive relaxation, deep breathing, meditation, or self-talk | Using techniques to relax the major body muscles, breathing deeply, or meditating by focusing on mental image or sound; using mental redirection of thinking to reduce anxiety or assure oneself of success in the task. |
| Using resources for receiving and sending messages | Using print or nonprint resources to understand or produce a message. |

Source: Table devised by the researcher/author, based on Oxford (1990) and adapted from O’Malley and Chamot (1990, pp. 46, 119, 120, 126, 137, 138, and 139) and Rubin (1981 cited in O’Mally and Chamot 1990, pp. 4 and 5).

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