A cognitive approach to writing skill and the importance of practice

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Abstract

When language learners read paragraphs, texts, stories etc. in or outside the language classroom, they are able to comprehend the messages by relying on key content words aided by contextual clues, knowledge of the world, and guessing. However, relying merely on this kind of lexical processing is not possible during writing. The psycholinguistic demands of composing messages through writing cause the learners to put much more effort on syntactic processing while handling lexical processing as well. While semantic processing is the focus of a reader’s brain, both semantic and syntactic processing are the focus of the writer’s brain. This study involves the latest information about how brain handles the task of writing, and what role practice plays in the development of cognitive processes related to writing skill while the objective is to achieve automaticity. The importance given to the writing skill in Turkey has been surveyed through questionnaires and analysis of exam results and these findings have been interpreted in the light of these recent findings on cognitive processes concerning writing. It is hoped that it will provide some explanation for the gradual decline in the writing performance of the language learners in recent years.

Key words: Cognition, production, writing, processing, practice.

Yazma becerisine bilişsel bir yaklaşım ve pratiğin önemi

Öz


Key words: Bilişsellik, üretme, yazma, işleme, pratik.

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1. Introduction

Anyone who deals with the teaching of a foreign language knows quite clearly that writing is more than just putting on paper what is already in a person’s mind. Contrary to what audiolingualists thought years ago, when a language learner writes, what he does is much more than exercising grammar, spelling or vocabulary. Everything would be much easier if the mastery of the language system sufficed. Because as Kellogg (2008) puts it, “writing poses significant challenges to our cognitive systems for memory and thinking as well.” A good writer can make use of almost everything he has learned and stored away in his long-term memory, but that knowledge should be rapidly accessible and retrievable. The mostly agreed way among scholars to be able to reach this productive ability seems to be practice.

In this presentation, recent information in cognitive psychology about why the cognitive demands of writing, as a productive skill, on mental processes are much bigger and more complicated than those of comprehension is provided, and correspondingly, the importance of practice in writing as the most significant remedy to overcome this gap is displayed. Later, how much emphasis Turkish learners and teachers of English place on this skill will be scrutinized through questionnaires. In this way, it is thought that lack of practice as the first and foremost reason for the problems that Turkish learners of English have in writing skill will be revealed, and it is also hoped that a common insight will be built among teachers and educators to provide more challenges and opportunities for their students to practice writing.

1.1. Cognitive Demands on Comprehension and Production

When a foreign language learner hears or reads a sentence like “Yesterday Mehmet walked five kilometers.” it is possible for him to understand what is meant by this sentence just knowing the meanings of yesterday, walk, and five. This is because comprehension does not usually demand the full processing of forms, and he can get the gist of messages by relying on key content words. Of course, he is also aided by knowledge of the world, contextual clues and guessing. In short, when trying to comprehend a message he hears or reads his focus is on meaning. What he resorts to for this purpose is what we call semantic processing or lexical processing (Ortega, 2013: 62).

On the other hand, when it comes to producing the same sentence, the situation gets more challenging. This time, knowing the meanings of those three words will not suffice and he has to go much beyond the meaning of these words. In other words, it is less possible to rely merely on lexical processing during production, because, speakers or writers, when composing messages, focus mainly on form and employ syntactic processing to a much greater extent, especially when they push themselves to express their intended meaning more precisely and when the nature of what they are trying to do with words is cognitively and linguistically demanding. As Swain proposes, “producing the target language may be the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning” (1985, 249).

I asked my ELT students in one of my Second Language Acquisition courses to brainstorm and figure out what a person has to know to be able to accurately produce the sentence, “Yesterday Mehmet walked five kilometers.” After an hour they reached the number 81, i.e. to my students, this person has to know the answers to at least 81 questions in his mind for an accurate production of such a simple sentence. It is certain that language professionals, linguists or language teachers would come up with a much bigger number than my students did. And remember, accuracy is not the only challenge for this person to
produce this sentence. He should be able to retrieve the answers (the necessary information) very fast (say, in a time shorter than a millisecond) and without the slightest difficulty or putting much effort.

1.2. Additional Cognitive Demands of Writing

If production is considered at a much higher level such as essay writing, it will be seen that the task is much more complicated than the task of producing a simple sentence, as it requires, in addition to lexical and syntactic processing, strategy, creativity, planning, organization, artistic concerns as well. Imagine a person who is writing an essay intro. He is in a position to find answers to the following questions and many more (and each question may involve many additional questions in it):

- “What should I do to grab the attention of the reader? What should I do to make it interesting? Should I begin with a quote about the topic?”
- “What is the aim of this essay?”
- “How can I move from the general to the specific in regard to the topic? Or should I?”
- “Should I write a thesis statement here? If so, what should I write?”
- “I need to give a road map of the essay in a logical order. But how?”

1.3. Automatization and the role of practice

Cognitive psychologists see human mind as a kind of symbolic processor which is constantly occupied with mental processes. And these mental processes operate on mental representations and intervene between input (whatever data get into this symbolic processor, the mind) and output (whatever the results of what the mind produces).

Bialystok and Sharwood-Smith (1985: 105) use a library metaphor and resemble human cognitive architecture to a library which is composed of representation and access. Representation is about knowledge, i.e. knowing what is in this library and how the contents are classified and related to one another. Access, on the other hand, is about processing, i.e. retrieving desired information from the books at a given time. To put it more concretely, any new input or L2 knowledge is stored in the mind as a linguistic representation which may be grammatical, lexical or schematic (world-related), and is accessed and retrieved every time it is needed for use in comprehension and production (Ortega, 2013: 83). And, the person who produces the sentence, “Yesterday Mehmet walked five kilometers.” has to retrieve answers to all those questions my students figured out from the long-term memory, the location in the brain where linguistic representations are stored.

Cognitive psychologists state that access involves the activation or use of relevant knowledge (linguistic representation) by means of two mechanisms; automatic processing and controlled processing (Goldstein, 2011: 91–2). All human perception and action, as well as all thoughts and feelings, result from the interaction of these two kinds of processing.

As Ortega informs (2013: 83), during automatic processing, cognitive activation is triggered bottom up by external sources in the environment. It requires small effort and take up few cognitive resources, therefore many automatic processing routines can run in parallel. For example, you can drive a car while listening to music and chatting with your friend sitting next to you.
Contrary to automatic processing, controlled processing is activated top down, by internal sources (by something inside the processor), i.e. by voluntary, goal-directed motivation in the individual’s mind. This job is assumed by central executive, a flexible system responsible for the control and regulation of cognitive processes. It is known that controlled processes allow us self-regulation but they require a lot more effort and cognitive resources than automatic processes (ibid).

We need controlled processing when we intentionally set out to control our behavior, when no automatic routines have been acquired yet (as in a new language) or when some kind of a problem is encountered during automatic processing (as when some noise makes it difficult to understand what we listen to). In such cases, we let our control executive system to intervene and assume the control of the processing task (Goldstein, 2011: 92-3).

One other aspect of access is the fact that performance that draws on controlled processing is more variable and vulnerable to stressors than performance that draws on automatic processing. Therefore, being a fluent speaker or a writer of a language requires the use of automatic processing. A fluent speaker or writer resorts to control processing very rarely. In this respect, language learning can be described as the gradual transformation from controlled to automatic processing. This transformation is called proceduralization or automatization. It is a process of moving from declarative (or explicit) knowledge, i.e. knowing about something explicitly, to procedural knowledge, i.e. knowing how to do something. And, it is through relevant practice that this transformation happens.

Practice enables controlled processes gradually to be withdrawn during performance and automatic processes to take over the same performance. But, in order for practice to ensure this effect it should involve reception and production in the context of communicative activity with, as Krashen puts it (2002: 37), a low affective filter. The contribution of writing practices like mechanical writing, putting on paper whatever learned during the lesson or writing to teacher’s dictation is very limited.

In very simple terms, declarative knowledge is the knowledge that enables a student to describe a rule or perhaps apply it in an exercise or gap-fill. But, as Eccles et al (2003) state, procedural knowledge enables the student to apply that rule in real language use. And through practice, declarative knowledge learned by an instructed learner in the classroom can convert into ability for use outside the classroom, i.e. implicit-procedural knowledge made up of automatic routines. Because practice helps proceduralization (automatization) of new knowledge by allowing the establishment and strengthening of corresponding links in long-term memory. The more this knowledge is accessed through practice, the easier it becomes to access it without effort and without resorting to the central executive at a future time. In other words, practice lowers neural activation.

The forerunners of skill acquisition theories such as Deheyser (2007), Speelman (2005), VanPatten & Williams (2007) and Ellis (2009) share the view that skills are learned through practice, and practice needs to be skill-related. They see automatization as skill-specific, i.e. practice that focuses on L2 comprehension should help automatize comprehension, and practice that focuses on L2 production should help automatize production. So, if a learner of English wants to improve his reading skill, he should practice in processing input, and if he wants to improve his writing skill he should practice in written production. To these people, procedural knowledge is uni-directional, i.e. automatization of reading does not directly assist automatization of writing. However, automatization of one skill may have an indirect effect on another skill by improving and strengthening declarative knowledge which is bi-directional (i.e. can be utilized in the development of different skills).
Studies in the field of Second Language Acquisition reveal that practice contributes to the automatization process by:

- changing the representation itself by making the stored knowledge become more elaborated and well specified, or more analyzed through processes of accretion, tuning and restructuring of knowledge,
- enabling learners to test and learn if what they think correct is actually correct when they receive feedback from the teacher or interlocutor,
- making learners reflect on the language they learn, and thereby enabling them to control and internalize linguistic knowledge (Ortega, 2013).

Schmidt (1983), Swain (1985) and Sato (1990) share the view that input is undoubtedly necessary for the development of productive skills but cannot be enough, whereas Ellis and Schmidt (1998) state that “the power of practice is not constant over time.” Practice will at some point yield no large returns in terms of improvement, because optimal performance has been reached. It is at this point that input assumes an active role in contributing to the improvement of the writing skill. In this respect, those who state that “if you don’t read much, you cannot be a good writer” seem to be quite right.

As Torrance and Galbraith (2005) put it, while a person is writing, his mind is either simultaneously engaged in or rapidly switching between processes which perform all or most of the following functions:

- monitoring the thematic coherence of the text,
- searching for and retrieving relevant content,
- identifying lexical items associated with this content,
- inflecting words to give them the necessary morphology,
- formulating syntactic structure,
- ensuring that intended new text is tied into the immediately preceding text in a way that maintains cohesion,
- monitoring for appropriate register,
- formulating and executing motor plans for the key-strokes that will form the text on the screen,
- establishing the extent to which the just-generated clause or sentence moves the text as a whole nearer to his intended goal,
- revising his goals in the light of new ideas cued by the just-produced text.

Considering the way mind works and how the demands of productive tasks in hand are handled through cognitive processes, this person’s attempts to perform all these processes simultaneously may result in overload if he hasn’t reached automaticity in certain aspects of language or writing skill and hasn’t developed the ability to coordinate and schedule these processes through limited processing resources afforded by the mind. It is highly possible that his writing will stop or shift away from its original purposes. So, practice again seems to be the key to success.

2. Method

As briefly mentioned above, attaining a high level of writing skill requires, without doubt, a lot of practice. The goal of this study is not to display that practice makes it possible to write much better, because, in the light of whatever is explained above, this is a fact that there is no question about. Two
questions were asked to the Turkish learners of English in order to see how eager they are to improve their writing skill, because it was thought that if they feel the need to improve their command of writing, they are ready to practice a lot, and if not, that means they are not eager to devote much of their precious time to practice writing, and they are bound not to achieve higher levels in this skill. Moreover, it was also hoped that these two simple questions would shed light on why we have so big problems in the development of this skill in Turkey. The questionnaire was implemented with the contribution of 772 students who were about to start their prep class training at a private university in Turkey. One of the questions was “Which language skill of yours do you think is the most developed one?”, and the other was “Which language skill of yours do you think you should develop?”

Secondly, scores in speaking and writing skills of students who were successful in proficiency exams and exempted from prep class English training in the last three years were compared to see which productive skill has been emphasized more than the other throughout pre-university English language training in Turkey, with the presumption that speaking skill scores would be better than the writing skill scores because of their higher interest in speaking skill since the day they started to learn English.

And lastly, it was possible to analyze the responses of 46 English teachers in Turkey who answered the question, “As an English teacher, which skill do you like teaching most?” It was thought that the importance given by teachers to the writing skill would directly affect the time and effort allocated to practice in writing, and this fact would have certain contributions to the problem mentioned above.

3. Results

The following graphic shows how 772 students at a university who were about to start their prep class training answered the question, “Which language skill of yours do you think is the most developed one?”:

![Graphic 1: What Learners Think of Their Language Skills](image)

As seen in the graphic, students think that writing is their second least developed skill after speaking. But, what makes the situation very interesting is the answer that they gave to the question, “Which language skill of yours do you think you should develop?”. As given in the following graphic, although they think that writing is their second least developed skill, they don’t think that there is much need to develop it. But, when it comes to speaking skill, the situation is just the opposite. And, as briefly outlined above, productive skills demand highly complex mental processes that necessitate a lot of practice. That’s their nature. Researches conducted by MacIntyre & Gardner (1989), Kurk & Atay (2007) and Latif...
and possibly many others, have shown that most language learners at all levels believe that writing is one of the most difficult language skills to master or a sophisticated skill compared with other skills. And, if the responses of these 772 students reflect the overall attitude of their generation (it is highly possible that it is so), then it is normal that there is, as Carter and Harper (2013) put it, a gradual decline in the writing skill in recent decades. This attitude might be one of the most important causes to this decline and extra focus on the reasons for this attitude might be the first and foremost step to find a way out.

### Graphic 2: Skills Learners Think They Should Develop

![Graphic 2](image)

The following table provides a comparison of the scores in speaking and writing skills of students who were successful in proficiency exams and exempted from prep class English training in the last three years. This comparison was made in order to see the reflections of the above-mentioned students’ negligence in writing on their performances in formal exams, so that more confident conclusions could be reached.

### Table 1: Speaking and Writing Scores of Learners of English

<table>
<thead>
<tr>
<th></th>
<th>SPEAKING</th>
<th>WRITING</th>
<th>DEPARTMENT</th>
</tr>
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<tbody>
<tr>
<td>2016</td>
<td>13,8 / 20</td>
<td>11,7 / 20</td>
<td>American Lit., ELT</td>
</tr>
<tr>
<td>2017</td>
<td>15,0 / 20</td>
<td>11,6 / 20</td>
<td>American Lit., ELT, Translation</td>
</tr>
<tr>
<td>2018</td>
<td>16,6 / 20</td>
<td>12,5 / 20</td>
<td>American Lit., ELT, Translation, Medicine, Dentistry</td>
</tr>
</tbody>
</table>

As it is seen, students’ scores seem to have changed slightly over the last three years. But, one thing has never changed. Their speaking scores have always been higher than their writing scores. This clearly displays that they or their former English training had valued speaking more than writing, and they had spent much more time on the practice of speaking than writing. It is not certain if these results reflect
the general tendency of the learners of English in Turkey, because the number of students whose speaking and writing skills are compared is very limited. However, even this small-scale research displays the fact that it is necessary to see whether this superiority of the speaking skill over the writing skill originates from too much emphasis on oral tasks imposed by today’s popular communicative teaching tendencies or from the fact that students are not equipped with other necessary skills to write well since the elementary school.

And, here’s the table that shows the responses of 46 teachers who answered the question, “As an English teacher, which skill do you like teaching most?” in a questionnaire I asked through the internet. They simply don’t like teaching writing.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Listening</td>
<td>12%</td>
</tr>
<tr>
<td>Speaking</td>
<td>56%</td>
</tr>
<tr>
<td>Reading</td>
<td>23%</td>
</tr>
<tr>
<td>Writing</td>
<td>9%</td>
</tr>
</tbody>
</table>

English teachers’ responses can be interpreted in three ways. They, as the students do, might be believing that writing is not a skill that deserves so much emphasis. Or teachers can’t find ways and methods to direct their students to practice in writing due to the fact that they don’t like writing, and, as a result, they don’t get the expected results. And finally, writing practices require the teachers to provide their students with a lot of correction and feedback, which is very tiresome and time-consuming, therefore, they might be tired of reading and correcting the writings of their students and they avoid giving writing tasks. No matter what the reason is, doesn’t it seem again normal that writing skill is on a course of decline, considering the responses given by English teachers?

4. Conclusion

Writing is a skill which requires both quality and accuracy, and thus, requires a great demand on mental processes. Cognitive research has revealed that practice is essential for automatization of the writing skill, and in turn, developing a good command of writing both in native language and foreign language. 30 or 40 years ago major problem concerning writing for the language teachers and academicians was to determine how to handle the writing skill in foreign language teaching (guided writing, free writing, creative writing, journal writing, etc.). However, despite all those efforts to improve the writings of the students, there is an undeniable truth that writing skill is on a process of gradual decline all throughout the world. Not in foreign languages but in native languages as well. And, Turkey is not an exception on this issue.

Today’s major problem is the lack of enough time dedicated to writing skill and the tendency of teachers and students to postpone the mastery of this skill to an unknown future. We are living in an era where receptive competence is favored over productive competence, and fluency is favored over accuracy and
Speaking skill is favored over writing skill. And these seem to be the inevitable repercussions of the enormous social changes both in Turkey and throughout the world. The results of the small-scale research, which have become the inspiration for the writing of this article, on the attitudes of students and teachers towards the writing skill in foreign language education have revealed the fact that research on writing skill should be shifted towards the affective domains, because it seems that today’s learners and teachers are not so motivated towards putting much effort on writing, whose development, though, requires dedication and a lot of practice.

References


