

Web-Based Language Correction Tools as an Impediment to Being Linguistically Sound: A Study on Bangladeshi University Language Learners

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ABSTRACT: Education is a process of acquiring proper knowledge. To meet the demands of ages, the learning process has been modified several times. At present, online-based learning techniques are commonly used. But these online language correction tools, like grammar and spelling checkers and translators, seem to hinder our natural writing ability. This research aims to examine the concerns associated with the use of these online language tools from sociocultural and psycholinguistic perspectives. The researchers used a descriptive research design, mixed-method, following both quantitative and qualitative approaches to conduct the research. The findings of this research study indicate that many learners gradually lose their language fluency, and others are reluctant to study the pedagogical knowledge of the language because they believe they can do so through an automated process. This research work is to explore the handicaps of using web-based language correction tools that impede learners in mastering natural rhythmic linguistic command.

KEYWORDS: Impediment, Linguistically Sound, University Language Learners, Web-Based Language Correction Tools.

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Introduction

In this modern networking system, a lot of software have been developed to help language learners in developing their language skills and make their journey effortless and smooth. But the matter of concern is to find the complexities that mislead a learner in learning a language naturally. In most cases, learners rely excessively on web-based tools that generate language in a mechanical way, resulting in the loss of the learner's rhythmic flow of language. The natural cognitive process of linguistic growth is so hampered that learners lose their passion for learning and creating something on their own. Ultimately, the efforts required to generate patterns and symbols in language construction are giving way to a robotic process of language acquisition. Brainstorming, which is vitally important for thought orientation, seems completely out of place in a modern learner's psyche due to this mechanical replacement, which may cause real havoc in the days to come.

Wang (2013), in the spirit of Faerch and Kasper (1983), stated that language learning is an effort to improve linguistic and sociolinguistic skills in the target language. Language learners learn to develop their language skills. In this field, syntactic and grammatical knowledge are key aspects for one to build his or her skills. Among those skills, effective writing largely depends on knowledge of the language system, including grammatical, syntactic, and structural rules, as well as spelling and punctuation (Crossley et al., 2019). Crossley et al. (2019) also added that, as Ferris et al. (2017) opined, writing effectively involves several processes, including idea generation, argumentation, organization, rhetorical style, and production, and features of the varied and sophisticated language. The ability to communicate effectively in writing is a strong indicator of both academic and employment success (Graham & Perin, 2007). In language learning, teachers always encourage students to develop this communicative skill. This advocacy raises motivation to strengthen overall capabilities, develop critical thinking, acquire the basic concepts of language, and be mindful of maintaining linguistic rhythm. But nowadays, learners seem to be indifferent to learning the basic concepts of language. A large number of people rely on Grammar Checking Tools to receive automated corrections of their work (Keil, 2020). They use it to make their work easier, but have hardly any concern about sounding linguistically sound, as students are accustomed to "click to solve" rather than understanding the mechanics of writing (Purcell et al., 2013). For example, the spelling-check software in Microsoft Word and PowerPoint permits students to take shortcuts, and students' knowledge of spelling, grammar, and sentence structure becomes less important because this automated mode of learning can do the work for them (Ismael et al., 2022). Thus, the users of these kinds of tools scarcely pay heed to obtain instructive knowledge of the language. Moreover, they prefer to do their work faster by any means. In this case, with the help of web-based tools or Artificial Intelligence (AI), they can hastily complete their work without acquiring any language skills.

Sharma and Garg (2022) mentioned that McCarthy (2019) defined AI (Artificial Intelligence) as a science and a set of computational procedures that model how human beings use their nervous system and feelings to learn, reason, and act. It works like a human (Robinson, 2018).

According to Eiriemiokhale et al. (2024), human beings are the most intelligent of all the created animals in the world, but the excessive use of these tools impairs humans psychologically and impedes social relations.

Objectives of the research are as illustrated below:

- To present the web-based language correction tools threatening effects on human sound articulation.
- To examine the negative effects of web-based correction tools on human psychological ability and social relations.
- To analyze the backfires of this automated software.

Hypotheses of the research are as noted below:

- Web-based language modification tools are a threat to human sound articulation.
- Web-based language correction tools impede our psychological ability and social relationships.
- This robotic learning system is a scrappy instructor compared to humans.

Psychological Impact

Toumi (2018) mentioned the levels of human learning, cognitive, behavioral, and cultural; particularly, cognitive and behavioral connect to psychology. From childhood, one can get only cognitive development, while behavioral development is put into them. Cognitive development takes three stages: sign, concept, and word (Figure 1). In the web-based automated system, we easily get the 'word' to use language correction tools. So, it is unnecessary to work on the other two stages: sign and concept. As a result, learners' ability to articulate their full thoughts is weakening (Ismael et al., 2022), and learners also fail to think critically, interpret data, produce facts, write logical statements, or recognize grammatical and structural errors (Rothman, 2012). According to Baker and Kinzer (1998), the users (students) of paper and pencil have a more linear writing method as they can easily follow the natural process, like brainstorming, outlining concepts, writing drafts, rewriting, proofreading, and then coming up with the final edition, while users of word processors have no linear knowledge of writing. So, this automated system may deteriorate learners' cognitive capacity for natural learning.

When writing in MS Word, students do not need to focus on accurate writing because autocorrect will assist them in correcting spelling mistakes, syntactic issues, and other grammatical issues (Ismael et al., 2022). This continuous mode of writing habituates learners to accept automated correction and makes them reluctant to solve writing problems individually. As a result, following the behavioral process (Habit → Reflex → Routine) in psychology (Toumi, 2018), learners' learning process has become artificial rather than practicing the natural process of writing, which may leave them linguistically blind.

Social Impact

The presence of online modes is beneficial, but the negative effects of technology on our manners, attitudes, and social interactions make us fearful (Alhumaid, 2019). Kemp et al. (2015) stated that, in particular over the last period, "teaching has been ripped from the realm of human endeavors and morphed into a technological leviathan that is slowly usurping the soul of the profession" (p.4). Now, students are required to interact with machines, resulting in teachers

having very little recognition and a distant relationship with their students (Alhumaid, 2019). This is simply a system of ‘**Dehumanization**’. Alhumaid (2019) cited Cazan et al. (2016), Izadpanah and Alavi (2016), and Nye (2006), have stressed the dehumanizing effect on student-teacher relationships associated with the use of automated language technology. Izadpanah and Alavi (2016) presented survey results from a group of Iranian high school students that show that using computers has a dehumanizing effect. This results in isolation making the learner unpleasant (Alhumaid, 2019) and unsociable because it disrupts the social and cultural process (Practice → institution → values) (Figure 2).

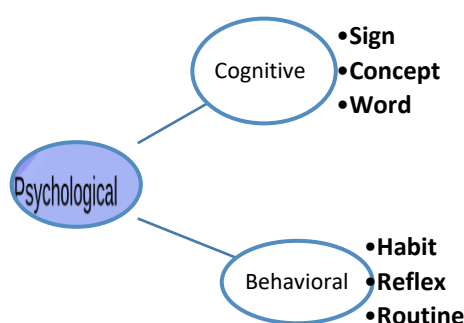


Figure 1: Psychological process of learning

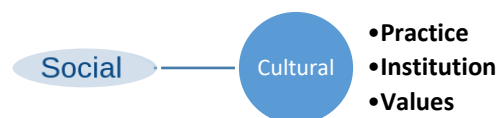


Figure 2: Social process of learning

Impact of Digital Literacy

The impact of the virtual learning model is so horrifying. For example, the vast majority of modern learners have lost their creative imagination due to AI-generated answers prepared for them by tools such as ChatGPT, Copilot, and Gemini. The human tendency to acquire through toiling is replaced by the auto-temptation of the AI world.

The aftereffects are so devastating that society will end up with a thoughtless, brainless generation. As Efriza et al. (2025) argue, “technology posed ethical risks, including plagiarism and diminished academic integrity” (p.259). We totally agree with the argument stating that morality and ethics are at great risk when it comes to embracing the transformative process of digital learning. It gives, but takes away more, to say the least.

Karlström et al. (2008) have identified three problematic issues in the use of digital language tools: misdirection, misinterpretation of sentences, and indiscriminate use of the tools. There are some examples to present the problematic outcomes:

➤ Misdirection

Tools such as MS Word, Grammarly... always give us the wrong direction on the authors' names. For Example:

- Written: Teh (2013) stated in the tone of Faerch and Kasper (1983) that language learning is an effort to improve linguistic and sociolinguistic skills in the target language (Marked as incorrect).
- Changed Version: Teh (2013) stated in the tone of Fetch and Kasper (1983) that language learning is an effort to improve linguistic and sociolinguistic skills in the target language (Marked as correct).

There, the names of the authors “Teh” and “Faerch” have been changed into “The” and “Fetch,” which is misleading.

➤ **Misinterpreting**

When learners wish to express something, but these automated tools fail to understand their intention and require them to correct, they are at a loss as to what to do, which leads to misjudgment and hampers their language lucidity. Beals (1998) stated that the automated correction tool program does not catch writers’ intentions. For instance:

Written: Encourage the learners profoundly to make ethically sound (Marked as incorrect).

Changed into: Encourage the learners profoundly to make it ethically sound (Marked as correct).

➤ **Indiscriminate Use of the Tools**

To make us right, software always try to provide random suggestions that are usually misleading. For example:

Written: A bus can fly (Marked as correct).

Written: An airplane can fly (Marked as correct).

There, both sentences are instructed as correct, but we know that the first one is incorrect based on its meaning.

Generally, a human can produce meaningful sentences and conserve rhythm in writing, but automated software can only produce well-structured sentences. Besides, it never acts like a teacher because “Complete” teacher-like, knowledge-based linguistic tools do not possess human-equal intelligence, which is perhaps not possible (Dreyfus, 1992; Searle, 1980; Winograd & Flores, 1986; Karlström et al., 2008). Taking this into account, using such software may threaten our sound articulation in writing and lessen the power of our critical thinking.

Method

For collecting innovative and informative information, research is a systematic and continuous process (Rajasekar, 2006) in which methods play an important role. According to Gounder (2012), research methodology is a methodical approach to solving the research problem and the science of conducting a research-related survey. Considering the principles of research methodology, the researchers have used both quantitative and qualitative methods and have outlined the principles, tools, and data-collection procedures.

Research Design

Akhter (2016) defines the research design as a “conceptual blueprint”. In this study, the researchers employed a descriptive research design. This is also acknowledged as statistical research (Rawat, 2021). In this design, they have used the mixed-methods approach, which blends quantitative and qualitative methods. The quantitative method is a procedure to collect data by filling out questionnaires: open-ended and closed-ended questions from a large audience, and the qualitative approach is to take interviews (Dawadi et al., 2021). Finally, this research design has been used to gather all the necessary information to address the research variables.

Participants

The researchers interacted with 50 students of BA (Hon’s) in English from both private and public universities to complete the quantitative procedures, and conducted in-person interviews with 5 teachers from a private university in Bangladesh.

Data Collection Procedure

Data collection is a methodological process of assembling measurements (Bhandari, 2020) to evaluate researchers' hypotheses.

The researchers began this process to prepare two sets of questionnaires: open-ended questions and closed-ended questions. This process started on the 25th of December and finished on the 20th of February. To complete the process, they selected four prominent public and private universities in the Rajshahi and Rangpur divisions of Bangladesh. After that, they used Google Forms to create questionnaires and sent them via Gmail. The selected participants took much time but eventually came up with substantial feedback. Then, the researchers approached five teachers to get their opinions on this issue. The teachers amiably interacted with them and offered very critical viewpoints. Finally, the researchers got the required information to complete their research.

Results and Discussion

This section presents the study's findings statistically and graphically. In this graphic, some pie charts are used to organize the necessary information. Later, a brief discussion and the opinions of the selected teachers are provided.

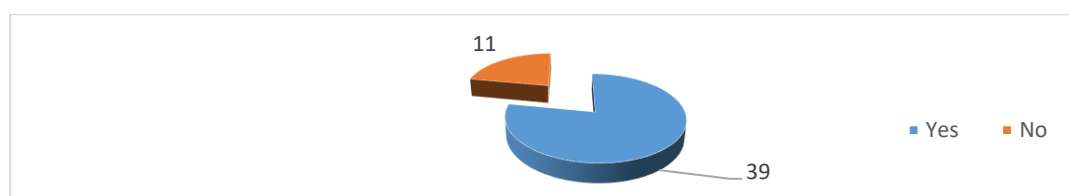


Figure 3: Familiarity with web-based language correction tools

According to Figure 3, nearly 78% of participants were positive in their responses, and about 22% were negative.

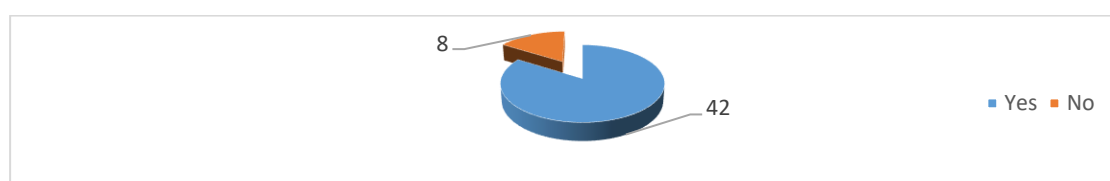


Figure 4: Appreciating the language correction tools as helpful to develop one's skill or not

In this Figure, about 16% of students reported that language correction tools are not helpful for developing their language skills, while most (about 84%) held a positive view.

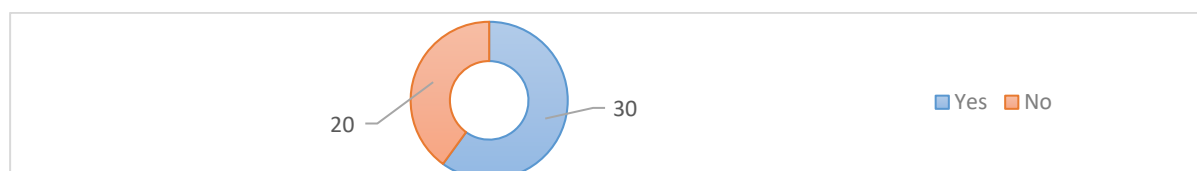


Figure 5: Providing proper direction through the language correction tools to solve linguistic issues

In Figure 5, about 60% of learners said yes, and about 40% said no.

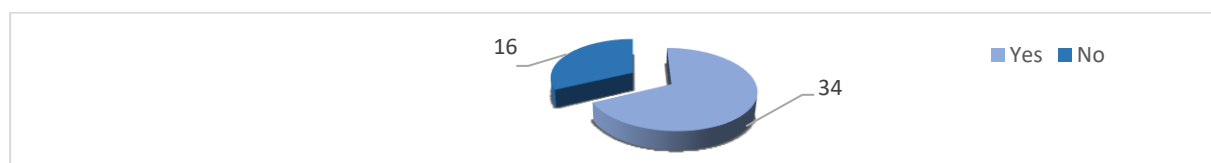


Figure 6: The automated process, a system of making us indifferent to doing a systematic and grammatical study of language

In addition, Figure 6 shows that about 68% of students responded "yes," while nearly 32% responded "no."

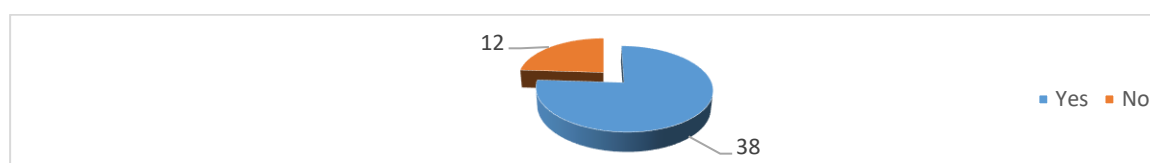


Figure 7: Having a close connection between the brainstorming process and offline activities

Figure 7 illustrates that about 76% of learners agreed on this point whereas around 24% of them disagreed.

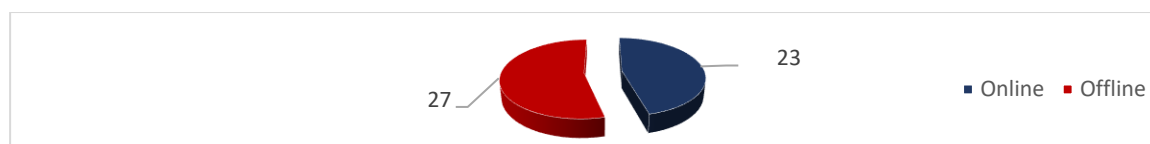


Figure 8: Overly Used language learning mode

Furthermore, about 54% of the learners like to use offline modes, while nearly 46% of them opined that they like to use online modes.

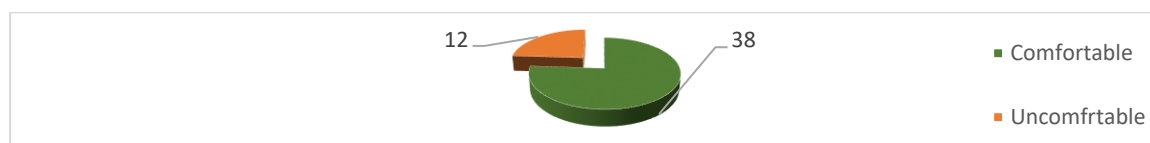


Figure 9: Feelings about using automated language tools

Figure 9 shows that about 76% of the participants feel comfortable using the online platforms, but around 24% of them feel uncomfortable.

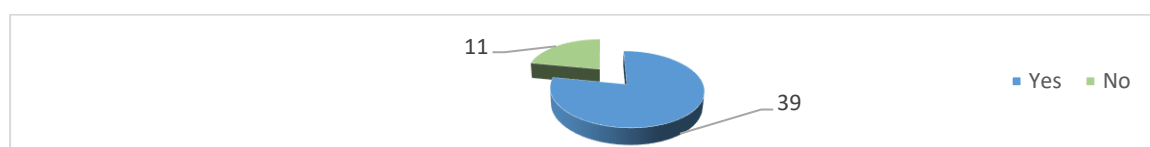


Figure 10: Failure to retain rhythm and the spirit of language for language correction by automated correction tools

Figure 10 presents that about 78% of learners agreed that the web-based platform is not a suitable way to maintain rhythm as well as spirit in language learning, whereas nearly 22% of them disagreed on this point.

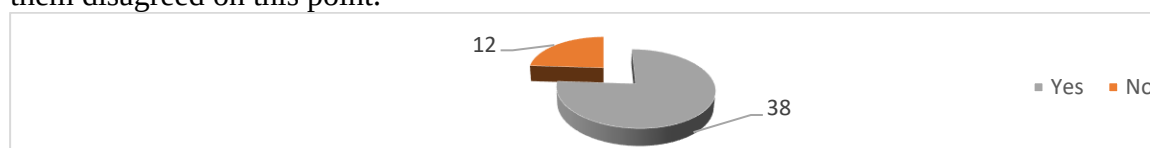


Figure 11: Language correction tools as a hindrance to the natural ability of learning language

In Figure 11, nearly 76% of students replied "yes," and about 24% replied "no."

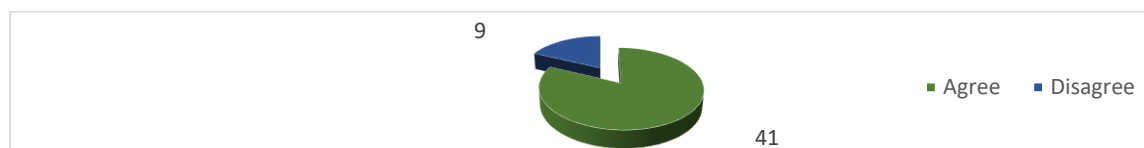


Figure 12: Language correction tools as a stumbling block to self-initiated grammar knowledge
 In addition, Figure 12 shows that most of the learners (about 82%) agreed on this point, while nearly 18% of them disagreed with their opinion.

Along with this, most participants (around 64%) stated that offline mode is much more helpful for increasing their psychological strength because it motivates them to use their psychological facets, such as brainstorming. They (around 48%) also opined that offline activities are much more supportive of a cemented social relationship because it ensures psychical attachment. Based on the existing literature, we have found that web-based learning tools are almost positive and significant, as conscious use gives quick output to language learners. Now, the present scenario is that those language learners are gradually becoming addicted on a massive scale. As a result, they can't think for a while without using this modern automated technique. But we find very insufficient advocacy by scholars to highlight this devastating effect that renders learners intellectually infertile. In this critical situation, our exploration presents a specified adverse effect of the language tools that differs from those reported in other studies. While most critics sound rather positive about web-based tools as a model of progress and scientific advancement, we have a different argument — the negatives generated by these artificial tools far outweigh the positives they add to overall learners' linguistic growth. According to the figures, most of the learners (around 54%) are accustomed to using web-based language correction tools, but they agreed that this system of language correction makes them averse to learning the basic aspects of language: structure, spelling, grammar, etc. But it could be a matter of concern, as it poses a potential threat: almost all learners (about 76%) feel comfortable using this software. They acknowledged that online modes seem to diminish their psychological strength. According to their opinion, we have identified four significant negative factors (Figure 13) affecting psychological strength, which are outcomes of the use of online language correction tools.

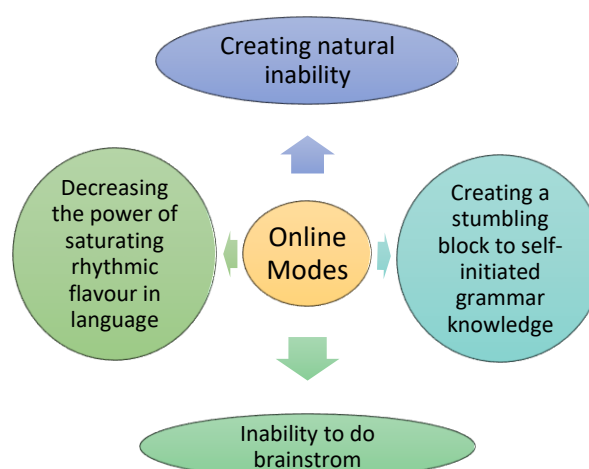


Figure 13: Negative factors of online modes in terms of language correction tools

The selected learners also opined that the offline platform provides them with the opportunity to develop a physical attachment to language learning, for instance, through Learner-Teacher (face-to-face) learning. While a web-based learning system fails to provide a real environment. Along with this, the teachers also presented their perspectives through an interview session. Most of them prefer to use an offline system for language learning. They shared some negative factors of doing online activities, which are noted below-

- ◆ It's a threat to naturalism.
- ◆ Keep them aloof from interacting directly and in real-life situations.
- ◆ Lack of real-life experience, reading the mind of the listener, pragmatic approach, etc.
- ◆ Deteriorating the cognitive capability of the learners and also making them indifferent to learning the basic dynamics of language learning, as they can solve their language problems through an automated process with minimal effort.
- ◆ It makes the brain idle, which destabilizes the power of creativity.
- ◆ A threat to the brainstorming process of the learners.
- ◆ It often misleads the learners because it is an artificial one that has no emotion or comprehensive power as a human.

One of the teachers viewed that online-based correction tools have around 30% positivity, whereas the offline system has about 70% positivity. It is undeniable that online modes help us do work instantly, but they are not a way to gain in-depth knowledge or remain connected to nature. There exists some literature on the criticism of using these web-based automated language tools. From the extensive body of literature dealing with the topic, some explore the psychological impact; others scrutinize the social impact, while several highlight the advantages of these automated language correction tools. Drawing on these perspectives, this study endeavors to portray the real scenario from both social and psychological viewpoints. The drawbacks of these automated language tools are acknowledged by both learners and teachers. Therefore, this study identifies the most concerning issues regarding how the increasing dependence on AI- driven automation may seriously hinder the natural language learning process. What is really alarming and poses an existential threat is the indiscriminate use of AI tools. Both the learners and the instructors should maintain a reasonable balance in using the tools, keeping the natural brainstorming process undisturbed. In the long run, such dependence may cause irreparable damage to the learner.

Conclusion

In the modern era, it is undeniable that we perform with the assistance of technology. But the key point to keep in mind is that we are the inventors of these technologies. So, it's foolish to rely on these technologies so heavily. If we rely entirely on artificial intelligence, our intellectual and rational abilities may be immobilized. The investigation of the past, as well as the present findings, illustrates the backfires of internet-based language modification software. Though it has some instant features, the comparison with offline mode shows that online learners lose the natural tone and spirit of the language, leading to a gradual decay of their inborn passion for embracing it. Eventually, they lose the lucidity and rhythm of the language. Hence, it would be reasonable to proclaim that artificial systems lead a man to follow them, and that, gradually, users become dependent on this system of learning, whereas a natural way of learning fosters learners to nurture the intrinsic power of language. To recapitulate, virtual centered language correction software appears to hinder the acquisition of sound knowledge of the language.

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