SIGNIFICANCE OF USING CORPORA TOOLS FOR MATERIAL DEVELOPMENT AND ASSESSMENT

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Abstract. *The article demonstrates the importance of using of AI-powered, web-based corpus tools in text selection, evaluation as part of material development and assessment. Both qualitative and quantitative research methods were applied to shed light on the significance of using web-based corpora tools and have a clearer picture of texts selected by Uzbekistan and foreign professionals. Little research was conducted by looking at some texts from 5 standardized tests interms of the linguistic level according to CEFR, readability, and ratio of Band 1,2,3 vocabulary and academic words. Data analysis shows some text samples do not meet the requirement. This makes us believe that web-based language tools like Versatile and Sketch Engine, which generate natural language chunks within the European text corpora, are very practical assistants for material developers and ESL teachers. Moreover, the article gives recommendations considering data analysis results.*

Key words*: Skell, Versatile/Versatext, web-based corpus tools, readability, FRES, linguistic level, text selection and application,*

Introduction

Teaching and learning foreign languages, particularly English has become one of the important goals of today's Uzbekistan population. Simultaneously, the government of Uzbekistan enhancing law enforcement in encouraging language learning among Uzbekistan youth. According to the presidential website president.uz, the head of the government, President Mirziyoyev (2021) also personally assured that “It is time to create a new system of teaching foreign languages in our country, which will become a solid foundation for the future." Hence, modern and practical teaching/learning tendencies are becoming part of ESL classrooms and teachers' kits in the Uzbekistan context.

Before bringing any material into a class for different purposes as formal, instructional, summative, or formative assessment materials, they need to be professionally chosen based on the selection criteria. There have been many research works over the centuries regarding text selection and exploitation. According to Ghahroudi (2017), text selection factors have been grouped into two main categories that are the factors directly related to the text that is being selected (readability, relevance, lexical knowledge, syntactic, political, and cultural appropriateness, etc.) and factors that directly consider the target learners (level, purpose, schemata). This

process can be successfully conducted based on the scientific rationale that backs up any decision of the text selector with a credible justification. Also, educators' professional competence, broad perception of the world, a high level of awareness of the subject matter, and sensibility towards social, cultural, and political norms on a wider range can explicitly affect the decency of the choice. However, due to the advancement of technology, educators have been assisted by educational and linguistic AI tools. For example, ultimate web-based language tools like Versatile and Sketch Engine which generate natural language pieces within the European text corpora are very practical assistants for material developers and ESL teachers.

Methodology

Both qualitative and quantitative research methods were applied to shed light on the significance of using web-based corpora tools and have a clearer picture of texts selected by Uzbekistan and foreign professionals little research was conducted by looking at some texts from 5 standardized tests like the National multilevel reading test, Cambridge IELTS reading test, FCE (First Certificate of English) reading and use of English test, and APTIS for Teachers reading tests. One sample reading text from each reading test was analyzed and all of them belonged to the last part of the test which is the hardest passage in each reading test.

While analyzing these passages web-based corpora tools-Versatile and Sketch engine were used to give an instant linguistic analysis of the text. The first step was using Versatile/Versa Text which was developed by James Thomas and Vit Baisa that shows word cloud and individual words are used in that text in concordance lines along with the frequency statistics about the words in the text. The selected data are illustrated in Table 1. The next step is the analysis of the questions created for the passages. Particularly, all of them are gap-filling questions that require a test taker to collocate the words in a sentence with the words in a text. All collocations and colligations were checked in corpora for usage accuracy, and only debatable ones were shown in Table 2.

Table 1

	Multilevel National Proficiency Test (NPT)	**FCE**	**IELTS**	**TOEFL ibt**	**for teachers**
Maximum proficiency level certified	C1	B2	C2	C2	C
Bad 1	28.74	39.28	29.83	22.66	32.48
Band 2	2.87	2.88	3.35	5.56	5.39
Band 3	1.15	0.58	1.39	0.44	1.84
Academic word	7.85	1.58	7.16	8.33	7.11

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Fiction words	30.65	34.53	34.48	30.56	31.74
Text specific	28.74	21.15	23.79	32.46	21.45
FRES	25.54	58.43	35.91	30	41.03
CEFR level of the text	C2	B2	C2	C2	C1

Table 2

	Gap-filling question	**Collo cation**	**Skell results**	**Original colloca tion in the text**	**suggestions**
Multilev el National Proficiency test (part 5 reading questions, 16 items were analyzed)	…resulting _____failure among people	**dietary** failure	No found *0 hits per million*	Dietary disaster	***Dietary problem-*** *0.01 hits per million* ***Nutrition failure-*** *0 hits per million* *2 examples*
	…news can provide supplementary _____ which may change the view of the public.	***Supple mentary*** *data*	*0.04 hits per million*	Supplementa ry information	Choose another collocation

Results

As you can see from the table, the maximum level of language proficiency certified by IELTS and TOEFL is C2, and the figure for APTIS for teachers, multilevel tests, and FCE are C1, C, and B2 respectively. The band 1, 2, and 3 in the profiler indicates the usage of words in English in terms of their frequency, and difficulty. This is particularly important for ESL and EFL learners since the sensible way of learning vocabulary is expanding them from easy to difficult algorithms. What stands out from the table is FCE and APTIS contain the highest level of band 1 vocabulary with 39 and 32% correspondingly, while TOEFL iBT includes the least amount with about 22%. As for band 2 words, TOEFL and APTIS show similar results with 5.56 and 5.39 respectively. NPT and FCE also illustrate almost identical results with 2.87 and 2.88 in a row. However, the figure was a little different for AWL

except for FCE (1.58) since all passages comprise over 7% of academic vocabulary. Another striking element of the analysis is fiction words. They contribute over 30 percent to all texts. That indicates teaching fiction words is as essential as teaching the 1000 most frequent word lists in ESL classes. Since a group of educators acknowledges that reading graded or authentic fiction is not necessary, they should consider their professional beliefs like their fellow teachers, who encourage their students to read certain pages of fiction on a daily basis. As we can see from the table, band 1 and fiction words constitute over 60% of all sample texts. Likewise, text-specific words showed a similar usage rate in one-third of the texts ranging from 21 to 32 percent.

Before the analysis of FRES points, let's have a look at the question of what FRES is. FRES stands for the Flesh Kincaid Reading Level or Flesh Reading Ease Score test initially was developed under contract to the U.S. Navy in 1975 by Peter Kincaid and then became the U.S. military Standard to evaluate Army technical manuals. Now it is used for the assessment of U.S. Department of Defense documents, insurance policies, school textbooks, etc. Moreover, it is bundled with many word processing, online and offline software like Microsoft Office Word, IBM Lotus, Grammarly, etc. For example, while you are typing on Grammarly, the assistant warns you by asking you to reconsider your sentence structure and length if your readability score gets lower. Fres evaluates the readability of the test based on the quantity of the syllables, words, and sentences in a text. According to FRES the appropriate target audience of the texts with 100-90 are 5th graders, 90–80-11-year-old students, 80–70-7th graders, 70-60 8th & 9th graders, 60–50-10th to 12th graders, 50–30-college students,30–0-college graduates.3

Text analysis results in terms of the readability level were quite unpredictable. The lowest level of readability belongs to MNPT with 25.54 which is the lowest level in the FRES score table. It means the readability score exceeds the requirement since MNPT is not designed particularly for college graduates. On the other hand, the FCC test's readability level aligns with the requirements. TOEFL also shows a relatively low level of readability score of 30, but since it certifies a C2 level of language proficiency unlike MNPT(C1) it can be considered as objective. As for the level of the text according to CEFR, all texts match with the target level except MNPT which used the C2 level text for evaluation of the A2 to C1 levelers.

The next step is the analysis of the questions created for the passages. Particularly, all of them are gap-filling questions that require a test taker to collocate the words in a sentence with the words in a text. All collocations and colligations were checked in corpora for usage accuracy, and only debatable ones were shown in Table 2. The table includes two gap-filling questions, original collocations from the text and paraphrased ones by the author, numerical and linguistic analysis of a Skell corpus, problem detected by Skell, and suggestions for improvement. The original collocation is a

dietary disaster which was paraphrased as dietary failure. Skell indicated 0 hits per million and could not generate any example at all. it can be suggested that nutrition can be replaced with dietary since nutrition also exists in the same paragraph of the text as nutrition failure instead. Because Skell provided 3 examples of nutrition failure with 0 hits per million. Another suggestion is the collocation of the Dietary problem- with 0.01 hits per million.

In the question, supplementary information was paraphrased with supplementary data. Skell generated a significant amount of examples for both of them though not in similar meaning. Thomas (2023) explained that The data-information-knowledge paradigm shows how important collocations are in telling the difference between words that might seem like synonyms. This is clear from the real-life examples of English usage in the corpus. The words "data," "information," and "knowledge" do different things when they are the subjects of verbs, and they are also the objects of different verbs. For example, *data* can be *collected*, *analyzed*, and *processed* while *information* is *provided*, *received*, *presented*, or *stored*. So what is an appropriate way of modifying this question then? It is likely to be a better option if another collocation from the text is selected due to the justifications in the DIK paradigm.

Conclusions

Having considered all the analysis above the following can be recommended:

- AI tools and ultimate web-based language tools like Versatile and Sketch Engine, which generate natural language pieces within the European text corpora, are very practical assistants for material developers and ESL teachers as well.
- Text selection should not be a random choice but it needs to be backed up with the scientific rationale.
- Every item of questions - including idiomatic expressions like colligations, collocations - cannot be anticipated by non-native language teaching practitioners or test/material developers. Instead, they need to be investigated through reliable references, such as dictionaries, corpora, or experts on a subject matter.
- Since the technology advancements and teaching/learning tendencies are dynamic processes, new insights and tools need to be investigated.

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