Communication and Gamification in the Web-Based Foreign Language Educational System:
Web-Based Foreign Language Educational System

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ABSTRACT
The paper describes development of the educational online web communication platform for teaching and learning foreign languages. The main objective was to develop a web application for teaching foreigners to understand casual fluent speech. The system is based on the time bank principle, allowing users to teach others their native language along with taking foreign language lessons. The system is based on the WebRTC technology, allowing users to access synchronized teaching materials along with seeing and hearing each other. The paper describes studies associated with user involvement in the learning/teaching process. The hypothesis whether two previously unfamiliar individuals could communicate with each other using a foreign language, based on the developed system algorithms, was tested. System virality, where new users are attracted by the existing users was also studied, along with user motivation for viral behavior. Relationships between monetization, virality and user involvement were also considered.

KEYWORDS
Distance Learning, Gamification, K-Factor, Retention, Social Network, Virality

INTRODUCTION
Studying conversational speech is very important for practical purposes, since language training based only on written language and books is not sufficient. A person who speaks like s/he writes leaves an artificial or abnormal impression. Foreign language education in the former Soviet Union was based on reading and text translation, and not on speech. Thus, the students were able to read, understand and translate the text, but not communicate with live foreigners. There are multiple textbooks focused on the speech aspects of a foreign language (Kohonen et al., 2001; Munro et al., 1995; 1999).

The research objective of this study was to create a web-application to teach foreigners to understand fluent speech. Each language consists of the two essential parts. One is the written language, and the other is the spoken language. These two types are significantly different from the linguistics perspective.

Spoken language skills can be acquired by watching foreign movies or reading novels. Book writers, cultural, political, education and religious leaders provide spoken speech standards. The
rest of the society considers their language as a standard. However, casual conversation is the main spoken language characteristic. Casual conversation or speech cannot be prepared in advance, since it is used in the informal settings. There are certain attributes of the spoken language:

1. **The number of participants:** One, two, more than three, which is correspondingly called monologue, dialogue and polylogue. Dialogue is the main type of the spoken language conversation. It is characterized by changing the roles of the speaker and the listener, when both participants switch their roles periodically. Polylogue involves more than two participants. Polylogue, opposite to a dialogue, is characterized by the theme polyphony, since each of the participants talks about their business, leading the conversation, so to speak. It should be noted that polyphony can be present in a dialogue as well, as two people engaged in a conversation can jump from one subject to another;

2. **Conditions of the conversation:** Contact (private conversation), distant (phone conversation, speaking from one room to another, etc.). During direct conversation participants can also use gestures and facial expressions as additional means of communication;

3. **The main conversation theme:** The basis of spoken communication, which is also called constitution. Wherein the spoken language is the participants’ reaction to non-verbal situation components, or is targeted towards available objects, enhancing the speech ellipticity and the role of pronouns;

4. **Common non-perceptual base:** Essential for conversational speech construction. Preliminary information, based on the previous everyday experience, is the common non-perceptual base. For example, in the Lev Tolstoy’s novel “Anna Karenina”, Kitty and Levin, who are in love, perfectly understand each other and only use the first letters of the words in written correspondence.

The main form of conversational speech is oral; however, not every type of speech is conversational. For example, lectures, public performances, scientific talks, TV interviews and reports are not conversational speech. In general, mass media and public oratory use codified language, while conversational speech belongs to the private sphere of communications. This is personal communication mainly with friends and family. One type of situation-determined conversational speech is of particular interest: stereotypical and high-frequency repetitive idioms. Learning these question-response cues, or speech patterns, associated with everyday life, it is one of the important tasks of studying conversational speech. There are two types of high-frequency repetitive idioms: etiquette stereotypes and urban stereotypes. “At the store”, “On the bus”, “In the theater”, “At the movies”, etc. are examples of the urban stereotypes. The importance of distinguishing stereotypical and non-stereotypical situations is signified by highlighting them in textbooks intended for people studying a second language.

Elemental conversation is even more extensive and interesting area of the spoken language, not related to typical situations. This live speech, which is all around us, can be called free conversational speech, to distinguish it from the urban stereotypes. Its study has increased significantly in recent years.

Conversational speech standards have more variability than the codified language norms in words formation, nominative means, phonetics, etc. Language is regulated by several standards. One is the nationwide standard, which is used by the whole population.

Additionally, there are more particular forms. Thus, unwritten, but multiple mandatory standards play a special role in conversational speech. However, conversational speech is regulated not only by the standards adopted in a particular language community, but also by the etiquette conventions. Certain expressions cannot be used, as they can be perceived as impolite and violating linguistic
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