

# Teaching Russian Verbs of Motion Through Virtual Reality

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## INTRODUCTION

The Russian Language has been considered as one of the most difficult languages for native English speaker to become fluent in.

Within the Russian Language, there exists a small subset of verbs called Verbs of Motion (VoM). Although there are only 14 pairs of VoM, they appear to present great difficulties to non-native Russian learners.

In the 1960s, James J. Asher proposed Total Physical Response (TPR), a foreign language learning strategy that “connects language learning with physical movement. The underlying belief of TPR is that by combining language instruction with motor activities, students are able to learn a language faster, more effectively, and in an emotionally stimulating atmosphere” (Elliott et al., 431).

As technology advances, we adopted TPR method to the Virtual Reality platform, in which a student can learn Russian VoM immersively by simulating all physical movements within the program.

## AUDIENCE

Normally students who study Russian begin to formally learn all verbs of motion and their prefixes in the second year. Hence our program assumes the users have basic understanding of Russian.

## DESIGN ETHICS

Through our research we found that although the Virtual Reality (VR) technology has existed for sometime, very little development for VR in Russian Language instruction is done. Therefore, we tried to pioneer in this area. Since VR program often requires users to purchase headsets or goggles, we wanted to make sure that our program is available to all. Then, we made our program compatible with many platforms such as PC, MAC, and VR Headsets such as Oculus Go. The program can operate both online or offline for maximum flexibility.

Our goal is to use tool to help students master Russian VoM in a unconventional and immersive way.

Currently, we finished our pilot project with the specific focus on teaching students prefixes of VoM.

## METHOD AND DEVELOPMENT

Since the intrinsic goal of developing this program is to help student learn Russian VoM. We must find pedagogical ways to teach the students and intergrate them into the program.

Our program was inspired by google street view some university’s campus tour. Unlike google street view and campus tours, we implemented goals, voiceover feedback, video tips, and a quiz in the program.

To make sure that the program provide the student an immersive experience, all scenes in the programs are in first-person view. All directions and feedbacks are given by the pre-recorded voiceover, and the user’s action in the program will trigger these directions and feedback.

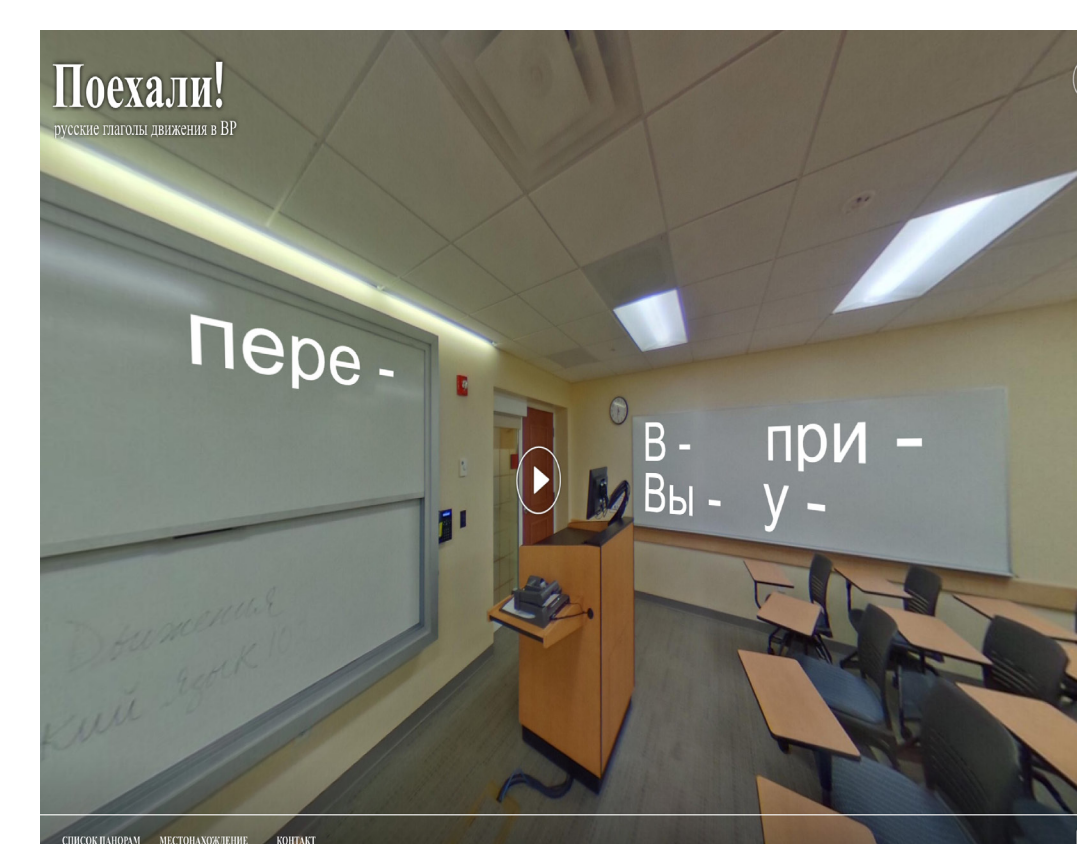
The program features several Union College landmarks, and the users are given a task to collect items from given locations through a unique route provided by the instruction.



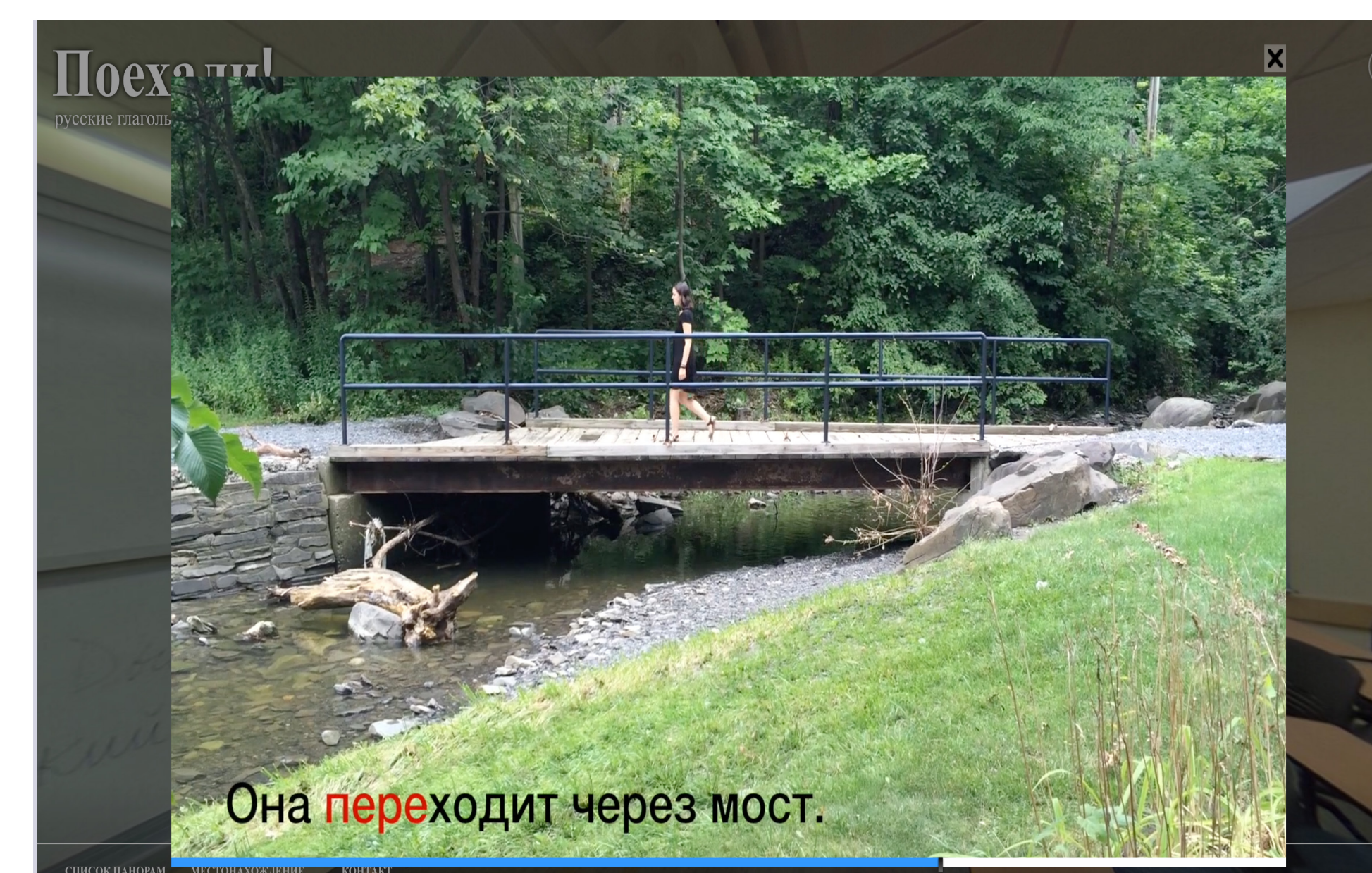
Title of The program “Поехали!”

The user may find all relevant information regarding credit, users’ manual on this page. This title screen feature the center of Union College Campus.

The users have the option to click on a prefix displayed on the whiteboard to view an instruction video regarding that certain prefix.



The user may also directly begin their quest by clicking on the play button.



One instruction video about the Russian prefix nepe (across) featuring Nathalia Brill. All instruction videos about prefixes are filmed and produced by Nathalia Brill, a student who previously worked on a similar pilot project with Prof. Bidoshi.

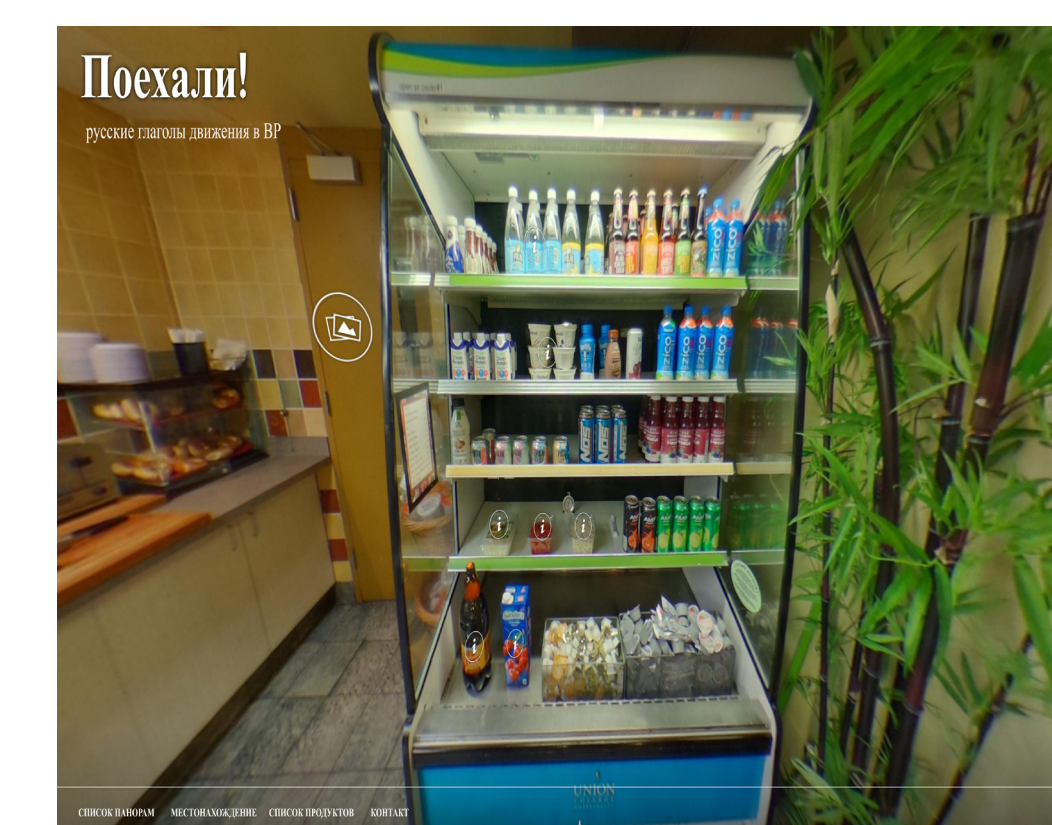
## USER EXPERIENCE/REACTION

Since there are only six students in second year Russian class, the sample we collect would not be statistically valid.

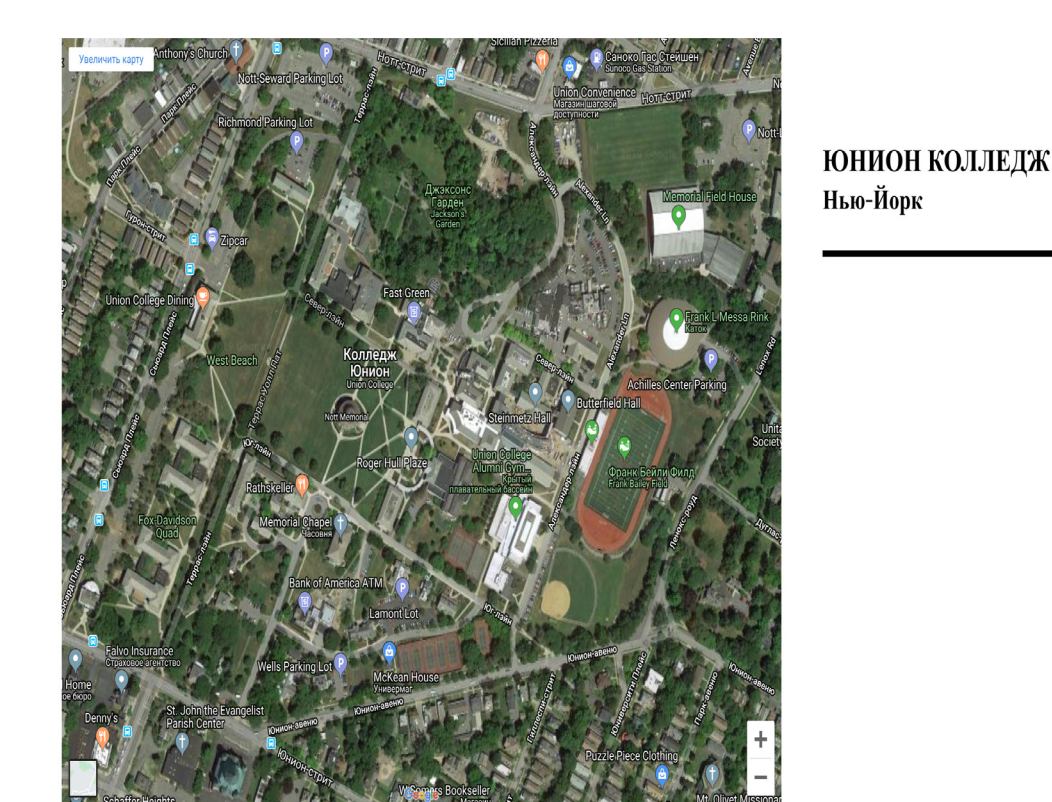
Upon showing several students the pilot project. Many users give the feedback such as “This is immersive”, “Can I actually touch that thing?” We believe that the VR program is sufficient to immerse the student in a Russian-only environment since all commands are given in Russian, and the users have to make virtual response according to the commands.

Before the user can exit the program, they will need to take a written quiz in Russian to check how well they have learned the prefixes with Russian VoM. Feedback is also provided upon the completion of the quiz.

To request access to this VR project please contact Kristin Bidoshi at bidoshik@union.edu.



In this scene, the users have to select items in the order given specifically by the instruction.



A map of Union College Campus



We knew that the users may have already known how to get to their destinations. However, there are multiple ways to get to the destination. The users must choose the unique path given by the instruction.

## THE NEXT STEP

Our initial goal is to create an immersive and pioneering Russian learning experience to students at Union College. We will need more sample to figure out whether our method is effective on the VR platform.

Since all movements that the users perform are virtual on the VR platform, it is insufficient to claim that we can adopt TPR method on the VR platform.

However, we are currently in the process of developing Augmented Reality program that will requires the users to physical move, in which we can adopt TPR onto the AR program. In the AR program, the users will utilize their smart phone to scan for AR triggers in the program in order to receive instructions.

## REFERENCES

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The format of this poster is adapted from University of Illinois Urbana-Champaign

