

# Design and Research on Virtual Simulation Experiment Teaching of Russian Audio-visual and Speaking Course

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**Abstract.** Due to students' insufficient emphasis on Russian audiovisual and oral courses, coupled with factors such as lack of attractiveness in course content, insufficient class hours, and a lack of diversity in teaching methods, students face certain difficulties in their Russian listening and speaking abilities. To address this issue, this article conducts in-depth research on the course based on theories related to motivational psychology and needs theory, clarifying the relationship between students' learning motivation and Russian audiovisual and oral courses. At the same time, based on personal learning and teaching experience, as well as questionnaire survey results, the author elucidates the guiding significance of motivational psychology related theories in Russian audiovisual and oral teaching. The research results can effectively guide practical teaching practices, and motivational psychology provides relevant theoretical basis and training methods for Russian audiovisual and oral teaching. This also helps to improve the listening, speaking, and communication abilities of Russian learners, enabling them to smoothly pass the Professional Level 8 exam on the basis of fluent and accurate expression of their thoughts.

**Keywords:** Russian; Audio-visual speaking class; Virtual simulation experiment; Teaching design.

## 1 Introduction

In terms of simulation function, virtual reality technology is a kind of simulation, realistic worlds can be created using computer graphics, this synthetic world is not static, but responds in real-time to user input[1]. This defines a key feature of virtual reality, namely real-time interactivity. Real-time refers to the computer's ability to detect user input and modify the virtual world immediately. The IEEE standard protocol submitted by the Virtual Reality Terminology Working Group defines virtual reality technology as a computer system that can generate artificial worlds, users can immerse, roam and manipulate objects in it. The interpretation of virtual reality technology by international authorities shows that: Virtual reality is an artificial virtual world constructed by devices such as computers, users feel that they are in the world, they can feel the things inside the virtual world, and they can perform interactive operations[2]. Based on the related theories of motivation psychology, this paper selects the Russian audio-visual course for the third-year students majoring in Russian as the research object, investigates and collects evidence on the students' learning motivation, systematically analyzes the requirements of learning motivation on the course form and

content arrangement by using the methods of investigation and analysis, and deeply studies the students' psychology, combining with the possibility of practical teaching and the necessity of course improvement, so as to help the audio-visual course fully play its role and improve students' practice. As a course closest to practical communication, the motivation of students to learn audio-visual and oral courses is particularly important. Only on the basis of fully studying students' learning motivation and needs can the course be adjusted and optimized more pertinently. Therefore, we try to make a new discussion on the curriculum design of Russian audio-visual speaking in the third year of undergraduate course based on the relevant theories of motivation psychology [3-4].

## **2 Overview of audio-visual and speaking courses**

"Audio-visual integrated structure teaching method" was put forward in the 1850 s, also known as audio-visual method, which originated in France. On the basis of a lot of research, French scholars have formulated the teaching principles of audio-visual method and compiled the first audio-visual teaching material. Through long-term and systematic teaching practice, it has been proved that this teaching method can promote foreign students to learn the method system of combining situational vision with recording and hearing: visual and auditory sensory stimuli act on the brain at the same time, which can prompt the human brain to respond quickly and accelerate memory. It is a method of creating scenes by using physical objects, sound and photoelectric equipment and cooperating with synchronous recording. At the beginning, it was a short-term and quick teaching method to cultivate adults, and then it was introduced into foreign language teaching in schools, aiming at cultivating students' four skills of listening, speaking, reading and writing, and the course of audio-visual speaking was born [5]. Audiovisual teaching, as the name suggests, is to convey effective information to students through auditory, visual, or a combination of auditory and visual methods, helping them learn foreign languages: auditory teaching methods, visual teaching methods, audio-visual teaching methods.

## **3 Optimization of Teaching Design of Russian Audio-visual and Speaking Course in Grade Three of Undergraduate Course**

All theories can only reflect their value in practice, and all practical attempts can not be carried out without a solid theoretical foundation. We should constantly improve relevant theories in the process of teaching and learning. In this chapter, based on the author's own teaching and learning experience, combined with the questionnaire survey of the third and fourth grades of undergraduate students and the theoretical basis described in the first and second chapters, the author expounds the guiding role of relevant theories in the design of audio-visual courses, and optimizes the design of related links [6].

### **3.1 The setting of teaching objectives**

Goal setting is the decisive factor in the whole design. When designing courses, teachers can't choose and give lectures at will, but must set goals according to the standards of students' interests and the results of early education. These goals can help students make clear their

learning objectives, learning methods and methods, help teachers make clear their priorities in teaching, and guide teachers to design courses and their evaluation [7].

(1) Investigation and analysis of students' learning objectives

In order to better understand the students' demand for Russian, audio-visual and speaking courses, we conducted a questionnaire survey for Russian majors in the third and fourth grades. In this survey, 100 questionnaires were distributed, 86 were recovered, and two sets of invalid questionnaires were removed. We analyzed the students' goals and objectives of learning Russian, and the results are shown in tables 1 and 2.

**Table 1.** Students' Learning Objectives

	What kind of words and expressions do you want to learn in this course?
Russian native spoken daily communication	63%
Russian native news reporting language	53%
Russian native academic reports, scientific and technological languages	6%
Common Russian standard language designed for listening comprehension	23%

**Table 2.** Students' Learning Purpose

	You hope to learn Russian through this course. What kind of promotion is there?
Able to conduct simple daily Communication.	60%
Do some difficult translation work.	10%
Can understand Russian local TV programs.	50%
Able to understand Russian news	43%
It can be helpful to the listening test of TRM-8.	47%

The investigation shows that the fourth-year undergraduate students have taken Russian audio-visual and speaking courses, but they no longer take them in the fourth year, and the third-year undergraduate students are still training in audio-visual and speaking courses. Combined with this situation, we will focus on the audio-visual and oral courses for the third year of undergraduate course, and design and improve the corresponding teaching links. Generally speaking, students think that the audio-visual and speaking course is helpful to improve Russian speech ability. They think that this course focuses on cultivating students' listening and speaking ability, and hope that they can improve their speech level and strengthen their expression ability while obtaining credits, which will be helpful for future work. In terms of content, students hope to be more exposed to Russian native spoken daily communication and native news reporting language. Through learning, they can understand Russian native TV programs and Russian news reports, communicate with Russians without barriers, and at the same time, they must successfully pass the TRM-8 test for Russian majors[8].

**3.2 Audio-visual course teaching form optimization**

As the guide of curriculum, teachers play an irreplaceable role in the process of curriculum teaching. Through the questionnaire survey, we found that the current teachers are generally

foreign teachers, and students think that in audio-visual and speaking courses, they can only partially understand what they are taught, but some of them cannot be fully understood. It is true that foreign teachers have unique advantages in pronunciation and intonation, but in the senior stage of undergraduate course, students' pronunciation and intonation have basically taken shape, and the corrective role of foreign teachers has been greatly reduced. For example, Table 3 shows students' understanding of the content of the current audio-visual course.

**Table 3.** Students' understanding of the current audio-visual course content

	Can you understand all the contents of the course?
Can	24%
Cannot	16%
Some can and some can't.	60%

According to students' needs, teachers in China can better understand students' characteristics, students' thinking and ways of thinking, understand students' needs, and enhance students' learning enthusiasm. In order to improve students' listening and speaking level in an all-round way, and considering the special needs of passing TRM-8, teachers in China, with Chinese as their mother tongue, are proficient in Russian grammar, national conditions, culture and other knowledge, which can help students accurately understand the correct meaning of Russian vocabulary, analyze it at the grammatical level, and help students understand the content of the materials they listen to: they can effectively train students in a targeted way and quickly improve their abilities in all aspects. Therefore, from the students' point of view, it is suggested that foreign teachers should be replaced by China teachers when conducting audio-visual preaching for senior students. For example, Table 4 shows the influence of teachers' oral expression on students.

**Table 4.** Influence of Teachers' Oral Expression on Students

	In class, the influence of the teacher's Russian oral expression ability on you
It is very big, which directly affects my interest in attending classes.	68%
Generally, the impact is not particularly great.	28%
I pay little attention to the teacher's oral expression ability.	4%

At the same time, the questionnaire shows that students generally have higher requirements for teachers' oral expression ability, which even directly affects students' interest in attending classes. This puts higher demands on our teachers, who not only need to select and edit materials when preparing lessons, but also strictly regulate their own expression in the course of the course, so as to provide students with a good model[9].

### 3.3 Audio-visual course test design

#### (1) Fully embody knowledge and ability

The test design of audio-visual course is an important means to test the teaching quality and evaluate the teaching system. When designing the corresponding test objects, we should pay

attention to the comprehensive examination of students' knowledge and ability. According to the test results, we can not only check the implementation of the contents of the teaching syllabus, but also reflect the problems existing in the teaching process, providing a basis for improving teaching. Through the questionnaire survey of students, we know that the current audio-visual and speaking exams are mainly written and listening exams. Although this form of examination can test students' listening level, it can't comprehensively examine students' knowledge and ability level. The questionnaire shows that students tend to combine written examination with oral examination, and mainly focus on written examination, oral Russian expression and dialogue. In this way, we can not only test whether the students have reached the listening level required by the syllabus through writing, but also examine whether the students can cultivate and improve their "speaking" ability through the study of audio-visual and speaking courses .

(2)Refine the scoring criteria of oral English.

In the process of testing, the written test mainly focuses on choosing the type of questions. This evaluation method has its advantages and disadvantages. The advantages are: the form of questions is generally selected or short-answer questions, and the answers are standard and unique. It is easier to evaluate the scores by using standard answers, and the evaluation results can be scored by machines and other equipment. The evaluation results are safe and reliable, and there is no human emotional factor. The disadvantage is that this kind of evaluation method can only evaluate factual information, concepts and so on. In the oral examination, the examiner is basically the teacher, who scores by impression, and subjective factors account for a large proportion in the performance evaluation. Considering the particularity of foreign language testing and language differences, we adopt a combination of written and oral exams. In the oral exam, we can invite foreign and Chinese teachers to jointly evaluate students' pronunciation, intonation, knowledge mastery, and language expression abilities, and design standardized, scientific, reasonable, and effective oral exam scoring standards[10].

#### **4 Conclusion**

In this paper, the design of "Russian audio-visual and speaking course" for third-year undergraduates under the framework of relevant theories of motivation psychology is studied, and the guiding role of teachers and students' dominant position are analyzed by using relevant theories of motivation psychology, which is still a new attempt in China. On this basis, we put forward some personal opinions, which are intended to arouse teachers' attention to the relevant theories of motivation psychology and stimulate students' interest in Russian learning by correctly guiding students. Through investigation and research, aiming at the students' learning purpose in the third grade, this paper selects the book day of Television in Russia News Audio visual Course for the Russian audiovisual oral course. Combining the characteristics of the Russian TEM-8, it hopes to help students pass the TEM-8 by means of thematic teaching and language skills training. In addition to helping students pass the professional level 8 exam, the Russian audiovisual and oral course schedule for third year undergraduate students also needs to be targeted to improve their language expression and communication skills. So while listening, we should stimulate students' desire to express themselves and make them speak. This requires teachers to help students realize their subject

status, their own unshirkable responsibilities and irreplaceable nature in their learning life, stimulate them to build self-confidence and believe in their own abilities through correct guidance, and can correctly attribute problems in learning and correct their own behavior in future learning life.

## References

- [1] Zheng, Q. S. , & Li, K. . (2022). Design and development of virtual simulation teaching resources of "safe electricity" based on unity3d. *Journal of Physics: Conference Series*, 2173(1), 012012-.
- [2] Emroozi, V. B. , Roozkhosh, P. , Modares, A. , & Kazemi, M. . (2023). A new supply chain design to solve supplier selection based on internet of things and delivery reliability. *Journal of Industrial and Management Optimization*, 19(11), 7993-8028.
- [3] Zaytsev, V. , Ermatov, T. I. , Fedorov, F. S. , Balabin, N. , Kapralov, P. O. , & Bondareva, J. V. , et al. (2022). Design of an artificial opal/photonic crystal interface for alcohol intoxication assessment : capillary condensation in pores and photonic materials work together. *Analytical chemistry*, 94(36), 12305-12313.
- [4] Chen, J. , Chen, K. , Du, C. , & Liu, Y. . (2021). Design and implementation of a virtual arinc 653 simulation platform: . *SIMULATION*, 97(6), 427-436.
- [5] Sun, P. , & Ruan, D. . (2021). Virtual simulation design and effect of high jump technology action optimization based on complex embedded system. *Microprocessors and Microsystems* , 81(2), 103646.
- [6] Zhao, J. , & Ying, F. . (2021). Research on the construction of virtual simulation experiment teaching center based on computer-aided civil engineering in colleges and universities. *Journal of Physics: Conference Series*, 1744(3), 032115 (6pp).
- [7] Kumar, S. V. R. , Rao, L. K. , & Kumar, M. K. . (2023). Design of ternary multiplier using pseudo ncntfets. *Russian Microelectronics*, 52(2), 119-127.
- [8] Li, L. , & Han, Z. . (2023). Design and innovation of audio iot technology using music teaching intelligent mode. *Neural Computing and Applications*, 35(6), 4383-4396.
- [9] Zhou, Z. , Ruan, T. , & Wang, T. . (2021). Design and research of non-contact temperature measurement and identity recognition system. *Journal of Physics: Conference Series*, 2083(3), 032042-.
- [10] Andryukhin, N. D. , Yagopol'Skii, A. G. , Zaitsev, A. N. , & Aleksandrova, Y. P. . (2023). Simulation in selecting metal-cutting equipment at different stages of preproduction. *Russian Engineering Research*, 43(5), 598-600.