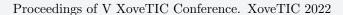


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# The use of Virtual Reality in Public Speaking Training Programs

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#### Abstract

In several studies, the fear of public speaking acts like pathology. However, giving a lecture or presenting a project are daily tasks that stir the nerves, even the non-phobic person. The article intends to show the pedagogical vision about the influence of virtual environments' aid in public speaking practice.

Two studies were conducted. A scoping review debated the use of the virtual reality programs for public speaking skills training and has proved, in this context, is still a recent procedure, and so lacks solid evidence. Second, exploratory research detected and compared nine virtual reality applications for public speaking practice.

#### 1 Introduction

The importance of the art of speaking well becomes obvious. Whether it's an oral presentation, a sharing of opinions or ideas, or a social gathering, communication needs simplicity and transparency, which facilitate the dissemination of the message. However, many individuals show difficulties in creating bonds, due to nervousness, anxiety and fear of public speaking. The fear of public speaking influences and conditions social and professional relationships, becoming an obstacle in the communication process.

The domain of the art of public speaking expresses, certainly, a competitive advantage given that 90% of the companies refer the noticeability of the oral language in the task's success (Valls Ratés, 2019). Nevertheless, public speaking is one of the biggest fears of the population, determining serious anxiety conditions (Raja, 2017).

From the perspective of Davis, et al. (2019) preparation appeases stress rates and, as an effect, fortifies public speaking techniques. It is believed, in this continuation, that rehearsing in front of several people is, perhaps, the most certain way to abolish fear, even if it involves heavy financial,

logistical and time costs. Dedicated to cutting costs, organisations have started to collect information on the benefits of virtual reality in the learning process.

In fact, the speech preparation cooperates, truly, in slowing down the emotions. It is believed, inclusively, that the training shows the base of a presentation and, because of that, Rego (2016, p. 423) purposes "rehearse, rehearse, rehearse". Nevertheless, rehearsing in front of an acquaintance, of a recording or of a mirror is different from rehearsing in front of a group of people. This encouraged solutions of virtual reality that drew, in Wallach, Safir, & Bar-Zvi opinion (2009), an attractive and effective path for the knowledge of the art of public speaking.

This work intends to show the pedagogical angle about the virtual environments' aid in the progression of oratory. As several studies suggest, the fear of public speaking acts as a pathology and, as such, the research defends virtual reality (VR) in clinical psychology as a useful tool. However, giving a lecture, presenting a project, and conducting an interview are daily hypotheses that stir the nerves of everyone, even the non-phobic. In view of this, public speaking courses received a large response because they provide strategies and tools that together improve oral skills. It so happens that, in recent times, there has been a trend towards VR, whose devices promptly reduce nervousness and anxiety.

#### 2 Methods

Two studies were conducted. In the first, a scoping review debated the characteristics and the impacts of the training programs that, under the virtual reality use, have favored the dexterity of public speaking. In the second study an exploratory research captured the requirements and the potentialities of software in the area.

### 3 Training programs for public speaking skills

A scoping review debated the characteristics and impacts of the training programs that, with the help of virtual reality, have favored the public speaking skills.

The scoping review has proved that, unfortunately, the incorporation of virtual reality in the educational and training context is still a recent procedure, and so lacks solid evidence. However, the results revealed that, in general, participants lessened the degrees of restlessness and increased communication skills. The test group confided an increase in the feeling of anxiety during training, which attests to the realism and magnetism of the application experienced.

## 4 VR in public speaking training

Exploratory research that captured the requirements and the potentialities of different applications in the area. Nine applications for speaking training were exhaustively analyzed, comparing, among other features, different parameters that include usability, graphic quality, user evaluation and progression, timing of the presentation, possibility of insertion of presentation tool, presence of sound and visual effects, avatar resolution and scenario resolution.

The exploratory research detected nine applications that, in general, provided realistic simulations, physical connections, and sound impressions, to promote the credibility of the exercises and, subsequently, the involvement of users. VR enables, through immersive and interactive experiences, the development of skills, instigating the reliability of dynamics and the involvement of users. With regard to education and training, virtual reality allows simulating environments close to reality where

users can practice their acquired skills and knowledge in controlled environments, obtaining real-time personalized feedback on their performance.

#### 5 Conclusions

Nowadays, virtual reality shows to be productive regarding the development of hard and soft skills, because of the efficacy similar to that of the face-to-face system (Bailenson, 2020; Carneiro, et al., 2019; Ginkel, et al., 2019). While the traditional teaching procedures end up being, several times, monotonous and imperfect, the VR provides an immersive and interactive experience suitable for the competences promotion (Carneiro, et al., 2019; Ginkel, et al., 2019), which attracts to the belief that those who benefit from simulative worlds are better qualified to deal with different situations (Davis, Linvill, Hodges, Da Costa, & Lee, 2019).

Accordingly to Bailenson (2020), some institutions apply virtual reality in public speaking studies. Instead of spending money in assembling a room full of individuals, VR provides them with the representation of the scenario with lower costs and, also, involving.

With the support of immersive and interactive experiences, VR provides the opportunity to develop skills, instigating the reliability of the dynamics and, consequently, the involvement of users. As far as education and training are concerned, virtual reality grants a day-to-day simulation, where human beings are given chances to exercise acquired knowledge and, at each performance, receive personalised feedback.

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