

The Value of Studying Languages while in 3d Immersive Environments

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Introduction

Learning a foreign language is a need to survive in today's globalized world. If someone is to conduct business or seeks a new job, that person certainly needs this skill to succeed in this ever expanding world. Even though learning experiences have become a diverse market, people strive to make this process more accessible and interesting for people all over the world. Whether someone desires to learn a language as a hobby or is in need of a new skill to have access to new job opportunities, they consistently look for new, cost effective means to achieve these objectives.

This White Paper will address the learning and cost benefits of studying a language while in 3D environments. It's focus will be on a remarkable new language learning technology from a company called the VIEW- Virtual Immersive Educational Worlds. One of their first commercial applications is called "FluentWorlds" which uses 3D simulation of the Real World for language learning. The thesis of FluentWorlds is that a learner can rapidly increase their language speaking skills, by traveling in 3d virtual environments from the comfort of their smartphone, tablet or desktop. As has been academically shown, these modalities have proven to "stimulate learning...by allow(ing) multiple perspectives; they provide situated (or context-specific) learning; and they allow an individual to practice skills that can be transferred to real life..." (Dede) This process is called immersion, which is often tied to those travel-abroad programs where someone visits a foreign country to learn a language and culture by being in direct contact with native speakers and their environment. These type of programs usually carry a cost that not many people can afford. The market should aim to offer everyone the opportunity to learn in a natural way without the need of traveling abroad or having to invest a lot of money into it.

Moreover, the net generation is in constant demand of fresh ways to acquire knowledge. Long gone are the days where anyone has to get to the library to find information. The so called Millennials, get their information from the internet. Learning has also evolved in this sense, with the availability of new technologies. Thus, the doors of new ways of learning are being opened all around the globe. Hence, all limitations anyone could find in the past can be removed. Dr. Linda Bradford conducted research in this area and found that "Net Generation students use a variety of technologies including social media platforms, a multitude of video games, and virtual world

platforms...” (Bradford, 2013). She adds that “a virtual world platform provides students with learning strategies and affordances that are different from those experienced in the traditional classroom.” (Bradford, 2013)

In other words, a virtual world poses a whole new style of learning that can extend beyond the traditional classroom environment thus being more appealing to the current generations. Another advantage these environments provide is “Virtual world classrooms expand rather than replace campus-based classrooms, providing seamless links to social networks, and shared learning experiences.” (EDUCASE Review) There is no demand to replace what is already working, but to expand the classroom beyond the physical world. When these principles are applied to Foreign Language learning, important components such as immersion, the removal of any time constraints, and unlimited global reach are added to obtain a much richer and effective way of learning. To learn a Foreign Language, it is important to be able to experience the culture behind the language being learned and interact in a natural manner with peers to practice it. While recreating this in the traditional classroom environment is possible, it is a good idea to break all the barriers and be able to reach people who otherwise would never consider learning another language and motivate those who are already learning by recreating the World in an online 3D environment.

Unlimited Opportunities of Learning

Today’s economic pressures can become a burden to anyone. Volatile markets and technological advancements change the game of business by the minute. Therefore, it is important to institute a “do more with less” strategy aimed towards the educator, this way they can have a resourceful means of crafting their curricula and explore new unlimited ways to make those lessons more interesting and engaging. FluentWorlds is a great example, as it not only brings learners into the 3D world, but also captures their imagination with questing, mini games, professional voices, animating avatars and voice verification. When using FluentWorlds, language learners are able to move through a series of self-paced modules in “real world” scenarios like a hotel, restaurant, or

home where they can practice their language in many different and gamified environments. Just like in any immersion scenario, as Flora Lewis once said “Learning another language is not only learning different words for the same things, but learning another way to think about things.”

Imagine the 500 Million people in China currently studying English as a Second language doing so while virtually visiting such iconic places as New York's Central Park or the Las Vegas strip. Dr. Linda Bradford envisioned a learning environment where instead of experiencing video games interfering with classroom instruction, engaging and immersive video game and mobile technology should be used as the core of any instructional paradigm. As the use of technology increases engagement, therefore, it boosts motivation.

The FluentWorlds App was initially launched to native Spanish speakers. Only in the U.S. about 38% of the Hispanic population only speaks Spanish and worldwide there are over 400 Million of them. (Krogstad & Gonzalez-Barrera, 2015) The market for learning another language is huge-roughly \$82 Billion dollars are spent annually learning another language, two-thirds of that are used to learn English. Going back 100 years or so, people spoke French when they encountered people from other countries. However, when coming across a foreigner today, the language of exchange is typically English.

The Impact of Learning English on Incomes

It has been shown in many studies that Training in English has a positive impact on anyone's earning ability. As Ufiera points out in his recent study: “A common language lowers the transaction costs of international trade, and English is increasingly the language of international business. As a result, proficiency with English is often associated with higher incomes as well as increased employment, trade and other economic opportunities and is promoted as a policy to improve the wellbeing of people in developed and developing countries alike.” (Ufiera) In developing countries it has been concluded that learning English “...can increase the earning power of individuals by around 25%...” (de Lotbinière, 2011) It is obvious there is a demand to learn English and a huge market thriving for innovative ways to reach people where twenty years

ago it would have not been possible due to the lack of technologies and resources. With an application such as FluentWorlds, people in Africa can learn English via mobile phone usage.

Immersion language programs have a deep impact, bringing enormous social benefits. Some of these benefits are closing the achievement gap “In 2004, Virginia P. Collier and Wayne P. Thomas from George Mason University published an 18-year longitudinal study of dual language programs in 23 school districts and 15 states. They found that dual language immersion fully closes the achievement gap between ELLs and native speakers of English.” (Smolling). An application such as FluentWorlds helps people become involved with the language and the culture behind. There is sound research that indicates “...people who speak at least one foreign language have an average annual household income that's \$10,000 higher than the household income of those who only speak English. And about 17 percent of those who speak at least one foreign language earn more than \$100,000 a year.” (Andruss, 2008) In today's job market, it is smart to make oneself more valuable to an employer. An application which applies the tremendous value of the immersion technique, such as FluentWorlds does, can provide to the not-so-easy career move of learning a new language a more amicable approach. In recognition to the importance of learning English, the dept. of UN Sustainability Initiatives says “English language training is promoted as a policy to improve the well-being of people in developed and developing countries alike.” Moreover, in Nigeria they have developed a set of goals to eliminate poverty, among their key objectives is to enforce their English Language Program “In addition, better foreign language abilities often open up more lucrative employment opportunities both within the country and for those emigrating.” (Meltiz and Toubal 2014.)

A Virtual Environment Boosts Creativity and Performance

In a study conducted by Dr. Linda Bradford, C.E.O. of FluentWorlds, she was able to conclude that the use of a Virtual Worlds as a methodology for learning boosted both creativity and performance in students. Dr. Bradford explains “...the virtual world platform might enhance student creativity or overall student performance as a result of an increase in the following areas: engagement, spatial skills, and choice/choices.” (Bradford, 2013) In addition, the instructor who was part of the research pointed out that the use of a virtual world “brought life to otherwise

disinterested students.” (Bradford, 2013) Consequently, educators become more effective when teaching, also they engage students who otherwise fail to become involved in the traditional classroom environment. This can be achieved with the The combination of video gaming technology and realistic 3D graphics is an advancement which is poised to completely disrupt the language learning market. Imagine further that the platform delivers incredibly realistic, immersive virtual reality simulations along with world-class content and true user collaboration. FluentWorlds combines intrinsic motivation with extrinsic one in order to enhance motivation and engagement. Intrinsic motivations come from within, the user/actor decides whether to make an action or not, some examples are altruism, competition, cooperation, sense of belonging, love or aggression. Extrinsic motivations, on the other hand, occur when something or someone determines the user to make an action, for example, classifications, levels, points, badges, awards, and missions. Mundane activities, especially for a longer period of time, are not appealing, simply by combining these activities with simple games, we can create a more effective way to motivate people. (Chronos and Sundek, 2011). Turning useful activities into games is called gamification and it has found its way into many uses such as education.

Learning in the Age of Portability

Technology has made it possible for anyone to access an unlimited volume of information, new ways of communication are being incorporated every day. Mobility is certainly a synonym to freedom. The FluentWorlds application is currently available in the two most prominent mobile markets: The App Store for IOS devices which represents a user base of approximately 13.9% of smartphone users and the Play Store which represents another 82.8% of smartphone users. Both of these markets are to increment substantially in the following three years. Americans spent more than \$25 billion USD on video games in the year 2010 only. People spend about 3 billion hours playing video and computer games each week (Muntean, 2012). With the adoption of mobility, the aim is to make a comfortable, rich, and engaging experience for users. While also bringing universal access to learning, as anyone can be at home, on the subway, at work, at school, or anywhere and they can just keep on learning. Moreover, reaching disabled students who are usually not taken into account is something to work for.

Enriching the user experience must be something to keep in mind at all time, that is why upcoming features will include voice recognition and assessments, a VR level featuring Virtual Las Vegas (New York's Central Park is in there currently), source languages in addition to Spanish will include Portuguese, Chinese, Korean, Turkish, Japanese, Vietnamese, German, French, Italian, among others. Naturally, and if someone is a native English speaker and want to learn Spanish, French, English or Chinese, etc., they will have the option as well, providing a learning solution to everyone. Including VR technology is also advantageous as VR expands, and the use of headsets becomes more popularized, (which they will), it is important to keep integrations to the top VR platforms. The combination of video gaming technology and realistic 3D graphics is an advancement that is poised to entirely disrupt the language learning market. Imagine further that the platform delivers incredibly realistic, immersive virtual reality simulations along with world-class content and true user collaboration.

The future of learning in this ever-changing world must be ensured by keeping up with the latest trends and technology. Nick Macey, Former Chief Product Officer of Rosetta Stone said: "The FluentWorlds environment provides a unique and revolutionary opportunity for teaching a language. By blending an immersive environment with the social and teaching capabilities of the platform, I believe it will become the preferred way for learners to learn." In his comment, Nick clearly states that a product such as FluentWorlds is the future of language learning. As people become protagonists of their own world and are in control of their learning pace and environment.

The Future of Learning

In a recent study conducted by The Florida Board of Education among students who used a Virtual Environment to learn and students who learned in the classroom environment, they concluded that Students who used a Virtual Environment to learn performed better on the Florida's Comprehensive Assessment Tests. (Bleiberg, 2014) These studies encourage the utilization and expansion of learning environments; as we can see even School Districts are starting to use virtual learning environments to provide better access to students. The main outcome of virtual learning environments on educational systems may be revitalizing teaching outside the Web. (Dillenbourg) Instructors can change their teaching methods to include more collaborative learning practices, thus changing the paradigm of being knowledge providers to facilitators of knowledge.

The virtual learning in a 3D environment is a technology that will not be abandoned with time, all the contrary it will continue to grow. A rich environment, like that of FluentWorlds, makes students active and actors, as well. In this sense, a student can contribute actively to the social information space. It should always be kept in mind that fluency and flexibility are the keys to a better learning experience and result. Dr. Linda Bradford, concluded these two traits were increased when students used Virtual Environments. (Bradford, 2013) This is incredibly helpful to those who are unable to get past the intermediate level of learning and help them attain proficiency in the language they are studying. In conclusion, an application like FluentWorlds delivers unlimited choices and opportunities, lowers costs, provides maximum reach, and great content. All of these are requirements to a fruitful and rich learning experience.

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