IELTS 360°: Increasing Fluency, Accessibility, and Familiarity for the IELTS Speaking Exam Through Virtual Reality and 360 Degree Videos

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IELTS 360°:
Increasing Fluency, Accessibility, and Familiarity for the IELTS Speaking Exam Through Virtual Reality and 360 Degree Videos

A Field Project Proposal Presented to
The Faculty of the School of Education
International and Multicultural Education Department

In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts in Teaching English as a Second Language

By
Kevin Zaragoza
May 2019
IELTS 360°:
Increasing Fluency, Accessibility, and Familiarity for the IELTS Speaking Exam Through Virtual Reality and 360 Degree Videos

In Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

in

TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES

by
Kevin Zaragoza
May 2019

UNIVERSITY OF SAN FRANCISCO

Under the guidance and approval of the committee, and approval by all the members, this field project (or thesis) has been accepted in partial fulfillment of the requirements for the degree.

Approved:

May 16, 2019

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ABSTRACT

IELTS 360 helps increase fluency, familiarity, and accessibility to the speaking portion of the International English Language Testing System (IELTS) exam. By integrating 360-degree videos, virtual reality, and the YouTube platform, the content created targets English Language Learners prepare for the interview by placing the viewer/learner in the virtual environment (VE). Through my experiences outside of class in ESL settings, my students mentioned speaking to be the hardest language skill to conquer and so this project aims to help anyone viewing the content practice as much speaking as possible given the time constraints.

The content may be viewed on any screen where YouTube is accessible but highly recommended to be used with some sort of virtual reality headset (VRH). This can be simple, inexpensive Google Cardboard or the highly recommended Oculus Go. With the Oculus Go, the learner has easy access to playback controls such as play, pause, rewind, and fast-forward which is crucial in making the experience more individualistic. I hope to create more content as this can branch into many other areas of learning the English language.
CHAPTER I
INTRODUCTION

Statement of the Problem

Volunteering at St. Elizabeth High School in Oakland, California was my first experience applying course material I learned through my Master of Arts in Teaching English to Speakers of Other Languages (TESOL) program at the University of San Francisco in an English as a Second Language (ESL) classroom. Feeling excited one Monday evening, I rushed to the Civic Center BART station after work to travel to my first class as an aide to an already, well-established ESL instructor. I had already gone through the interview process and chatted with the director of the school, Phyliss Martinez, so I had an idea of what I was embarking on, but nothing could have prepared me as much as being in a situation like this on that day.

Once I arrived at the Fruitvale BART station, I fought my way through the crowded train car to navigate myself to the destination. Luckily, Google Maps only gave me an estimated seven-minute walk and so I hurried past the dozens of fruit and vegetable stand vendors to the campus. Upon arrival, I noticed the school’s front doors were locked and so I scurried around the side and managed to find a big blue door being propped by an old red chair with a laminated sign reading “Las Casas” the name of the program in which I was volunteering. As I entered the hallway, Phyliss’ class was front and center and we greeted each other for the first time away from the phone. She showed me to my class where students would be showing up in about 15 minutes.

“Hi, teacher.” “Good evening, teacher.” “How are you, teacher?” Though the location is at a high school, English classes with Las Casas are only attended by adults ranging in age from early twenties to late forties and primarily from the country of Guatemala. It was a noticeably
disparate change of environment for me, but a crucial learning experience. The time struck 7:00 PM and class began. The head instructor gave the students a chance to introduce themselves to the one another but then allowed me to end the icebreaker with a question of my choosing. Deeply curious, I asked the class “What would you be doing right now if you knew better English?” and “What English skill would you like to learn the most?” Now, keep in mind that this was my first time in an ESL classroom so responses may seem rhetorical to an experienced teacher, but I was stunned when every student stood up and firmly said that he or she wanted to improve their speaking skills to find a better job. After hearing that, I made it a personal goal of mine to make the hour and a half spent together more worthwhile, especially for the students running to class from work nearby. This experience catalyzed my interest to improve how language skills are learned and assessed. By considering how important speaking is to these students, I sought a language test that considers this skill as a requirement when a learner wishes to improve their situations.

More than three million International English Language Testing System (IELTS) tests were taken in the past year reflecting a growth as a leading test of English for international higher education and migration (IELTS, 2017). Established in 1989, over 10,000 universities, schools, employers, and immigration bodies recognize the IELTS as a household name around the world. The test measures four key language skills, listening, speaking, reading, and writing. The exam is administered in more than 140 countries to help people study abroad, migrate to English-speaking countries, or take advantage of the growing need for English in professional life (IELTS, 2017). All IELTS scores are between 0 and 9 and offer an assessment of English-speaking ability resulting in both overall and individual skills.
In 2017, the International English Language Testing System had a split percentage of 78.10% to 21.9% participants in Academic and General Training test takers, respectively (Test taker performance 2017, n.d.). Looking at the “mean performance by gender” data for academic test takers, both males and females scored lower in writing and speaking (producing) the English language in contrast to listening and reading (consuming). Generally, reading and writing allows a learner to go at their own pace when working outside of the classroom but accommodation for another person is needed when speaking and listening. In “7 IELTS Fluency Problems”, Pell (2017) recognizes fluency on the IELTS Speaking test as the most common problem amongst the other criteria, which include lexical resource, grammar range and accuracy, and pronunciation. The criteria under fluency assesses: (1) talking at length, (2) talking without pauses or hesitations, (3) talking without self-correction, (4) ability to be understood, and (5) using linking devices. According to Pell (2017), lower scores are partly due to communication apprehension.

According to McCroskey (1986), communication apprehension (CA) is a broadly based anxiety related to oral communication. While shyness can retract someone from communicating with others, CA is a more personal experience. Therefore, oral CA levels tend to be higher when speaking, especially during a test like the IELTS for non-native English speakers. Though students prepare for tests such as the IELTS well in advance, the actual environment and examiner will vary from the environment in which the student prepared. In my class at Las Casas, I often see students experience CA during class activities. Though everyone makes mistakes and the class is encouraged to talk in English as much as possible, there are still instances where one of the students will just laugh or smile apprehensively when called upon.
**Purpose of the Project**

This project aims to create new and engaging study material for the speaking portion of the Academic IELTS test to increase fluency and accessibility through 360 videos viewed in virtual reality for anyone taking the exam. By being fully immersed, learners are better able to engage with the material since distractions are kept at a lower level and communication apprehension is minimized since material may be viewed at the leisure of the learner. Sample videos will be created to reenact a general situation one may encounter when being interviewed. The purpose of the project is to expose IELTS examinees to an actual test in virtual reality with several benefits being the outcome. Existing testing materials from the British Council, for example, provide sample questions and recommend doing it with a partner but the curated 360 videos watched in VR will embed everything in one location allowing the student to fully engage, watch an interview, and then practice on their own. A guide for anyone interested to download and reference before the virtual interview begins is provided. It reviews information on how to setup and go through the initial processes while also explaining the technologies being used. This project was chosen to give more power to the learner by making it readily available online in video platform so anyone who views can play, pause, rewind, and fast-forward through any of the sample sessions. Techniques on how content was created are also included to motivate instructors to use newer technologies effectively.

**Theoretical Frameworks**

Two theories informed the development of this project: Experiential Learning Theory and Computer Mediated Communication. Experiential Learning Theory (ELT) defines learning as the knowledge created through the transformation of experience (Kolb, 1984). ELT provides different models of adult development by looking at how people learn, grow, and develop.
Concrete Experience (CE) and Abstract Conceptualization (AC) are two dialectically related modes of grasping experience while Reflective Observation (RO) and Active Experimentation (AE) are modes of transforming experience in the ELT model (Kolb, 1984). When creating new experiences, CE is the basis for RO and these reflections assimilate into AC that form new actively tested implications (Kolb, Boyatzis, & Mainemelis, 2014).

Computer Mediated Communication (CMC) lowers language anxiety and increases an L2 learner’s willingness to communicate (Papin, 2018). Teachers and learners today attend technology-enhanced classrooms and are able to access videos, computers, and the Internet which has shifted learning from teacher-centered to student-centered. Conventionally divided into two broad categories, CMC can either be asynchronous or synchronous (Mirzaei & Hayati, 2018). Synchronous CMC allows more exposure to the target language in real-time interaction while asynchronous CMC limits knowledge sharing to mediums that can be accessed any time of day (i.e. emails, bulletin boards). This project entails a focus on the benefits of synchronous CMC.

**Significance of the Project**

This project has several major benefits for learners studying for the speaking portion of the IELTS test. By putting the viewer in a virtual academic environment similar to that of an IELTS interview, he or she will be able to familiarize themselves with what the actual testing location might be like. For someone studying in a more isolated geographic location, this feature may prepare them for what is to come in advance. On the other hand, for learners who readily have access to the technology, they will be able to use it to their advantage and more easily adapt to the setting. Next, all content will be available online allowing users to view the content in regular video format without a headset while the 360-video option remains available and
recommended. Platforms such as YouTube make it very easy to switch back and forth from the viewing options as well as provide one with screen panning abilities if the content is not being viewed with a VR headset. Third, before the interview takes place, the viewer will be encouraged to watch a sample interview first. The sample interview will curate to different audiences and include speakers of intermediate to advanced English-speaking abilities. By watching someone with a similar cultural background go through the interview, the learner is more comfortably able to tackle on the event through modeling. After the sample is finished, the viewer will be able to experience a one-to-one interview with the examiner in VR.

Definition of Terms

Communication Apprehension (CA): an individual’s level of fear or anxiety associated with either real or anticipated communication with another person or person’s (McCroskey, 1984).

International English Language Testing System (IELTS): a test of English language proficiency, which is now jointly administered by the University of Cambridge Local Examinations Syndicate (UCLES), the British Council, and the IDP Education Australia. It is designed to assess the language ability of candidates who intend to study, work, or live where English is used as the language of communication (Namdar & Bagheri, 2012).

Fully Immersive Systems: require the user to put on a head mounted display (HMD), fully enclosing the central part of our heads, covering eyes and usually ears. Creating a complete isolation from the real world was hoped to increase the feeling of immersion users experience when putting on an HMD (Virtual Reality in Tourism, 2016).

Presence: is achieved when our consciousness believes that we are actually operating somewhere else in a virtual environment. The brain is tricked into believing it as fact by using the human senses (Virtual Reality in Tourism, 2016).
**Virtual Reality**: immersive 3D virtual worlds that encompass a user’s entire field of vision using a dedicated headset (Bonner, n.d.).
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

Modern technology has truly embraced education and serves to make the fundamentals of learning more meaningful for the individual student and instructor. Although English falls behind Mandarin and Spanish as the most common language, it is referred to as “the most influential” (“Most Important Languages To Learn In The 21st Century,” 2017) due to the number of speakers and countries where it is spoken. With modern applications and websites like Duolingo, YouTube videos, various genres of music, and tests like the IELTS and TOEFL, the English language serves to better the lives of people from all corners of the world for different purposes. With this in mind, taking a look at research done on newer technologies like virtual reality and 360 video cameras shows that effectively combining them can have a new and enlivening experience for learners of various subjects across the globe. With technology being a tool that serves more than one group, using what is already available can have dramatic effects on learners everywhere.

The literature review will carefully look at how new age technology can benefit the English language learner while considering the major factors that inhibit the process. First, virtual reality will be analyzed and discussed to see what other research has been done in the field to utilize this tool as a learning instrument that immerses the viewer in the content being played. Next, research with 360 video content will be reviewed as this medium works well with virtual reality headsets and can be used to create content just like any other video recorder. This will then transition into what researchers have said on how accessible the technology is and how it has been used in respective classrooms of different subjects.
The next part of the literature review will discuss research done that observes challenges the English language learner goes through when preparing for a major test like the IELTS. The IELTS is high-stakes test for study, work, or migration and those enrolled may suffer from oral communication apprehension (OCA) in preparation for it. Then, more research will be reviewed to analyze current techniques used to overcome some of the biggest obstacles faced.

**Modern Technology Influences in Current Education**

Some of the newest technologies offer the flexibility to engage learners of all types. From multi-touch flexible screens to Augmented Reality (AR), Virtual reality (VR), and 3D printing, the rapid implementation of technology in education is revolutionizing how students access and learn content. In particular, Virtual Reality (VR) and 360 video recordings have a unique effectiveness when combined. Johnson (2018) states that 360 video cameras and VR bring new possibilities by allowing students to become virtually immersed at very little cost. Wilang and Soermphongsuwat (2018) post that by incorporating newer technologies into language learning could be beneficial for the learner since it goes well beyond classroom traditional experiences. Considering those preparing to take the IELTS test, easily accessing content online that places the viewer in virtual environments may be able to better prepare them than current material already implemented.

**Virtual reality headsets (VRHs)**

VR is able to fully immerse students in their learning more than any other available medium (Gadelha, 2018). What was primarily used for simulating flights to train novice pilots has now immersed into a technology that is readily available at your local consumer electronics store like Best Buy or shipped to your door in two days through Amazon.com. These virtual simulations play a particularly central role in education. By learning and training in a virtual
environment, Makransky and Lilleholt (2018) mention that students and trainees can practice uncommon scenarios and time-consuming work whenever the need arises, without having to wait for the correct materials. This is very liberating for students. Assuming access to the correct hardware is already in place, knowing that the technology is able to simulate a scenario is liberating and serves as great practice.

The IELTS speaking portion is one the four parts of the test that examinees must prepare for. Though classes may help with giving practice interviews with sample questions from previous tests, a student may not be able to attend or participate, thus, is unable to fully take advantage of the material available. Research has shown that simulation features play a significant role in mediating the experience of learning and interaction, which in turn improves educational outcomes (Makransky & Lilleholt, 2018). Also, as Wilang and Soermphongsuwat (2018) show, students who are asked to do computer-based tasks exhibit excitement as compared to traditional in-class settings. The student may be in the comfort of their own home, alone or with close peers, and experience an actual interview rather than just passively reading practice questions. According to Johnson (2018), VR users report, “the feeling of being somewhere real when [they] are in VR. These tools can bring these experiences to the classroom and enliven the material for students in a way that is completely unprecedented” (p. 229).

Virtual reality headsets (VRH) have become readily available to the consumer. With the launch of the affordable Oculus Go headset in May 2018 starting at $199, more name brands like Lenovo have also released their own standalone headsets pushing the technology forward. Viewing 360 content does not require a VRH with all the included features of the Go, though. Headsets like: (a) Samsung Gear VR ($129); (b) Google Daydream View ($99); or (c) Google Cardboard ($15) are able to play 360 videos just fine. However, the biggest difference between
the headsets for the purpose of this project would be playback functionality. The Oculus Go, Samsung Gear VR, and Google Daydream all include a controller used to control playback feature when watching video while the Google Cardboard utilizes a hover gaze to manage around different options. Gadelha (2018) claims that functionality that permits users to interact by rewinding, pausing, skipping, etc., allows them to learn at their own pace and be in control of the content delivery. Learning has now shifted toward student-centered and VR content aids in the process.

In the short article by Rene Gadelha (2018), virtual reality is described as a tool that is revolutionizing education and discusses the promises it brings with it. Gadelha (2018) eloquently describes its effectiveness by sharing how by blocking out visual and auditory distractions in the classroom, virtual reality has the potential to help student deeply connect with the material being learned in a way that has never been possible before. Even though schools might equip classrooms with the technology, Gadelha (2018) further explains that in order to be successful in a traditional learning setting, the content must be meaningful, engaging, and navigable so that student can better retain what is meant to be learned. If done correctly, virtual reality has the potential to shift how both teachers teach and, more importantly, how students learn.

Gadelha (2018) also includes some points to consider when judging the quality of VR content since it may be looked at just like any other video. Two key components from the list include having content that is unpredictable and interactive. There are many tools that may be used when editing 360 videos so including animations, additional videos, interactive games, etc. can be implemented to avoid predictability. Compelling auditory and visual components to stimulate the students’ senses can be used to engage students fully. To achieve student-centered learning, functionality that permits users to interact by rewinding, pausing, skipping, etc. allows
them to learn at their own pace and be in control of the content delivery (Gadelha, 2018).

Makransky and Lilleholt (2018) also make this claim when stating that simulation features play a significant role in mediating the experience of learning and interaction, which in turn improves educational outcomes.

Makransky and Lilleholt (2018) investigate the emotional value of immersive virtual reality in education. By looking at business analyses and reports, they claim that VR could be the biggest future computing platform of all time. In addition to education, the $4 billion invested in VR start-ups since 2010 has also revolutionized entertainment and gaming industries. Similarly, training and education is another field Makransky and Lilleholt (2018) state where immersive VR could play a particularly central role with virtual simulations. By being in a virtual environment (VE), students and trainees may learn uncommon scenarios, which saves cost and time. The research looked at by the two authors shows that simulation features play a significant role in mediating the experience felt in learning and interaction.

**360-degree videos**

The empathic response triggered by a 360 video is so much more powerful than reading case studies alone (Virtual & Augmented Reality, n.d.). From a simple point-and-shoot to being on your mobile device, video has transformed the way we capture moments and share them with the world. Today, video can also be captured using 360 devices, which shows everything happening in a scene at once. By using newer technologies like this, an intended audience can immerse themselves with the content and form new connections that were not possible with standard video by using any variety of virtual reality headsets.

An education is an investment some receive easier than others. Geography, finance, safety, health, and other factors may impede a student from obtaining an education. While being
in class is, in many ways, the ideal method of being taught, VR and 360-degree video is a helpful substitute for face-to-face immersion (Johnson, 2018). By using a 360-degree camera, content creators are able to capture moments through a photograph or video recording and share it with the world. 360-degree cameras bring new possibilities to how content can be captured. Material is livened to the student in a way that is unprecedented.

Johnson (2018) found that VR and 360-degree video could be used for innovative and engaging assignments that further learning and have significant pedagogical potential in the study and teaching of religion. In his experiment, he also found through student surveys that the technology helps to meet learning outcomes such as empathic understanding, application of theories of religion, and analysis of contemporary religious practice. Johnson (2018) reported that VR allows students to stand in the shoes of others and experience realities that would normally be inaccessible. For someone with disabilities, viewing 360-degree videos through VR could be the closest experience one could get if unable to physically be in a classroom. Johnson (2018) also mentions that VR is able to give more agency than conventional video watched on a screen since the viewer is able to look in any direction, rather than where the camera is pointed at all the time. VR and 360-degree video have significant pedagogical potential when it comes to studying and learning and can be used for innovative and engaging assignments that further learning outcomes.

Accessibility

With more than 300 hours being uploaded every minute, 80% of views coming from outside the United States, and available in 76 different languages, YouTube has grown exponentially since its first video was uploaded on April 23, 2005 (YouTube Facts, 2019). As the world’s largest and most popular video-sharing website (Dougan, 2014), YouTube is a very
attractive social medium that contributes to global education (Alhamami, 2013). It offers fast and fun access to language and culture-based videos and instructions from all over the globe (Alhamami, 2013). Due to the popularity of the website, its free-of-charge availability, and easiness of use, many language teachers have started to use the website to teach different languages by uploading language learning videos (LLVs) (Alhamami, 2013). YouTube has been a platform for researchers like Rania Kabooha and Tariq Elyas who in 2017 integrated it in their reading class and Munassir Alhamami who uses it to train teachers through recorded observations. The versatility of YouTube has made it one of the largest platforms used by many this day.

More closely related to IELTS 360 is the study done by Kabooha and Elyas in 2017. Their findings reveal that of the group from one hundred female intermediate level students aged between 18-20 years old who viewed YouTube clips outperformed the group who was not exposed to the videos. Results show that YouTube provided significant effects on the students’ vocabulary acquisition. By using YouTube, the participants had a positive view of it during lecture and even revealed improvement in vocabulary achievement (Kabooha & Elyas, 2018). Since many second language acquisition researchers and scholars find developing effective pedagogical techniques for L2 a concern, YouTube was considered to supplement the traditional teaching method as a social media. In their study, videos provided language learners the exposure to authentic content and context allowing the learners to improve their language skills (Kabooha & Elyas, 2018).

Kabooha and Elyas also mention Richard Meyer’s Cognitive Theory of Multimedia Learning (CTML). This states that multimedia instruction enhances the functionality of the individual’s brain. To connect this theory with the present study, Kabooha and Elyas (2017) say
that integrating YouTube in EFL classes can enhance the language learning experience and improve students’ vocabulary knowledge. IELTS 360 aims to have similar effects on learners while also contributing to the familiarity factor of the speaking portion of the test. YouTube technology can be considered as a valuable learning tool as it offers videos in all fields of knowledge that can be accessed effortlessly (Kabooha & Elyas, 2018). The findings of their study ultimately indicate that the integration of YouTube has powerful effects on recognition, comprehension, and retention.

As mentioned earlier, Dougan (2014) and Alhamami (2013) also had successful and effective results by using YouTube in their respective fields. For Dougan (2014), YouTube’s accessibility, ease of use, and depth of content were strong lures for the music students in the study. On the other hand, Alhamami (2013) makes it clear that observation is necessary for teacher training and so used the video platform to pre-service teachers to have an image about the learning environment they would be encountering after their training programs. YouTube has changed dramatically since its launch in 2005 and continues to serve as a learning platform.

By learning and training in a virtual environment, students are able to practice scenarios and time-consuming work whenever the need arises (Makransky & Lilleholt, 2018). Virtual environments allow real world like experiences for language learners (Wilang & Soermphongsuwat, 2018). To access this, however, there are now several platforms to which one can view this content. The convenience factor of the website is a huge draw for both faculty and students (Alhamami, 2013). However, ten years passed before YouTube first launched the support of 360 videos (Top 5 VR/360 Content Websites, 2017). With a platform like this, hosting a series of 360 videos for the Academic IELTS speaking test increases accessibility throughout the world.
While some may be intimidated by or dismissive of what seems to be an esoteric or gimmicky new technology, anyone who can operate a smartphone can successfully integrate these tools into their classrooms and, with the right framing, can shape the material into rewarding and effective assignments.

**English as a Foreign Language**

No matter the challenges being faced when studying for a competitive exam, overcoming these difficulties is a crucial part of the learning process. With the right attitude, even a chronic lack of motivation and low productivity can be conquered in given situations. According to Christopher Pell, creator of website IELTS Advantage, in the speaking portion of the IELTS exam, students tend to have the most trouble with fluency. There are a number of factors that could inherently affect the outcomes of the actual interview and much research has been done to better prepare learners as much as possible. Students, overall, perform better in the reading and writing portion of the test but have much difficulty with listening and speaking. Thus, communication apprehension (CA) is a topic that will be focused on, as it is a major factor inhibiting an individual’s willingness to communicate and interact in real-world scenarios. After researching what others have done to lower levels of CA, it is evident that there is room for improvement to give learners the confidence they need to communicate more and receive higher scores in tests like the IELTS.

**Oral communication apprehension**

Communication is a vital factor one must engage in when acquiring a new language. When learning English or any other foreign tongue, the primary intention for learners is to apply it in various communication purposes (Amiri & Puteh, 2018). Other motives include improving analytical skills, understanding the culture, deeper appreciation of cultural diversity, or even
preparing for changes in society due to immigration. With that in mind, enrolling in live English courses not only expose learners to the language but surrounds them with other individuals who may share the same goals and interests. In addition, these courses also give the learner access to great resources, especially at institutions of higher education that offer free tutoring, helpful handouts, and different types of labs for writing, speaking, listening, and reading. However, not all of those who register for a course are always so willing to participate as much as others and may avoid communicating with one another entirely.

McCroskey (1984) defines communication apprehension (CA) as being an individual’s level of fear or anxiety associated with either real or anticipated communication with another person or persons. In an ESL classroom where interaction is a key component to learning, there will be students of varying levels of English-speaking abilities; CA sufferers, however, will experience emotional distress during communication where they feel less successful in producing the language (Amiri & Puteh, 2018). McCroskey (1976) claims that high-level CA learners have lower expectations and less desire for progression, are perceived as less credible and less attractive by their peers and participate less in small group communication. He also mentions that they involve in less self-disclosure and are less likely to be perceived as leaders in small groups. These traits make it very difficult for any learner to overcome obstacles and excel in learning so the time spent in class is far less engaging and can feel helpless. It is crucial to make the learner feel welcome and encourage all to participate as much as possible. As more individuals share their thoughts, learners in the class are able to hear that output and create their own ideas throughout lessons.

In the research by Amiri and Puteh (2018), 25 international doctoral students from various public universities in Kuala Lumpur, Malaysia, were observed while giving academic
presentations. Although the IELTS interview is only between the examiner and examinee as opposed to giving a presentation to an audience, the researchers were able to observe the challenges and difficulties related to fluency. This includes nervousness, low fluency, trying to speak too quickly, or focusing too much on grammar or vocabulary. As a result, after the presentations, linguistic issues were identified as the factor increasing oral communication apprehension (OCA) for the students. Contributing to this were the individuals who overlooked the presentations such as examiners and chairpersons. Some were deemed to be ineffective, strict, language deficient, moody, showed unwelcoming facial expressions, non-experts, and even spoke in the native language of Malay. IELTS examinees also face these situations and may suffer lower scores due to the instances.

**Techniques and speaking strategies**

Speaking English can be a very overwhelming experience for nonnative speakers. However, there are many research-based techniques and strategies learners can go through to better their skills and ultimately reach a point they are comfortable with, especially in preparation for the IELTS speaking test. Since fluency in the IELTS test tends to be one of the major issues as opposed to lexical resource, grammar range and accuracy, and pronunciation, here the focus will be on increasing this skill.

In the IELTS test, fluency includes: (1) talking at length, (2) talking without pauses or hesitation, (3) talking without self-correction, (4) able to be understood, and (5) using linking devices (Ferguson, n.d.). In “7 IELTS Fluency Problems,” Pell (2016) lists “trying to speak too quickly” as one of the obstacles he has observed when testing others. Contrary to popular belief, students with passing fluency speak smoothly rather than quickly. To familiarize oneself with fluent English speaking, Pell suggests listening to the radio, news or movies. By focusing on
speaking calmly and smoothly, speech will sound more native and even give more time to think of ideas and find correct grammar and vocabulary in the moment.

Of the four language skills, speaking in a foreign language has been considered the most challenging and complex (Dinçer, Yesilyurt, & Göksu, 2012). Not only does speaking in the IELTS occur in real time, it requires an interrelation between speaker and listener. The speaker has to make decisions on when, how, and why to communicate in accordance to the hearer’s cultural and social context, which often provokes an anxiety issue. Nearly half of the students participating in the study by Dinçer, Yesilyurt, and Göksu (2012) wanted to improve their speaking skills the most. 76% of other students stated that speaking was their weakest skill in Xian-Long’s project (2009). Dinçer, et al. (2012) also found that 100% of university level English speaking course takers of the study said they were inadequate and had problems in their speaking. It is evident and speaking is a major issue with EFL learners and an important skill to obtain.

In addition to these tips, “Improve IELTS Fluency and Pronunciation with 1 Simple Activity,” (2016) suggests reading out loud. This not only improves speaking but also the other areas IELTS tests for which include fluency/coherence, vocabulary, grammar and pronunciation. The more a learner is able to read out loud, the more he or she is able to connect words in a fluid manner. Most of the time, when speaking out loud, the speaker is not worried about how to form a sentence in a grammatically correct way or what interesting words to use. In the IELTS test, you must sound interested in the topic in order to score higher and so reading aloud more frequently is suggested.

Another technique done by Aiono and Yabuta (2015) shows how videoconferencing can be used to improve fluency in foreign language education. In the study, eight pairs of Japanese
English as a Foreign Language (EFL) learners went through two semesters of 9-10 videoconferences. The positive effects of this method showcased significant improvement in fluency because of the pre-tests and post-tests that were distributed with the conferences. All of this practice allowed the students to produce more speech and also improve the complexity of their speaking abilities.

**Summary**

The themes explored in this literature review look at how the researchers are adapting new methods of teaching by looking at what is already available and combining them with new solutions. In the first theme, new technologies like virtual reality and 360 videos are used to increase student performance in the classroom and are accessible as possible with large Internet platforms such as YouTube. Johnson’s (2018) findings help claim that virtual reality and 360 videos can be used to create innovative and engaging content that furthers learning and has significant potential. Additionally, Makransky and Lilleholt (2018) analyze emotions with the importance of simulations while Wilang and Soermphongsuwat (2018) do a study with computer-based tasks, which promote higher engagement and learning.

In the second theme of the literature review, research analyzes oral communication apprehension and the techniques being taught to overcome it with English as a Foreign Language learners. After years of experience, Pell (2016) shares some of his findings through his own personal website and business that deals with preparing students for the IELTS exam. With fluency being a major problem in speaking tests, Pell, Amiri and Puteh (2018) discuss their approaches to overcoming such challenges.

The proposed project aims to consider all of the research done to create 360 video content viewable in virtual reality headsets that is enjoyable for the learner but also more effective than
current teaching material. By limiting distractions and utilizing technology that is new and
engaging, students are able to learn in a totally new way that will be increase fluency, familiarity,
and accessibility to the IELTS speaking exam. IELTS 360 is just one of the limitless possibilities
this technology can focus on. Future content will be developed as well.
CHAPTER III
THE PROJECT AND ITS DEVELOPMENT

Description of the Project

The project integrates 360-degree video, virtual reality, and IELTS speaking interview samples in preparation for the IELTS speaking exam. It currently consists of three videos titled: (1) Introduction – IELTS 360, (2) Sample Interview – IELTS 360, and (3) One-on-One – IELTS 360 in a YouTube playlist. There is plenty of room for growth and the videos are accessible through this website URL https://bit.ly/2Vam9Rw or by scanning Figure 1 below with any smartphone camera:

![QR code](https://bit.ly/2Vam9Rw)

*Figure 1. QR code. This figure redirects the reader to the IELTS 360 YouTube playlist.*

For an optimal experience it is recommended that IELTS 360 is viewed with the Oculus Go virtual reality headset. However, other tools are mentioned in the Instructions Manual found in the Appendix A of this project. This includes any virtual reality headset preferably with a controller but can also be a regular desktop computer screen or mobile device. Once the headset is on and the viewer is immersed in the video, he or she is able to feel like the scene is happening before their eyes and engage in a way as close as possible to the actual interview performed in the test.
The first video (see Figure 2) is a basic introduction of the project. For anyone who has not experienced virtual reality before, this will allow them to become quickly acquainted with the new learning experience if it is their first time being in a virtual reality environment. It also discusses the goals of the material and follows through with instructions to select any one of the other videos available.

![Introduction - IELTS 360]

*Figure 2. Introduction. This figure snapshots the first moment the viewer plays the video.*

The second video (see Figure 3) is a sample interview of an IELTS speaking exam. The video strictly follows the IELTS guidelines by keeping every section under the allotted time given. The interviewee answers questions asked by the interviewer and allows the viewer to take note on everything happening in the scene.
Figure 3. Sample interview. This figure snapshots a point in the sample interview.

The third video (see Figure 4) is a one on one sample that puts the learner in front of the interviewer. This scenario allows the learner to come as close to an actual IELTS speaking interview from wherever they may be located. With a viewable timer and questions placed in view as the interview progresses, the interviewee is able to pause the video at any time, respond, and continue at their convenience.
Figure 4. One-on-one. This figure displays the video while it is playing.

If viewed on a mobile device, your screen will look similar to the one in Figure 5.

Figure 5. One-on-one video controls. This figure shows the different playback controls.
By tapping on the screen to see the controls and then selecting the Google Carboard icon located to the right of the remaining time marker, your screen will switch into a different view like the one in Figure 6.

![Figure 6. Mobile VR mode. This figure shows how a mobile display adjusts to a VR headset.](image)

It should be mentioned that a more complex solution for this project is in the works. I wish to create an application or website that integrates more technical aspects. This includes voice recording, brochures, a website, and a team of people grading responses so that the interviewee is able to see how they would place on the exam. Due to my limited knowledge in this area, a video solution was the next best idea.

**Development of the Project**

The main purpose of IELTS 360 is to increase fluency, familiarity, and accessibility for anyone preparing for the IELTS speaking exam. With the use of modern technologies like virtual reality and 360 videos, learners are able to engage in new ways of learning by becoming
immersed in virtual environments catered to this group on the YouTube platform. The following page contains a timeline of events (see Figure 7) that took place in order to make this project.
Get as familiar as possible with the IELTS speaking exam. Analyze scoring details and types of questions asked.

Don't be afraid to make mistakes. Many errors could be fixed in post-production! Have fun but be serious.

Look for someone who is willing to be on camera and help with the project. Only needed for one video sample.

Move the footage from camera to computer to save space for future recordings if limited storage.

Choose either Final Cut Pro or Adobe Premiere for editing 360 videos. Have fun and plan accordingly.

Watch your product in VR and share with the world.

Figure 7. IELTS 360 timeline. This figure shows the steps taken to create the project.
**Gather IELTS Information**

Before beginning the project, it was important to have an understanding of the IELTS test itself. By visiting the British Council website (“IELTS Band Scores: How they are calculated,” n.d.) and learning about the IELTS 9-band scale (see Figure 8) and how results are used, I was able to search for other content that helped those preparing for the exam more efficiently. It is imperative to know about the time limits, procedures the interviewer must take, and the usage of timers during the test. When enough information was gathered, I created a mind map using an application called iThoughtsX to organize the rest of the development of the project.

<table>
<thead>
<tr>
<th>Band</th>
<th>Fluency and Coherence</th>
<th>Lexical Resource</th>
<th>Lexical Resource</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>speaks fluently without only occasional repetition or self-correction; hesitation is usually content-related and only rarely to search for language</td>
<td>uses vocabulary with full flexibility and precision in all topics</td>
<td>uses a full range of structures naturally and appropriately</td>
<td>uses a full range of pronunciation features with precision and subtlety</td>
</tr>
<tr>
<td></td>
<td>speaks coherently with fully appropriate cohesive features</td>
<td>uses idiomatic language naturally and accurately</td>
<td>produces consistently accurate structures apart from ‘slips’ characteristic of native speaker speech</td>
<td>sustains flexible use of features throughout</td>
</tr>
<tr>
<td></td>
<td>develops topics fully and appropriately</td>
<td>uses a wide vocabulary resource readily and flexibly to convey precise meaning</td>
<td>uses a wide range of structures flexibly</td>
<td>is effortless to understand</td>
</tr>
<tr>
<td></td>
<td>uses less common and idiomatic vocabulary skillfully, with occasional inaccuracies</td>
<td>uses a majority of error-free sentences with only very occasional inappropriacies or basic/monosystematic errors</td>
<td>uses a wide range of pronunciation features</td>
<td>sustains flexible use of features, with only occasional lapses</td>
</tr>
<tr>
<td></td>
<td>uses paraphrase effectively as required</td>
<td>is easy to understand throughout; L1 accent has minimal effect on intelligibility</td>
<td>shows all the positive features of Band 6</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>speaks at length without noticeable effort or loss of coherence</td>
<td>uses vocabulary resource flexibly to discuss a variety of topics</td>
<td>uses a range of complex structures with some flexibility</td>
<td>uses a mix of simple and complex structures, but with limited flexibility</td>
</tr>
<tr>
<td></td>
<td>may demonstrate language-related hesitation at times, or some repetition and/or self-correction</td>
<td>uses some less common and idiomatic vocabulary and shows some awareness of style and collocation, with some inappropriate choices</td>
<td>frequently produces error-free sentences, though some grammatical mistakes persist</td>
<td>may make frequent mistakes with complex structures, though these rarely cause comprehension problems</td>
</tr>
<tr>
<td></td>
<td>uses a range of connectives and discourse markers with some flexibility</td>
<td>uses paraphrase effectively</td>
<td>uses a range of pronunciation features with mixed control</td>
<td>uses a range of pronunciation features with mixed control</td>
</tr>
<tr>
<td>7</td>
<td>speaks at length without noticeable effort or loss of coherence</td>
<td>shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8</td>
<td>shows all the positive features of Band 6 and some, but not all, of the positive features of Band 8</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>is willing to speak at length, though may lose coherence at times due to occasional repetition, self-correction or hesitation</td>
<td>has a wide enough vocabulary to discuss topics at length and make meaning clear in spite of inappropriacies</td>
<td>uses a mix of simple and complex structures, but with limited flexibility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>uses a range of connectives and discourse markers but not always appropriately</td>
<td>generally paraphrases successfully</td>
<td>may make frequent mistakes with complex structures, though these rarely cause comprehension problems</td>
<td>uses a range of pronunciation features with mixed control</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>shows some effective use of features but this is not sustained</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>can generally be understood throughout, though mispronunciation of individual words or sounds reduces clarity at times</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><strong>usually maintains flow of speech but uses repetition, self-correction and/or slow speech to keep going</strong></td>
<td><strong>manages to talk about familiar and unfamiliar topics but uses vocabulary with limited flexibility</strong></td>
<td><strong>produces basic sentence forms with reasonable accuracy</strong></td>
<td><strong>shows all the positive features of Band 4 and some, but not all, of the positive features of Band 6</strong></td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>4</td>
<td><strong>cannot respond without noticeable pauses and may speak slowly, with frequent repetition and self-correction</strong></td>
<td><strong>is able to talk about familiar topics but can only convey basic meaning on unfamiliar topics and makes frequent errors in word choice</strong></td>
<td><strong>produces basic sentence forms and some correct simple sentences but subordinate structures are rare</strong></td>
<td><strong>uses a limited range of pronunciation features</strong></td>
</tr>
<tr>
<td>3</td>
<td><strong>speaks with long pauses</strong></td>
<td><strong>uses simple vocabulary to convey personal information</strong></td>
<td><strong>attempts basic sentence forms but with limited success, or relies on apparently memorised utterances</strong></td>
<td><strong>shows some of the features of Band 2 and some, but not all, of the positive features of Band 4</strong></td>
</tr>
<tr>
<td>2</td>
<td><strong>pauses lengthily before most words</strong></td>
<td><strong>only produces isolated words or memorised utterances</strong></td>
<td><strong>makes numerous errors except in memorised expressions</strong></td>
<td><strong>speech is often unintelligible</strong></td>
</tr>
<tr>
<td>1</td>
<td><strong>no communication possible</strong></td>
<td><strong>cannot produce basic sentence forms</strong></td>
<td><strong>speech is often unintelligible</strong></td>
<td><strong>speech is often unintelligible</strong></td>
</tr>
<tr>
<td>0</td>
<td><strong>does not attend</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 8.** IELTS band scores. The chart defines the scores given for the IELTS speaking exam.

**Create a Script**

After analyzing different resources that provided study material for the speaking exam portion of the IELTS, I gathered my favorite topics and decided to mock an interview that has over 1,000,000 views on YouTube. There is a lot of study material to choose from on the web so picking one was quite simple. I made sure to mark areas of where to start the timer since the interviewee must know when to begin and end during the speaking exam.

**Get an Interviewee**

I had one of my classmates be the interviewee in the sample interview video of IELTS 360. Lilya Xin was an IELTS instructor back in China before coming to University of San Francisco (USF) to study. She made great contributions to my understanding of how the exam is administered and so the content closely follows its guidelines from her expertise and from what I learned along the way. Since students around the world take the IELTS, there is opportunity here to create content with various interviewees of different backgrounds and levels of English to
appeal to different audiences. Also, I found that videos uploaded to YouTube include the IELTS band score in the title of the video. In this case, it would be helpful to know what the interviewee scored so your audience would note what to look for.

**Practice**

The interviewee and I practiced the script several times in order become more familiarized with the flow of the three different parts before recording. I took considerable attention to detail such as: volume of voice, distance away from each other, distractions, body language, clear pronunciation, timing, and flow.

Before doing the final recording, I also did sample videos to make sure the audio and video were of high quality. The Insta 360 One X camera used was able to connect to my iPhone wirelessly through the Wi-Fi network and so having complete control of the camera from where I was sitting was very helpful. Here I paid close attention to the placement of the camera in relation to the interviewee and me. The physical camera has two lenses so I pointed one of them in our direction to avoid the side-stitches from being easily visible in the interview.

**Record**

Recording the project was my favorite part of this whole experience. The scene is very much important here and so I reached out to a colleague who had access to an empty classroom in the university. The three videos were all recorded around the same time of day but on separate occasions to keep the scene consistent. Though the audio quality of the Insta 360 One X is fair, I used a Blue Yeti microphone instead. In all the videos, I have it connected to my computer via USB and capturing audio in cardioid mode for the one-on-one video and introduction and switching to the bidirectional mode when the sample interview occurred. Cardioid mode is perfect for recording sound directly in front of the microphone while the bidirectional pattern
records from both the front and rear of the microphone. It is also good to mention that I keep the microphone grain level at around 50%-75% since more may be removed in the editing process.

![Recording scene. The figure gives insight of how the videos were setup.](image)

*Figure 9.* Recording scene. The figure gives insight of how the videos were setup.

**Import**

As soon as a series of clips per video were completed, I immediately transferred the files onto my computer to save space on the limited 32 GB memory card in the camera. As a side note, 360 videos create very large files and so offloading them takes away the worry of running out of space while recording is in process. The file format of the videos directly from the camera are in “.inSV” so it is necessary to download and install the Insta360 Studio application and export the files to “.mp4” before continuing to post-production.
Figure 10. Insta 360 studio. This figure is a screenshot of the application Insta360 studio.

After downloading the app and connecting the powered-on camera, it is simple to import all the videos recorded in a drag-and-drop solution. The app has limited editing capabilities but I did use the logo feature to insert one I created in Adobe Illustrator. I specified its dimensions and you can see it in all the IELTS 360 videos if you look down. The purpose of doing this was to hide the tripod and books beneath the camera that were used for stability and added height.

Backup

When all the clips were exported into the “.mp4” format, I created copies of all the files including the originals onto a 1 TB portable hard drive to then offload them from my computer. In total, all the clips and audio required about 500 GB of space on my hard drive so I suggest something similar or of higher capabilities when creating a backup. Keep this in a safe place! The computer you are using also makes an impact in this process. A computer with more RAM,
high storage, strong graphics card, and higher CPU will make this step faster but it is not
necessary to do so. My longest video clip before editing was about 25 minutes in length and it
took about 45-60 minutes to export. The studio application can only export one video at a time
and you should limit other activity on the computer as well to keep the process as efficient as
possible. Make sure all cable inputs are connected properly and nothing disturbs the videos as
they move/copy from one location to another.

Edit

Adobe Premiere and Final Cut Pro (FCP) are two fantastic software applications capable
of editing 360 videos. While FCP is only available on a Mac computer, Adobe Premiere can run
on both Windows and Mac. Though I have experience using both of these tools, I had never dealt
with 360 files before. Prior to beginning the edits, I had to decide which one of the two I was
going to use and so I turned to YouTube to learn the processes as quick as possible. In the end, I
chose Final Cut Pro though Adobe Premiere also offers advanced 360-video features.
Figure 11. Final Cut Pro. This figure is a screenshot of the Final Cut Pro application.

Final Cut Pro has great and simple 360 effects such as transitions and text that are easy to implement. Once the clips I wanted to edit were imported onto a new project in FCP, I arranged them in the correct order and trimmed all the unnecessary portions away alongside the separate audio file I had from the Blue Yeti. A regular text overlay in a flat video typically does not require any type of curvature in contrast to a 360 video, which does. FCP has built-in effects that consider the orientation of the content and makes the overlays very easy to apply and edit. When selecting an effect, all I had to do was open the effects window and drag it over the area on the timeline where the video portion was.

Before finalizing the videos, I made sure to show others the changes made. After working on one video for an entire day, it is very easy to overlook something small like beginning to talk
to soon after a cut or extra-long pauses in between clips. The videos need to sound and look as
natural as possible to gain the interest and retention of viewers.

Much of the techniques used in editing regular flat videos applies to 360 content. Many of
the shortcuts remain the same and the exporting does as well. When I finally got the video to
its final version, FCP has several different options for exporting including a direct upload to
YouTube. I, however, exported a master file first, made a backup of the master file second, and
used another computer to upload the video onto YouTube next so I could continue working
without interrupting the long process. My final one-on-one video is about 65 GB in size and
needed about 20 hours of upload time to YouTube at home. Plan accordingly!

*Enjoy!*

As the videos were uploaded and processed, I was able to view them on YouTube just
like any other but in virtual reality. If the videos are viewed on a flat screen such as a mobile
device or computer, YouTube offers dragging options to place the field of view wherever you
wish. By using a VR headset like Google Cardboard, the experience is getting closer to being
fully immersed but it still does not offer easy playback controls found on devices such as the
Oculus Go or a headset strap so your hands are free. With the Oculus Go, the user puts on the
headset, is able to control video playback, and decreases distractions when viewing the content.
Figure 12. Oculus Go. This figure shows the Oculus Go used in the make of this project.

The following images are screenshots taken from the Oculus Go headset I used to preview the content. It is a visual overview of how one would access the videos once the headset is worn.
Figure 13. Oculus home. This figure is a screenshot of the Oculus Go home menu.

From the home view, navigate over the search icon in the lower task bar and type in “YouTube VR” to either download the application or jump into it.
Figure 14. YouTube VR. This figure is a screenshot if the YouTube VR menu.

In YouTube VR, search for IELTS 360 by pointing the laser to the search box and tapping the trigger to start typing. You can also use the Oculus Go’s microphone to say the name and search for it this way.
Figure 15. IELTS 360. This figure is a screenshot of IELTS 360 in YouTube VR.

Figures 15 shows the three videos located in a playlist that can play automatically in order. You can always select any one of them to play at any time though.
Figure 16. Introduction in VR. This figure is a screenshot of the introduction in VR.

Jumping into the introduction, you will be greeted and given an overview of what IELTS 360 is and how it will help the viewer prepare for the speaking exam in the IELTS.
Figure 17. Interview in VR. This figure is a screenshot of the interview sample in VR. In the next video, the viewer watches an IELTS speaking exam occur right in front of them. I applied a timer towards the bottom of the screen to help gauge how much time elapses after every question is asked.
Figure 18. One-on-one in VR. This figure is a screenshot of the one-on-one video in VR.

In the last one-on-one video, I placed the viewer right in front of me. We went through the exam together and the questions being asked appear towards the top while the timer continues below. Since I did not know how long the viewer would take to respond to the questions, it is advisable
to pause the video once the question is asked. There is a slight five second pause after every question.

Figure 19. Sample question. This figure displays the question in the one-on-one video in VR.

Figure 19 demonstrates another view with a different question being asked.
The Project

The project in its entirety can be found in Appendix A.
CHAPTER IV
CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Through my experience, speaking is a hurdle many English Language learners (ELL) want to overcome faster than any of the other language skills. Whether it is to get a better job or enroll in higher educational courses, ELLs want to speak English to communicate with others effectively and correctly. When undergoing stressful situations in English, learners undergo communication apprehension and it makes it difficult for anyone to perform well when experiencing such an impediment. In regard to the IELTS speaking exam, it is said that fluency is an issue that needs to be improved among many interviewees, which can be resolved by being exposed to the language as much as possible. However, not everyone who wants to improve their English can easily do so, due to circumstances such as geographical location, study material cost, safety concerns, or health-related issues.

The purpose of IELTS 360 is to increase fluency, familiarity, and accessibility with tools readily available online and to the consumer. By utilizing the YouTube platform, video content is created to cater to a specific audience and deliver material that anyone can engage in. YouTube offers playback control that allows learners to play, pause, rewind, and fast-forward to any point in the video, which promotes learning online as another tool. To access YouTube, you only need a device that supports a browser and an Internet connection stable enough to stream the content. In addition to YouTube, though, IELTS 360 integrates virtual reality and 360 video to immerse the viewer in the given situation. The 360 videos made to help learners in the IELTS 360 speaking exam, puts them in the scene with an interviewer and allows time to practice language
speaking abilities with very video. The project also provides the viewer with samples to watch in order to become more familiar with how others perform under the exam.

The significance of this project entails new methods of learning through a means not many are yet acquainted with and pushes the technology in a way that exposes the learner to something meaningful. The standalone Oculus Go headset made history when it was first announced and I have seen its popularity grow with my time at USF working with the device.

**Recommendations**

I hope IELTS 360 can be a tool learners around the globe can access to prepare for the exam. In an IELTS preparation course, the instructor may assign to watch a video and create material that asks the learners about what they thought and how to improve answers given by the interviewee recorded. The fact that the videos are on YouTube makes it highly accessible and easy to watch as long as a capable device is at hand and an Internet connection is available.

It is highly recommended to view the material with the Oculus Go but there are other virtual reality headsets that will also benefit the learner. By using the Oculus Go and controller, the viewer has playback controls and can maneuver to different videos at any time easily while being in the virtual environment. None of the content exceeds the 2-hour battery life of the device so students in a preparation course, for example, can share the device if needed.

IELTS 360 has room for much improvement and growth. My future idea with the one-on-one videos would be to utilize the headsets built in microphone to record the learners voice as they respond and have that scored by real people who can offer feedback on how to improve based on the 9-band scale the IELTS uses for scoring. Though YouTube VR offers basic playback controls, it would also be nice to have on-screen options like a function that allows one to rewind five seconds, jumping to the different questions in the video, or explanations of what a
good answer should include in the live scene. All of this is possible but would require an application to be developed that embeds all this information amongst the videos.
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APPENDIX A
Other VR solutions:
1. Oculus Rift
2. HTC Vive
3. Google Daydream
4. Google Cardboard
5. Smartphone
6. Laptop or desktop computer

*** Though these other solutions can be used to experience IELTS 360, Oculus Go is a standalone VR headset that comes with an orientation-tracked controller. It supports 3 degrees of freedom (3DOF) head tracking, has best in-class optics, a wide field of view, and fantastic ergonomics.

Final thoughts:
IELTS 360 is a solution for learners everywhere. It is not necessary to view any content with a virtual reality headset though it is highly recommended to get the full immersive experience. Videos are still easily accessible and playable on YouTube.com. Feel free to leave your comments under the video(s) or email kazaragoza2@dons.usfca.edu for further questions.