Playing to Learn:

A Country Analysis for Understanding the Needs for English Learning through a Digital Gamified Medium

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Solve Education!

As English fortifies itself as the global language, people all around the world are learning it to unlock new and exciting opportunities for themselves. While it is difficult to precisely quantify the number of English users around the world due to a dearth of statistical information as well as a vagueness associated with defining what constitutes an English user, Crystal (2003) arrives at an estimation of somewhere between 1.1 to 1.8 billion English users worldwide, with at least 320 million being native speakers.

With 1.5 billion learners around the world (Bentley, 2020), it is safe to say English is in high demand. However, not every country focuses on promoting English learning, as they have their own strongly established and globally relevant language, such as French or Spanish. Many countries are also troubled with a lack of resources or have deprioritized English education in the interest of more pressing matters they might face (Senedd Cymru Welsh Parliament, 2018).

Gamification, as a means of education, has long been researched. Gamification has been found to increase engagement by increasing the quality and quantity of the interaction between the learner and the game environment. Dicheva et al. (2015) analyzed the results of 34 empirical studies on gamification in education and reported significantly higher engagement of students in "forums, projects, and other learning activities." Gamification of education also leads to an increase in motivation as a learner outcome, while also leading to an increase in feelings of achievement.

It is thus the purpose of this paper to assess countries based on their need and feasibility of learning English through a digital, app-based medium relying on gamification. However, before discussing the reasons for specific countries to focus on English learning, it is imperative to find out why English is becoming or has already established itself as a primary language.

Why English is becoming a primary language

Post the Industrial Revolution, a new, globalized economic order has surfaced in the 1970s with innovations and development in telecommunications and computing knowledge, termed as informationalism (Castells, 2009). This new world order has disrupted pre-existing socioeconomic and cultural dynamics by juxtaposing international networks to fight for local self-identity (Friedman, 2012). In such a globalized world, connected through international trade and multinational corporations, financial markets, and the internet, the demand for a *Lingua Franca*[1] is apparent. The ability to communicate in a common language is a skill necessary for survival

[1]A Lingua Franca is a common language, usually adopted in scenarios where the speakers' native languages are different.

in the age of transnational business, tourism, and information exchange. It is thus, through the increased interaction globally and the need for a common language, English has emerged not just as a foreign language but rather as an additional language for non-native speakers who wish to be involved in the global economy.

While proponents of an integrated multinational society support the rise of English as a global language, there were scholars who oppose it. They linked the spread of English to "linguistic imperialism", and thus promoting the downfall of indigenous languages across the world (Phillipson, 1992).

English in non-native countries

While English has managed to spread across the world and strengthen its position as a global Lingua Franca, it has also adapted and changed to suit regional linguistic identities and create differing dialects within the same language. In the case of Singapore, for example, we see two Englishes coexisting, with the Standard Singaporean English being the formal language used in the workplace and business, and Singlish being an informal take on English that has been adapted and accepted by the local population by mixing foreign words in with English.

English in non-native countries has spread relatively extensively. However, it must be noted that this rapid spread privileges certain groups, such as the elites of the nation, who have the access and the opportunity to learn English. Simultaneously, while English rises as the language of business within a country, it harms those who are unable to avail opportunities to learn by pushing them out of a globalizing economy. In this catch-22 situation, people who don't know English are disadvantaged, and those who are disadvantaged find it difficult to learn the language.

Country List

The following list of countries was identified from across the world and selected to show those that have a pressing need for learning English while also finding it possible to do so through a gamified e-learning tool. This was judged by looking at quantitative metrics such as the student-teacher ratio, transition rate from basic to secondary education, number of mobile cellular per 100 population, tourism revenue as a percentage of GDP, percentage of government spending towards education, and youth unemployment. These factors help decide the need for English, as well as get a snapshot of the state of education in the country. Other qualitative

factors were researched, such as pre-existing government policies that support the inclusion of digital tools in the classroom and readiness towards teaching English. Reports on the quality of English language educators were also consulted to get a better picture of the ground realities.

Costa Rica

Latin American country, Costa Rica, has performed wonderfully in development metrics, with the United National Development Programme claiming the country to have "attained much higher human development than other countries at the same income level" (United Nations Development Programme, 2010, Table 1.). It excels in education, with high literacy rates across the country, a result of more than 26% of government spending being allocated to education. However, it lacks English speakers, being judged as having only moderate proficiency by the English Proficiency Index (Education First, 2020). This suggests a focus on English education in order to upskill the current population, which seems accessible and implementable, keeping in mind the government spending on education. Apart from this, Costa Rica brings in more than 13% of its revenue through tourism while also having Foreign Direct Investment (FDI) make up 4.6% of its GDP. While having high exposure to the rest of the world, Costa Rica does suffer from high youth unemployment, with 30.5% of young jobseekers unemployed. This indeed suggests a gap to be filled with regards to skilling the youth to be involved in client-facing roles in the settings of tourism and international business and thus teaching them English in order to smoothen the transactions between locals and foreign tourists. Further, an OECD report (Organisation for Economic Co-operation and Development, 2017) highlights shortcomings in the Costa Rican English education landscape, with 40% of English teachers having not mastered the curriculum they are supposed to teach, thus stressing the need for better English education.

Having identified the need for English language education in Costa Rica, it is imperative then to identify the feasibility of the English language being taught through digital means in the form of a gamified learning application. Costa Rica ranks high in terms of cell phone coverage, with 180.2 mobile cellular connections per 100 population (international telecommunications union). Further, through the scheme 'Tecno@Prender,' *the Ministerio de Educacíon Pública*[2] (MEP) aimed to develop and improve Costa Rican education through digital learning programmes. The scheme is projected to benefit around 100,000 students by introducing students and schools to technology such as tablets, interactive whiteboards, and laptops (The Costa Rica News, 2020). Along with this scheme,

[2] *Ministerio de Educacíon Pública* is Spanish for the Ministry of Public Education.

the Costa Rican government also propagated an Alliance for Bilingualism in 2018, thus making English teaching a national priority. The government aims to achieve bilingualism by mobilizing both the private and public sectors, while also tying in non-government organizations to benefit the people and focus on employability opportunities (Civnini, 2018). These facts and schemes lead us to believe that the Costa Rican government looks favorably towards English education, as well as digital learning means to achieve this goal. The number of mobile cellular connections per 100 population also suggests that the Costa Rican population is well equipped to work with digital learning applications.

Chile

Another Latin American country on this list, Chile is a high-income economy, leading the region in terms of competitiveness, globalization, and economic freedom among other things (United Nations Development Programme, 2007). Being such a high-performing country, Chile manages to excel in the education space, with 21.3% of their spending dedicated to education, and 97.4% of students transitioning from basic to secondary education. Despite the statistics which portray Chile as a wonderful country for those seeking an education, there are some problematic signs which emerge when taking a closer look at the country. According to a British Council report (British Council, 2015), cost and access are the major barriers to learning English, with 55% of the people surveyed by British Council reporting having not learnt English as it is too expensive, and 33% of the people reporting that there was “no access to government funded programmes”. When asked on what would motivate non-English speakers to learn English, 82% of the respondents answered that they would learn English to improve their employment prospects. A large number such as this suggests that there is a major demand for English education, but due to barriers to entry, many potential learners are unable to access learning opportunities.

The need for accessible, cost effective English education is highlighted by showcasing the unmet demand for English education. In terms of feasibility, Chile has 127.46 mobile cellular connections per 100 population, showing that a game-based learning application would be feasible as there is access to technology that can support it. Further, the government invested $200 million on equipping all public school classrooms with a computer, and there are an average of 13 students per computer in a public school (Bonnefoy, 2010). The government has also supported English education through Programa Inglés Abre Puertas, or English Open Doors; a scheme through which English as a Foreign Language is made more accessible to the Chilean populace. These involvements indeed shows the government’s willingness to explore digital learning and English education, and thus sets Chile as an ideal target in terms of exploring foreign English teaching through a gamified learning app.

Brazil

Brazil, the largest country in the Latin American continent is another country with the factors geared up towards welcoming English as a Foreign Language into its populace's parlance. Brazil is a country of high inequality, with the six richest people in Brazil having the same wealth as the poorest 50% of the population combined (Oxfam International, n.d.). Such inequality leads to unequal access to education and opportunities, with the well-off receiving an education second to none and at par with established Western educational institutions. The services of exclusive private institutions in Brazil are availed by high-income families leading to a segregated educational system thus furthering social inequality. With high youth unemployment at 27.4%, Brazil needs to find ways of incorporating youth into the economy, and teaching English is a clear way of doing so. In a report by the British Council (Data Popular Institute, 2014), 48% of the surveyed respondents claimed that their reason for dropping out of English learning classes was due to absences, while 35% reported that English classes were too expensive. When surveying those who never took an English course, the British Council found that 65% of their respondents considered language courses as too expensive. These statistics suggest quite point blank that there is a need for cost-effective English learning that can be done remotely and at the students' personal pace of learning to increase engagement and effectiveness by reducing absences.

With 113.22 mobile cellular connections per 100 population (International Telecommunications Union, n.d.), Brazil does have a significant number of cellphones. Most of the beneficiaries would either have their own personal device or can be assumed to have one in their community, thus being able to avail the benefits of a mobile-based learning application. Brazil is also quite proactive in accepting digital learning methods into their schools, and this is reflected in the fact that 13 million Brazilian students in public schools are connected to the internet through the Connected Education Innovation Policy (Presidency of the Republic of Brazil, 2017). This programme aims to benefit all schools by 2024, and thus shows that students are primed to embrace digital learning methods. However, there is a drawback to remote learning, as although most Brazilians would be open to an online English learning tool when used in collaboration with in-person classes, only less than half would be willing to try a 100% online learning service (Data Popular Institute, 2014).

Thailand

Thailand boasts of the second largest economy in Southeast Asia, boosted in no small part by the large tourism industry that makes up more than 20% of the country's revenue (Knoema, 2019). With a booming tourism industry, Thailand is required to cater to the diversity it welcomes with a common language, which is a role filled by English. While the Kingdom of Thailand does allocate

an impressive 19.13% of its spending towards education (UNESCO, n.d.), and sees a 96.31% transition rate from basic to secondary education (Knoema, 2020), it is still somehow unable to deliver quality English content and education to its students. This is laid bare through a survey conducted by the University of Cambridge which found that 60% of Thai teachers had knowledge below par to be teaching English, and a mere 3% had reasonable fluency (Kaur et al., 2016).

A country whose education is characterized by rote learning, Thai English learners also suffer from the fact that they are taught the language more as a subject and less as a language; that is to say, it is difficult to translate classroom English learnings into real-world conversational skills as English is a less spoken language. Further, while English is a compulsory subject from primary school onwards, there are issues of disconnect between the realities of Thai schools and the education policy. The National Education Act of 1999 argues for decentralization in terms of academic matters, which benefits schools with skilled teachers who can afford to experiment and teach the class their own way, but also serves as a hindrance to the vast majority of schools which results in "… a hotchpotch of poorly designed materials with no relation to any other policies" (Darasawang & Watson Todd, 2012, p.213).

Having identified the need for English education, we see that it is quite feasible to roll out a digital learning application in Thailand as it boasts of more than 173 mobile cellular connections per 100 population (International Telecommunications Union, n.d.), and thus it is fair to assume that most of the beneficiaries of such an application would be equipped with the devices. The Thai government has previously also been open to digital inclusion in the classroom, starting with the 'One Tablet Per Child' policy that gave tablets to first graders to foster collective learning (Sakawee, 2013). The policy distributed 860,000 tablets, however 30% of them were returned due to them being requiring repair. While this did lead to the policy being cancelled, it shows the government's willingness to move towards modern solutions to increase educational attainment.

Pakistan

Pakistan, with one of the world's largest middle-class populations (Alam, 2015), is a middle-power equipped with nuclear force. However, it is severely lacking in terms of education. Schools consist of a student-teacher ratio of 44.28 (World Bank, n.d.), and see a transition rate of 78.55 from basic to secondary education (Knoema, 2020). 56% of Pakistani public school teachers, when put through the Aptis test to attest their English language skills, scored in the lowest possible band, as did 62% of private school teachers (British Council & Punjab Education and English Language Initiative, 2013). With numbers this low, and a growing middle class entering the large service-centered industry of Pakistan, English knowledge is the need of the hour.

In terms of feasibility, we see a comparatively lower mobile cellular per 100 population with 73.36, however the government has looked favorably towards digitization of the classroom, recently teaming up with Coursera and HEC to offer 8000 free online courses to meritorious students (Mati, 2018). This followed the Prime Minister's Laptop Scheme which distributed 100,000 free laptops. Such readiness towards accepting digital educational means as well as a struggling English educator workforce makes Pakistan a country ready to try a gamified learning app.

Cambodia

South East Asian country Cambodia is among the continent's fastest growing economies, but still suffers from a low per-capita income. With a high student teacher ratio of 33.34 (World Bank, n.d.), and transition rate from primary to secondary education comparatively low at 81.7 (Knoema, 2020), Cambodian education is severely lacking. A scarcity of schools, poor funding, and high amounts of child labor leading to dropouts affect schooling in this country, with NGOs having to step in and teach children. Tourism makes up a large chunk of Cambodia's GDP at 32.71% (Knoema, 2019), showing the conditions ripe for the local populace to upskill in English and get involved in the tourism sector.

As there are 116.04 mobile cellular connections per 100 population, it shows a large number of cellphones with the Cambodian people, with most having at least one cell phone either with them or within their community. Further, the heavy reliance on NGOs to supplement the government's shortcomings in imparting education presents a way of easy access to the country in terms of rolling out a gamified learning app for students.

Conclusion

Having reviewed the rise of English as a lingua franca, and analyzed the role of gamification as a tool of education, this paper attempted to highlight 6 countries from across the world that can benefit from a digital intervention to introduce the countries' populations to the English language in an attempt to bring them further into the globalized world in the age of informationalism.

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