

Digital, gamified EdTech and the challenges of integrating it in Indonesian primary schools

Before departure



We applied for a KTH Field Studies travel grant because we really wanted to do a project in a different environment and with an organization where we could make an impact on people's and in this case children's lives. We searched all over the world for educational institutions that would have us and let us do a study in the intersectional area of digitalization and education, before we landed in this school in Indonesia through the help of our contact person.

Going into the project, we had some idea of what to expect since two of us have

attended school in Asia, one specifically in the ASEAN region, but at the same time a lot of things were new. None of us had ever been to Indonesia, nor did we speak the language or know much about the culture. Although we communicated with the school beforehand, there were also a lot of specifics about the study that were unclear, so when we embarked on the journey there were still many uncertainties that we knew we had to iron out on arrival.

As part of preparations, we did as much as possible of our research on the thesis in Sweden. We all took LS1600 Intercultural Competence and got vaccinated for various diseases (there were quite a few!). Visa policies were also a somewhat unclear area. Although applying was easy, it was not easy to know which Visa to get. Fortunately, our contact person was able to provide a lot of help with this.

Upon arrival

When we arrived, we only had one day before going to the school to do a kind of kick-off. We didn't really know what to expect but the reception was beyond belief. The entire school had gathered and wore ceremonial outfits. The school principal held a speech, there were traditional dance performances, we also did a speech which was almost entirely improvised.

We left that meeting feeling overwhelmed, both in a positive way as they were clearly very happy to have us there, but also a bit worried their expectations of us were very high. Anyways, the following week and a few days were a public holiday, so we really started our research about 2 weeks after arriving. This let us get more acclimated to Indonesia, both figuratively and literally (it was very hot

and rainy when we first got there). We then conducted the study over the course of around 4,5 - 5 weeks, leaving around 1,5-2 weeks of writing the thesis and to do a bit of exploring.



Financials

Indonesia is generally a lot cheaper than Sweden, so our monthly expenses were very manageable. By having a lot of local food and living in an Airbnb in a less touristic area in Denpasar with our hosts we kept it both authentic and cheap. The KTH FS grant covered flight tickets and around 3-4 weeks of rent. After that, we decided to explore a couple of other areas, which varied more in price, but it was still consistently cheaper than Sweden, much to our delight. The biggest expense other than these things were vaccines, which we paid for in Sweden.

Accommodation

We found our accommodations through Airbnb and Bookings. Given the many options, the Airbnb house we ended up living in the majority of the time was more than enough to suit our needs. We shared it with the hosts which we ended up becoming friends with and did activities together a few times.

After we left the first house, we tried out living in a bunch of different areas that were still within commutable distance to the school. We were all very happy with the standard of the accommodations, even if they did differ. There were very few public transit options in Denpasar, instead, affordable motorcycle taxis were the way to go. Taking a car taxi would generally cost more and take about 50% longer, which we learnt the hard way.

Project

Our project investigated the impact of digital tools in teaching, more specifically, we looked at language and vocabulary retention acquired through the use of gamified, digital tools in teaching. We also investigated the school and its environment to see how a wider implementation of digital tools would be best supported and what challenges they face.

On the days that we visited the school, a couple of days a week, we would get up early to get taxis to the school. There we would conduct practice sessions where students would get the opportunity to practise language learning. We would also observe the school, including the environment, technical infrastructure, and simply partake in classes. On days we did not visit the school, we would be grading tests, creating exercises for use in the study, working on the thesis and sometimes sneak off to do a bit of surfing ☺

Our contact person was very helpful in communicating with the school we worked out, including stepping in to translate and clarify ambiguities. However, in the execution of the study, we mainly did it on our own, apart from when we employed a translator. But all the staff and teachers were truly the kindest people and were very helpful.

Country

Indonesia was a fantastic country to conduct a study in. The climate was incredible, very warm and tropical, and once the rain period was over there was sun everyday. The people were also very generous and welcoming, especially the school staff and the children.

Some things were a shock though, like one morning when we woke up to an earthquake! It turned out that what we had felt was actually an aftershake of a 5,3 Richter scale shake that had occurred out at sea, so once we had double-checked that there was no tsunami coming via the Indonesian government's excellent earthquake/tsunami warning website, we felt at ease again.

We also got quite a scare regarding Dengue fever. Out of all the vaccines, none of us got that one, since it was not mentioned or highlighted that much in Sweden compared to some others. However, when we got there, a lot of locals warned us about Dengue and didn't really speak about any other diseases. We all wished we'd got that vaccine too, but we solved it using lots and lots of mosquito spray and wearing extra clothing even if it led to extra sweating.

Leisure and social activities

Surfing was probably the best and most fun activity we did. There was one beach perfect for beginners, so we spent a few hundred thousand Indonesian Rupiah getting lessons and catching waves. We also ate at a lot of restaurants, or Warungs which they're known as in Indonesian. There were also many places to visit and things to see, including monuments and temples. We once even went to a temple in a forest inhabited by friendly monkeys, which was a highlight. Locals were very helpful, although the level of English was very varied. We solved this through picking up some simple phrases and words to communicate basic things, which seemed to be very appreciated. There were also plenty of other international people, many of whom were keen to talk to others, and many showed interest in our study.

Sustainability

Sustainability in Indonesia does leave a lot to be desired in our perspective. Arguably the biggest culture shock came in this regard, for example we saw people burning their thrash right out on the street. This caused an awful smell, but the translator we worked with explained this in an interesting and enlightening way, saying that the traditional way of life was to burn thrash. This tradition existed long before the introduction of single-use plastics and other inorganic materials, and modern waste management hadn't caught up yet. This was a reality check for us, and got us thinking about the many more interesting sustainability projects we could engage in as engineers, while still taking local customs and cultural heritage into consideration. Water management was another, as many rivers have dried up in recent years due to rapid expansion and urbanisation preying on natural water sources, causing traditional agricultural practices to require change as well. Although this wasn't related to us, the sustainability aspect and our awareness of it helped us try to live as sustainably as possible. Constrained use of water and electricity, like using energy effective fans instead of air conditioners throughout the night, and conscious consumption of plastics for example (avoiding single use plastics was not easy, they were everywhere) was always on our minds.

Our project was mainly related to SDG 4, Quality Education. Through improving quality of education for a relatively underfunded school, we hoped to shed light to how effective EdTech could be in Indonesia and what schools would need in order to implement EdTech on a wider scale. This also relates to SDG 10, Reduced inequality through allowing equitable access to quality education (there is a significant difference in funding and quality between some public schools and private schools in different regions of Indonesia).



Other recommendations and observations

We strongly recommend applying for the KTH FS grant and conducting a field study in a different context. It was very valuable for us as engineers, as people, and hopefully we made a difference in other people's lives as well, which is a reward in and of itself. If you want to do a project related to this, or even see a possible continuation project at the school, don't hesitate to reach out to us!

