

UNIVERSITY OF STRASBOURG
FACULTY OF FOREIGN LANGUAGES AND CULTURES



- **PROFESSIONAL EXPERIENCE REPORT**
- **MASTER'S THESIS: Between game localization and gameplay: A case study of Indonesian user rejection of mobile games in the first year of installation**

Submitted by: Maruli Tua Sakti Pardede

(21914205)

Supervisor:

Andrew Eisenhauer

A professional experience report and thesis submitted to the University of Strasbourg in the fulfilment of the requirement for the degree of Master of CAWEB

ACKNOWLEDGEMENTS

I would like to first thank my supervisor, Mr. Andrew Eisenhower, for the counseling and advice he provided during this project. I would also like to express my thanks to Mrs. Renate de la Paix for her dedication and understanding towards all of her students throughout my studies. Not forget to mention, Ms. Clementine Kleinhentz and Ms. Valérie Ledermann also deserve my hearty thanks for all the assistance. I would like to convey my thanks to Mrs. Anne-Sophie Robilliard and Loïc Le Pezennec for entrusting me to manage the project as an intern in the middle of the hardship of finding a hosting company for internship.

I would like to take this opportunity to extend a special thanks to Indonesia Endowment Fund for Education (LPDP) for sponsoring my studies. I want to thank my family and friends as well, for supporting me all this time. Lastly, I especially want to thank my closest friends Yosua, Nara, Dini, Peter, Erlin, Nopriana, Ocha and Irma for always being there for me no matter what I needed, as I probably would not have gotten this far without her.

Table of contents

Acknowledgements.....	ii
Table of contents.....	iii
List of pictures	v
List of diagrams	vi
List of figures.....	vii
1. Professional Experience Report	1
1.1. Company Information.....	1
1.1.1. Research Center – DIAL.....	1
1.1.2. Mission and Research Areas	2
1.1.3. Personnel.....	3
1.1.4. Previous Website	3
1.2. Internship Details	5
1.2.1. Website Rebuild Project DIAL.....	5
1.2.2. Identified Weak Points.....	5
1.2.3. Role and Responsibilities.....	9
1.2.4. Planning and Execution Stages.....	9
1.2.5. Encountered Problems and Handling.....	17
1.2.6. Skill Enhancement and Acquisition.....	18
1.2.7. New Website (dial.ird.fr)	20
1.3. Evaluation and Career Orientation.....	22
References.....	22
Appendix.....	23
2. Master’s Thesis: Between game localization and gameplay: A case study of Indonesian user rejection of mobile games in the first year of installation.	25
2.1. Introduction.....	25
2.1.1. Hypothesis and Research Questions	28
2.1.2. Aims	28
2.1.3. Scope of the Research.....	28
2.2. Related Work	29
2.2.1. Retention and Churn	29

2.2.1.1.	Retention	29
2.2.1.2.	Churn.....	30
2.2.2.	Digital Gaming.....	30
2.2.2.1.	User behavior towards gaming	31
2.2.2.2.	Mobile gaming in Indonesia	31
2.2.2.3.	Mobile games in Indonesia	31
2.2.3.	Localization.....	33
2.2.3.1.	Game localization	34
2.2.3.2.	Issues in app and game localization.....	36
2.2.4.	Gameplay and Issues.....	39
2.2.5.	Other Relevant Issues in Mobile Gaming	41
2.3.	Methodology	41
2.3.1.	Quantitative Research	41
2.3.2.	Descriptive Approach	42
2.3.3.	Data and Sources.....	42
2.3.3.1.	Place and time	42
2.3.3.2.	Sources	42
2.3.4.	Subjects and Target Population	42
2.3.5.	Data Collection Technique	43
2.3.5.1.	Literature review	43
2.3.5.2.	Questionnaire.....	43
2.3.6.	Data Analysis Procedure.....	44
2.3.6.1.	Data organization	44
2.3.6.2.	Data entry	44
2.3.6.3.	Data interpretation and limitations	44
2.4.	Findings and Discussion	45
2.5.	Conclusion and Future Work	52
	References.....	54
	Appendix.....	59

List of pictures

Picture 1.1. Logo of DIAL.....	1
Picture 1.2. Previous homepage using CMS eZ Publish	4
Picture 1.3. Homepage of the old website	6
Picture 1.4. Page <i>Soutenués depuis 2015</i> , submenu of navigation menu <i>Enseignement</i>	8
Picture 1.5. Page <i>Équipe</i> (Personnel in English)	8
Picture 1.6. Project planning.....	10
Picture 1.7. Proposed palettes	11
Picture 1.8. Homepage of the new website.....	21
Picture 2.1. Mixed languages, English and Indonesian – Free Fire.....	38
Picture 2.2. Force quit – Mobile Legends.....	39

List of diagrams

Diagram 1.1. Organigram of DIAL	3
Diagram 1.2. Approved website information architecture.....	12

List of figures

Figure 2.1. Occupation.....	45
Figure 2.2. Used operating system.....	45
Figure 2.3. Age	45
Figure 2.4. Daily hours spent on playing games.....	45
Figure 2.5. Removed games.....	46
Figure 2.6. How did the users know about the game?	47
Figure 2.7. Motivations for downloading the games	47
Figure 2.8. Length of time spent on the games before uninstallation.....	48
Figure 2.9. Motivations for removing the mobile games.....	49
Figure 2.10. What users like from the games	50
Figure 2.11. What users dislike from the games.....	51
Figure 2.12. Do users stop playing forever or temporarily?	52
Figure 2.8. Will they play the games after the issues are fixed?	52

Professional Experience Report

This report highlights the details of my internship program at a public institution as well as my career orientation at the end. It presents the company profile, my responsibilities, encountered issues and how I dealt with them, evaluation, and what profession I wish to pursue in the future. It was a thirty-five-hour training a day and was supposed to last for three months from 22nd June to 22nd September 2021. However, since the Director of the Développement, Institutions et Mondialisation (DIAL), who was responsible for the approval of my work, was on annual leave for approximately a month following her bereavement leave, then it was extended to 22nd October 2021. The final length of my full-time internship was four months.

1.1. Company Information

It would be vague if this sort of report does not outline the overview of the institution. Therefore, the recital begins with this information. I was recruited by the Institut de recherche pour le développement (IRD) which is headquartered at 32 Avenue Henri Varagnat, Bondy 93140, France. The IRD, also famously known as the French National Research Institute for Sustainable Development is one of the French public research institutions performing under the joint authority of the French Ministry for Higher Education, Research and Innovation and the French Ministry for Europe and Foreign Affairs. Even though my host company was the IRD, I was purposely employed for the urgent need of the DIAL, to rebuild its obsolete website. Therefore, I was working under the supervision of my internship tutor, Mrs. Robilliard, the Director of the DIAL. Despite this fact, I was mostly working in close collaboration with the Webmaster of DIAL, Mr. Le Pezennec.

1.1.1. Research Center – DIAL



Picture 1.1. Logo of DIAL

The DIAL (Développement, Institutions et Mondialisation) is a part of the joint research units or well-known in French as the *unités mixtes de recherche* (UMR) 260 Laboratoire d'Économie de Dauphine (LEDa), where lecturer-researchers at the Université Paris-Dauphine, researchers at IRD and the Centre National de la Recherche Scientifique (CNRS) are amalgamated as a team. This team is explicitly made up of 12 lecturer-researchers from the Université Paris-Dauphine, 12 researchers from IRD, one researcher from the CNRS, a dozen of associated researchers, and more than twenty Ph.D. students and Postdocs. In businesslike terms, the DIAL is a particular research unit whose research focus is on international and development economics which is one of the IRD research areas. The DIAL office is based at 4 Rue d'Enghien, Paris 75010.

The DIAL has released a variety of publications ranging from books, articles, working papers, regular newsletters named Dialogue, methodologic and analytic journals named Stateco, and other papers generally published on media outlets. Moreover, most of DIAL members participate in providing lectures in several Master programs at Université Paris Dauphine (Master - Affaires internationales et développement, particularly with specialization in M2 Diagnostic économique international, Économie internationale et développement and Aide à la décision et Évaluation des politiques publiques whose courses are delivered in Dakar, Senegal) and at other French and foreign universities such as Sciences Po, IEDES-Université Paris 1, École d'Économie Paris, Université de Paris Est Marne-la-vallée, Academia de Studii Economice din Bucuresti in Romania and Université Nationale du Vietnam in Vietnam. In addition to the offered programs, they receive and guide Ph.D. students for dissertation assessment and propose some short training and workshops. They routinely organize typical seminars which are called DIAL Seminar and a few scientific conferences annually.

Legislatively, the regulator bodies of DIAL are Université Paris-Dauphine | Paris Sciences et Lettres (PSL), LEDa, IRD and CNRS. In terms of the partnership, the DIAL is partnered with several universities and institutions such as the Paris School of Economics.

1.1.2. Mission and Research Areas

The DIAL's principal mission is to contribute to advances in scientific knowledge in matters of Development Economics. Like other common research centers, the DIAL also has its research areas, such as follows:

- The dynamics of economic, social, and spatial inequality

- Economic and climatic risks, factors of vulnerability and poverty
- Globalization and its effects
- Institution development
- Economic history
- Methods and analytic tools

1.1.3. Personnel

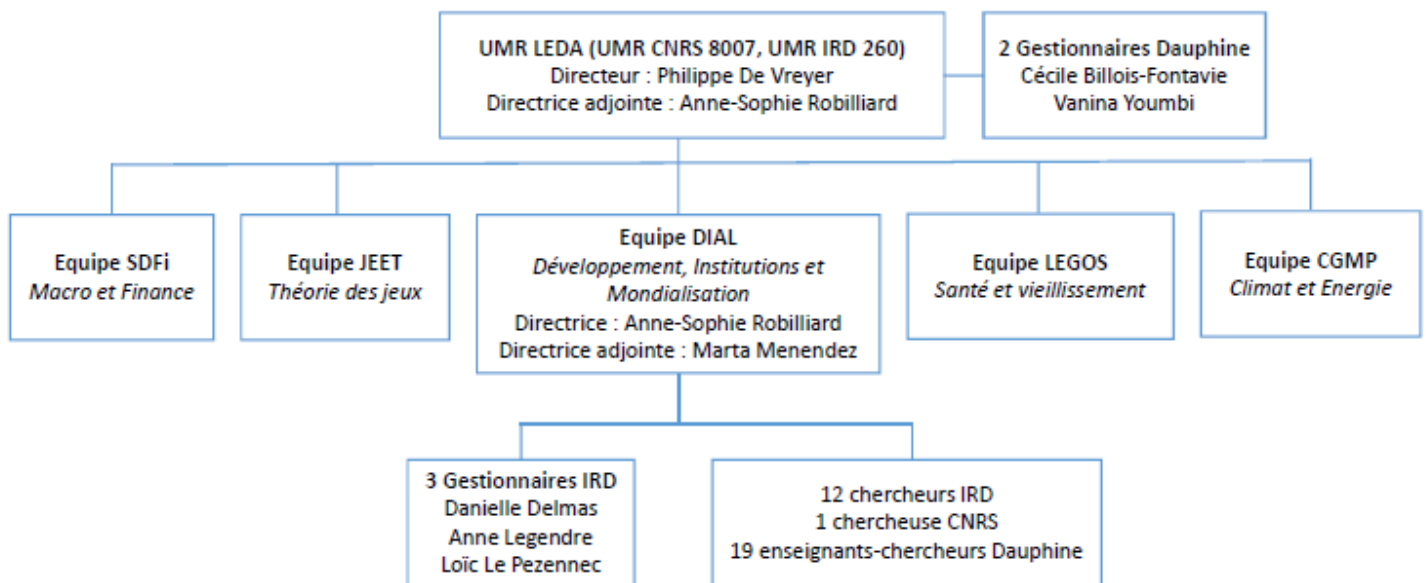


Diagram 1.1. Organigram of DIAL

The personnel of DIAL is comprised of permanent staff, associate researchers, and Ph.D. students along with Post-doctoral researchers. The Lead Institution Director of the team is Mrs. Robilliard and the Deputy Director is Mrs. Menendez. The team is always administratively assisted by three Admin officers: Mrs. Delmas, Mrs. Legendre, and Mr. Le Pezennec. The other permanent staff come from IRD, CNRS and Université Paris-Dauphine. In the contract, I was supposedly tutored by the Director of the team. However, I worked most of the time with Mr. Le Pezennec, the one who is responsible for the administration as well as the website management and maintenance.

1.1.4. Previous Website

Formerly, the website was built using an old-fashioned Content Management System (CMS) called eZ Publish. It is considered out-of-date because, after the late year of 2014, there have

been no updates from the developer. Instead, they replace it with new application software called eZ Platform, which was released in 2015. This newest version of the eZ CMS tool is reckoned as the most modernized CMS tool from eZ Systems, its developer (Wikipedia, 2021). Yet, eZ Publish cannot still respond to all the 2021 needs as it is widely acknowledged that technologies evolve incredibly rapidly.



Picture 1.2. Previous homepage using CMS eZ Publish

Considerations to rebuild a modern website. There is a set of considerations why there was an urgency for remaking a new website with up-to-date features, a more friendly UI design and with better visuals. First of all, there is a demand from the IRD and CNRS to switch eZ Publish to WordPress for the website CMS. The IRD and CNRS saw that it was not fitting anymore to utilize eZ Publish since it is outdated. They also had reached a decision to manage all the websites, main domain and subdomains, using CMS WordPress for better control on the server-side. As a result, they had also prepared a WordPress kit with a simple WordPress-built website. Equally important, in reacting to the demand, they needed a person possessing a solid knowledge of WordPress and had experience in website remake with WordPress. The next reflection was that, when hosted by IRD with the subdomain <https://dial.ird.fr>, the eZ Publish website could only store visuals such as images, photos and logos with extremely low size which then ended up displaying poor-quality visuals. The architecture of information together with the navigation design was considered, following the examination, not well-structured and difficult to understand. Motivated by the considerations, the DIAL agreed on recruiting someone who was technically capable of conducting the project.

In need of a Web Frontend Engineer. In response to the urgent need of an experienced WordPress website-building enthusiast, they posted an internship offer for this project on one of the French job boards. Interested in the core tasks of the intern position, I then applied for it. On the post, there was no specific position name. There was only *Refonte du site web de DIAL* on the head of the post. However, since it was virtually indistinguishable from the responsibility of a Web Frontend Engineer, I decided that my intern position was a Web Frontend Engineer.

1.2. Internship Details

As stated previously at the beginning of the report, I carried out my training from 22nd June to 22nd October 2021 in the end. I was recruited to be in charge of the Website Rebuild Project. Initially, my tasks as written on the offer were as below:

- Creation of information structure of the new website
- Design of the homepage of the new site (menu, graphics, etc.)
- Design of main pages: pages about the team, working documents, etc.
- Transfer of the most important content from the old website to the new one

1.2.1. Website Rebuild Project DIAL

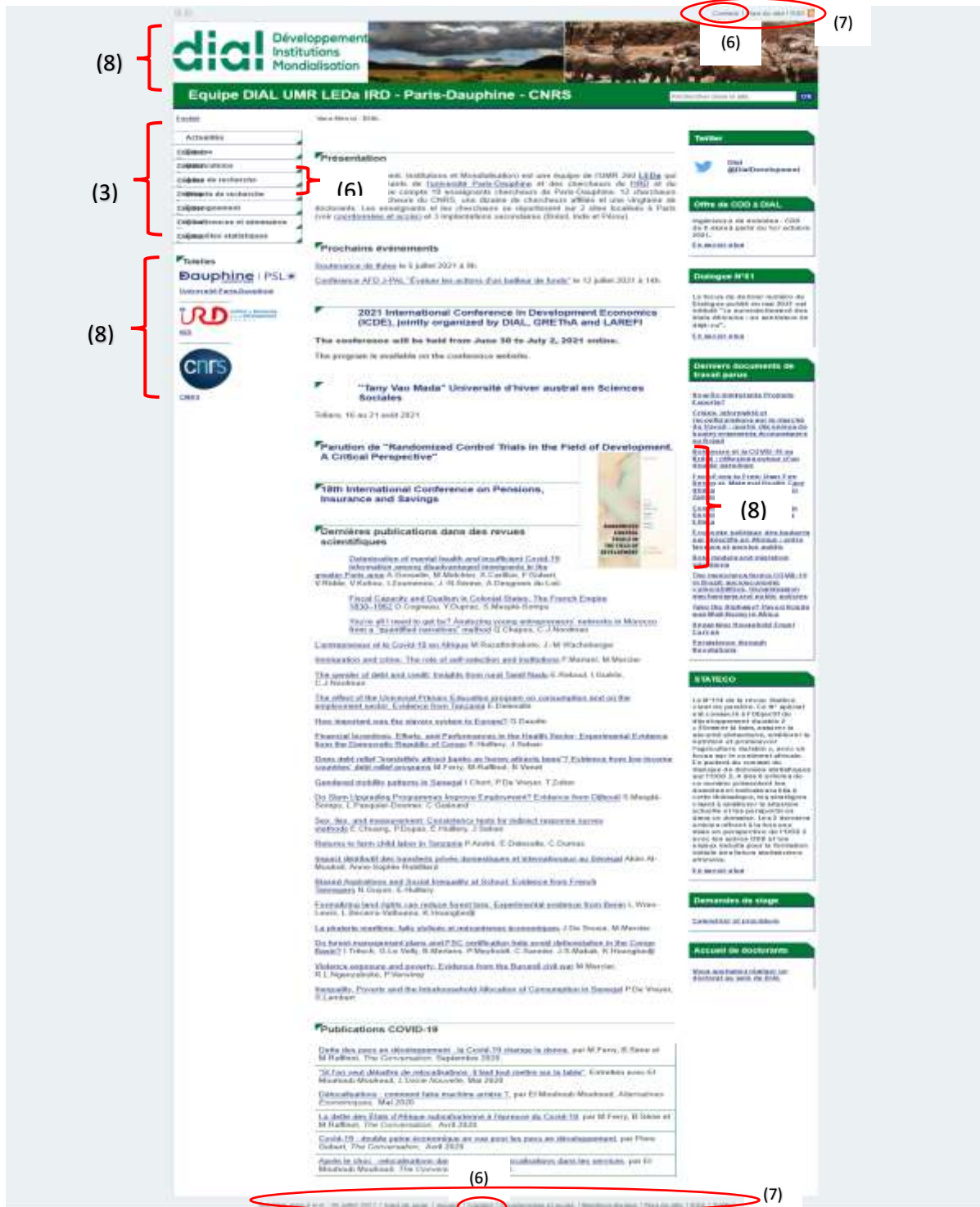
Once I knew my role, as a Web Frontend Engineer and I realized that my timeframe given to finish the project seemed impossible for me, I, therefore, decided to spend my first days on collecting the needs for the new website for me to be able to define the strategy to execute in three months. At the close of a week of working, I could then precisely identify their needs but also my duties, planning, limits and the needed skills.

Goals. The principal goal of the project was definitely to create a contemporary website with a better interface, functionalities, navigation and web architecture. Preliminarily, I was required to diagnose the existing issues on the preceding website.

1.2.2. Identified Weak Points

Before the start of my internship, I effectuated some evaluations to find weak points on the former website. I had committed to begin working on the project even before the contractual

time because I knew it was essential to figure out what we were about to do. After checking the website, I found that:



Picture 1.3. Homepage of the old website

(1) The color scheme of every page was monotonous and not eye-catching. It is recommended to have an attractive homepage and a perfect combination of the palette

used on every single page. In contrast, the previous website appeared to be a single-colored website.

- (2) **The website was built with one single design.** If we clicked on the main menus and submenus, it showed the same designed pages. There was no variation of designs on different pages.
- (3) **Web storytelling appeared to have no sense of narrative and be not engaging.** A state-of-the-art website might be interactive like a plot in a writing. Hence, web components such as call-to-action (CTA), more perceptible menus, and others should exist to direct users effortlessly to access the information they wished to see. Yet, there was a shortage of such components.
- (4) **Some links were not working.** To boost search engine optimization (SEO), periodic auditing of links in the website should be arranged to double-check the unworkable links and see how we might deal with the issue if any. Such links were found mostly in the submenus of *Projets de recherche* and *Enquêtes statistiques*.
- (5) **The placement of navigation menus was slightly noticeable** because it was placed on the left of the screen and with the same font size as the content in the middle. Positioning the navigation menus only on the left is regarded as not practical since most millennial users are, most of the time, exposed to the top navigation and it is considered more visible and easier to locate.
- (6) **The web information architecture was unclear and redundant.** For instance, two main menus were using *recherche* and the menu *Publications* consisted of various types of publications of which appeared well classified. And in the footer and header, there were both *Contact* and *Plan du site* which meant redundancy.
- (7) **The header and footer were hardly visible.** What current internet users ordinarily expect when they land on a web page is that they can see a menu “contact” and other elements on the header and footer without much effort, at any rate, they can see or locate them with just a single glance. Conversely, the header and footer were put in an extremely small micro block that affect the font size, which was fatiguing to see, especially for those with visual impairment.
- (8) **Visual quality was appallingly poor.** With limited storage, the old website was unable to stock high-quality visuals. In consequence, such items were pixelated on the screen which caused them to blur in appearance and thus, to be difficult to be viewed.



Picture 1.4. Page *Soutenus depuis 2015*, submenu of navigation menu *Enseignement*

- (9) **There were many long-scrolling pages.** A bunch of long-scrolling pages lied on the website. It is a second-rate approach to keep visitors staying longer on certain pages considering the elements on the page are uninteresting and do not draw the curiosity of the visitors. The content was too textual because it was the compilation of a group of papers.



Picture 1.5. Page *Équipe* (Personnel in English)

- (10) **The personnel page was unattractive and non-interactive.** The layout of the personal page was marked as a stylistically conventional concept. There only existed low-quality photos of the personnel, their positions, research concentration areas, and links to their contact and curriculum vitae (CV). No interactive features were detected to enable more interactive actions like possibilities to discover more about what the

personnel had accomplished within the DIAL (publications) and know more about each member's profile.

1.2.3. Role and Responsibilities

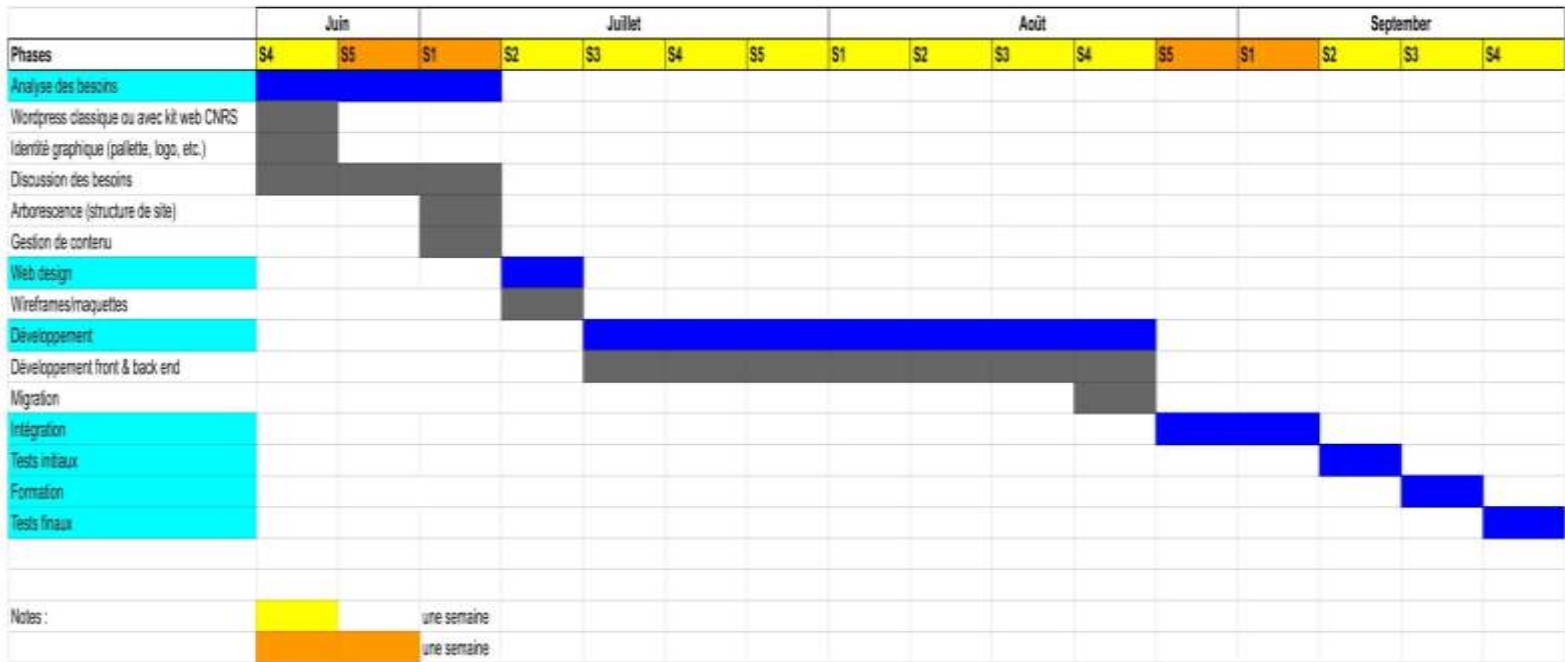
After the identification of the weaknesses on the previous website and exchanges with the Director, Mrs. Robilliard and the Admin officer, Mr. Loïc, I understood what my duties were to achieve the mission to build a new website. Like other Web Frontend Engineers, I needed to fulfill my responsibilities, which were orderly as follows:

- (1) **Development of the project planning.** This duty describes how I could devise a three-month plan to remake a website within the given timeframe.
- (2) **Definition and clarification of requirements.** This responsibility is related to what my employer requested to be added to the new website such as tools, extensions, modules, functionalities and also how the new website should function.
- (3) **Web design.** To carry out this task, I should be able to produce high-resolution wireframes and mockups.
- (4) **Web development.** This task extended from developing the web back-end, front-end and migrating it from preproduction to production staging.
- (5) **Content integration.** I needed to integrate all the content into the website later than the migration.
- (6) **Conducting initial testing.** This work required my skills on how to perform functional testing and verify all the links as well.
- (7) **Providing training.** I was requested to give training after the website launch as the Webmaster had little prior knowledge of CMS WordPress.
- (8) **Conducting final testing.** To perform this particular skill, I was expected to correct all the errors occurring in the course of the initial tests and recheck the usability and functionality of the website.
- (9) **Documentation of the tutorials.** There was a request from the Director to document tutorials on how to utilize the website for not mistakenly managing and using the website in the future after the end of the contract.

1.2.4. Planning and Execution Stages

Before the first meeting with the Director, Mrs. Robilliard and the Webmaster, Mr. Loïc Pezenec, I decided to rely on Google as our project management medium. I shared most of

my work using this platform for better communication and monitoring. I specifically depend on **Google Drive**, **Google Spreadsheet** and **Google Document**. For instance, to facilitate efficient workflow, I created project planning. It was devised according to the first internship contract duration, three months. And it was written in French so that it would be possible for us three to follow. On this file, I broke down the staging into seven phases.



Picture 1.6. Project planning

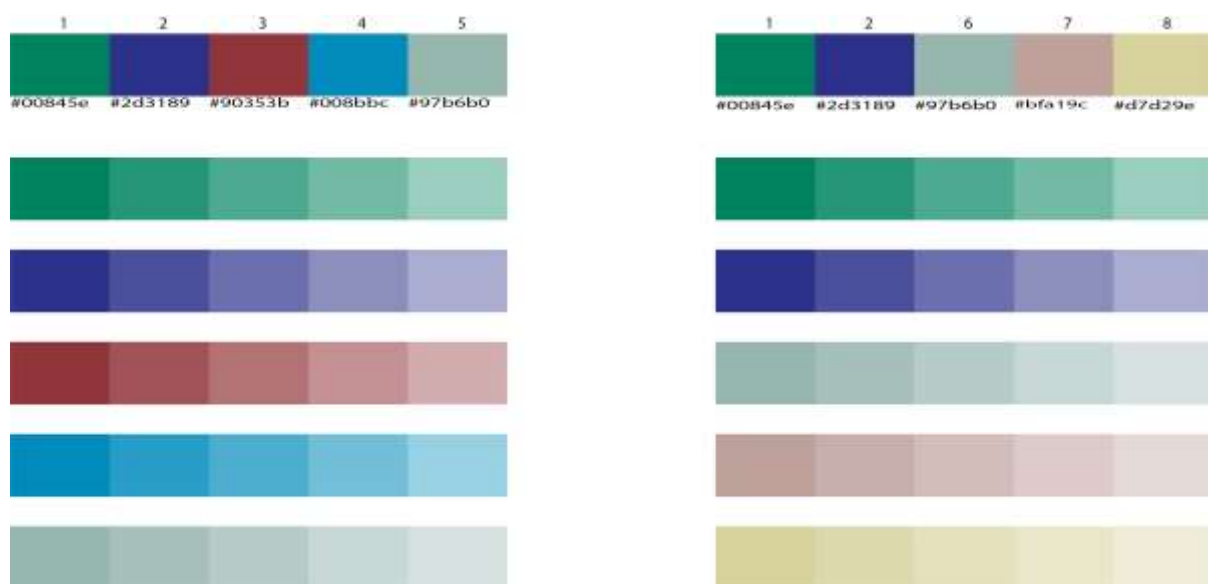
Before discussing further details of the project execution, unfamiliar terms found in the diagram need to be defined. S with numbers refers to *semaine* or week. *Une semaine* means a week. *Juin*, *juillet*, *août* and *septemer* mean June, July, August and September respectively.

Analyses des besoins or in English can be expressed as customer need analysis. This stage lasted for more than two weeks. In general, firstly-communicated requirements were: to come up with numerous propositions since they had limited knowledge of WordPress and website; to switch from CMS eZ Publish to Wordpres; to work on the content, how to preserve it, how to back up the whole of it; to make changes in some of the content before the launch of the new website; to eliminate some of the content; to modify the structural information; to add more up-to-date functionalities such as a slider for recent content; to keep the previous domain <https://dial.ird.fr> after hosting migration from <https://ird.fr> to <https://cnrs.fr>; to provide training for those using the website; to write a tutorial for long-term use; to propose well-designed

wireframes and mock-ups by giving me several research-center websites for references; to increase the visibility of the website, and to create a website more modern and attractive.

It was started with asking my opinion and advice on whether we would use a classic Wordpress or a kit from CNRS (*Wordpress ou avec kit web CNRS*). As preceding mentioned, CNRS had prepared a WordPress kit for the whole CMS transformation within their hosting. It was a built website with a very simple design. On the early day of my second working week, I argued that we better worked on the classic WordPress, not only because it was more customizable, but also there would not be many modifications as the kit had been integrated with some modules, extensions and design. They reacted affirmatively to my explanation.

In the same period, I also worked on defining their needs because it took more than two weeks to get all the requirements listed. As a result, I usually came to them for a discussion to identify all their whole needs (*Discussion des besoins*). As for the graphic identity such as palette, logo, etc. (*Identité graphique (palette, logo, etc.)*) and website structure information (*Arborescence (structure de site)*), as they had no prior knowledge about them. I then gave some introduction to them and would propose them some examples. For the graphic identity, I proposed two palettes as below, the Director finally made a decision to opt for the **palette on the right**.



Picture 1.7. Proposed palettes

The website hierarchy, however, needed some more time to be approved. After five times of revisions, the Director then approved **the sixth version**. For the diagram sketching, I used the free version of a relevant software tool called **Xmind**. The look of the tree structure I proposed was as below.

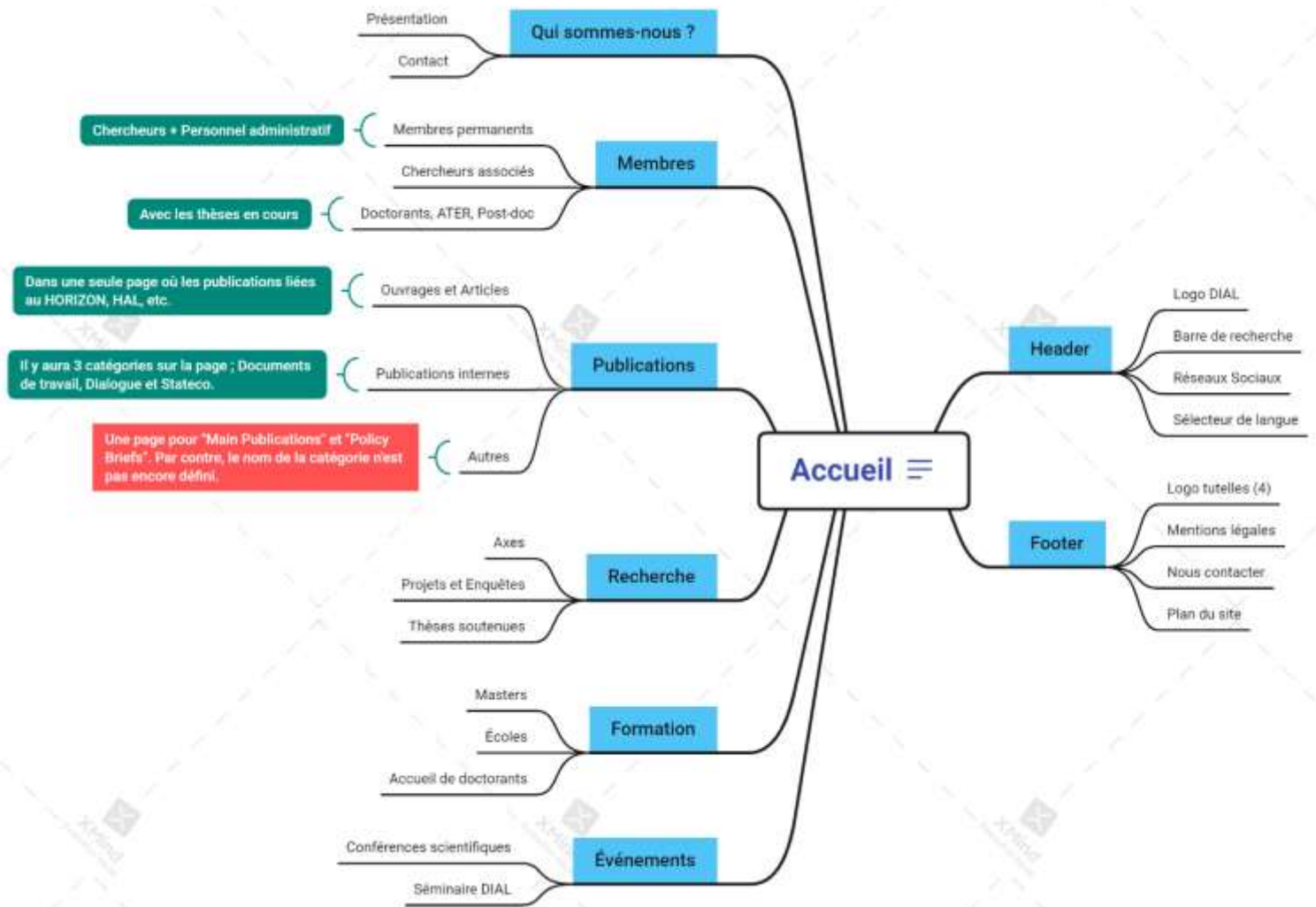


Diagram 1.2. Approved website information architecture

Concerning content management, I used **Google Drive** for preserving most of the content. The reason behind why again I relied on this platform, was not only because it was not futile, it also permitted the staff concerned on the content editing and management to cooperate in carrying out what they were assigned. The assignment was to prepare the content for the new website, whether to change it and/or create new content. To keep us a backup of the older website, I made use of a powerful tool, **HTTrack**. It enabled me to make a copy of the consultable website offline which would be necessarily important if unpredicted issues occurred.

Web design. I started this step a little bit late than planned because there was a delay in validating the web information structure. The tool on which I developed my web design was **Figma** and I utilized **Adobe Illustrator** for simple retouching on some visuals such as cropping, resizing, etc. I began by producing wireframes. After a few days of work, I get them

finished and showed them to the Director and the Webmaster for feedback. They could not, however, give me any comments on them since it was on the black-white color scheme. They requested me to get the wireframes ready with the color combination of the selected palette, which meant mock-ups. I fulfilled their request by integrating the colors in the palette on the homepage wireframe as well as the font themes. I prepared five overviews of the colored homepage. Once finished, I had them look at the mock-ups and give me feedback. They finally decided to continue with the combination of **layout 3** and **layout 4** with font themes: **Helvetica** for the titles and **Verdana** for the content, which can be seen [here](#). I needed a certain time to bring some modifications to the mock-ups. To get this work validated, I should, nonetheless, wait more than a month until the Director came back to the office from her annual and bereavement leave. For me not to lose much more time since the timeline was severely delayed, I took the initiative to advance the development, front-end and back-end as well as content grouping. All the propositions about web design and graphic identity can be viewed [here](#).

Développement. The development of the website was on the preproduction server provided by CNRS. They provided us the server for the preproduction (dial.ird.preprod.lamp.cnrs.fr/) as well as production staging (dial.ird.prod.lamp.cnrs.fr/). Since the Director was on leave, there was a delay of more than a month. I could not start dealing with the web development if the mock-ups were not yet approved. It might needlessly complicate me later because if I had finalized some built pages and the Director did not wish to go on the mock-ups waiting for validation, it would have been useless. Despite knowing the fact and being in this unwanted situation, I still kept going on making some progress on the development. I tried to make some advancements on the pages which were not constituted with many elements such as Contact, Contact us, Legal and Research areas page. Considering this tardiness as a vital factor for the success of the project, I then explained to the Webmaster that more time was compulsorily necessary to finish the project. Responding to this, he saw there would be no problem extending my internship.

Following the return of the Director, the Webmaster and I immediately came to see her after deciding that the case was, at that time, urgent. A solution should be found to tackle the problem. The goal of the meeting was to keep her informed regarding the project and the urgency of validation of the mock-ups. After my turn for some presentation and explaining, she instantly grasped the situation and showed a positive reaction to the internship prolongation. The web design, however, seemed to need more evaluations. After a small

number of alterations, I finally got her approval meaning that the development of the front-end and back-end waiting for my touch.

At the beginning of the development interval, it seemed to have no difficulties, especially the front end because, as a Front-end Web Engineer, it was a must for me to possess a heightened awareness of software tools for the web. After days of searching, I employed a selection of tools to help me build every single page. The plugins integrated into the web for the front-end development were:

- **Twenty Twenty-One** for the site theme
- **Elementor** for building pages
- **Elementor Header and Footer Builder** for specifically constructing the header and footer
- **Essential Addons for Elementor** for additional useful blocks
- **Ivory Search** for managing the search bar
- **Modern Events (ME) Calendar Lite** for administrating all the events
- **AnWP Post Grid** for creating sliders
- **MetaSlider** for other customized sliders
- **Fonts Plugin | Google Fonts Typography** for the font set
- **Polylang** for creating a bilingual website
- **Polylang Connect for Elementor** for the language switcher
- **TFTeam Addon for Elementor** for building the team page
- **WPForms Lite** for managing emailing
- **WP Tab Widget** for better Ajax search results
- **WP Super Cache** for handling the cache
- **EA Duplicator** for easy content duplication
- **UpdraftPlus** for controlling backups and restorations

Some programming was also involved as the software tools were free and the freemium version did not offer more interesting features as opposed to the premium one. Supplementary coding was integrated mostly on the team page due to the request of the Director. It was to change the color when it was on active, gray, and hover, colored.

In addition, I engineered a pack of page templates in order to ease the content integration for the Webmaster afterward. The templates were for the following pages:

- *Ouvrages et Articles*
- *Profil pour la plupart des membres*
- *Profil pour les Doctorants*
- *Enquêtes*
- *Projets*
- *Autres publications*
- *Archive pour les événements*
- *Dialogue*
- *Parution*
- *Résumé d'ouvrages*

After the front-end elements were all set, I proposed to start the migration process to the Webmaster first and then the Director. This meant I might need support from the CNRS who administrated the server in case unexpected issues happened. That was why we contacted them to be also ready for some sudden backups. It was approximately two months to finish the front-end web and to get the approval of the Director for the migration from the preproduction to production hosting. To perform this task, I used a familiar tool called **All-in-One WP Migration**. I noticed in advance the Webmaster that there might be some bugs subsequently and maintenance break in the middle of the migration process. As forecasted, most bugs were detected and mostly the links which were not successfully converted and the security protocol, the **Secure Sockets Layer (SSL)** which was not yet added. Consequently, people who wished to take a look at the website should be consent to their action by clicking “Advanced” every time they wanted to visit the website. Furthermore, it caused some of the visuals to be invisible. It took me around one full day to fix all the bugs, except the SSL issue, as I could do nothing as it was managed by the CNRS team. We then kept informed each other of the updates.

This was the longest phase in the project due to fact that it involved not only my programming and design competence but also my pace of learning and grasping skills in the utilization of software tools, which were new to me. When I calculated the time required me to finish this stage, it was more or less two months.

Intégration. It means content integration. Before this stage, I waved an urgency flag for the content because most of it was not yet ready to be published for the launch and my contract would be over in about less than two weeks. As a result, I input approximately 40% of the

content which had been ready at that time. And the final decision was to keep much of the old content since they could bring adjustments to it whenever they were available. In the end, certain pages were still displayed as “the content is in progress” after launching it online. At the same time, we still used the older website meaning that we ran two websites.

Tests initiaux. It is translated as initial tests. It was already begun in the time of integration, I also verified all the usability and used plugins to ensure that all functioned without problems and it worked as expected. And as it was framed to switch the URL from dial.ird.prod.lamp.cnrs.fr/ the current URL production staging to dial.ird.fr/, the old domain, in this stage, again, I passed prior notice to the Webmaster that there would be an undefined maintenance pause so that he could disseminate this information to others so that they would understand that both websites would not be in use for a certain period. At this specific moment, we were waiting for the collaboration between IRD and CNRS for the URL change. Once terminated, the new website was fully ready for its journey and the older website was inaccessible anymore. Further to the follow-through, the SSL issue was completely debugged in this stage.

Formation. *Formation* or training in English was the next step. In this term, I needed to train those concerned on administrating WordPress. Three persons would share responsibilities to manage the WordPress dashboard. They were Mr. Le Pezennec, the Webmaster, Ms. De Montalembert, one of the Ph.D. students, and Ms. Bertelli, one of the lecturers at Université Paris-Dauphine. Ms. De Montalembert and Ms. Bertelli were particularly in charge of the DIAL Seminar, the routine event from DIAL.

With Mr. Le Pezennec, the instruction session was started with the introduction of the WordPress dashboard although he had already seen it. But this time, it was more comprehensive and detailed. I continued with a brief explanation of the features and what lied on the dashboard. The firstly-instructed practice he did was to give access to other members, especially for Ms. De Montalembert and Ms. Bertelli. Then, we continued the sessions by practicing on how to: add new articles and pages; add recent articles and modify their position on the slider; integrate and update content on particular pages; use page templates; back up the website database; configure accounts and general settings; upload and use media; deal with the article, template settings; switch website version, English to French or vice versa; add a translation for another version; use ME Calendar Lite for annual conferences; use Elementor page builder; and others.

As for the instruction session with Ms. De Montalembert and Ms. Bertelli, I made an appointment with them for a short web coaching. However, Ms. Bertelli could not make it and consequently, I would only deliver the instruction to Ms. De Montalembert. I introduced her to the WordPress dashboard instructed her on how to use ME Calendar Lite: add new seminars; configure the events before publishing them, and delete them.

Tests *finaux*. Final tests were simultaneously effectuated while training. Subsequently to the initial tests and for the last time before my end date, I conducted the eventual tests to confirm that I would leave no problems in the website usability and functionality. And the final result was negative, with no issues.

1.2.5. Encountered Problems and Handling

Throughout the plan realization, there was no doubt that I encountered problems. The problems were even detected at the very beginning of the training. To a limited degree, those setbacks constrained me to feel always confident that the project was executable within the timeline. On the other hand, the foregoing impelled me to keep moving forward and believe that it was resolvable.

Availability. Given the tasks, the earlier plan was terminable in three months even though it was too tight. Nonetheless, my first week was spent on fairly lengthy discussions with Mr. Le Pezenec, the Webmaster, because the Director, whose opinions and approval are mandatory, was not available. The Director had limited and unfixed availability. And Mr. Le Pezenec, indeed, could speak about the needs for the new website but still, he could not approve anything. In responding to the situation, I initiatively made some improvements on other tasks, such as preserving content, devising planning, preparing shared files, searching potential tools, etc.

Delay of approval. Undoubtedly, considering the availability of the Director, there was a risk of delay for the work approval. I reacted to this by keeping going on the other tasks, starting the next tasks that did not require validation from the Director and most importantly, creating a list of urgency for us to take immediate actions or to find a solution.

Delayed timeline. When it came to the worst scenario, delayed timeline, due to the first two encountered problems, it greatly worried me. It was obvious that I needed to stay longer to

achieve the goal. Prolonging my contract was unavoidable. I convinced and proposed to them to extend my contract.

Programming. Programming was one of my weaknesses because I was not skilled in editing the existing codes, especially if it was highly complex such as plugins despite a handful of available sources on the internet regarding WordPress programming issues. I was requested to modify the look of the plugin **ME Calendar Lite** and **TFTeam Addon for Elementor** by the Director and the Webmaster. As always, my first response to every single request apparently impossible for me to complete was, “I would see first” then “I would tell you the possibility”. It was incredibly hard to accomplish but I gave myself two days to see whether it was possible or not. At the close end, it seemed possible but it would surely be grueling for me to code, at the same that I might work on other duties. When the time came, I told them honestly that it was possible to make changes on **TFTeam Addon for Elementor** but conversely not for **ME Calendar Lite**. This moment witnessed my downs because I was buried with the exhausting coding and other work.

Unfulfillable needs. As explained above, I could not satisfy one of the needs of the Director and the Webmaster. Another unmet need was to provide video and written tutorial documentation several days before I left. My reaction to this was negative since I knew it was undoable and I still had waiting tasks. Alternatively, I proposed that I could fulfill it after the contract and I only agreed to the written tutorial. I made this offer because they would still hire me as a freelance for the maintenance and evolution of the website.

1.2.6. Skill Enhancement and Acquisition

It would not be perfect if the training did not promote my personal development. The entire process of the project has opened the door to more possibilities to sharpen and gain certain technical skills. Those web-related skills are the key to my upcoming career path. What’s more, it has also given me a huge opportunity to better interact with other people professionally.

In summary, the technical skills that were strengthened and acquired were:

Website project planning and managing. Although I had possessed foreknowledge on how to draw up a project plan before the training program, I never estimated and anticipated a timeline shift and explored a solution for such a case professionally. Therefore, this was my

first real experience and it boosted my project managing skills and broadened my perspective on project management.

Web designing. My utmost intention when accepting the internship offer was to upskill in web designing, an area on which I was keen genuinely. I learned much of how: to select a color combination to create a toned palette for the graphic identity according to the institution's image and preferences; to detect deficiencies in my web design and remedy them; to meld web elements beautifully on every single page, and to optimize the design.

Website architecting. This was one of my interest areas, how to structure the information hierarchically and thematically on the web that would, in return, contribute to the search engine optimization (SEO) of a web. To admit, when architecting the web information, it drained much of my energy since there was a tremendous amount of content that should be taken into consideration. In exchange for it, I leveled up my skills in web architecture.

Content managing. As I have been passionate about writing, I was interested in content-related matters. I drilled my ability to make use of software tools such as **HTTrack** and **Google** for content management purposes and also to group types of content for better thematization.

Programming. Even though I was not excellent in coding, I always challenged myself to upgrade my proficiency in it. That was why I would not immediately give a negative response to the tasks related to programming. I would first test my capacity. And in fact, I could solve the coding-required task during the development step using **HTML** and **CSS**.

Testing. I had never undergone web testing before. Thus, web testing was a recently-acquired skill for me. Even though it was simple, only checking the usability and functionality by running all the web features and minimizing and maximizing the window to see what it gave, it was still a great experience.

Coaching. Unexpectedly, I demonstrated my coaching skills during my training program. That was the first time I instructed people in French in France. Despite some difficulty in terms of communication, I could still handle it.

As for the soft skills, I could improve my:

Active listening. By listening to the needs expressed by the Director and Webmaster. It allowed me to carefully pay attention and listen with all my ears to their requirements for me to engage empathically in the discussion.

Time managing. The process when my time management skills were tested was the hardest part. It compelled me to wisely steer the plan when discouraged by delays. Yet, it was resolvable.

Communication. When presenting my work and negotiating unachievable tasks, I was encouraged to communicate it and position myself effectively and it thus enabled me to better my speaking communication skills.

Adaptability. It was obviously effortful to adjust myself to a new environment, especially the new city and circle were new to me. It was because I should have lived in Paris for the internship. Besides, I should adapt to any coming situations. I was indeed ready for all that and it helped much to view how it felt to live with such surroundings and deal with them.

1.2.7. New Website (dial.ird.fr)

The new website was hosted in the CNRS server, but with the ird.fr domain. It was designed with three principal colors: blue, green and light gold. In the footer, there were: a language switcher allowing us to switch the website version to another language, a linkable Twitter logo directing us to the Twitter account of DIAL, the DIAL logo linked to the homepage and a search bar to simplify searching. In the navigation menu, there were six main menus: *Qui sommes-nous ?*, *Membres*, *Publications*, *Événements*, *Recherche* and *Formation*. The homepage content of the bilingual website was comprised of a slider of recent posts created AnWP Post Grid and an event list made with ME Calendar Lite. As for the footer, it consisted of linkable menus and the logos of the regulatory bodies.

There were two language versions of the website, French and English. The main language was French and some of the content was not yet translated into English. Initially, the storage could store up to 2 Gigabytes (Gb). However, as there were a large number of documents formatted in .pdf and images stocked on the website, the website often experienced slow loading and sometimes downtime. I proposed two possible solutions which were: to upgrade the storage since it was too small for a contemporary website or to use a cloud computing platform for preserving media. They came to the decision, to upgrade the storage to about 20 Gb. The website can be consulted [here](#) and below was the look of the homepage.

À la une



• • • • •

Événements à venir

10 MARS
JEUDI

VALENTIN LANG (UNIVERSITY OF MANNHEIM)

Temps
12h00 - 13h45
Médiocre (50%)



EN SAVOIR PLUS

24 MARS
JEUDI

JONATHAN HALL (UPPSALA UNIVERSITY)

Temps
12h00 - 13h45
Médiocre (50%)



EN SAVOIR PLUS

31 MARS
JEUDI

ANTHONIN LEVELU (UNIVERSITÉ PARIS DAUPHINE)

DIAL, 1-4 rue d'Enghien, Paris
12h00 - 13h15
Médiocre (50%)



EN SAVOIR PLUS

07 AVRIL
JEUDI

ELODIE MANIA (UNIVERSITÉ PARIS DAUPHINE)

Université Paris Dauphine (salle C131)
12h00 - 13h45
Médiocre (50%)



EN SAVOIR PLUS

21 AVRIL
JEUDI

MATHILDE SAGE (UNIVERSITÉ PARIS DAUPHINE)

Université Paris Dauphine (salle C131)
12h00 - 13h45
Médiocre (50%)



EN SAVOIR PLUS

AFFICHES PLUS

Picture 1.8. Homepage of the new website

1.3.Evaluation and Career Orientation

It would always be better if the training is evaluated to gain insights into the next steps of my career. When carrying out all the tasks within the project, I was mostly satisfied with my web design work. I felt confident when showing my propositions pertaining to the palettes, font themes, wireframes and mockups to the Director and Webmaster and they had positive feedback on them. Also, the Director showed a pleased reaction to my work related to web information structuring albeit with several revisions. She said that it was a genius proposition work. And it is always thrilling for me to analyze the content to be able to best architect the information. In respect of project management, despite the arduousness in the middle of the project, I never find it uninteresting and unenjoyable and I started to get accustomed to it. Nevertheless, the programming is still somewhat struggling for me. It does not mean that I have zero ability in coding. I consider myself as an intermediate programmer of **HTML** and **CSS** but a very beginner in **Javascript** and **PHP**. This strongly motivates me to never quit polishing my programming skills.

In viewing all the above-mentioned points, **Web Designer, Webmaster** or **Front-end Engineer** best suits my profile. Despite what preceded, I also enjoy any forms of writing and SEO or marketing research. Therefore, there is, of course, every likelihood that I will work as a **Web Writer, SEO Specialist, Communication Specialist** or **User Researcher**.

References

Wikipedia. (2021). *eZ Publish*. Retrieved from: https://en.wikipedia.org/wiki/EZ_Publish

Appendix

Appendix 1.1. Internship Evaluation 2020/2021

FICHE D'ÉVALUATION 2020/2021 (A REMPLIR PAR L'ORGANISME D'ACCUEIL)

Faculté _____
des langues _____
Université de Strasbourg

MERCI DE REMPLIR CE QUESTIONNAIRE ET DE LE FOURNIR A L'ÉTUDIANT

INFORMATIONS GÉNÉRALES :

1. Organisme d'accueil

IRD

2. Etudiant

N°Etudiant : 21914205

Type de stage : stage de fin d'étude

Durée : 4 mois

Objet : refonte site web

Ce stage a-t-il été rémunéré ?

Oui Non

Si oui, à quelle hauteur ?2429,70 euros

A PROPOS DE L'ÉTUDIANT EN STAGE :

Vous diriez que

1. ses qualités sont :

Rigueur, motivation, autonomie, dynamisme, capacité d'adaptation...

2. les compétences mises en œuvre sont :

la connaissance des techniques utiles pour la communication web multilingue, la maîtrise des principaux outils pour la réalisation de site web, l'adaptation à la spécificité des besoins de l'Unité de recherche en matière de communication web...

SAVOIR-ÊTRE :

3. Présentation :

Excellente Bonne
 Plutôt négligée Négligée

4. Ponctualité, assiduité :

Excellente Bonne
 Insuffisante Très insuffisant

5. Intégration :

Offre toujours son aide S'efforce de participer
 Cherche peu à collaborer Reste isolé

6. Esprit d'équipe :

Favorise le travail d'équipe Participe
 Suit le mouvement S'implique difficilement

7. Autonomie :

Excellente Bonne

Faible Très faible
 Excellente Bonne
 Faible Passif

SAVOIR-FAIRE :

9. Méthode / Organisation :

Excellente Bonne
 Insuffisante Très insuffisant

10. Connaissance des techniques propres au domaine d'activité (logiciel, statistiques, pédagogie, encadrement...)

Excellente Bonne
 Insuffisante Très insuffisant

11. Pratique des langues vivantes :

Excellente Bonne
 Insuffisante Très insuffisant
 Non concerné

12. Résolution des problèmes :

Identifie, analyse, résout
 Identifie et propose des solutions adaptées
 Identifie les problèmes
 Identifie difficilement les problèmes

13. Résultats généraux obtenus :

Excellents Bons
 Insuffisants Très insuffisants

14. Si insuffisants ou très insuffisants, justifiez :

REMARQUES GÉNÉRALES :

15. Autres observations sur le stagiaire :

16. Pensez-vous renouveler l'accueil d'un stagiaire de l'Université de Strasbourg ?

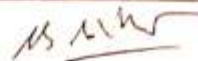
Oui Non

Pourquoi ?

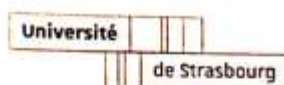
CACHET ET SIGNATURE :

Anne-Sophie ROBILLIARD
Directrice Adjointe UMR 260 LEDa
IRD - Université Paris Dauphine - CNRS

Merci !



Appendix 1.2. Internship Certificate



ATTESTATION DE STAGE à remettre au stagiaire à l'issue du stage

ORGANISME D'ACCUEIL

Nom ou dénomination sociale : IRD

Adresse : 32 AVENUE HENRI VARAGNAT 93140 BONDY FRANCE

Tél : 01 48 02 55 00

Certifie que

LE STAGIAIRE

Nom : PARDEDE Prénom : Maruli Tua Sakti Sexe : M Né(e) le : 15/05/1993

Adresse : 31 Avenue des Vosges 67000 STRASBOURG FRANCE

Tél : 0766689286 Portable : +33766689286 Mèl : maruli-tua-sakti.pardede@etu.unistra.fr

ÉTUDIANT EN (intitulé de la formation ou du cursus de l'enseignement supérieur suivi par le ou la stagiaire) :
MASTER 2ème année Langues et sociétés : Création de sites web multilingues, localisation et gestion de contenu

AU SEIN DE (nom de l'établissement d'enseignement supérieur ou de l'organisme de formation) :
Université de Strasbourg

A effectué un stage prévu dans le cadre de ses études

DURÉE DU STAGE

Dates de début et de fin du stage : du 21/06/2021 au 22/10/2021

Représentant une durée totale de 4 mois (Nombre de mois / Nombre de semaines) (rayer la mention inutile)

La durée totale du stage est appréciée en tenant compte de la présence effective du stagiaire dans l'organisme, sous réserve des droits à congés et autorisations d'absence prévus à l'article L.124-13 du code de l'éducation (art. L.124-18 du code de l'éducation). Chaque période au moins égale à 7 heures de présence consécutives ou non est considérée comme équivalente à un jour de stage et chaque période au moins égale à 22 jours de présence consécutifs ou non est considérée comme équivalente à un mois.

MONTANT DE LA GRATIFICATION VERSÉE AU STAGIAIRE

Le stagiaire a perçu une gratification de stage pour un montant total de 2429,70 €

L'attestation de stage est indispensable pour pouvoir, sous réserve du versement d'une cotisation, faire prendre en compte le stage dans les droits à retraite. La législation sur les retraites (loi n°2014-40 du 20 Janvier 2014) ouvre aux étudiants dont le stage a été gratifié, la possibilité de faire valider celui-ci dans la limite de deux trimestres, sous réserve du versement d'une cotisation. La demande est à faire par l'étudiant dans les deux années suivant la fin du stage et sur présentation obligatoire de l'attestation de stage mentionnant la durée totale du stage et le montant total de la gratification perçue. Les informations précises sur la cotisation à verser et sur la procédure à suivre sont à demander auprès de la Sécurité sociale (code de la sécurité sociale art. L.351-17 - code de l'éducation art.D.124-9).

Fait à Paris le 22/10/2021

Nom, fonction et signature du représentant de l'organisme d'accueil

Anne-Sophie ROBILLARD
Directrice Adjointe UMR 260 LEDa
IRD - Université Paris-Oauphne - CNRS

Date d'impression : 27-05-2021 14.14.33

Master's Thesis:

Between Game Localization and Gameplay: A Case Study of Indonesian User Rejection of Mobile Games in The First Year of Installation

2.1. Introduction

Over the last years, smartphone games have ruled the world of mobile applications and have been the biggest revenue segment of the global gaming market (Statista, 2021). This trend is not separated from the COVID-19 pandemic which has fueled the gaming and smartphone habits of users. Its statistics have never been more interesting. According to Statista, there were 6.055 billion smartphone users in 2020 worldwide. 2.69 billion of them played mobile games, spent 4.2 hours daily on their games and expensed \$100 billion on the games (Knezovic, 2021). The recent report from Statista also shows that the revenue from mobile gaming applications worldwide still continues to break records, from 68.3 billion US dollars in 2019, 86.9 billion US dollars in 2020, 90.7 billion dollars in 2021 and will be projected to grow to 116.4 US dollars in 2024. Game publishers have been encouraged to launch their games mobile-first, not only because of the foregoing impressive volumes but also because of these two reasons: from the viewpoint of gaming users, mobile gaming platform eclipses consoles and PC gaming platforms in terms of flexibility, pricing and privacy and comfort (Galehantomo, 2015); and from the viewpoint of game publishers, mobile gaming offers several advantages in comparison with other gaming segments, such as the lower budget for production, less complexity in development, flawless and wider distribution, ease of promotion and easy access for worldwide players (Starloop Studios, 2021).

Before the rise of mobile gaming, players needed PC or game consoles to play video games, and the target marketing was less broad. Nevertheless, the shift from immobile to mobile gaming thanks to the advances in technology has made gaming universally accessible and flexible to individuals, as long as they have a smartphone and good internet connection. On the other side of the coin, mobile gaming has also brought the competition in the marketplace to a greater level for game publishers. It thus is a new challenge for those who have been specialized in console and PC gaming since the marketing communication strategy needs to be reconsidered to enter the competition, as mobile gaming applications are not sold in a physical

product. Zackariasson and Dymek (2017) say that it is recommended to implement marketing-focused processes when developing and producing a video game. That is to say, to begin the project, it is essential to select the target first.

Regionally speaking, mobile gaming is booming in South East Asia and is also forecasted, together with Europe, to show strong annual growth of market volume and to outpace the global revenue rate in three years ahead (Sensor Tower, 2021). This results in a massive expansion of game publishers and developers into these regions (Sensor Tower, 2021). A study performed by Mordor Intelligence in 2021 presents that the key drivers of the rise of mobile gaming in South East Asia are the increase of internet penetration and the burgeoning spread of inexpensive smartphones to all regions. The largest gaming market among Southeast Asian countries is Indonesia, especially between 2016 and 2017, according to two leading market data providers, Statista and Newzoo. In the world, Indonesia is ranked 16th as the largest market in 2021 (Allcorrect Group, 2022).

Indonesia is the fourth most populated country in the world (Worldometer, 2022). Among its 287-million population, over 183 million people own smartphones and 114 million of them are mobile game users. It is more than twice as many as PC gamers and almost three times larger than console gamers (Allcorrect Group, 2022). Sensor Tower (2021) also sorted Indonesia as one of the top growing countries for the gaming market in the first quarter (Q1) of 2021. The classification is determined by the difference in downloads in Q1 2021 and Q1 2020, which is more than 100 million installs. This has been definitely seen marketing potential. In spite of the fact that Indonesia is a promising mobile gaming market, it is not as straightforward as it seems to satisfy Indonesian mobile gaming users. Furthermore, it is widely acknowledged that the churn rate of mobile gaming apps is relatively higher than the other categories. Churn rate is the percentage of the users who quit using applications after a certain period. The study from GameAnalytics (2019) which was carried out between July 2018 and June 2019 highlights that 25% of mobile gaming players on average are retained after first-day download and the top 25% games, games with successful titles, retain 35% of players. There is nonetheless a plunge to only 4% of retained players after 28-day download. And by extension, retaining mobile gaming users is an uneasy task. The churn rate is vitally important for game publishers and developers. It may affect the revenue and reputation of a mobile game, two measures that define the success of a mobile game (Kerim and Genç, 2020). The higher the churn rate a game has, the higher the risk it will fail the market.

Behind the remarkably poor retention rate, the percentage of users who continue using applications they have installed, there is a decision made by the users, the decision to abandon mobile gaming apps or just to delete them temporarily. This behavior is a disadvantage for the publishers as the users are no longer able to view the in-app purchases (IAP) or respond to in-app advertising, two avenues (along with paid apps) on which the developers rely the most for monetization (Tang, 2016). Modern marketing communications of traditional gaming products or services considerably accentuate the importance of not only attracting users to purchase but also adopting two-way communication so that publishers can benefit from the snowball effect (Zackariasson and Dymek, 2017). This user retention strategy is especially important in the marketing communications of mobile gaming apps. Without an appropriate retention strategy, it may, in all likelihood, result in a high churn rate. One of the visible solutions to lower this high churn rate is to gain a deep understanding of dissatisfied users to gather broader perspectives from the users. In this case, it specifically refers to why the users delete a mobile game. Mobile users' reasons for deleting a game may be more complex than the traditional theory of consumer behavior where dissatisfaction is engendered if a product's performance does not meet the expectation of the consumer (Tyagi and Kumar, 2004). Additional factors may include the localization and the gameplay quality of the deleted games which are poor.

It is widely recognized that localization issues are not uncommon in the gaming industry and determine the success of a game. Players use games for entertainment purposes and hence, games are supposedly crafted to be suitable for particular segments of players. A frequent issue, in fact, is that characters in a game in the western world and Asia are unlike. The characters in the games are adult-like in the western countries whereas those in Asia are more child-like (Trainor, 2003). Sayapina (2018) also supports that localization strongly influences user acceptance and is not unimportant supposing the market is composite and needs product cultural adjustments. Another factor that might be considered to cause the user to churn is the gameplay of a game. Gameplay experience represents the entirety of players' sensations, thoughts, feelings and actions as to how it is designed in the game (Ermi and Mäyrä, 2005). It consequently measures players' engagement, enjoyment and impacts players' retention. Then, what are the real motivation of the users for uninstalling a mobile game?

From all the data and previous studies, a further study is therefore required to uncover what leads the users to take this action risking the retention rate. This paper is then dedicated to delving deeply into the reasons why mobile gaming users uninstall a mobile game focusing on Indonesian users, one of the potential mobile gaming markets. In addition, it will examine the

connection between the reasons and localization issues as well as the gameplay quality of the deleted game.

2.1.1. Hypothesis and Research Questions

The purpose of this research is to collect information on the reasons why Indonesian users delete a mobile game from their smartphone and whether the principal reasons are closely related to localization issues or to the gameplay quality of the mobile games. Therefore, the two main questions addressed in this research are:

- a) What are the main reasons of Indonesian mobile gaming users for deleting their mobile games?
- b) Do the principal reasons have a close connection to the localization issues or to the gameplay quality?

2.1.2. Aims

The aims addressed in this research are:

- a) To explore the main reasons why Indonesian mobile gaming users delete their mobile games.
- b) To determine whether the main motives of the uninstalling action are related to localization issues or rather to the gameplay quality.

2.1.3. Scope of the Research

Whilst many surveys and much research on mobile apps and social media user behavior have been carried out, mobile gaming user behavior, in particular, is still poorly documented. The aim of this study is to investigate one of these user behaviors; what motivates mobile gaming users to delete a game and to find whether the reasons are localization-related issues or the gameplay experience quality. The scope of the study is targeted to 100 respondents whose nationality is Indonesian regardless of age and who have ever deleted a mobile game on their smartphone when they were in Indonesia. Each respondent will be asked to complete a questionnaire of which they should name the game they deleted if they remember in order to gather all the reasons behind the uninstall. This collecting data period will last for 10 days

maximum, will end, either 100 respondents have fulfilled the questionnaire or two weeks have passed.

2.2. Related Work

Books and recent studies covering game localization are widely available concurrently with the boom of modern gaming. Researchers and experts are endeavoring to diagnose and eliminate any issues in game localization. Likewise, the accessibility to those investigating user retention and churn in marketing as well as user behavior is comparatively not limited. On the other hand, the number of studies distinctively assess mobile game localization, gameplay design and user behavior towards mobile gaming simultaneously is seemingly tiny.

2.2.1. Retention and Churn

In recent decades, a great number of software startups have created a tremendous and drastic impact on the global economy. Many of them put endless effort to reach as many potential users as possible. This brings the app competition in the digital marketplace to the next level. Two giant digital marketplaces, Apple and Google, are the best places for startups to promote their apps and become connected to users. A digital marketplace is a platform employing advanced technologies with a sophisticatedly-designed business ecosystem in order to assist companies and customers in completing valuable deals (Borck et al., 2020). There are many gaming apps distributed on those platforms ranging from free, freemium to paid apps. While those platforms are a great tool for startups to attract the attention of mobile gaming users in regard to the acquisition, the degree of hardship to retain the users is consequently levelled up. The questions often asked regarding retention and churn are: Why do users keep playing? How to predict when they stop? Do they change over time?

2.2.1.1. Retention

Acquiring new customers is important, however, it is undeniable that retaining existing customers may be more valuable. Moreover, it is big-budget to acquire a new customer in comparison to retaining one because it requires an operational procedure such as new account

setup, credit searches, advertising and promotional spending. This is also supported by Reichheld and Sasser (1990) arguing that retention marketing strategies offer more benefits to the enterprise because there is an increase of deals, a purchase at a full margin rather than at discount prices, and are efficiencies in the operation performed by loyal customers.

In gaming, engagement is frequently used as a synonym of retention (Debeauvais, 2016). The feeling of engagement expressed by the user is often the reason why mobile game players keep playing the game. Debeauvais (2016) also adds that motivations to play are another key driver to retain mobile gaming users.

2.2.1.2. Churn

Prediction of customer churn has been a frequent research topic over the last few years. Companies invest in this to be able to forecast the behavior of customers without any errors in order to minimize the number of customers churning. In general, customer churn is customers who stop using services from a company (Mathai, 2020). Mathai (2020) additionally adds that the primary reasons why customers churn are issues in experience communicating with customer service, complicated service plans, high costs, unengaging plans and bad support.

Like other products and services, churn also figures the lifetime value of the users in a game company. Debeauvais (2016) defines churn in gaming referred to a moment when players stop playing the game forever or for a while. The reasons behind this abandonment are unpredictable and vary from the gameplay experience, localization to marketing-specific issues.

2.2.2. Digital Gaming

Digital gaming has appeared to be one of the most enjoyable forms of entertainment for all generations. Along with the expansion of marketplaces, people regardless of age group can play available online games according to their preferences and interests. Moreover, the penetration of virtual reality and 3D gaming is soon to broadly open the door to revolutionary technologies to enhance the digital gaming experience. According to IGI Global Dictionary,

*“In a broad sense, **digital gaming** includes, but is much more than, playing using software running on PCs, consoles, or portable devices. It not only encompasses a wide range of cultural and media practices, including those designed specifically to be played, but also comprises other practices that provide pleasures derived from playful tinkering with **digital** technologies.”*

2.2.2.1. User behavior towards gaming

Professionals in video gaming, on all occasions, undergo repeated testing before and after the launch to double-check game playability and usability but also to garner a biased reaction from the user. In a conventional way, testing is completed using surveys and interviews. Recently, a newly-developed methodology involving Human-Computer Interaction has been, however, made available for better user-oriented testing (Drachen and Canossa, 2013). A finding from Russell (2014) suggests that user behavior to gaming is segmented into three time scales: micro, meso and macro. Micro scale judges the player interactions from milliseconds to minutes when the player captures all the game components within the interface and bears down to place themselves in the gameplay setting. Meso scale is to measure minute-by-minute behaviors, on what drives the player to begin, stop and return to play. Besides, this period impacts their perspective towards the game, what they find enjoyable and distracted during the playing. Finally, the macro scale is a measurement of how the player behaves day by day. Unlike meso scale, the player sees the use of the game in longer periods and a change of perspective for the game seems to occur, particularly affected by the game developers.

2.2.2.2. Mobile gaming in Indonesia

In Indonesia, mobile games have been chosen by those who are low in budget while PC games are offering greater playability and gameplay experience. With an exponential rise, the revenue for mobile games in the country has reached USD\$1,404m in 2021. There was a sharp increase in the comparison with the previous years, USD\$929m in 2019 and USD\$1,185m in 2020. It is expected to continue to spike by the end of 2026 to USD\$2,060m with a steady annual growth rate of as much as 6.88%. As for the number of users, there has also been a gradual increase, from around 54.7m users in 2020 to 59.8m users in 2021. This number is projected to jump to 78.6m users by the end of 2026. Most users are aged 25-34 years old or 44.7% and 18-24 or 35.5% of total users in 2026. Still, in 2021, 46.9% of users come from high-income households. (Statista, 2021).

The explosion of mobile gaming revenues in Indonesia is not only because of the penetration of the internet and inexpensive smart devices but also the pandemic COVID-19 and the positive feedback of the government to e-Sports. According to InMobi's report, a pandemic measure "stay at home" has caused 46% of Indonesians to play mobile games for the first time resulting

in the emergence as a new form of entertainment and relaxation for users. Consequently, the number of unique mobile gamers has increased twofold and app usage has increased fourfold from January 2020 to January 2021. A survey of more than 1,000 smartphone users conducted by the same group, saw that virtually a third spent more time on gaming and downloading more games in 2020. In addition to the result, over 80% of Indonesian gamers are accustomed to playing once up to several times daily, and the 35-44 years-old players have a higher overall percentage of this sort of player. The demography of the gamers is split almost equally between females and males. (InMobi, 2021)

Apart from the facts above, the phenomenon of E-Sports, or electronic sports that use online games as a competitive field continuing to grow and attracts the attention of various groups, from young people to large companies in Indonesia, has been attracted and supported by some of the Indonesian ministries. The spokesperson of the Coordinating Ministry for Economic Affairs, Hendrarto, also added that the development of E-Sports and the gaming industry is one of the capitals for the development of the Indonesian nation and also one of the presidential promises listed in the National Priority Program (Coordinating Ministry for Economic Affairs, 2021).

2.2.2.3. Mobile games in Indonesia

According to Similarweb (2022), the top 10 grossing games in Indonesia are: Higgs Domino Island, Mobile Legends: Bang Bang, Garena Free Fire - Illuminate, eFootball PES 2021, Roblox, Clash of Clans, Rise of Kingdoms: Lost Crusade, Genshin Impact, State of Survival: Zombie War and Gardenscapes while the top 10 paid games are RFS – Real Fight Simulator, Minecraft, Stickman Legends: Shadow War, PPSSPP Gold – PSP emulator, Hitman Sniper, Incredibox, Grand Theft Auto: San Andreas, The Sun: Origin, Football Manager 2022 Mobile, GRID Autosport. The popularity of mobile games has outweighed that of other software apps such as social media, education, etc. (Similarweb, 2022).

In regard to the top-grossing games that mostly have multiplayer features, it is most likely that Indonesian users seek social interaction within the gaming apps, one of the motivations why people play games (Debeauvais, 2016). In terms of mobile game genres, the Indonesian market, in 2020, is dominated by role-playing games (RPG) which amounts to 31.05%, followed by

real-time strategy, casual, sports, shooter and action/adventure games with a share of 23.69%, 21.11%, 20.35, 19%, and 18.26% respectively (Statista, 2021).

A dozen of games were also forecasted to dominate the Indonesian market in spite of their popularity in other countries and large-scale promotion. However, those games still do not win the Indonesian market. According to GoRiau (2021), Fortnite Mobile, Asphalt 8, Asphalt 9 are some examples of mobile games which do not hit the Indonesian market while according to Celupin (2022), some of the examples are Brawl Stars and Pokemon Go. To update these preferences, a double verification is done by consulting the Similarweb's website, a provider for digital intelligence. In addition to the abovementioned games, Arena of Valor (AOV) is also considered an unpopular game among Indonesian players that lose from its competitor in the same game genre, Mobile Legends: Bang Bang, that was released a year before AOV (Nizam, 2018).

2.2.3. Localization

To meet the expectations of a particular audience targeted by companies when globalizing their product or service, there is much call for localization. Localizers, then, play an essential role to minimize the unmet expectations as they tailor the product or service to the local or target audience's needs. The Globalization and Localization Association (GALA) defines "Localization" as "the process of adapting a product or service to a specific locale". Dunne (2006) divides localization into two practices: translating textual content and adapting non-textual content such as colors, icons, bitmaps, packaging, form factors, along with the input, output and delivery mechanisms which are subsequently assessed according to the "locale" tastes.

Localization allows companies to cope with varied barriers: language, race, occupation, education level, norm, culture, tastes, preferences and values which need to be taken into consideration in the development of marketing strategy (Yankelovich and Meer, 2006). It is a powerful instrument that enables a brand to go global rapidly and aggressively. Not a few giant companies such as Coca-Cola, Nintendo, Apple, KFC and Netflix adopt localization strategies and have proved their effectiveness (Emmy S., 2020). Companies can opt either for creating a team or using the service provided by related suppliers to benefit from the localization impacts.

2.2.3.1. Game localization

Each product or service has different treatments in its localization process. In localizing video games, it is suggested to commence it even before the games are created: targeting an audience and researching to possess a firm grasp of the audience's needs and regional regulations. Game localization primarily aims to release another version of a game that guarantees equality in terms of gameplay experience quality as that of the original version (Mangiron and O'Hagan, 2006). For the most part, game developers tend to hire localization vendors for handling the localization (Dietz, 2006).

Like other software, there are a vast number of elements in video games that are required, in general, to be localized. In the translation process, there even exists myriad components of textual material ranging from the game interface, dubbed video or audio, installation guides, the readme file to instructions for patch files (Dietz, 2006). To translate them, translators are also required to adjust boundless creativity to be able to produce a target language not only akin to the source language, but also with an allowable amount of text within the allotted space. Similarly important, the aforementioned group are supposed to acquire a prior knowledge of the game or feel disposed to do so in order to approve the engagement and enjoyment when they position themselves as a player.

In addition to the linguistic alteration, localization of video games involves the adjustments of non-textual assets: technical, cultural, legal and marketing processes (Mangiron, 2016). For the technical aspect, the game developer, for instance, is expected to be prudent with the game visuals, such as in the use of symbols, objects, images, texts, colors and the user interface design. The game interface is crucial in video games. It must be designed with a high degree of obtrusiveness and built-in functionality as there is a significant difference in the character limits between languages (Dietz, 2006). Another interesting example is the choice of using texts, symbols or objects. For instance, the interface of a computer-based game is generally rather reliant on object pictograms which permit conveying messages of simple actions in comparison with symbols that have less precise messages. Notwithstanding the practicality of the symbols' and objects' employment, elaborate instructions are best suited with texts by adding a mouse-over menu (Dietz, 2006).

Cultural adaptation is affirmed to be beyond language changes in game localization albeit the close interrelation between both processes. It is the key to bridging the gap between varied cultures and eliciting an equivalent emotion in order that players relish a steered gameplay

experience and immerse themselves in the game (Mangiron, 2016). In its initial era, video games were devised for a particular culture, mainly for Japanese or North American culture. Localization venture was then attempted after the games came to fruition in the target region and the chance to hit the foreign market had been well-anticipated (Mangiron and O'Hagan, 2013). Localizers involved in the project take into account the game genre, translation strategy and the target players. They subsequently evaluate and reengineer all the content until it really is culturally accepted by the target players. This stage is widely known as cultural localization (Di Marco, 2007) and culturalization (Chandler, 2005). The depiction of violence, for instance, gives rise to more serious concern on the European culture as opposed to nudity while in Asia, action, role-playing and strategy games designed with violence dominate the market. Germany has taken a further drastic step to reinforce their law regarding the depiction of violence in computer and video games due to a school shooting tragedy committed by a teenager who was inspired by a single-player shooter game Counter-Strike (Dietz, 2006 and Fung, 2017). It is no wonder that casual games are in the mainstream amongst European users (Fung, 2017).

Apart from the processes above, legal and marketing aspects must also be taken into account in the outline of the localization plan. Since most laws are territorial, there is a direct relationship between law and culture, albeit with complexity to a certain degree (Varner & Varner, 2014). Varner and Varner (2014) argue that in business communication, a company based in a country wishing to penetrate another country's market is necessary to discern and distinguish legal systems in both countries. Policy studies can lead the companies to the consumer choice that is profoundly affected by the social policy and by institutional settings (Taylor-Gooby, 2008). More clearly, companies must not be unclear on how they regulate all the business varying from emergency services, data protection, term of sale, contract, the cost to privacy and mechanisms. Such complex regulations may hinder the expansion of the games (Kervenoael, Palmer & Hallsworth, 2013). A further benefit from an understanding of a nation's regulations is that this can bring an in-depth analysis pertaining to the marketing costs for market expansion to companies. This analysis relates to labor, taxes, environment, advertising, employment, antitrust, licenses and privacy (Milano, 2021).

To market video games in diverse territories, methods which are effectively adopted in a specific region may not be as effective when implemented in other regions. Marketing research is then unavoidable to unveil invaluable insights. Data collection obtained through marketing research is an instrument that can be used for early definition and identification of issues and opportunities, marketing action development and evaluation, auditing of marketing execution

and advancement of knowledge of the whole process of marketing (Babin et al., 2020). In mobile gaming market penetration, it is a duty for marketing researchers to supply up-to-date information on the demography of the target region. Equally powerful, information regarding Indonesian culture can accommodate marketers to hone marketing strategy. To illustrate, the most prevalent leisure of Indonesian people is gathering and spending time together with ones around them (Forshee, 2006) and relevantly, the finding of Mathews and Wearn (2016) suggests that most people make a decision to purchase video games after hearing the opinions from their friends and family. To put it another way, excellent games are likely to be passed “word of mouth” by Indonesian people, impactful free-of-cost marketing.

2.2.3.2. Issues in app and game localization

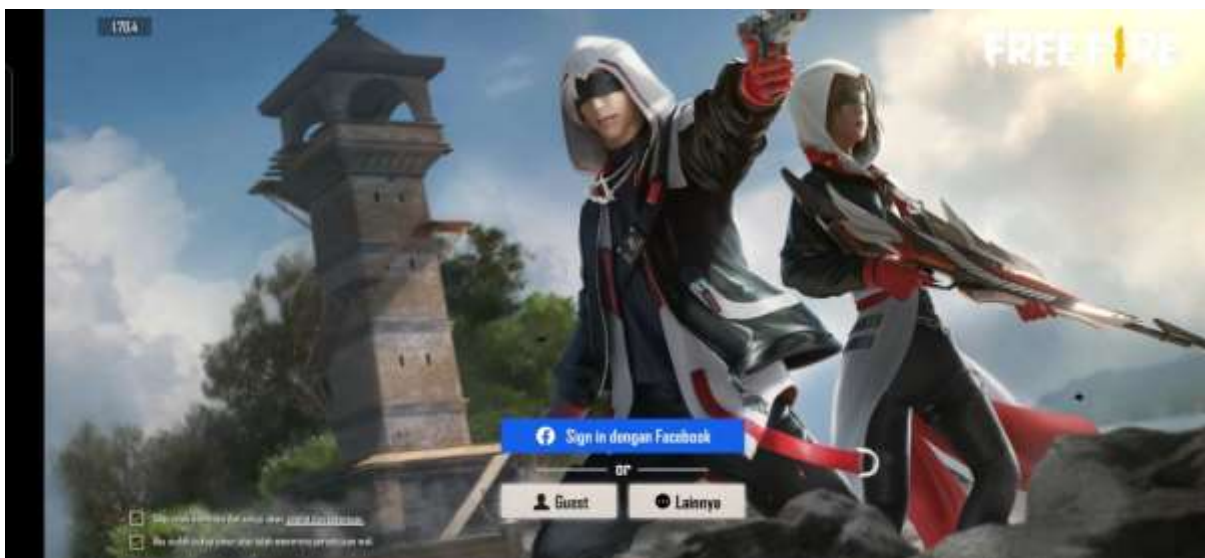
The high costs of localization are one of the primary constraints on the game developers and publishers that prevent them from localizing their games. However, non-localized video games are likely to end up with lower acceptance rate from the foreign users (Sayapina, 2018). In terms of language in video game localization, although the instructions are written in English, Indonesian users are likely to still play mobile games that interest them meaning that the acceptance of Indonesian users to simple English instructions in video games is evident. However, that does not apply to culture and law.

According to a later survey study performed by Ickin et al. (2017) regarding the motivations of users for deleting their apps, there are a number of reasons why users delete their apps ranging from: instability/inconsistency such as unwanted behavior, uncontrolled actions, inconsistency between description and functionality, unreliability, change in privacy terms, side effects, permissions, high amount of notifications, unmet expectations; intrusive advertisements; lack of improvement; usefulness (not using or not needed anymore); updates such as repeated application updates, fee for upgrade, too many updates; boredom such as finished games; high memory allocation such as too much memory usage (RAM) and temporarily uninstalls; low-quality user interface such slick animations, complexity usage level and user unfriendly; high battery usage; crashes such as sluggish behavior, freeze, slow, lag and force quit; time consumption such as addiction and abuse; no offline features; poor popularity; privacy abuse such as required login, required integration via login to social media; compatibility with device version to OS/ROM change.

Some of the issues obtained from the survey conducted by Ickin et al. are related to the theory of Dietz (2006) regarding issues in video game localization concerning the elements that need to be localized, from textual to non-textual components but also the study of Mangiron (2016) regarding culturalization extending from linguistic variation, cultural values expectations, territorial requirements to gaming culture and gameplay expectations. In terms of gameplay, Debeauvais (2016) explains further in his study that motivations of players to play games engagement, if a game has been finished and there is no longer engagement, then the players are likely to be demotivated to continue playing the games. The gameplay is further explained in the gameplay section.

In referring to the study of Ickin et al. and Mangiron as well as the theory of Dietz, the issues in game localization can concern the textual and non-textual assets.

(1) Textual assets



Picture 2.1. Mixed languages English & Indonesian – Free Fire

The picture above is used only for an illustration. The issue in the interface of the Free Fire Indonesian version where it can be seen mixed languages “Sign in dengan Facebook”, “Or”, “Guest”, and “Lainnya”. “*dengan*” and “Lainnya” mean with and others in English. As for the conditions located on the bottom left of the interface written in Indonesian, no errors detected. It seems that there is a poor localization in the game. This issue relates to the textual components in the games. For more clarity, issues in textual assets are often associated with the followings.

- **Language barriers.** The user has difficulties understanding the languages because there is no Indonesian version, mixed languages, or too many texts and no instructions/tutorials.
- **User Interface.** The texts are sloppily inputted in the user interface.

(2) Non-textual assets



Picture 2.2. Force quit - Mobile Legends

The picture illustrates one of the issues on the non-textual assets often encountered by users if the game is not properly localized, force quit. Force quit is an involuntary action caused by some technical problems which affect greatly the gameplay experience of users. This issue is supposedly tested during the quality assurance phase when localizing. There are more issues associated with non-textual elements extending from cultural, technical, legal and marketing aspects.

- **Cultural inappropriacy.** There are inappropriate content and elements in mobile games such as symbols, icons, texts and characters that provoke religion, social norms and racial concerns.
- **Internet connection speed.** The mobile games need a speedy internet connection to play.

- **Prohibition.** The user is not permitted to play the mobile games because of the depiction of violence and vulgarity.
- **Stability.** This issue ranges from involuntary behavior, uncontrolled actions to extra unwanted things.
- **Memory allocation.** The mobile games consume too much storage and memory usage (RAM).
- **Compatibility.** The mobile gaming apps are not compatible with the version of operating systems of the user's smartphone.
- **OS/ROM change.** There are changes in the version of the operating systems and/or in the ROM.
- **User Interface.** There are problems with the graphical user interface (GUI): slick animations, its level of complexity to use and user-unfriendly interface.
- **Battery usage.** The consumption of batteries is too high.
- **App performance:** The user experiences crashes when playing the mobile games ranging from sluggish behavior, freezing, lag to force quit.
- **Offline mode:** The mobile games cannot be played offline.
- **Community.** There is no community or it is hard to find the community in Indonesia.

2.2.4. Gameplay and Issues

People are committed to play games to seek the experience that is only achievable by plunging into the gameplay. Thus, many games are designed to make its audience fun, emotional, pleased, engaged and effortless in order to fuel the motivations of users so that the more people turn into players. However, designing such concepts is uneasy. This level of enjoyment is often regarded as the core of games. In contrast, playing games does not always result in engaging and fun moments: it may stress and frustrate players. This sort of reactions that are generally classified as unpleasant can be expressed as pleasurable in certain contexts (DeJean, 2002). This feeling may be aroused when players, in the beginning, cannot accomplish a given mission and, in the end, they manage to cope with it. Klimmt (2003) has built a model of levels of enjoyment of which there exist three levels. The first comprises the interactive input-output views, the second is a feeling of relief and reward, and the third is associated with a short-term enthusing escape into another world.

Debeauvais (2016) explains further that people keep playing games because of three aspects, challenge, social interactions and immersion. These also motivate people to play games. Challenge is very likely to be the most common motivation to drive people to play games. It refers to the state of challenge, fantasy, and curiosity. Challenge seems to have slight difference to entertainment or enjoyment according to Ermi and Mäyrä (2005) who state that people start to play games because they already have expectations of enjoyment. Social interactions encompass the activities that the players can do together within the games such as collaborating, competing, chatting and spectating others. Immersion covers the state of mind when players feel and think that they act as if it is in the real world somewhere else other than on earth. In addition, the study of Hamari and Keronen (2017) finds that enjoyment and usefulness are not unequally important. It relates to how users perceive the usefulness of a game.

In synthesizing the literature of the gameplay, players stop playing games if they are no longer motivated. Therefore, such demotivation can be detailed as followings.

- **Enjoyment.** This describes how the user perceives the degree of enjoyment, entertainment and fun of a game. In other words, it portrays what the user feels when playing the games: unchallenging, uninteresting and boring.
- **Usefulness.** The degree of usefulness that the user can perceive from playing the games. In this case, the user no longer finds continuous prospects to play the games: finished games, no more making from the games (digital items, accounts selling, etc.), no more educational offers and addiction.
- **Social interactions.** The games allow players to interact with others. Those interactions break down into three categories: competition, cooperation and spectating. In this respect, the user is unable to compete, collaborate or spectate.
- **Immersion.** This consists of two parts: effectance and escapism. Effectance means the ability and desire to connect with and spread influence on the game world while escapism represents our fantasy in other parts of the real world. To rephrase it, the user immerses themselves in the game like it is the real world. Therefore, the issue is the inability to immerse the user in the game.

2.2.5. Other Relevant Issues

Since referring to the findings of Ickin et al., there are some issues which are out of the categories that might be the motivations of user rejection of the games. Those issues seem to be marketing-specific.

- **Improvement** The mobile games are outdated, lacking of improvement and the user finds another similar game that outperforms.
- **Advertisements.** There are intrusive advertisements.
- **Updates.** There are frequent application updates and is a fee for the upgrade.
- **Abusing privacy.** The mobile gaming apps require login and integration via login (i.e. with Facebook, Google, Line, etc.)
- **Inconsistency.** This issue varies from inconsistency between description and gameplay, unreliability, changes in privacy terms to permissions to the high amount of notifications.

2.3. Methodology

In order to conduct research systematically and in a detailed way, a method, instrument, data and tool are then required. The type of research used in this research is quantitative research with a survey method. This study then involves quantitative analysis and a questionnaire used as a data collection tool.

2.3.1. Quantitative Research

A quantitative research method is one type of research whose specifications are systematic, well-planned and clearly structured from the beginning to the making of the research design. Williams (2011) defines it as a result of answering research questions or hypotheses and a review of relevant literature and quantitative analysis of data which is started with a declared problem.

2.3.2. Descriptive Approach

This research is designed with a descriptive approach. More specifically, the descriptive method used in this research is the case study method. Descriptive studies aim to analyze the actual status of settings, conditions, events or individuals (Mertler, 2016). More clearly, depending on the objective, the scope of the study may cover the entire cycle of individuals, groups, or institutions with an emphasis on particular case factors or cover the entirety of specific case factors, or the entirety of factors and phenomena.

2.3.3. Data and Sources

In addition to research topics and methodologies, it is also important to collect and document research data. In the absence of data collected in a study, then the research will stagnate because there is nothing that can be decided or concluded.

2.3.3.1. Place and time

This research is conducted in Indonesia and was carried out in October 2021 until it was completed.

2.3.3.2. Sources

Primary data. Primary data is data collected by the researcher from the first source. The primary data sources in this study are Indonesian mobile gaming users.

Secondary data. Secondary data is data collected by the researcher as support to the first source. It can also be said that data is arranged in the form of documents. In this study, the secondary data sources are articles, journals and related literature.

2.3.4. Subjects and Target Population

The subject of this study was Indonesian gaming users of which the survey was executed in March 2022. It includes results obtained from 109 users. They were contacted via Whatsapp and Instagram by sending them the link to the provided Google Form.

2.3.5. Data Collection Technique

To be able to carry out a good data collection process, two techniques for data collecting were employed in this study. They are documentation and questionnaire.

2.3.5.1. Literature review

Ramdhani et al (2014) remark a literature review as a scrutinization of scholarly articles, books and other sources relevant to a particular issue, area of research, or theory, which is designed to give an overview of sources that is explored while researching a particular topic and to demonstrate that research suits into the larger field of study. To be more credible, this study has been referred to some related documents in the forms of research papers, journals, books, reports and articles. The data was collected and studied to support primary data with the questionnaire collection technique.

2.3.5.2. Questionnaire

A survey questionnaire is a data collection technique that is done by giving a set of questions or statements to respondents to answer to collect primary data (Roopa and Rani, 2017). In this research, there are two versions of the questionnaire, in English and Indonesian. A platform, Google Form, was employed to organize the questions and gather the responses from the respondents. The version of the questionnaire which was disseminated among the respondents was the Indonesian version.

The survey questionnaire included the following aspects: (1) demographics (age, occupation, types of operating system); (2) number of daily hours spending on playing games; (3) how the users knew the games; (4) mobile games downloaded; (5) main reason for installing and deleting mobile games; (6) the length of time spent on the games before deleting; (7) confirmation of stop playing (temporary or not); (8) similar games played; (9) positive and negative feedback of the games; (10) confirmation if the issues fixed (redownload or not). Most questions in the questionnaire are multiple-choice with one possible answer. Similar issues of user rejection of mobile gaming apss stated in the literature review are accordingly combined into one option to get fewer choices in order that the user is not confused with many options (See Appendix 1). For example, one option for marketing-specific issues. Instead, an additional

question is added to specify their main reasons. The questionnaire was spread on 2nd March 2022 and ended on 12th March 2022.

2.3.6. Data Analysis Procedure

To obtain reliable data and results, it is vital to involve a systematic application of statistical and logical techniques to describe the scope of data, modularize data structures, condense data representations, illustrate through figures, tables, and graphs, and evaluate statistical tendencies, probability data, to derive meaningful conclusions. This analytical procedure allows us to induce underlying conclusions from the data by eliminating unnecessary clutter created by the rest of the data. Therefore, there are four steps involved in this research to proceed with the data.

2.3.6.1. Data organization

In this step, the data collected from the questionnaire is then processed, and to make it easier to process the data, the researcher use software in order that the results are faster and more precise. After organizing the questionnaire in one place, the researcher verifies the completeness and accuracy and deletes components that are incomplete and unnecessary. This is important to obtain relevant data.

2.3.6.2. Data entry

The data is then presented in tabular form with the aim of so that the data is easy to read and understand. Then, the researcher uses a calculation that refers to the frequency, percentage, mean, median, range and others depending on the responses given by the respondents.

2.3.6.3. Data interpretation and limitations

In this stage, the researcher interprets the data with fair and careful judgments. The data is interpreted in ways of sorting, categorizing, manipulating, and summarizing data to obtain answers to research questions. More clearly, the researcher wrote an explicit report with corresponding charts according to the obtained data by providing descriptive analysis and statistics. In the end, the researcher listed all the reasons conforming to the percentage in

descending order and then categorized all the reasons into the categories (game localization, gameplay, and others) as stated in the literature review to see largest portion of percentage of the reasons for removing the games. Finally, it was ended with a conclusion.

2.4. Findings and Discussion

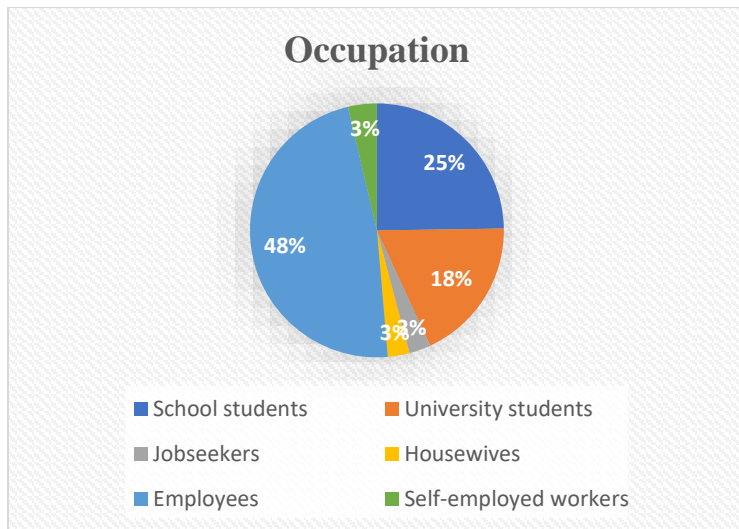


Figure 2.1. Occupation

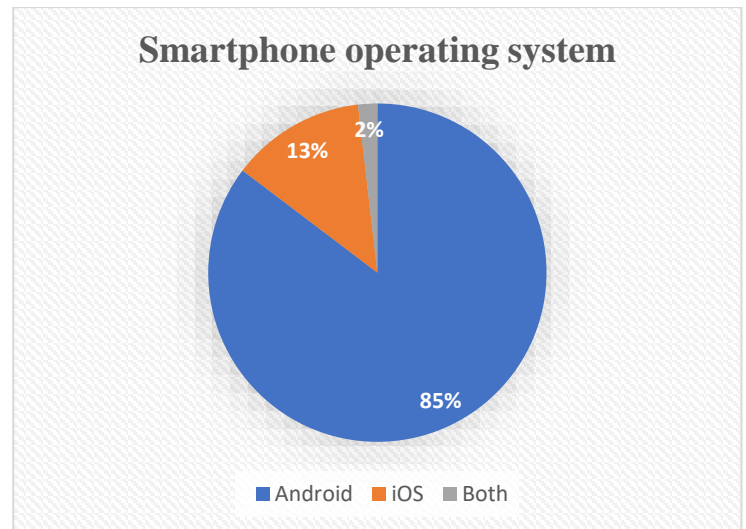


Figure 2.2. Used operating system

The results obtained from 109 respondents on 12th March 2022 show that demographically, the majority of respondents work in a company with a share of 48% followed by school students which is a quarter of the total number of respondents. Another quarter of respondents are university students, self-employed workers, housewives and jobseekers. Most of them are Android users which amounts to 85%. 2% of the pollees use both Android and iOS operating systems while the rest only use iOS mobile devices.

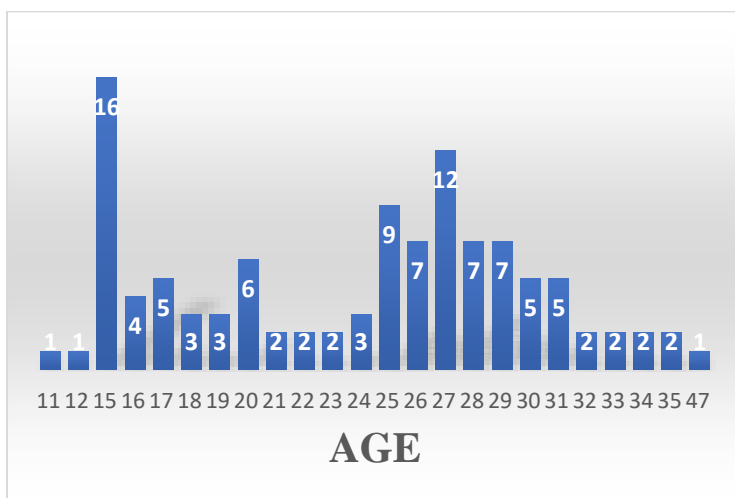


Figure 2.3. Age

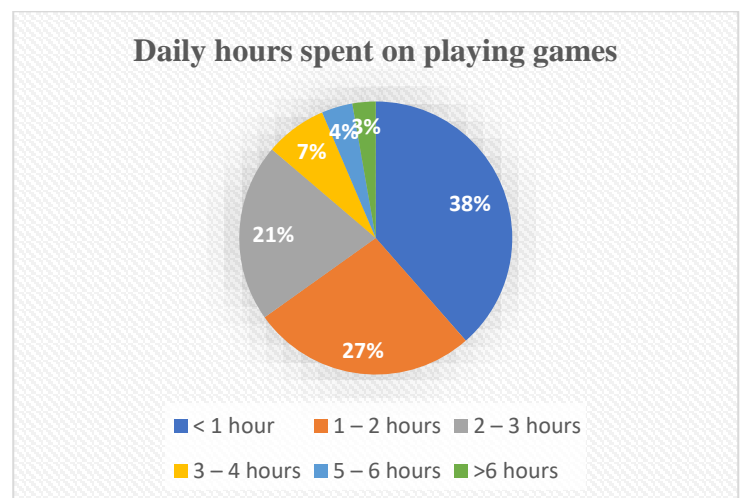


Figure 2.4. Daily hours spent on playing games

Approximately three quarters of the respondents are adults. Most of them are aged between 20 and 31 and are 25 years old on average. However, the largest percentage of respondents are 15-year-old teenagers. The youngest respondent is 11 years old while the oldest is 47 years old. The majority of surveyed users play games for less than 3 hours daily with a total share nearly 90%. While 38% of them, the largest percentage, are accustomed to playing games not less than 60 minutes, 3% of them, the smallest percentage, can, however, see their smartphone for more than a half day.

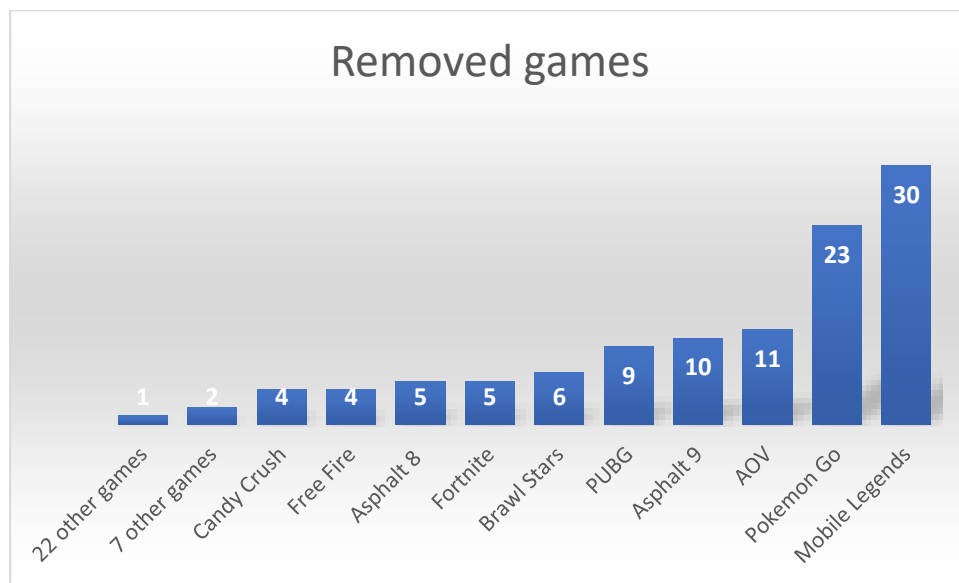


Figure 2.5. Removed games

In addition to the demography, the responses from the respondents to the question regarding the games that they have uninstalled are interestingly varied. From 109 users filling the questionnaire, 39 mobile games are mentioned. The mobile games provided on the questionnaire to help respondents in answering, were surprisingly numbered at least 5. Some of them also answered by giving several mobile games meaning that they have churned a few times from different games.

As it can be seen from the figure, Mobile Legends have most churners with a number of 30. The second highest rate belongs to Pokemon Go with 23 churners. As for AOV, Asphalt 9, PUBG, Brawl Stars, Fortnite, Asphalt 8, Free Fire and Candy Crush were numbered 11, 10, 9, 6, 5, 5, 4, and 4 respectively. The rest of the games or 29 games have 2 or 1 churners.

When asked about the sources from where the users heard or saw the uninstalled games for the first time, most of the users responded from a friend, relative, family, etc. It seems that word-

of-mouth strategy is always effective to market video games in Indonesia. This response came from more than a half of the number of respondents in total. 36% of respondents knew the games from video advertising appeared on other games or apps and a website, social media and internet browsing. However, only 12% of users who were updated with the games after watching influencers on streaming platforms or social media.

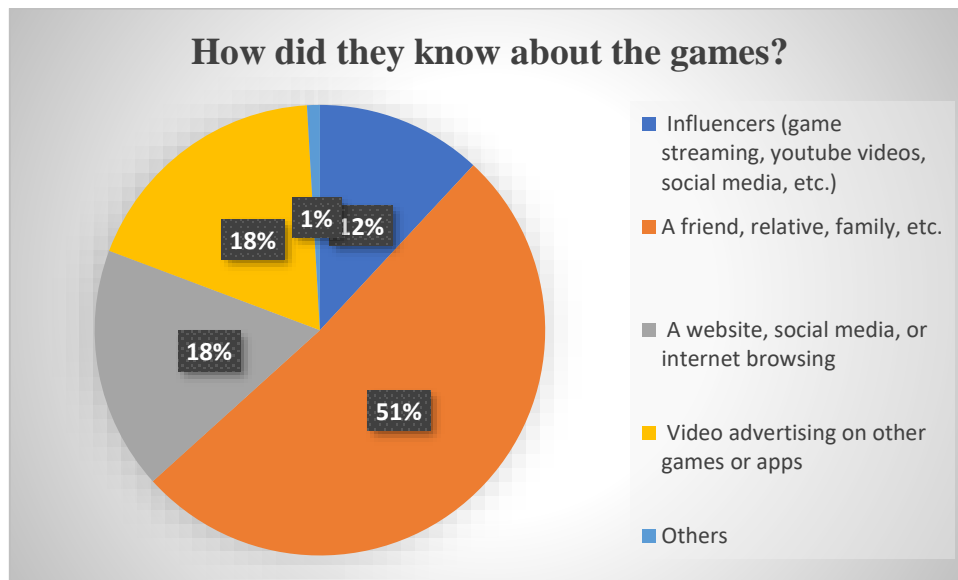


Figure 2.6. How did the users know about the games?

Like the source from whom the users got informed of the games, the most chosen motivation to install the games are also because of a friend, relative, family, etc. They were motivated to interact with those people through the games. This option was chosen by the largest percentage of respondents, as much as 39%. Virtually a third of the respondents felt that challenged and curious after discovering the games. The rest 27% of the pollees were determined to play the games because they already had insights about the gameplay.

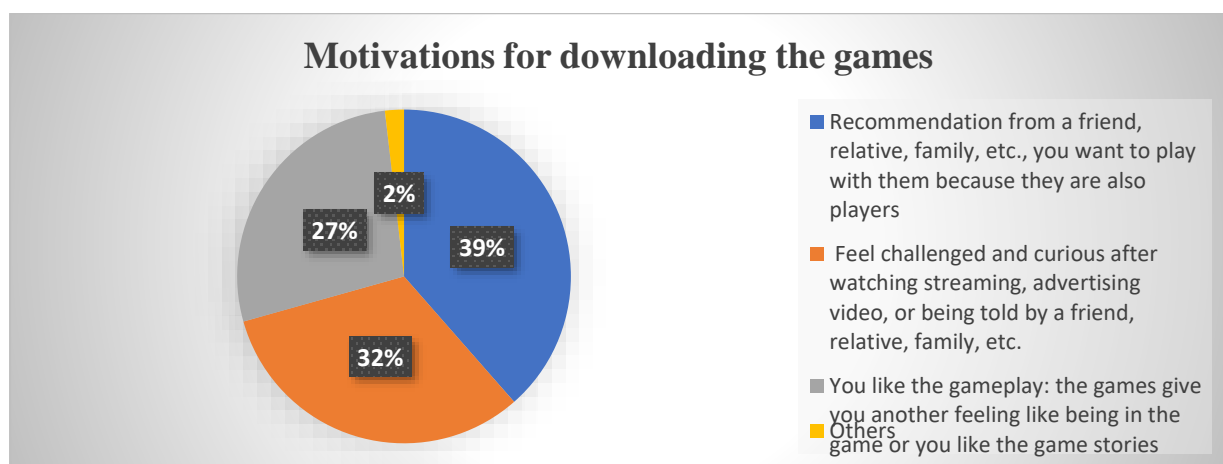


Figure 2.7. Motivations for downloading the games

After having gotten to know the game elements, most surveyed users, unexpectedly, have been players of the games for 10 months to a year. This is proved by the rate of the respondents showing that the majority of respondents, 28%, used the games during the foregoing length of time before they got those games removed. The second largest portion of the respondents, which is a half rate, have played the games for one up to three months. The figure also shows that 6% of the respondents churned before a week while 10% of them even churned before 24 hours.

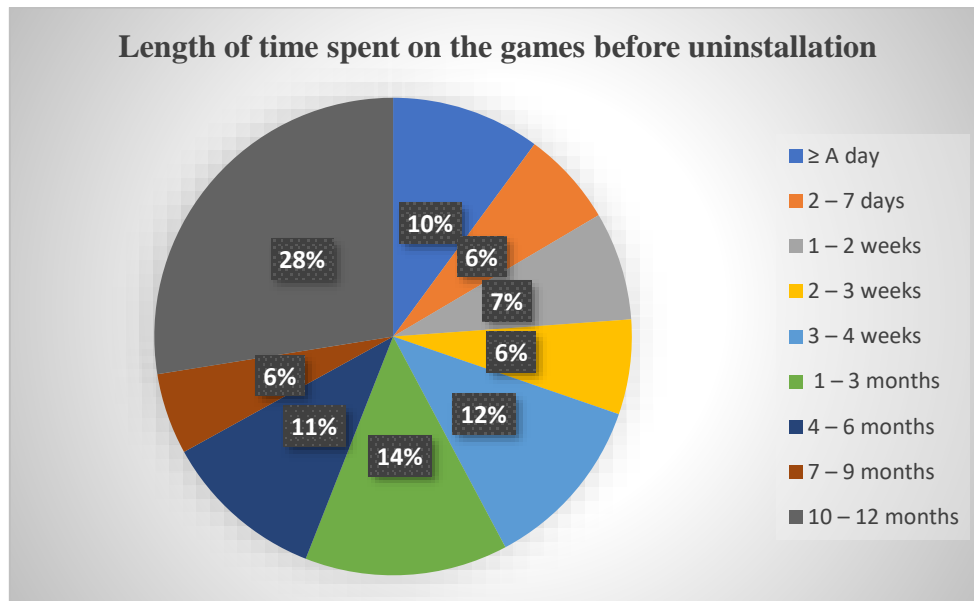


Figure 2.8. Length of time spent on the games before uninstallation

The next question the respondents was asked was to indicate their principal reason for deleting the games. The utmost answer was the device compatibility issue. Most downloaded games seemed to have a large size and RAM allocation as well as high battery consumption as what they have specified on the following question. The number of people concerned on this is 40, which is virtually 40% of the respondents. Following this, there was a gameplay issue that was numbered 22. The respondents saw that the games were boring, uninteresting and unchallenging after a short-term trial period. Some replied by saying that there were no longer enjoyment and engagement in the game. This means that the games need some improvement on the gameplay. With a regard to third largest number, there are 13 people saying that the games' performance was poor, a sign for localization needs. The respondents encountered several technical issues such as involuntary behavior, uncontrolled actions to extra unwanted things, sluggish behavior, freezing, lag or force quit. Nine respondents saw that the games offered no benefits in playing the games whereas nine others experienced marketing-specific issues extending from being outdated, lacking of improvement, intrusive advertisements,

frequent application updates, fee for upgrade, requiring login to integration via login (i.e. with Facebook, Google, Line, etc.). Most interestingly, one respondent decided to drop out from the games because of religion issues.

To accumulate, there are 61 people who were concerned on a set of localization issues while 36 others encountered gameplay design issues. The rest 12 people were faced by marketing-specific and unidentified issues.

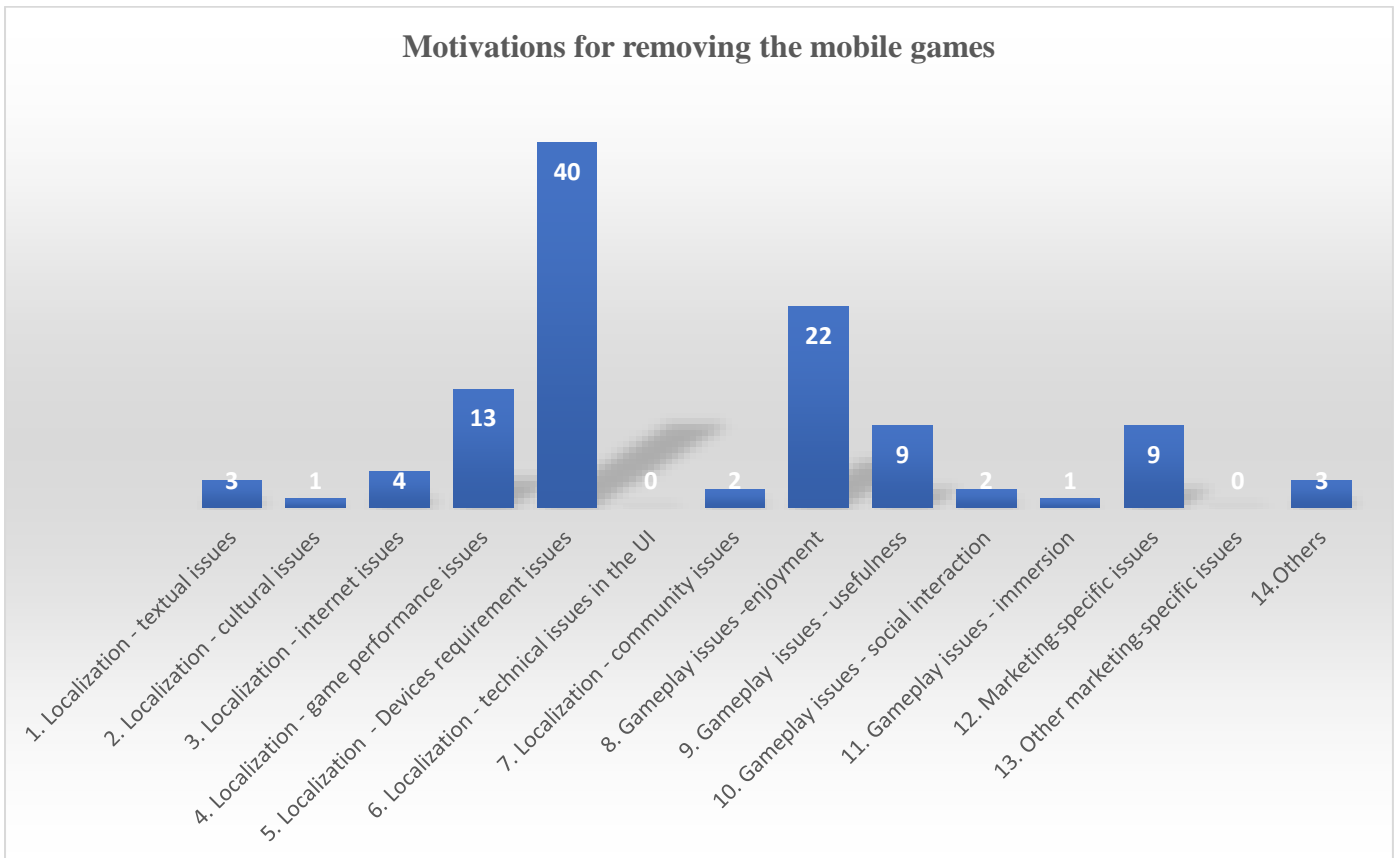


Figure 2.9. Motivations for removing the mobile games

Description:

1. no Indonesian version, mixed languages, too many texts, no instructions/tutorials, sloppy texts in the user interface
2. inappropriate content and elements e.g. symbols, icons, texts and characters that provoke religion, social norm and racial concerns, not permitted by the elders
3. slow internet connection, no offline mode
4. involuntary behavior, uncontrolled actions to extra unwanted things, sluggish behavior, freezing, lag to force quit

5. consume too much storage and memory usage (RAM), high battery consumption, not compatible with the version of operating systems (OS), changes in the version of the operating systems and/or in the ROM
6. slick animations, its level of complexity to use and user-unfriendly interface,
7. no community or it is hard to find the community in Indonesia
8. unchallenging, uninteresting and boring
9. finished games, no more making from the games (digital items, accounts selling, streaming, etc.), no more educational offers, addicted to the games (spend so much time on the games)
10. no features that allow interactions with other players (chat, competition, contest, collaborations, spectating, etc.)
11. unable to immerse the user in the game, unable to make the user feel like it is real in the game
12. outdated, lacking of improvement and find another better similar game, intrusive advertisements, frequent application updates, fee for upgrade, requiring login and integration via login (i.e. with Facebook, Google, Line, etc.)
13. inconsistency between description and gameplay, unreliability, changes in privacy terms to permissions to high amount of notifications
14. Others

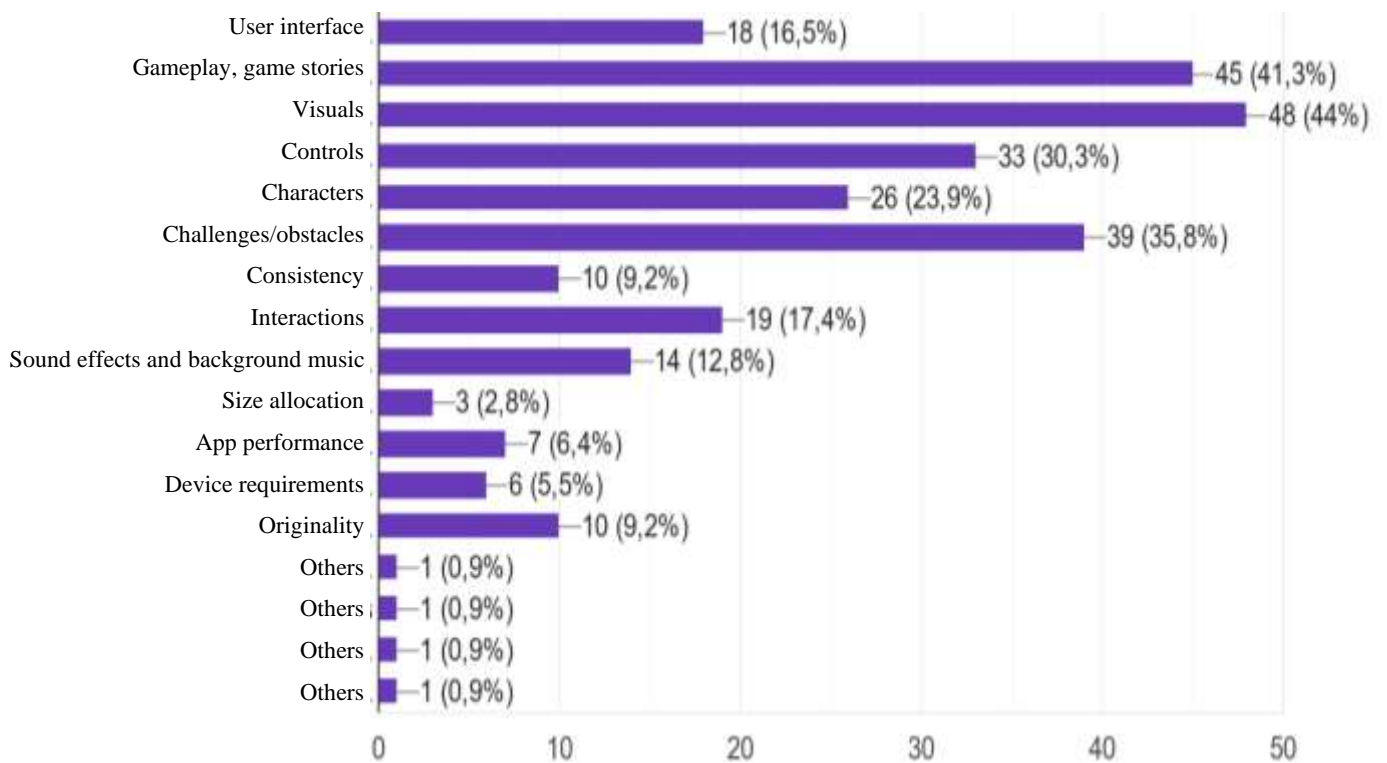


Figure 2.10. What users liked from the games

In responding to the questions regarding what they liked from the games, the respondents unpredictably answered the visuals and gameplay/game stories. Almost 50 respondents were satisfied with those components. Other features such as controls and challenges/obstacles met the expectations of three tens of people. Character designs were also iconic, relatable and iconic to 26 respondents. Nearly 20 people appreciated the UI design and interaction features. A dozen of users were also very likely to enjoy the sound effects and the background music.

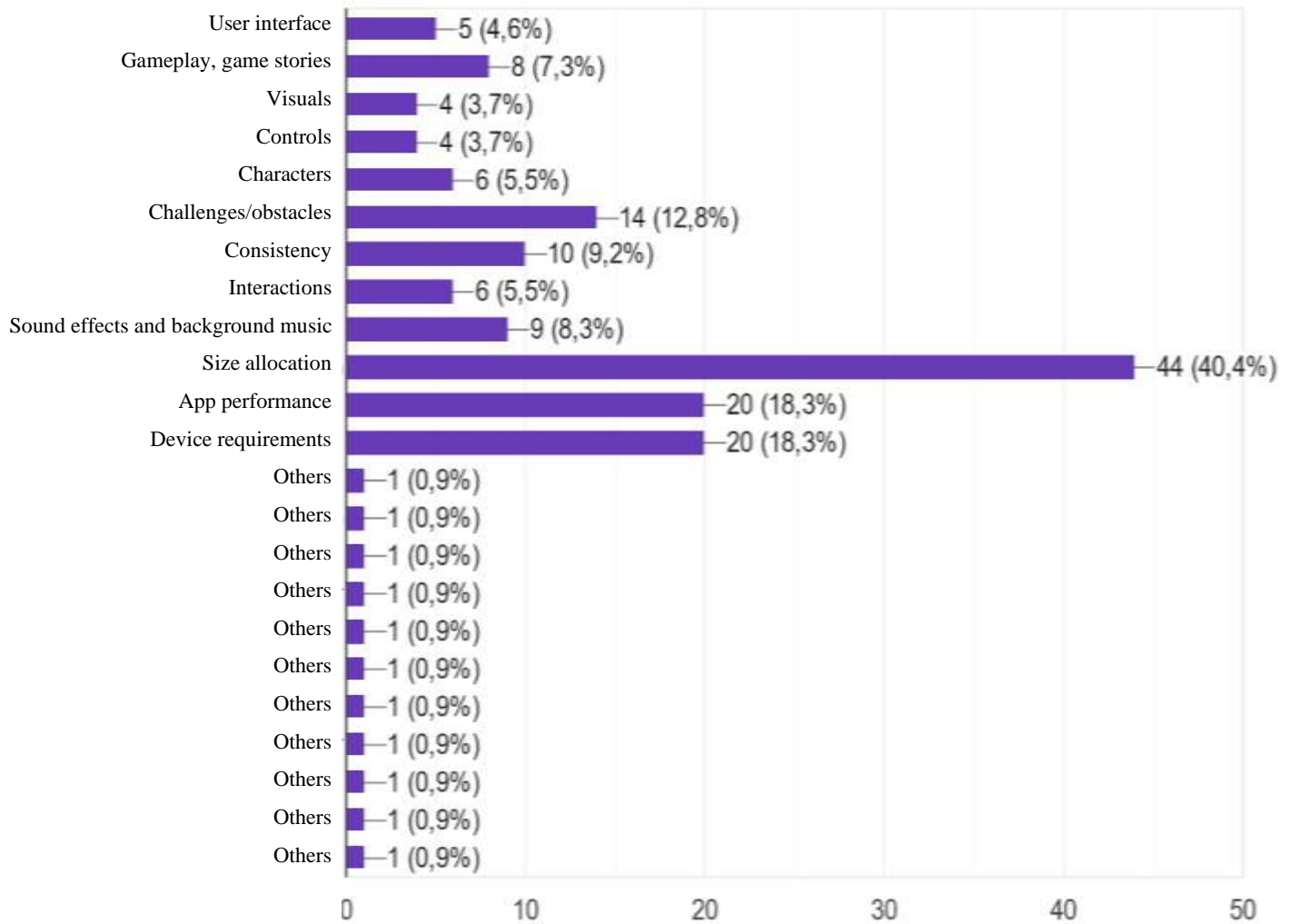


Figure 2.11. What users disliked from the games

Nevertheless, most of the respondents were not pleased with the games' size allocation. The figure shows that there are 44 respondents expressed this negative response. Still related to the computability issues, 20 involved users were discontented with the device requirements of the games. Some other twenty respondents were dissatisfied with the performance of the games. The interrelation between the respondent's main motivations and their dislikes about the games is evident.

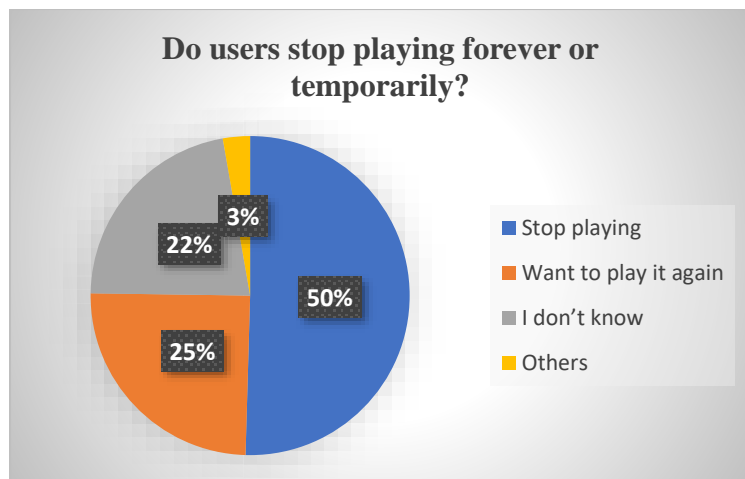


Figure 2.12. Do users stop playing forever or temporarily?

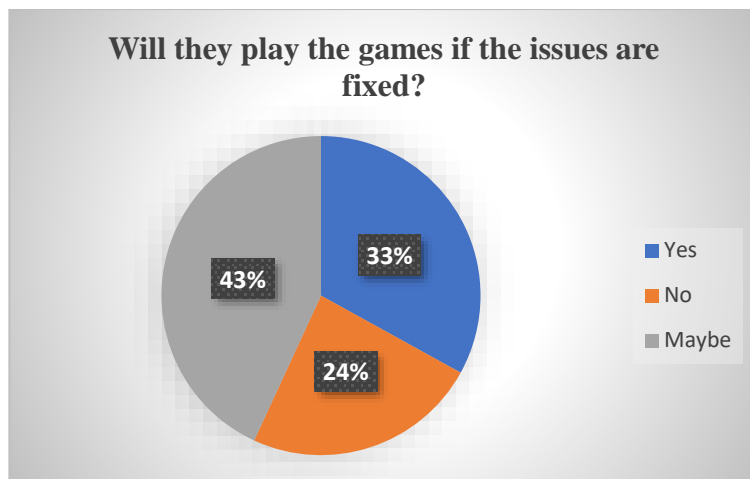


Figure 2.13. Will they play the games if the issues are fixed?

After uninstalling the games, will the surveyed users return to play the games and also if they dropped out from the games because of some issues, what will they do if the issues are resolved? The answer is that only a quarter will definitely return to play the games again. A half of the total number of pollees are sure not to play the games again while 22% of them still do not know whether to redownload the games or not. And if the issues are eliminated, only a third will obviously play the games in the future while almost a quarter of them responded with a definite negative answer. And the majority, which is 43%, are still hesitant.

2.5. Conclusion and Future Work

After analyzing the data, the answers to the research questions are now supplied. The main reasons behind the rejection of Indonesian users of mobile games in the first year of installations are compatibility issues. Most of the users did not have compatible devices for the games. The issues are mostly related to the size and RAM allocation along with high battery consumption. This is considered as a localization issue as game developers need to adapt their games to the local buying power or locals' mobile device ownership. However, the second mostly-recorded issue is associated with the games' gameplay in terms of enjoyment. The users, after a short-term engagement, felt that the games could no longer enjoy, enthuse or challenge them.

In the end, since the expansion of mobile gaming seemingly continues to unlock potential regional markets in Indonesia, it could be interesting to analyze the solutions for the issues in this study by considering the local tastes and preferences as well as the viewpoint of the game publishers and developers. In addition, churn rate and its prediction are still problematic which

leads to an increased demand of research. Therefore, involving in the related project could be an interesting option.

References

- (n.n.). (n.d.). Data Analysis, Interpretation and Presentation. Retrieved from: <https://www.uio.no/studier/emner/matnat/ifi/nedlagte-emner/INF4260/h10/undervisningsmateriale/DataAnalysis.pdf>
- Allcorect Group. (2022). *The Indonesian Gaming Market*. Retrieved from: <https://allcorrectgames.com/insights/mobile-game-market-index/indonesia/>
- Babin, B., J., et al. (2020). *Market research*. Retrieved from: https://www.researchgate.net/publication/341670631_Market_Research
- Borck, J., Caminade, J., et Wartburg, M. V. (2020). *Apple's App Store and Other Digital Marketplaces: A Comparison of Commission Rates*. Analysis Group.
- Celupin. (2022). *Game Online Mobile Popular di Luar, Namun Hancur di Indonesia*. Retrieved from: <https://www.celupin.com/game-online-mobile-popular-di-luar-namun-hancur-di-indonesia/>
- Chandler, Heather M. (2005). *The Game Localization Handbook* (1st ed.). [E-book] Charles River Media.
- Debeauvais, Thomas. (2016). *Challenge and Retention in Games*. [Dissertation, University of California]. <https://escholarship.org/uc/item/6k3357qx>
- DeJean, P.-H. (2002). Difficulties and Pleasure?, in Ermi, L., and Mäyrä, F. *Pleasure with Products: Beyond Usability*. Taylor & Francis. London.
- Di Marco, Francesca. (2007). *Cultural Localization: orientation and Disorientation in Japanese Video Games*. Retrieved from: https://www.researchgate.net/publication/39118637_Cultural_Localization_orientation_and_Disorientation_in_Japanese_Video_Games

- Dietz, Frank. (2006). Game localization. *Perspectives on Localization edited by Keiran J. Dunne* (Volume XIII). [E-book]. John Benjamins Publishing Company. Amsterdam/Philadelphia.
- Drachen, A., and Canossa, A. (2013). Evaluating Motion: Spatial User Behaviour in Virtual Environments (Pre-print). *International Journal of Arts and Technology*.
<https://www.doi.org/10.1504/IJART.2011.041483>
- Ermi and Mäyrä. (2005). Fundamental Components of the Gameplay Experience: Analysing Immersion. *DiGRA Conference*. Retrieved from:
<http://www.digra.org/digital-library/publications/fundamental-components-of-the-gameplay-experience-analysing-immersion/>
- Ermi, L. and Mäyrä, F. (2005). Fundamental Components of the Gameplay Experience: Analysing Immersion. *Conference: Digital Games Research Conference 2005, Changing Views: Worlds in Play*, June 16-20, 2005, Vancouver, British Columbia, Canada. Retrieved from:
https://www.researchgate.net/publication/221217389_Fundamental_Components_of_the_Gameplay_Experience_Analysing_Immersion
- Forshee, Jill. (2006). *Culture and Customs of Indonesia* (1st edition). [E-book]. Greenwood Press. London.
- Fung, Anthony. (2017). The Impact of the Rise of Mobile Games on the Creativity and Structure of the Games Industry in China. *Mobile Gaming in Asia: Politics Culture and Emerging Technologies*. [E-book]. Springer Nature.
<http://www.springer.com/series/13350>
- Galehantomo, G. (2015). *Platform Comparison Between Games Console, Mobile Games And PC Games*. Journal of Information Systems (SISFORMA). Semarang.
- GameAnalytics. (2019). *5 Key Takeaways From Our H1 2019 Mobile Benchmarks Report*. Retrieved from: <https://gameanalytics.com/blog/5-key-takeaways-from-our-h1-2019-mobile-benchmarks-report/>
- Globalization and Localization Association. (n.d.). *Knowledge Center*. Retrieved from:
<https://www.gala-global.org/knowledge-center/about-the-industry/language-services>

- GoRiau. (2021). *Game Mobile yang Sukses di Luar Negeri, Namun Gagal di Indonesia*. Retrieved from: <https://www.goriau.com/berita/baca/game-mobile-online-yang-sukses-di-luar-negeri-namun-gagal-di-indonesia.html>
- Hamari, J. and Keronen, L. (2017). Why do people play games? A meta-analysis. *International Journal of Information Management*, 37 (2017) 125-141. Retrieved from: <https://doi.org/10.1016/j.ijinfomgt.2017.01.006>
- Ickin, S., Petersen K., and Gonzalez-Huerta, J. (2017). Why Do Users Install and Delete Apps? A Survey Study. *Software Business*. [E-book]. Springer Nature. <https://doi.org/10.1007/978-3-319-69191-6>
- IGI Global Dictionary. (n.d.). *What is Digital Gaming*. Retrieved from: <https://www.igi-global.com/dictionary/digital-gaming-enhances-non-formal/7629>
- Inmobi. (2021). *InMobi's 2021 Mobile Gaming Report Charts Indonesia's Rise as a Mobile Gaming and Advertising Powerhouse in Southeast Asia*. Retrieved from: <https://www.inmobi.com/company/press/inmobis-2021-mobile-gaming-report-charts-indonesias-rise-as-a-mobile-gaming-and-advertising-powerhouse-in-southeast-asia/>
- Kemenko PMK. (2021). *Pemerintah Dukung E-Sports dan Industri Gaming*. Retrieved from: <https://www.kemerkopmk.go.id/pemerintah-dukung-e-sports-dan-industri-gaming>
- Kerim, A., and Genç, B. (2020). Mobile Game Success and Failure: Mining the Hidden Factors. *2020 7th International Conference on Soft Computing & Machine Intelligence (ISCMi)*, pp. 167-171. <https://www.doi.org/10.1109/ISCMi51676.2020.9311587>
- Klimmt, C. (2003). Dimensions and Determinants of the Enjoyment of Playing Digital Games: A Three-Level Model, in Ermi, L., and Mäyrä, F. *Level Up: Digital Games Research Conference (Utrecht, November 2003)*, University of Utrecht & Digital Games Research Association (DiGRA), pp. 246–257.
- Knezovic, A. (2021). *147 Mobile Gaming Statistics for 2022 That Will Blow Your Mind*. Retrieved from: <https://www.blog.udonis.co/mobile-marketing/mobile-games/mobile-gaming-statistics>
- Li, Grace. (n.d.). *8 Key Elements that Make a Game Successful*. Retrieved from: <https://www.gameskinny.com/6iegr/8-key-elements-that-make-a-game-successful>

- Mangiron, C., and O'Hagan, M. (2006). Game Localisation: Unleashing Imagination with 'Restricted' Translation. *The Journal of Specialised Translation* 6. Retrieved from: <https://www.researchgate.net/publication/281749030>
- Mangiron, C., and O'Hagan, M. (2013). *Game Localization: Translating for the Global Digital Entertainment Industry*. John Benjamins. <https://www.doi.org/10.1075/btl.106>
- Mangiron, Carme. (2016). *Games Without Borders: The Cultural Dimension of Game Localisation*. *Hermēneus*, TI, 18, pp. 187-208. http://www5.uva.es/hermeneus/wp-content/uploads/arti06_18.pdf
- Mathai, Paul P. (2020). *Customer Churn Prediction: A Survey*. Retrieved from: https://www.researchgate.net/publication/343787983_Customer_Churn_PredictionA_Survey
- Matthews, C. C. and Wearn, N. (2016). How Are Modern Video Games Marketed? *The Computer Games Journal*, 5(1-2). <https://www.doi.org/10.1007/s40869-016-0023-2>
- Milano, Steve. (2021). *How Does Regulation Affect Pricing Strategies?* Retrieved from: <https://smallbusiness.chron.com/regulation-affect-pricing-strategies-78319.html>
- Nizam, Syahrul. (2018). *Alasan Dibalik Sepinya Game Arena of Valor di Indonesia Ketimbang dengan Negara lain!* Retrieved from: <https://dafunda.com/game/alasan-dibalik-sepinya-arena-of-valor-di-indonesia/>
- Ramdhani, A., Amin A. S. and Ramdhani M. (2014). *Writing a Literature Review Research Paper: A step-by-step approach*. Retrieved from: https://www.researchgate.net/publication/311735510_Writing_a_Literature_Review_Research_Paper_A_step-by-step_approach
- Reichheld, F. F. and Sasser, W. E. (1990). *Zero defections: Quality comes to services*, in Ganiyu, R., A., Uche, I., I., and Elizabeth A., O. *Harvard Business Review*, 68, 105–113.
- Roopa, S. and Rani M. S. (2017). Questionnaire Designing for a Survey. *The Journal of Indian Orthodontic Society*, 46(4):37-41. <https://www.doi.org/10.5005/jp-journals-10021-1104>
- Russell, D., M. (2014). Understanding user behavior at three scales: The AGoogleADay story <https://research.google.com/pubs/archive/44006.pdf>

- S., Emmy. (2020). *5 Brands with Outstanding Localization Strategies*. Retrieved from: <https://www.tarjama.com/5-brands-with-outstanding-localization-strategies/>
- SAGE Publication Inc. (2016) *Quantitative Research*. Retrieved from: https://us.sagepub.com/sites/default/files/upm-binaries/70019_Mertler_Chapter_7.pdf
- Sayapina, D. (2018). *Attracting Mobile Game Users in Foreign Market – Case Study: The Russian Mobile Game Market*. [Bachelor Thesis, Helsinki Metropolia University of Applied Sciences]. <https://urn.fi/URN:NBN:fi:amk-2018053011363>
- Sensor Tower. (2021). *The State of Mobile Gaming 2021: An Analysis of Mobile Gaming Market Trends and Top Titles in the U.S., Europe, and Asia*.
- Similarweb. (2022). *Top Apps Ranking - Top Games Grossing Apps Ranking - Most Popular Apps in Indonesia*. Retrieved from: <https://www.similarweb.com/apps/top/google/store-rank/id/games/top-grossing/>
- Similarweb. (2022). *Top Apps Ranking - Top Games Paid Apps Ranking - Most Popular Apps in Indonesia*. Retrieved from: <https://www.similarweb.com/apps/top/google/store-rank/id/games/top-paid/>
- Starloop Studios. (2021). *Mobile Games Vs. PC Vs. Console Games: What Market is the Best Bet?* Retrieved from: <https://starloopstudios.com/mobile-games-vs-pc-vs-console-games-what-market-is-the-best-bet/>
- Statista. (2021). *Mobile Games – Indonesia*. Retrieved from: <https://www.statista.com/outlook/dmo/digital-media/video-games/mobile-games/indonesia#revenue>
- Statista. (2021). *Most popular genres for online gaming in Indonesia in 2020* Retrieved from: <https://www.statista.com/statistics/1116317/indonesia-leading-online-gaming-genres/>
- Statista. (2021). *Revenue of mobile apps worldwide 2017-2025, by segment*. Retrieved from: <https://www.statista.com/forecasts/1262892/mobile-app-revenue-worldwide-by-segment>
- Statista. (2021). *Video game market revenue worldwide in 2021*. Retrieved from: <https://www.statista.com/statistics/292751/mobile-gaming-revenue-worldwide-device/>

- Tang, A.K. (2016). Mobile App Monetization: App Business Models in the Digital Era. *International journal of innovation, management and technology*, 224-227. <https://www.doi.org/10.18178/IJIMT.2016.7.5.677>
- Taylor-Gooby, Peter. (2008). Choice and values: individualised rational action and social goals. *Journal of Social Policy*, 37(2), 167–185. <https://www.doi.org/10.1017/S0047279407001699>
- Trainor, H. (2003). Games Localization: production and testing. *Multilingual Computing and Technology*, 14(5), 17-20.
- Tyagi, C., L., and Kumar, A. (2004). *Consumer Behaviour* (1^{re} éd.). [E-book]. Atlantic Publishers & Distributors (P) Limited.
- Varner, Iris I. and Varner, Katrin. (2014). The Relationship Between Culture and Legal Systems and the Impact on Intercultural Business Communication. *Global Advances in Business Communication*: Vol. 3, Article 3. Retrieved from: <https://commons.emich.edu/cgi/viewcontent.cgi?article=1042&context=gabc>
- Wordometers. (2022). *Most Populous Countries in the World (2022)*. Retrieved from: <https://www.worldometers.info/population/most-populous-countries/>
- Yama. (2021). *How to Overcome Mobile Legends Exiting Alone (Force Close) Latest!* Retrieved from: <https://jalurnyaman.com/how-to-overcome-mobile-legends-exiting-alone-force-close-latest/>
- Yankelovich, D. and Meer, D. (2006). Rediscovering Market Segmentation. *Harvard Business Review*, 84(2):122-31, 166. Retrieved from: https://www.researchgate.net/publication/7290939_Rediscovering_market_segmentation
- Zackariasson, P., & Dymek, M. (2017). *Video Game Marketing: A student textbook* (1^{re} éd.) [E-book]. Routledge.

Appendix

Appendix 2.1. English Version Questionnaire

If you ever downloaded mobile gaming apps, played them and uninstalled them within a year when you were in Indonesia, this questionnaire is meant for you. It will only take no more than 10 MINUTES and kindly please read all the choices before ticking your option. Thank you in advance for your participation.

1. How old are you?
2. What is your occupation?
 - University student
 - School student
 - Employee
 - Others
3. How many hours do you spend playing mobile games a day?
 - ≥ 1 hour
 - – 2 hours
 - 2 – 3 hours
 - 3 – 4 hours
 - 5 – 6 hours
 - +6 hours
4. What system do you use?
 - iOS
 - Android
 - Others
5. What mobile games did you download and play, and then uninstall within a year?
 - Fortnite
 - Asphalt 8
 - Asphalt 9
 - Brawl Stars
 - Arena of Valor (AOV)
 - Pokemon Go
 - Others
6. How did you know the games?

- Influencers (game streaming, youtube videos, social media, etc.)
 - A friend, relative, family, etc.
 - A website, social media, or internet browsing
 - Video advertising on other games or apps
 - Others
7. Why did you download the games?
- Recommendation from a friend, relative, family, etc., you want to play with them because they are also players
 - Feel challenged and curious after watching streaming, advertising video, or being told by a friend, relative, family, etc.
 - You like the gameplay: the games give you another feeling like being in the game or you like the game stories e.g. you play a digital card or deck-building game because you like the game stories, or you feel being in the arena when playing battle royale games (PUBG, Free Fire, etc.), multiplayer battle online arena (League of Legends, Mobile Legends, etc.).
 - Others
8. How long have you played the games before uninstalling them?
- \geq A day
 - 2 – 7 days
 - 1 – 2 weeks
 - 2 – 3 weeks
 - 3 – 4 weeks
 - 1 – 3 months
 - 4 – 6 months
 - 7 – 9 months
 - 10 – 12 months
9. What is your primary reason for deleting the games?
- no Indonesian version, mixed languages, too many texts, no instructions/tutorials, sloppy texts in the user interface
 - inappropriate content and elements e.g. symbols, icons, texts and characters that provoke religious, social norm and racial concerns, not permitted by the elders
 - slow internet connection, no offline mode

- involuntary behavior, uncontrolled actions to extra unwanted things, sluggish behavior, freezing, lag to force quit
- consume too much storage and memory usage (RAM), high battery consumption, not compatible with the version of operating systems (OS), changes in the version of the operating systems and/or in the ROM
- slick animations, its level of complexity to use and user-unfriendly interface,
- no community or it is hard to find the community in Indonesia
- unchallenging, uninteresting and boring
- finished games, no more making from the games (digital items, accounts selling, streaming, etc.), no more educational offers, addicted to the games (spend so much time on the games)
- no features that allow interactions with other players (chat, competition, contest, collaborations, spectating, etc.)
- unable to immerse the user in the game, unable to make the user feel like it is real in the game
- outdated, lacking improvement and find another better similar game, intrusive advertisements, frequent application updates, fee for the upgrade, requiring login and integration via login (i.e. with Facebook, Google, Line, etc.)
- inconsistency between description and gameplay, unreliability, changes in privacy terms to permissions to the high amount of notifications
- Others

10. Could you please specify the primary reasons in a full sentence?

11. Did you delete the games because you stopped playing them or do you want to play them again?

- Stop playing
- Want to play it again
- I don't know
- Others

12. What did you like about the games?

- User interface (easy to understand, friendly to use, simple, etc.)
- Gameplay, game stories
- Visuals (design, graphics, images, etc.)
- Controls (easy to control, friendly to use, no lags, etc.)

- Characters (interesting, relatable, iconic, etc.)
- Originality (unique, incomparable, etc.)
- Consistency (not many changes, not many permissions, etc.)
- Challenges/obstacles (missions, quests, scarcity, level difficulties, accomplishments, etc.)
- Interactions (chat, collaboration, cooperation, competition, etc.)
- Sound effects and background music
- Size allocation (not large)
- App performance (no technical issues when playing the games, such as involuntary behavior, uncontrolled actions to extra unwanted things, sluggish behavior, freezing, lag to force quit, etc.)
- Device requirements (compatible, no need high specifications)
- Others

13. What didn't you like about the games?

- User interface (uneasy to understand, unfriendly to use, complicated, etc.)
- Gameplay, game stories
- Visuals (design, graphics, images, etc.)
- Controls (uneasy to control, unfriendly to use, lags, etc.)
- Characters (uninteresting, unrelatable, not iconic, etc.)
- Inconsistency (many changes, many permissions, etc.)
- Challenges/obstacles (missions, quests, scarcity, level difficulties, accomplishments, etc.)
- Interactions (chat, collaboration, cooperation, competition, etc.)
- Sound effects and background music
- Size allocation (large)
- App performance (involuntary behavior, uncontrolled actions to extra unwanted things, sluggish behavior, freezing, lag to force quit, etc.)
- Device requirements (incompatible, need high specifications)
- Others

14. Do you play other similar games?

- Yes (*mention the games here*)
- No

15. If the issues are fixed, will you redownload the games and play them again in the future?

- Yes
- No
- Maybe
- It depends on (*mention the reason*)
- Others

Appendix 2.2. Indonesian Version Questionnaire

Jika Anda pernah mengunduh game seluler, memainkannya dan akhirnya menghapusnya dalam kurun waktu satu tahun ketika Anda berada di Indonesia, maka kuesioner ini diperuntukkan untuk Anda. Survey ini hanya memakan waktu kurang dari 10 MENIT. Mohon dibaca seluruh pilihan jawaban dengan seksama terlebih dahulu sebelum Anda mencentang jawaban Anda. Terima kasih banyak sudah meluangkan waktu Anda untuk melengkapi kuesioner ini.

1. Berapa usia Anda?
2. Apa kesibukan Anda?
 - Mahasiswa
 - Pelajar
 - Pekerja
 - Yang lain
3. Berapa jam Anda biasanya bermain game seluler setiap hari?
 - ≥ 1 jam
 - 1 – 2 jam
 - 2 – 3 jam
 - 3 – 4 jam
 - 5 – 6 jam
 - +6 jam
4. Sistem operasi apa yang Anda gunakan?
 - iOS
 - Android
 - Yang lain
5. Game seluler apa yang Anda unduh, mainkan dan hapus dalam kurun waktu satu tahun?
 - Fortnite

- Asphalt 8
 - Asphalt 9
 - Brawl Stars
 - Arena of Valor (AOV)
 - Pokemon Go
 - Yang lain
6. Bagaimana Anda mengetahui tentang game seluler tersebut?
- Influencers (game streaming, video youtube, sosial media, dsb.)
 - Teman, kerabat, keluarga, dsb.
 - Situs web, media sosial, penjelajahan di internet
 - Video iklan di game atau aplikasi lainnya
 - Yang lain
7. Hal utama apa yang memotivasi Anda untuk mengunduh game tersebut?
- Disarankan teman, kerabat, keluarga, dsb., Anda ingin bermain dengan mereka karena mereka juga memainkan game tersebut
 - Merasa tertantang dan penasaran setelah menontong video *streaming* iklan atau saat teman bercerita
 - Anda suka desain permainan atau alur cerita game (gameplay) tersebut: game tersebut membuat Anda merasa seperti nyata di dalam game, cth Anda bermain *digital card* atau *deck building* game karena Anda suka dengan desain permainannya, atau Anda merasa seperti sedang berada dalam arena ketika memainkan *battle royale* game (PUBG, Free Fire, dsb.), atau *multiplayer battle online arena* game (League of Legends, Mobile Legends, dsb.)
 - Yang lain
8. Berapa lama Anda sempat memainkan game tersebut?
- \geq sehari
 - 2 – 7 hari
 - 1 – 2 minggu
 - 2 – 3 minggu
 - 3 – 4 minggu
 - 1 – 3 bulan
 - 4 – 6 bulan
 - 7 – 9 bulan

- 10 – 12 bulan

9. Apa alasan utama Anda menghapus game tersebut?

- Tidak ada versi Bahasa Indonesia, bahasanya dicampur, kebanyakan teks, tidak ada panduan atau tutorial, teks di layar berantakan
- Ada konten atau komponen yang tidak pantas cth. simbol, ikon, teks dan karakter yang berseberangan dengan nilai SARA, tidak diizinkan orang tua
- Koneksi internet masih lambat, tidak ada game dengan versi luar jaringan (*offline*)
- Sering mengalami gangguan atau aksi yang tidak diinginkan, game sangat lambat, kadang berhenti, *ngelag*, keluar sendiri
- Memakan banyak penyimpanan dan memori RAM, konsumsi baterai sangat boros, tidak kompatibel dengan sistem operasi telepon seluler (versi Android iOS), ada perubahan pada sistem operasi dan/atau penyimpanan
- Animasi yang tidak diinginkan muncul di layar, desain layar tidak ramah bagi pengguna, sulit dipahami
- Tidak ada komunitas game atau sulit mencari komunitas game tersebut di Indonesia
- Tidak menantang, tidak menarik, membosankan
- Sudah tamat, tidak bisa menghasilkan uang (item digital, penjualan akun, *streaming*, dsb.), tidak bernilai edukatif (tidak melatih kompetensi apapun), merasa kecanduan dan tak bermanfaat.
- Tidak ada fitur untuk berinteraksi (obrolan, berkompetisi, berkolaborasi, melihat pemain lain bermain, berkompetisi, etc.)
- Tidak mampu membuat suasana di dalam game seperti nyata, cth. ketika Anda menang, Anda merasa sensasi seperti menang juga di dunia nyata, begitu juga sebaliknya jika Anda kalah, terpukul, tertembak dsb.
- Ketinggalan jaman, kurang pembaharuan dan pengembangan, ada game yang sama dan lebih baik, kebanyakan iklan, kebanyakan pembaharuan, ada biaya *upgrade*, membutuhkan identifikasi dan integrasi pengguna via Facebook, Google, Line, etc.
- Tidak konsisten mengenai deskripsi game yang tertulis dan permainannya, kurang dipercaya, ada perubahan kebijakan, pengizinan akses pemberitahuan, dsb.
- Yang lain

10. Mohon menspesifikasikan alasan utama Anda dalam satu kalimat!

11. Apakah Anda menghapus game tersebut karena Anda tidak memainkannya lagi atau Anda ingin memainkannya kembali?

- Berhenti bermain
- Ingin bermain kembali
- Tidak tahu
- Yang lain

12. Apa yang Anda sukai dari game tersebut ?

- Antarmuka pengguna (mudah dipahami, mudah dipakai, rapi, dsb.)
- Desain permainan, alur cerita game (*gameplay*)
- Visual (desain, gambar, grafik, dsb.)
- Kontrol (mudah dikendalikan, mudah dipahami, tidak macat, dsb.)
- Karakter (menarik, ikonis, berkaitan, dsb.)
- Keaslian (unik, tidak dapat dibandingkan, dsb.)
- Konsistensi (tidak banyak perubahan, permintaan izin akses, dsb.)
- Tantangan (misi, pencarian, kelangkaan, level kesulitan, pencapaian, dsb.)
- Interaksi (obrolan, kolaborasi, koperasi, kompetisi, dsb.)
- Efek suara dan musik latar belakang
- Ukuran penyimpanan (tidak besar)
- Performa aplikasi (tidak ada masalah teknis seperti aksi yang tidak diinginkan, game sangat lambat, kadang berhenti, *ngelag*, keluar sendiri, dsb.)
- Spesifikasi ponsel (kompatibel, tidak perlu spesifikasi yang tinggi, dsb.)
- Yang lain

13. Apa yang Anda tidak suka dari game tersebut?

- Antarmuka pengguna (sulit dipahami, sulit dipakai, berantakan, dsb.)
- Desain permainan, alur cerita game (*gameplay*)
- Visual (desain, gambar, grafik, dsb.)
- Kontrol (sulit dikendalikan, sulit dipahami, tidak macat, dsb.)
- Karakter (tidak menarik, tidak ikonis, tidak berkaitan, dsb.)
- Tidak konsistensi (banyak perubahan, permintaan izin akses, dsb.)
- Tantangan (misi, pencarian, kelangkaan, level kesulitan, pencapaian, dsb.)
- Interaksi (obrolan, kolaborasi, koperasi, kompetisi, dsb.)
- Efek suara dan musik latar belakang
- Ukuran penyimpanan (besar)

- Performa aplikasi (ada masalah teknis seperti aksi yang tidak diinginkan, game sangat lambat, kadang berhenti, *ngelag*, keluar sendiri, dsb.)
- Spesifikasi ponsel (tidak kompatibel, perlu spesifikasi yang tinggi, dsb.)
- Yang lain

14. Apakah Anda memainkan game seluler serupa yang lain?

- Ya (*sebutkan*)
- Tidak

15. Jika masalah yang Anda alami telah terselesaikan, apakah Anda berencana mengunduh ulang game tersebut dan memainkannya kembali di kemudian hari?

- Ya
- Tidak
- Mungkin
- Yang lain