AKSARA: Interactive Digital Pocket Books as an Effort to Increase Politeness in Language

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Abstract. Research and development of AKSARA: interactive digital pocketbooks, focusing on the development of a mobile application based on ethics of politeness and academic corruption, introduced as a form of early learning for Brawijaya University students. This research method was a mixed-method type. The development of digital pocketbooks was using a Recursive, Reflective, Design and Development model or can be abbreviated as R2D2. In the development of digital pocketbooks, the focus was on the three development focuses of R2D2, namely (1) Focus on determination; (2) Focus on developing product design, as well as its trials, and; (3) Focus on dissemination in accordance with the context of the development's environment and needs. The results from the research and development process was a pocketbook app using mobile platform, which makes the product more ubiquitous. Applying the concept of gamification, this application has several interesting functions that stimulate user interaction. AKSARA provides ethics of politeness and academic corruption materials which are divided into systematic chapters and subchapters, each of them contains a quiz to measure user's understanding of the material. The correctness of answers and speed in answering the question determined the points received by users which can decide the user's level and its ranking in the leaderboard. Users can also share their profiles in social media such as Instagram and Facebook.

Keyword: academic corruption, digital pocketbook, ethic of politeness, gamification

1 Introduction

Courtesy and ethics degradation among adolescents do not only occur among students, even among college students there were still many of them who lack a sense of courtesy and ethical interaction with their lecturers. This can be found with the emergence of news that is being viral in the community where the actions of adolescents who were being rude to their lecturer at college.

Concerns about the declining attitude of college students towards their lecturers can be found in a case when students accidentally passing by their lecturers, instead of greeting them, they prefer to pretend not to see the lecturers. In addition, there are still many students who communicate with their lecturers

through oral communication or writing, lacking a sense of courtesy. For example when they asked the lecturer, they didn't pay attention to the time, or even worse they asked the lecturer late at night. It's not just a matter of being polite, many lecturers encountered dishonest students in case of their academic life. For example, plagiarism in absent becomes a big problem for them. The act seemed common in student's perspective, even though this could be the beginning of corruption activities in the future. Republic of Indonesia Law in Undang-Undang Republik Indonesia No.12 Year 2012 concerning Higher Education, Chapter I Article 13 Section 6 stated that "College students are obliged to perpetuate ethics and obey Higher Education norm for implementation of Tridharma and the development of academic culture" [10]. Ethical issues are very important to be discussed at this time, especially at the college level. One of the tertiary institutions that is intensively forming student character is Brawijaya. One of the missions of Brawijaya University is "Organizing education with international standard so that students become human beings with academic ability and / or profession who are qualified and have personality and spirit and / or entrepreneurial ability".

Conversations that occur between lecturers and students through oral communication are being concerned in Brawijaya University. It is evidenced was several faculties have put up many banners and posters in front of its lift inside their buildings. For example in FISIP (Faculty of Social & Political Sciences), there are a lot of banners and posters installed also by their college students, containing information about ethics of wearing clothes on campus, and ethics about communicating with lecturers. In addition, there are posters posted in the presence booklet written that "Plagiarism in absent is Corruption", that was an indication that there are still many students who use inappropriate shortcuts in education life. The delivery of regulations or information using banners or media related to students, this is evidenced by the fact that there are still many students who are still concerned about making compilation sentences by contacting the lecturer via text message, as well as for students who lack understanding of the code of ethics that has been compiled at education manual in UB. Based on the urgency of these questions, this research will try to create other information delivery media by utilizing E-Learning technology media. The latest study conclude that communication in revolution 4.0 experienced significant changes between behavior and language, that gave rise to a culture that often did not match the academic identity that prioritized ethics and manners.

Technology is able to unlock learning keys for all students [1]. Most students believe that their learning increases by incorporating technology into their learning curriculum, students also state that learning using technology makes learning fun so that it can be more interesting and fun learning [3]. So in the academic world, there needs to be rules and examples in communicating between lecturers and students, so that the concepts of education, identity, and character especially Indonesian nation are maintained in good manners and as well as promoting the values of the nation's philosophy as the next generation is facing the millennial era.

Based on the description in this article, this research focused on developing the concept of digital books in order to increase the value and code of ethics in Brawijaya University Student, as a form of prevention of corruption at an early age. Digital books can be categorized as a form of multimedia [7]. Digital books in this study lead to interactive digital books. Multimedia can be divided

into several categories, one of which is interactive multimedia, which includes a controller that can be operated by the user, so users are free to choose the next process, and the multimedia can run according to the user's will [13].

Another focus is the description of the features contained in the digital book. The development of the application itself will be adopted the concept of gamification to attract user interaction and satisfaction. Gamification refers to designing systems, services or activity in a way that they may bring about similar experiences and motivation as games [5]. In the past empirical literature studies, the gamification feature can be shaped as in-game narrative/ storytelling, leaderboard & badges, points & level, mission choice, skill and character customization, avatar, meaningful stories and many more [15].

2 Research Method

This research was using mixed-method methodology. Creswell & Plano in [2] described a research approach which combined or associating qualitative and quantitative method. In the development case of the digital pocketbook, design model Recursive, Reflective, Design, and Development or can be spelled as R2D2 was used. R2D2 model is a constructive-interpreted, collaborative and non-linear model introduced by Jerry Willis [14]. It is guided by four flexible principle, that is recursive, reflective, non-linier, and participative, that later revised by eliminating one of its principle that is non-linier [4]. R2D2 model has three development focus, such as (1) define focus, (2) design and development focus, and (3) dissemination focus. This model selection based on the needs of recursive, reflective and participative. The developer needs to make an early decision that needs to reviewed by its user and expert. Implementation of R2D2 development focus in this research explained simply as (1) defining the participant team involved in product development; gathering information from selected University Environments (interviews); identifying problems and finding alternative solutions; understanding the context by means of literature study politeness speaking; develop product design specifications for alternative solutions. (2) Defining two major themes of politeness in language and code of ethics of students; determine indicators of both major themes; determine the contents of each indicator. (3) evaluation, revision, and final product.

In this research we used qualitative data. Data gathered in the development phase described from questionnaire gathered from language expert, android expert, communication expert, and college student as the user, in a form of response, comment, and improvement suggestion. Form that gathered from college students was included in the pocketbook application's practicality and easiness of use. The data collection phase was started by providing an application prototype in a form of clickable user interface design. Three experts involved in analyzing the prototype including language expert, android expert, and communication expert. Data from language and communication experts was used for determining the content of the digital-book application system. Data analyzed from an android expert was used for determining the functionality of the system and the system capabilities. One of the core concepts that gathered from the expert was the usage of gamification to increase application attractiveness and user interaction. As inspired by these positive observations of games, gamification has emerged as a technology trend that attempts to further transfer these benefits to a variety of services and systems and to further increase their autotelic affordance of "non-gaming" contexts, such as health, education, work, crowd-sourcing,

marketing management, as well as science [15].

3   Result and Discussion

Based on the results of interviews with ten lecturers and fifty students by using fourteen questions, three problems have been found that are used as a medium for determining the requirement for media development. These problems are (1) students didn't understand some point of ethics in communication with lecturers; (2) Students didn't understand the act of academic corruption; and (3) socialization of communication ethics and understanding of academic corruption in the faculties and universities is not yet optimal.

Based on the problem found in preliminary research and many studies conclude that individual factors and situational factors contribute to the occurrence of corrupt acts [8], we tend to create a type of application that can be easily accessed by students. What the research team has done is giving the app a name that easy to remember and became a unique marker. AKSARA was chosen as the name of the application which is an acronym for Aplikasi Etika Komunikasi dan Tindak Korupsi Akademik Universitas Brawijaya (Application of Communication Ethics and Academic Corruption in Brawijaya University).
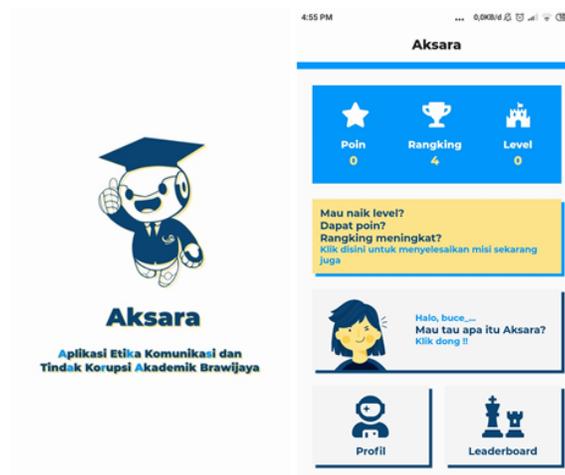

Fig. 1. Application splash screen and main menu

There are three things that became the feature in AKSARA. First, feature that presenting examples of language and ethics between students and lecturers. Second, the features of academic corruption acts, contain things that should be avoided by students while studying at Brawijaya University. Third, gaming features, that are meant to be able to attract students' interest to open the application. Figure 1. shows the view of the application's splash screen and main menu.

3.1   Ethics

The communication ethics sub menus are arranged based on variations or language variations. According to [4] and [9] the diversity of languages based on the media is divided into two namely: a variety of spoken languages used by users when communicating orally, and written languages using letters as their basic elements. As

technology develops, the variety of semi-oral becomes an addition. Semi-verbal variety is based on communication in sending electronic messages. This research summarized points that will be discussed in the ethical features in the application of characters consist of oral, written (e-mail), and semi-verbal sentences.
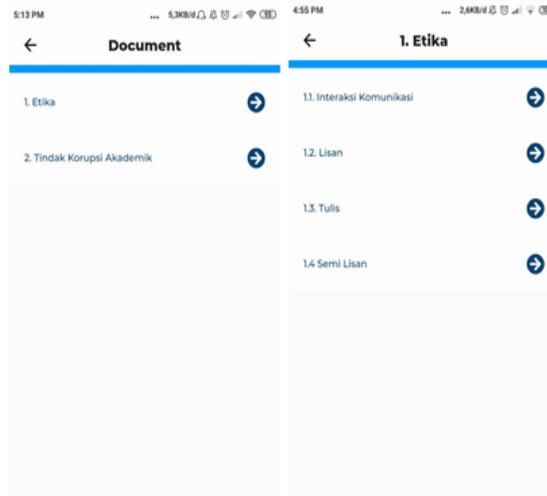

Fig. 2. Ethics menu

Figure 2 shows a snapshot of the ethics menu. In the communication ethics menu, there is a sub-menu of academic communication interaction. Academic communication interactions are based on the principle of politeness in Leech language. Leech stated that "A person can be said to already have the politeness of language if he is able to fulfill the politeness principles which are translated into maxims (provisions/teachings) [6], in an example: (1) Tact Maxim, the tact maxim is the maxim that outlines that every participant in the speech should hold to the principle of always reducing his own profits and maximizing the profits of others in speaking activities; (2) Generosity Maxim, a maxim of generosity that is a maxim of benevolence, which requires the speech's participant have respect other parties; (3) Approbation Maxim, the maxim of approbation is the maxim that makes people able to be considered polite if in speaking they always try to give appreciation to other parties. Thus, the speech participants did not ridicule or denigrate each other; (4) Modesty Maxim, the simplicity or maxim of humility, namely the maxim that expects the speech participant to be humble by reducing his or her self-praise; (5) Maximum agreement or maxim of compatibility, the maxim that requires the participants to be able to foster matching each other in speaking activities. If there is a match between the two, then they can be said to be polite; (6) Sympathy Maxim, namely maxims who expect speech participants to maximize sympathy between one party and another.

Oral communication displayed on the application explains some steps which students can take when communicating directly with the lecturer face to face which consists of: the use of language (polite or intimate language), greeting, introducing themselves, delivering the intent and purpose, saying thank you, and pay attention to the time when communicating. Written communication on this feature shows steps

that can be done by students when sending email to lecturers, namely by writing subjects in e-mails, writing e-mail content, not sending e-mail attachments without including subjects and content, using language (polite or familiar), introducing themselves, words of request, and showing gratitude. Semi-verbal communication that was set in the application script explains what steps must be done when students sending text messages in the form of WhatsApp application, Line application or Short Message Services (SMS). The steps include as follows: pay attention to the time when communicating with lecturers, use of language (polite or familiar), introducing themselves, request words not ordering, showing gratitude, and pay attention to the time when communicating.

3.2 Academic Corruption

The points that are discussed in the Academic Corruption feature actually have been regulated in Permendiknas No.17 Year 2010. Brawijaya University has also set the rules in the University of Brawijaya Chancellor's Regulations Number: 328 / PER / 2011 regarding the Student Code of Ethics [11]. The application of Literacy has concocted several acts of academic corruption consisting of several things, including (1) cheating, (2) absence by others, (3) negative gratification, (4) time corruption, and (5) plagiarism.

In Kamus Besar Bahasa Indonesia (KBBI) cheating comes from the word 'cheat' which means to quote in writing etc. In simple terms, we can conclude that cheating is the activity of taking something that is not his right. It has the same meaning for cheating activities in exams, namely the activity of taking someone's answers, which is not the result of his thoughts. Absence by others is an activity that asking someone to sign attendance in classroom activity, but the person concerned is not present at the moment. It is classified as committing acts of corruption because of it abusing acts can injuring the existing system. Negative gratification or giving something to the lecturer for a certain purpose comes with other corruption activities and can be said as bribing. Giving something either goods or anything in order to get something that students wanted without going through the proper process and through shortcuts. This certainly can be detrimental to many people.

Time corruption in KBBI means the use of official (working) time for personal matters. The problem of time corruption does not only occur to students, but also to lecturers. This is done by arriving late or not on time which can be detrimental to others and can damage the order or event that has been made before.

The rules regarding plagiarism in Brawijaya University have been regulated in the Brawijaya University Act No. 328 / PER / 2011 concerning the Student Ethics Code. The findings obtained in the results of this study show that at the Postgraduate level there is written law in Number 3 Year 2015 concerning the implementation of plagiarism detection in the scientific work of Postgraduate students. However, at the Bachelor level, there are still no rules that regulate plagiarism, the regulation is limited to the regulations of each faculty from the Dean so that it produces different policies [12]. Figure 3 shows the menu of academic corruption contents in the application.
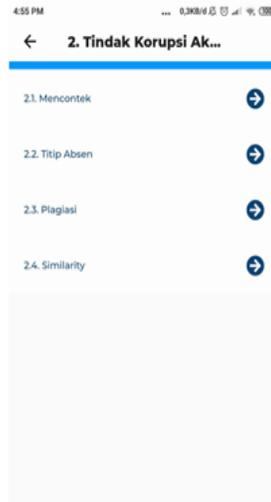
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Fig. 3. Academic Corruption Menu

3.3 Gamification

The general feature of the android application has been added to AKSARA digital book application. The basic functions were: user login & logout, tooltips as user guidance, editing profile, and sharing profile via social media like Instagram, Facebook, and Twitter. A website application was made to manage the content of AKSARA application and its quiz's question, but it will not be discussed further in this current research, because it still requires more time and content.
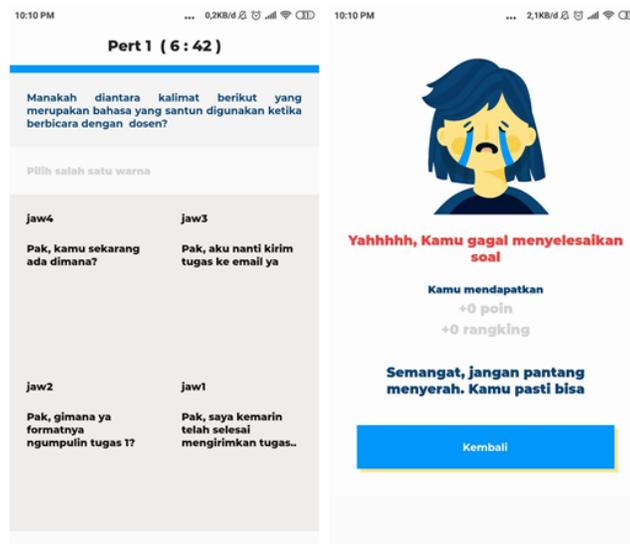

Fig. 4. Quiz and Points Menu

As mentioned before, the core function that we used in the digital book application to attract user interaction and satisfaction was the concept of gamification. The gamification features were (1) Quiz & point, (2) Ranking or leaderboard, and (3) User level. Quiz was made to get the feedback and checked whether the user or

student has read the content properly. Every correct answer, and how fast the user answers a question in that quiz, will add points to the user. The point, later on, will be used for user gaining level and ranking in the leaderboard. Figure 4 shows the example of the quiz and what will happen when the user failed to answer it (they'll get zero point).
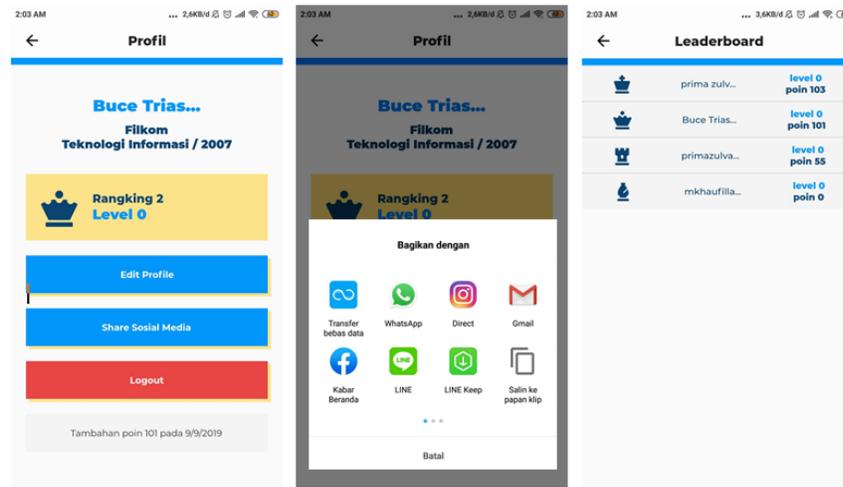

Fig. 5. Level and Leaderboard Menu.

As shown in Figure 5, to gain user satisfaction, level and ranking/leaderboard was made. User-level achieved from point that can be obtained from quizzes. The level itself adapted from chess pieces from pawn, rook, knight, bishop, queen to the king, and it will be shown in the profile area. User can share their profile using social media linked to the application. In the leaderboard menu, the user can compare their points so they can understand their current knowledge and compare their score to others. Any lectures also may use the leaderboard to give extra points and value in their classroom especially in the Indonesian language, citizenship, or ethics courses.

4   Conclusion

Overall students commented that they gained new knowledge about the ethics of communication and academic corruption, they hope that the application can be used by all Brawijaya University students and can add interesting animations in the applications because this study investigated the importance of ethics and academic corruption and its solution. As an effort to overcome the reduction of ethics and academic corruption especially in the college environment, we propose a mobile application, interactive digital books named AKSARA. The digital books mobile application was made as a guideline, for example, and instruction for the college student at Brawijaya University in terms of an ethic of politeness and academic corruption. Not only can read the content of digital books, but users can also copying the best template for texting with lecturer using SMS, instant messaging applications such as WhatsApp and LINE, and email.

Furthermore, to increase its interaction with the user, the gamification concept was used. Quiz, point, level, and ranking used to ensure the user actually read all of the content that provided by the application, whether it's about the ethics (oral,

written, and semi-verbal sentences) or corruption in academic (cheating, absence by others, negative gratification, time corruption, and plagiarism).

In future works, we'll be focusing on the usage of this application, gaining data from the user to take into account whether the application, AKSARA, really has positive influences on ethics in politeness and reducing academic corruption. As we know from the previous research on gamification that there are some apps that successfully get positive benefits of gamification, but some others didn't satisfy the intrinsic needs of the application [15].

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