The Development of Digital Comic for Al-Quran and Al-Sunnah Education Subject

Pembangunan Komik Digital Untuk Mata Pelajaran Pendidikan Al-Quran dan Sunnah

Nor Azlin Amira Mohd Zainadi1 & Roesnita Ismail2

1 Institute Science Islam, Universiti Sains Islam Malaysia, 71800 Nilai, N.Sembilan, Malaysia;
2 Faculty of Science and Technology, Universiti Sains Islam Malaysia, 71800 Nilai, N.Sembilan, Malaysia;

Abstract: With the development of current digitization and the Covid-19 pandemic, these have forced teachers to carry out the online learning activities. However, the traditional learning activities using printed textbooks might make students disinterested in paying attention for the subject, especially during the online learning. The development of digital comic as teaching and learning tools was plenty, however this research aims to focused on the development of the digital comic of Pengajian Hadith in the Al-Quran and Sunnah Education (PQS) subject, which is a printed textbook was converted into a digital comic to be a solution to help and motivate students in learning of this subject because the digital comic has more interactive features that is easy to remember, understand. Besides that, the digital comic developed aim to be a solution that can be accessed anywhere, anytime and more enjoyable. This research focused on the development of the digital comic of Form Five Ibnu Rusyd students from Sekolah Menengah Agama AL-Ihsan, Kuantan Pahang based on the topic of PQS textbook to support the online learning during the Covid-19 pandemic. The development of the digital comic based on the A.D.D.I.E model. It is hope that the proposed digital comic will be suitable to be used and increase the students’ interest in learning the Al-Quran and Sunnah Education (PQS) subject.

Keywords: Digital Comics, Online Learning, Al-Quran and Al-Sunnah Education.

Abstrak: Dengan perkembangan pendigitalan masa kini dan pandemik Covid-19, telah me-maksa para guru untuk melaksanakan aktiviti pembelajaran secara dalam talian. Walau bagaimanapun, aktiviti pembelajaran menggunakan medium seperti buku teks mungkin menyebabkan pelajar tidak bermianat terhadap memberi perhatian kepada bahan yang disediakan terutamanya semasa pembelajaran dalam talian. Perkembangan komik digital dalam mata pelajaran akademik sememangnya banyak, tetapi kajian ini menumpukan kepada pembangunan komik digital bagi mata pelajaran PQS, iaitu buku teks bercetak yang diletakkan kepada komik digital. Ia menjadi penyelesaian dalam membantu dan memotivasi pelajar bagi pembelajaran subjek ini kerana komik digital mempunyai bahasa yang mudah difahami, diingat serta sangat menarik. Selain itu, komik digital yang dibangunkan bertujuan untuk menjadi penyelesaian yang boleh diikuti oleh mana-mana, bila-bila masa dan lebih menyeronokkan. ini tertumpu kepada pem-bangunan komik digital pelajar Tingkatan Lima Ibnu Rusyd dari Sekolah Menengah Agama AL-Ihsan, Kuantan Pahang berdasarkan topik Pengajian Hadith yang terdapat dalam
Introduction

The 21st century learning community has taken the learning process to another level beyond the physical classroom environment (Bakar, 2016). Comics-aided learning concept has been widespread in the country along with the growth center of the world of information technology (ICT) as its offer a new learning experience and it could help student’s motivation in learning session (Deligianni & Pouroutidi, 2016). Besides, the incorporation of digital comic and ICT in teaching and learning nowadays has been led to a new methods and opportunity for innovative learning and assessment to be applied in the classroom (Farah et al., 2016).

With the pandemic announced by the World Health Organization on March 11, 2020, the new process of adaptation to life started after radical changes in the world and new normal revealed after it. The pandemic affected the whole world and all areas; however, it certainly played an active role in the movement and adaptation of the education that will lead the next generation. With the pandemic, distance education, which is a new educational inspiration for the 21st century, has become a part of the lives of students who have been receiving education all over the world (Ilhan et al., 2021).

Covid-19 first occurred in Wuhan China at the end of December 2019 (Shereen et al., 2020). In a short time, Covid-19 has spread and become an epidemic globally (Secon et al., 2020). The Covid-19 pandemic has had a tremendous impact on the order of life of the people and nation of Malaysian, including in the field of education. The learning process that is usually carried out face-to-face in schools is forced to be done online. The current digital era and the Covid-19 pandemic are the reasons for the need to develop teaching materials that are packaged in the form of interactive digital comics.

This study focused on the development of digital comic-based learning as an instructional media based on Al-Quran and Sunnah Education subjects, focusing on topic of Pengajian Hadith. based on the A.D.D.I.E model consisting of five phases: analysis, design, development, implementation and evaluation.

Literature Review

The use of digital comic during this pandemic year has the potential to make online independent learning more fun, interesting, and provoke intense student involvement in learning. This is in line with the results of the study that the competence obtained by students is influenced by their activities in surfing the internet continuously (Khotimah et al., 2021). Comics are deeply layered with regards to their benefits in teaching and learning process. Comics as one of the popular cultures is now becoming an emerging research area within education (Han & Ling, 2017). Jennifer & Tiffany (2017) said that amount of scholastic consideration has integrated comic as teaching tools has been proven comic that have relationship between image and text, the interaction between the reader and characters, the presentation of the content, and the arrangement of visual information in which can make readers understand and have feeling towards what they’ve read.

In addition, the use of media in the learning process can motivate student interest in improving student learning outcomes (Fitri et al., 2014). It is in line with (Nafis, 2016; Sukmanasa et al., 2017) revealed that digital comic media increased motivation, cognitive learning outcomes, and effective learning outcomes. Moreover, the digital comics developed can make students understand the material presented because the texts and pictures contain in comic is simple and easily read. Therefore, the learning will be more effective compared to learning just by reading books. It is supported by Kustianingsari, (2015) and Rohmanurmeta et al., (2020), which states that digital comics effectively influence student learning outcomes because digital comic media can present interesting and meaningful material reading textbooks in a learning process.

In addition to that, another convenience of digital comics is the ease of access, because they can be read online via cellphone or tablet anytime and anywhere, can be stored easily, and can be sent to various media (Hadhinoto & Oktavianti, 2020).
Online Learning during Covid-19 Pandemic

Online learning is a new way of learning that uses internet networks with accessibility, connectivity, flexibility, and the ability to generate various learning interactions (Rigianti, 2020). However, despite this challenging situation of the pandemic year, most academic institutions in the world have tried to ensure the continuity of the learning process that has shifted from traditional to a modern one, where students and teachers interact with each other using various types of technological tools and techniques as the introduction of learning (Qazi et al., 2021).

The current digital era and the Covid-19 pandemic are the reasons for the need to develop teaching materials packaged in interactive digital comics, especially for elementary school students, because these conditions force all teachers to carry out learning activities online (Khotimah et al., 2021).

A previous study by Ilhan et al., (2021) revealed that using digital comics in distance education increases success and helps develop positive behaviours towards the course. Buyuk et al., (2018) indicated that it is seen which digital comics are effective both in making the education process fun and in making distance education fun. When the participant reached the end of the adventure in the comic book, he gained a different perspective and knowledge and felt a sense of fun.

Saputra & Permata, (2021) in their study showed that the digital comic media developed during the Covid-19 pandemic is suitable for learning media and can be used as online or offline learning media during the Covid-19 pandemic. Moreover, Khotimah et al., (2021) concludes that using teaching materials packaged in the form of interactive digital comics in online learning is proven to be effective in increasing student involvement in learning and learning outcomes.

Based on the discussion above, this research aims to develop a digital comic based on Form Five Al-Quran and Sunnah Education subject among 24 Form Five Ibnu Rusyd students of SMA Al-Ihsan. In addition, this research was carried out to determine the usability of a digital comic to meet user needs.

Methodology

This research focused on developing comic digital adapted by the A.D.D.I.E Model namely the analysis phase, design phase, development phase, implementation phase, and evaluation phase as a method to develop the digital comic for the Form Five students of SMA Al-Ihsan in learning Al-Quran and Al-Sunnah Education subject.

Analysis Phase of User Needs

At this phase, a preliminary study which was an interview has been conducted with the students to get information about the learning activities, also analysing the PQS subject activities and examining the underlying problem in learning media development.

Digital Comic Maker Tools

This study used the following tools to support the development of the digital comic such as the laptop/Notebook Acer Aspire E14 (E5-475G-5115), iPhone Operating System IOS and Xiaomi Redmi Note 5 AI Blue. Suitable software/application programs such as Adobe Photoshop CS6 and Flipbook Pro were also needed to create the digital comic.

Design Phase

In the design phase, the comic was designed based on the chosen topic in PQS textbook namely Pengajian Hadith. The planning of the script and storyboarding had been built by creating a character and characteristics, and continued with making the sketches of comic images on papers.

Script Making

At this stage, the story ideas and the scripts were written based on the curriculum textbook of PQS subject for Form Five, which focused on the topic of Pengajian Hadith. The topic chosen is about the concept of ni‘at.

Character Design

Character design is a process of changing the applicable characters and characteristics through visual and hand sketches grounded on a script. Character design is grounded based on the content of the topic of Pengajian Hadith contained in Form Five PQS subject. In addition, Islamic characters, places and major structures as well as the props had been drawn up to suit with the subject and the way the story was framed.

Storyboard

The storyboard is a graphic representation of the purpose multimedia project. It is an extension of the ideas presented in the script. It’s also allowed to visualize how the final product is going. The importance of storyboard is to look at the whole story and also include of development ideas, the whole sketch of story and script illustration. The storyboard is needed as a
Nor Azlin Amira Mohd Zainadi & Roesnita Ismail, *Sains Insani* 2023, Volume 08 No 1 : 103-110

The panel was arranged according to the script. The size of each panel is different with the other.

**Development Phase**

During the development phase, all the design elements such as graphics and text are organized and developed according to the design planning as explained in the design stage. The making of digital comic is carried out in accordance with the storyline and the designed image sketches. The image sketch is scanned to convert the image from the A4 paper into digital form. Next, the sketch results were edited on the computer by using the Adobe Photoshop CS6 application such as inserting graphics, text, images and backgrounds.

Finally, the final comic was combined by using Flipbook pro to make it into complete digital form. The digital comic was made as attractive as possible, consisting of a cover page, opening part, comic content, and closing part.

**The Making of Digital Comic Process**

Firstly, the comic was sketched manually on the A4 paper and was thickened with a drawing pen.

*Figure 1. Sketch & Storyboard*

**The Image Scanning Process**

Secondly, after thickening with a drawing pen, the picture was scanned. Then, the Canon Scanner for Windows was used to transform it into a digital image.

*Figure 2: Canon Scanner & Computer Scan Result*

**The Process of Colouring the Comics**

Thirdly, the editing process was done by using the Adobe Photoshop application.

*Figure 3: Image colouring using Adobe Photoshop programme*

**The Digitisation Process**

Finally, the comic was compiled using the Flipbook pro application to produce the complete digital comic.

*Figure 4. The initial appearance of the Flipbook Pro application displayed on the laptop*
Implementation Phase

Due to pandemic, the user testing and evaluation have been carried out during the online learning session. The user testing and evaluation has been done on the 23rd May 2021. The target respondents consisted of 24 Form Five Ibnu Rusyd students of SMA Al-Ihsan, Kuantan Pahang. Before starting the evaluation, these students were given a brief explanation about the objectives of the project. The testing was being done by the teacher. Once they understood, the digital comic was given through the link provided and they were asked to test the application. After they have completed testing the applications, they were asked to fulfill the questionnaire that comes in a google form.

Evaluation Phase

The evaluation phase is the stage to improve the result of development product. Improvements are based on comments and suggestions from experts, as well as suggestions from the students. It was found that the usability of the developed digital comic still required some improvement. The improvement included the word size was too small and the use of regional languages that was deemed unnecessary.

The Media Validation

The media validation was carried out by a Multimedia lecturer from the Faculty of Science and Technology (FST), USIM and a school Panitia of PQS subject from the Sekolah Menengah Agama AL-Ihsan, Kuantan.

Media Expert’s Validation

A validation from a media expert was carried out by a lecturer and a teacher to gather feedbacks and opinions to make some improvements on the initial development of the digital comic. The questionnaires of the media validation in this study were adapted and modified from Pramono (2020).

The assessment of media validation in this study was based on the Likert scale adopted by the Sukardjo (2012) as follows:

Table 1. Score Conversion to Value on a 5 Scale

<table>
<thead>
<tr>
<th>Score/Category</th>
<th>Pattern</th>
<th>Score</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td>$X = \frac{(max. score - min. score)}{5}$</td>
<td>$X$</td>
<td>$4.21$</td>
</tr>
<tr>
<td>Good</td>
<td>$X = \frac{(max. score - min. score)}{4}$</td>
<td>$X$</td>
<td>$3.40$</td>
</tr>
<tr>
<td>Pretty good</td>
<td>$X = \frac{(max. score - min. score)}{3}$</td>
<td>$X$</td>
<td>$2.60$</td>
</tr>
<tr>
<td>Not good</td>
<td>$X = \frac{(max. score - min. score)}{2}$</td>
<td>$X$</td>
<td>$1.79$</td>
</tr>
<tr>
<td>Very Poor</td>
<td>$X = \frac{min. score}{2}$</td>
<td>$X$</td>
<td>$1.00$</td>
</tr>
</tbody>
</table>

Where: 
- Average ideal score ($E_i$)
- $X$ = Actual score
- $max. score$ = Maximum score
- $min. score$ = Minimum score
- $standard deviation ideal score (SDi)$
- $1.2$ = (maximum score + minimum score)
- $\frac{1}{2}$ = (maximum score - minimum score)
- $\frac{1}{3}$ = (maximum score - minimum score)
- $\frac{1}{4}$ = (maximum score - minimum score)
- $\frac{1}{5}$ = (maximum score - minimum score)
- $0.57$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
- $1.00$ = (maximum score - minimum score)
20. The accuracy of the writing of punctuation. 3
21. The consistency of the use of terms. 3
22. Linkage between the meaning of the dialogue conversation. 3
23. Suitability of language with conversation figure. 4
24. Use language that is easy for students to understand. 4
25. Communicative. 3
26. The color display, font type and font size are clear to read. 3
27. Attractiveness of the cover design. 5
28. The attractiveness of the drawing design. 5
29. The accuracy of drawing and illustration. 5
30. Continuity stories each page. 3
31. Legibility of text. 2
32. The accuracy of color combination. 2
33. Balance of the proportion of pictures, illustrations, and text. 4
34. Picture quality. 5
35. Clarity of storyline. 3
36. The accuracy of the election characters. 5
37. Suitability of picture with a story. 5
38. Attractiveness of the storyline. 3
39. Clarity of illustration. 3
40. Attractiveness of the presentation of character. 5
41. The clarity of the picture. 5
42. Accuracy of typeface. 1
43. The accuracy of the size of the font. 1
44. Laying balloon conversation. 4
45. Design view each screen. 3
46. Display opener design. 5
47. Conformity with the background text color. 1
48. The clarity of the instructions for use of media. 1
49. Ease of use menus. 5
50. Ease of use navigation buttons. 5
51. Digital comic media is easy in the process of installation. 1
52. File size is not large. 3
53. Operation is simple. 5
54. Coherence. 3
55. Cohesiveness. 3
56. Illustrations are presented clearly. 5
57. Interesting background display. 3
58. The combination in the use of colors. 3
59. Overall appearance integration. 3
Total. 193
Mean. 3.27

Mean score = Assessment scores / Number of questions

Based on the above formula the findings from the media expert’s evaluation revealed that the digital comic got the mean score of 3.27, or “Feasible Enough” based on the Sukardjo (2012: 98). Thus, using PQS-comic based textbooks as a teaching and learning materials received positive responses from a lecturer.

**Teacher’s Validation**

Based on the evaluation by the teacher, the digital comic obtained a mean score of 4.93 out of 5.00 and achieved “Strongly Feasible” based on the Sukardjo (2012: 98).

**Table 3. Teacher’s validation**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completeness and clarity in conveying identity.</td>
<td>5</td>
</tr>
<tr>
<td>2. Clear delivery of learning objectives.</td>
<td>5</td>
</tr>
<tr>
<td>3. Clear delivery of material.</td>
<td>5</td>
</tr>
<tr>
<td>4. The suitability of language.</td>
<td>5</td>
</tr>
<tr>
<td>5. Use common phrases that are easy for students to understand.</td>
<td>5</td>
</tr>
<tr>
<td>6. Coherence.</td>
<td>5</td>
</tr>
<tr>
<td>7. Cohesiveness.</td>
<td>5</td>
</tr>
<tr>
<td>8. Text is presented clearly.</td>
<td>5</td>
</tr>
<tr>
<td>9. Sound is presented clearly.</td>
<td>4</td>
</tr>
<tr>
<td>10. Illustrations are presented clearly.</td>
<td>5</td>
</tr>
<tr>
<td>11. Interesting background display.</td>
<td>5</td>
</tr>
<tr>
<td>12. The combination in the use of colors.</td>
<td>5</td>
</tr>
<tr>
<td>13. Selection of character.</td>
<td>5</td>
</tr>
<tr>
<td>14. The attractiveness of character.</td>
<td>5</td>
</tr>
<tr>
<td>15. Overall appearance integration.</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total.</strong></td>
<td><strong>74</strong></td>
</tr>
<tr>
<td><strong>Average.</strong></td>
<td><strong>4.93</strong></td>
</tr>
</tbody>
</table>

Based on the results of the evaluations by the media expert (3.27) and teacher (4.93) the proposed digital comic can be used as a feasible alternative teaching material in teaching and learning the Form Five Al-Quran and Sunnah Education subject.

**Conclusion**

This research focused on the development of the digital comic of Form Five Ibnu Rusyd students from Sekolah Menengah Agama AL-Ihsan, Kuantan Pahang based on the topic of *Pengajian Hadith* in the Al-Quran and Sunnah Education (PQS) textbook to support the online learning during the Covid-19 pandemic. This study explained the focused on the development processes of the digital comic based on the A.D.D.I.E model consisting of five phases: analysis, design, development, implementation and evaluation. It is hope
that the proposed digital comic will be suitable to be used and provides motivation to students to learn the Al-Quran and Sunnah Education (PQS) subject.

References


