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DEVELOPING MULTIPLE INTELLIGENCES-BASED THEMATIC COMIC MODULE

Alif Mudiono¹, Sa'dun Akbar¹, Arnelia Dwi Yasa², Denna Delawanti Chrisyarani²

¹Universitas Negeri Malang, Malang, Indonesia

²Universitas Kanjuruhan Malang, Malang, Indonesia

Email: alifmudiono@gmail.com¹

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ABSTRACT

This research is aimed to develop multiple intelligences-based thematic comic module. This research used *research and development* approach *Dick Carey and Carey* model. The procedures of the module development are: (1) identifying learning objectives, (2) learning analysis, (3) students and context analysis, (4) formulating specific learning objectives, (5) developing assessment instrument, (6) developing learning strategy, (7) developing and choosing learning material, (8) designing and conducting learning formative evaluation, (9) revising learning material. This research has been conducted up to the seventh step that is developing and choosing learning material. The results of this step are: (1) student's module design, (2) teacher's guideline design. This student module entitled multiple intelligences-based thematic comic module with environment theme that consists of three sub-theme, they are: (1) family environment, (2) school environment), (3) society environment. The component consists of: opening (title, foreword, user guidelines, module part, character introduction, and content list), main part (concept map, news, and expectation box), and learning (material exploration, let's practice, assignment, conclusion, independent test, module final test) and the final part (mini vocabulary, assessment guide, bibliography). Teachers' guide consists of: (1) foreword, (2) teacher's guidelines, (3) teacher's role in using the module, (4) fifth grade SKL and KI, (5) multiple intelligences mapping, (6) content list, (7) first sub-theme mapping, (8) second sub-theme mapping, (9) third sub-theme mapping, (10) bibliography, (11) module final test, (12) key answers and scoring.

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INTRODUCTION

2013 curriculum is aimed to make the process of education can produce productive, creative, innovative, and affective Indonesian individual through strengthening attitude and integrated knowledge. Mastering concept is essential for everyone. According to Gagne, Briggs and Wagner (in Ibrahim, 2012) concept mastery is the possible ability of someone to be able to do something. By good, wide, and deep concept mastery, students are able to improve their intellectual skill and help solving the problem they face and create meaningful learning. Improving their intellectual skill means looking at their own intelligence.

Every student has tendencies to their own intelligence. Their intelligence needs to be sharpened and developed through some ways to be optimal. Gardner (2003:22) stated that intelligence is the ability to solve problem or to create a product that is valuable in one or some culture and society environment. In the application, 2013 curriculum thematic learning has been made generally and not yet connects to the needs, environment condition, and student's characteristic. The content of learning materials has not yet noticed student's learning intelligence. Looking at the important of sharpening student's intelligence in 2013 curriculum, teacher as the facilitator needs a learning materials to optimize student's intelligence. The curriculum 2013 demand leads to the balance of attitude/spiritual, knowledge and skill with MI. According to Fleeaham (2006:35), MI is the potential or ability of someone to think, act, solve problem, and make something beneficial, at least, in eight different ways.

In contrast with the problem and the important of optimizing student's intelligence in thematic learning, the aim of this research is to develop Multiple Intelligences-based (MI) thematic comic module. Setyosari and Effendi (1990:9) who stated "module teaching is a learning program about a unit of a particular topic which arranged systematically, operationally, directed, and used by the students along with the instructions or user guidelines both for the students or teacher and instructor."

The module was designed for students so that they can autonomously learn and evaluate their own study. Based on the problem solution above, this research would develop student's learning material which consists of student's learning module and complete teacher guidelines in line with Amin (2006: 25) opinion that the module components carry two components, they are: 1) student's module, which contains learning activities to be done by them; 2) teacher's module which contains teacher guidelines, module final test, and module final test key answers. The developed module was combined in the form of comic. Sujana and Rivai (2010:68) stated that the main role of comic book in teaching is its ability to create student's interest. So the comic can be an effective teaching tool. From this understanding, comic is one of the supporting components to reach learning objectives.

This research used *research and development* approach *Dick Carey and Carey* model. The procedures of module development are: : (1) Identifying learning objectives, (2) learning analysis, (3) students and context analysis, (4) formulating specific learning objectives, (5) developing assessment instrument, (6) developing learning strategy, (7) developing and choosing learning material, (8) designing and conducting learning formative evaluation, (9) revising learning material. This research has been conducted up to the seventh step that is developing and choosing learning material.

There are some considerations in choosing *Dick Carey and Carey* model, 1) Theoretical framework of Dick and Carey is oriented in the objectives, the condition of

variable, and the result is used to determine an optimal learning; 2) It can be used to design learning material, both for classical learning class or individual (using module); 3) It can be used to develop learning material in intellectual, attitude, skill, and verbal information realm; and 4) *Dick Carey and Carey* shows the relation of one step with the other clearly, concisely, densely and tightly.

The similar research that has been done is *Pengembangan Modul IPA Terpadu Konetksual Pada Tema Bunyi* (Asifah dkk, 2013). The results showed the ability to improve material understanding, activities, motivation, students learning results and train students to be autonomous learner.

The other supporting researches are *The Relationship between Multiple Intelligences, Self-Efficacy and Academic Achievement of Saudi Gifted and Regular Intermediate Students* (Aly A Koura Safaa M Al-Hebaishi, 2014). *The result of the study also revealed that there was significant correlation between Multiple Intelegensi and achievement in specific language skills and language aspects. The study recommended EFL teachers to respond to different potentials of their students, develop activities that support students' strongest intelligences as well as improving the weak ones and pay more attention to creating a motivating classroom environment.* This research result showed that there is a significant relation between Multiple Intelligences and achievement in language skills and specific language. This study recommended EFL teachers to respond their students' potencies, to develop supporting activities that facilitate the earlier students' intelligences and improve those who weak and give more attention to create motivated class environment.

Application of Multiple Intelligence Theory to Increase Student Motivation in Learning History (Abdul Razaq Ahmad, dkk; 2014). *It can be concluded that integrated multiple intelligence activities are able to increase students' motivation to learn History.* It can be concluded that some integrated intelligences activities can improve students' learning motivation to learn history.

Pengembangan Media Komik Bergambar Materi Sistem Saraf Untuk Pembelajaran Yang Menggunakan Strategi PQ4R (Wahyuningsih, 2011). The result showed that it can emerge students' positive vibe, activities, increasing reading interest, and classical students' learning result.

Based on the four previous studies, preliminary study and research ideal theory entitled "Pengembangan Modul Komik Tematik berbasis Multiple Inteligensi untuk siswa kelas V Sekolah Dasar" was conducted. By doing this research, vary learning material in the form of module can be developed and interesting so that it can increase student's interest and optimizing student's intelligences.

METHODS

MI-based thematic comic module development used Dick, Carrey and Carrey model. The procedure of the development are: (1) Identifying learning objectives, (2) learning analysis, (3) students and context analysis, (4) formulating specific learning objectives, (5) developing assessment instrument, (6) developing learning strategy, (7) developing and choosing learning material, (8) designing and conducting learning formative evaluation, (9) revising learning material. This research has been conducted up to the seventh step that is developing and choosing learning material.

Learning analysis, student and context analysis was conducted by field observation, fifth grade teacher and 160 students interview in Gugus 1 Sukun elementary school (SDN Sukun 1, 2 dan 3) in Malang. Then, the researcher conducted literature

review about learning by reviewing 2013 curriculum that is currently used. Next, based on the needs analysis and literature review, the researcher designed a prototype module, teacher guidelines, and assessment instrument. The designed module prototype and teacher guidelines contain environment topic that would be taught.

RESULTS AND DISCUSSION

This research has been conducted up to the developing and choosing learning material phase. According to the needs analysis that has been done in the precious phase, the development of learning material is Multiple Intelligences-based thematic comic module for fifth grade elementary students. Module writing started by compiling module framework and followed by compiling module draft. The compiled draft arranged based on the needs and conditions of the student's environment. To arrange the draft module, the researcher developed and chose material such as supporting material reference and media used. The reference that would be used came from some sources, such as textbook, internet, and some others supporting book. The media used is comic. Comic media selection adjusted based on student's characteristic, material, and learning objectives that would be achieved. The used comic is the researcher comic creation.

The results of developing and selecting this learning material are: (1) students' module design, (2) teacher guidelines design and (3) assessment instrument design. This research and development discussed seven subjects that are presented in thematic form, three domains (spiritual and attitude, knowledge and skills). These three designs are arranged simultaneously. They are presented as follow.

a. Students Module Design

This design phase was creating the component of the Multiple Intelligences-based learning module and comic to teach thematic learning in elementary school environment theme. This student module entitled multiple intelligences-based thematic comic module with environment theme that consists of three sub-theme, they are: (1) sub-theme 1: family environment, (2) school environment, (3) society environment. The systematic presentation of this module consists of: opening (title, foreword, module user instructions, module part, character introduction, and content list), main part (concept map, news, expectation box, learning exploration, let's practice, assignment, conclusion, independent test, module final test), and final part (mini vocabulary, assessment guidelines, bibliography).

b. Teachers Guidelines Design

This teacher guideline was the guidelines for teacher to conduct learning phases based on the student's module. The teachers guidelines contains: (1) foreword, (2) teacher guidelines, (3) teacher's role in the module usage, (4) SKL and KI for fifth grade, (5) Multiple Intelligences mapping, (6) content list, (7) First sub-theme mapping, (8) Second sub-theme mapping, (9) Third sub-theme mapping, (10) module final test, (11) Key answers and scoring, (12) bibliography.

c. Instrument design

The instrument that has been designed was independent test and module final test. Independent test was created to know student's capability to finish each sub-theme. Module final test was arranged to know student's capability in understanding the material within the module whole fully.

The developing product of this research is Multiple Intelligences-based thematic comic module for fifth grade students. The thematic module that has been developed has a special specification that is interesting design in the form of comic. Comic has been chosen as supporting learning tool because it is one of many media that liked by students and can attract student's attention to read it. This is in line with Sujana and Rivai (2010: 68) who stated that "the main role of comic book in learning is its ability in creating student's interest so that it can be the effective teaching tool."

The module that has been developed was expected to fill the following criteria: valid, practical, interesting, and effective. Because of this research was limited on the module draft completion and teacher's guidelines, this discussion only presented module draft and teachers guidelines. The module components according to Amin (2006: 25) contain two things, they are: (1) students module which contains learning activities to done by the students; (2) teachers module which contains teacher guidelines, module final test, and module final test key answers. Whereas, Muslich (2010: 129) said that " in general, learning with the use of module will involve some components, they are: (1) students activity sheet, (2) worksheet,(3) worksheet key answer, (4) question sheet, (5) answer sheet, (6) key answer."

The module components were compiled in a format entitled *Warna-warni Lingkungan* (modul komik berbasis multiple intelligensi) with environment theme that consists of three sub-theme, which are: (1) first sub-theme: family environment, (2) school environment, (3) society environment. The module components consist of: opening (title, foreword, user instructions, module part, character introduction, and content list), main part (concept map, news, expectation box, learning exploration, let's practice, assignment, conclusion, independent test, module final test), and final part (mini vocabulary, assessment guidelines, bibliography). The opening part contains user guidelines for students from the very first up to the last process of module working. Moreover, there are some module part that is a content cut and information discussed within module. The character of the comic module was also presented so that it makes it more interesting. In the main part, the concept map of material mastery of each sub-theme, expectation box which consists of students learning objectives indicator, essential information about students learning results that should be reach was also presented. The learning contains materials that should be mastered by students in the theme of environment, completed with practice and assignment to sharpen student's skill. The conclusion contains a place for students to write their own conclusion independently. Independent test and module final test is used to know how far students understand the material.

The guidelines for teacher contain: introduction: (1) foreword, (2) teacher guidelines, (3) teacher's role in the module usage, (4) SKL and KI for fifth grade, (5) Multiple Intelligences mapping and (6) content list. The main part: (1) First sub-theme mapping, (2) second sub-theme mapping and (3) third sub-theme mapping. The final part: (1) independent test, (2) module final test, (3) independent and module final test signs answer (4) test practice and assignment for each learning signs answer, (5) scoring rubric, (6) bibliography.

The introduction part contains an introduction to inform about the content of teacher guideline, the way to conduct teaching using the module, teacher's role in student's module usage, SKL and KI for fifth grade students and also MI mapping that clearly explained to know student's intelligences tendency. The main part covered learning presented within the module completed with learning activities from

apperception up to closing activities. In this part, there is also alternative activity for teacher to support teaching. Closing part contains bibliography and attachment: (1) independent test, (2) module final test, (3) independent test and module final test signs key answer, (4) practice test and assignment for each learning signs key answer, (5) scoring rubric. Independent test and module final test contain question to know students capability studying the module. The signs key answer is answer guidelines used by students and teachers to compare the students' each learning results. Scoring rubric is guidelines to mark the students work and answer.

Chart 1. MI-based Thematic Comic Module Syntax

MI Component	Module Component	Student Activities	Application example in the module																											
Linguistic Intelligence	Ability to use words effectively, both oral and written within advertisement elements.	Telling a story about growth plants and how to take care of it.																												
Mathematic-Logic Intelligence	Ability of someone to solve mathematic problem.	<ul style="list-style-type: none"> Presenting data using a table based on the information Determining mean, median, modus based on the data from the table. 	<table border="1"> <thead> <tr> <th>No.</th> <th>Nama Anggota Keluarga Andi</th> <th>Usia</th> </tr> </thead> <tbody> <tr><td>1</td><td>Ayah Andi</td><td></td></tr> <tr><td>2</td><td>Ibu Andi</td><td></td></tr> <tr><td>3</td><td>Kak Ani</td><td></td></tr> <tr><td>4</td><td>Andi</td><td></td></tr> <tr><td>5</td><td>Faman Juki</td><td></td></tr> <tr><td>6</td><td>Bibi Nia</td><td></td></tr> <tr><td>7</td><td>Deni</td><td></td></tr> <tr><td>8</td><td>Miko</td><td></td></tr> </tbody> </table>	No.	Nama Anggota Keluarga Andi	Usia	1	Ayah Andi		2	Ibu Andi		3	Kak Ani		4	Andi		5	Faman Juki		6	Bibi Nia		7	Deni		8	Miko	
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4	Andi																													
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6	Bibi Nia																													
7	Deni																													
8	Miko																													
Visual-spatial Intelligence	Ability to see and observe visual and spatial world accurately.	Observing the comic story and answering questions about the comic story.																												
Musical Intelligence	Ability to compose, shape and express musical forms.	<ul style="list-style-type: none"> Understanding song's harmony and local music. Writing song lyric about plant. 																												

MI Component	Module Component	Student Activities	Application example in the module
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Teman-teman, tulislah kembali syair lihat kebunku dalam kotak di bawah ini dan berilah hiasan yang kalian sukai!

Interpersonal Intelligence

Ability to socialize with others, high social sensitivity, collaborates and has high empathy.

- Discussing plant and its pseudo-roots variety.
- Doing and writing a visiting report about a producer.

PASANGKAN TANAMAN INI DENGAN JENIS AKAR SEMULINYA YA TEMAN-TEMAN, diskusikanlah dengan teman sebangkumu

Akar napas

Akar gantung

Nah, teman-teman Udin, andi, Eko, Tika dan Sila sudah berkunjung ke salah satu produsen topeng, sekarang kalian berkunjunglah ke salah satu produsen kemudian lengkapi data laporan!

Laporan Kunjungan

Nama perusahaan : _____
 Nama pemilik perusahaan : _____
 Alamat perusahaan : _____
 Barang-barang yang diproduksi : 1. _____
 2. _____
 3. _____

Bahan baku produksi : 1. _____
 2. _____
 3. _____

Gambarkan uraian kegiatan produksi!
 Jumlah tenaga kerja : _____
 Wilayah distribusi : 1. _____
 2. _____
 3. _____

Konsumen : 1. _____
 2. _____
 3. _____

Intrapersonal Intelligence

Ability that relate to the awareness and knowledge about oneself.

- Answering question about Pancasila moral principle practice in daily life.

3. Masyarakat Desa Duren Kac. Pakis aji adalah masyarakat yang cinta damai. Setiap ada kegiatan desa mereka bekerjasama untuk membantu kegiatan tersebut tanpa memandang suku, agama, ras dan golongan. Perilaku masyarakat daerah tersebut sesuai dengan norma etika-sila dalam Pancasila. Teman-teman pada kelas dibawah ini terdapat sikap-sikap yang dimiliki oleh masyarakat daerah tersebut. Agar kalian mengetahui, sikap-sikap yang termasuk pada sila 1-5. Teman-teman, tolong kelengkapan sikap-sikap yang termasuk sila 1-5!

No	Sikap	Sila				
		1	2	3	4	5
1	Percaya dan Taqwa terhadap Tuhan YME, sesuai dengan agama dan kepercayaan masing-masing.					
2	Berlaga dan cinta terhadap tanah air dan bangsa.					
3	Mengakui persamaan derajat, hak, dan kewajiban setiap manusia tanpa membeda-bedakan.					
4	Bersama-sama berusaha mewujudkan kemajuan yang merata dan berkeadilan sosial.					
5	Mengutamakan musyawarah untuk mencapai mufakat dalam menyelesaikan permasalahan.					
6	Membina kerjasama dan tolong antar umat beragama					
7	Merjaga keseimbangan antara hak dan kewajiban					
8	Mengutamakan kepentingan bangsa diatas kepentingan pribadi atau golongan					

MI Component	Module Component	Student Activities	Application example in the module
Kinesthetic Intelligence	Ability to use our body skillfully to express idea, thought and feeling.	<ul style="list-style-type: none"> Perform exercise based on the picture 	
Natural intelligence	Ability of investigate, classifying, identifying natural phenomena.	<ul style="list-style-type: none"> Identifying the part of plant. Identifying the cause and effect of natural phenomena. 	

CONCLUSION

Research development of MI-based thematic comic module used *research and development* approach *Dick Carrey and Carey* model. The result of developing and selecting this learning material are: (1) students module design, (2) teachers guidelines design. This student’s module entitled multiple intelligences-based thematic comic module with environment theme that consists of three sub-themes, they are: (1) first sub-theme: family environment, (2) school environment, (3) society environment. The module components consist of: opening, main part, final part. Teacher’s guidelines contain: opening, main part, final part.

Based on this developing research, the future researcher was expected to be able to develop module in the form of *e-book*. Therefore, *e-modul* can be practical and effective in its usage.

REFERENCES

Abdul Razaq Ahmad, Ahmad Ali Seman2, Mohd Mahzan Awang, Fadzilah Sulaiman. 2015. *Application of Multiple Intelligence Theory to Increase Student Motivation in Learning History*. Asian Culture and History; Vol. 7, No. 1; 2015. (online), diakses 21 Agustus 2015.

- Akbar, S., Sriwiyana, H. 2011. *Pengembangan Kurikulum dan Pembelajaran Ilmu Pengetahuan Sosial*. Yogyakarta: Cipta Media.
- Aly A Kourai, Safaa M Al-Hebaishi. 2014. *The Relationship between Multiple Intelligences, Self- Efficacy and Academic Achievement of Saudi Gifted and Regular Intermediate Students*. Educational Research International Vol. 3(1) February 2014. (online), diakses 21 Agustus 2015.
- Amin, Mohammad., Widodo, Wahono., Pratiwi. 2006. *Panduan Pengembangan Bahan Ajar IPA*. Direktorat jenderal pendidikan dasar dan menengah departemen pendidikan nasional.
- Asfiah, N., Mosik, & Purwantoyo, E. 2013. *Pengembangan Modul IPA Terpadu Kontekstual Pada Tema Bunyi*. Unnes Science Education Journal 2 (1). (Online), (<http://journal.unnes.ac.id/sju/index.php/usej>), diakses 16 September 2013.
- Dick, Walter., Lou Carrey, James O. Carrey. 2009. *The Systematic Design of Instruction (7th Edition)*. New Jersey: Pearson Education, Inc.
- Fleetham, Mike. 2006. *Multiple Intellegences in Practice: Enhancing self-esteem and learning in the classroom*. London, UK: Network Education.
- Gardner, Howard. 2003. *Multiple Intelligences: The Theory in Practice A Reader*. New York: Basic Books
- Kemendikbud. 2012. Kurikulum 2013. Kementerian Pendidikan dan kebudayaan.
- Muslich, M. 2010. Text Book Writing, Dsar-dasar Pemahaman, Penulisan dan Pemakaian Buku Teks. Yogyakarta: Arruzz Media.
- Sudjana dan Rivai. 2010. Media pengajaran. Bandung: Sinar Baru Algensindo.
- Setyosari, Effendi. 1991. Pengajaran Modul (Buku Penunjang Perkuliahan). Depertemen Pendidikan dan Kebudayaan Institut Keguruan dan Ilmu Pendidikan Malang Proyek Operasi dan Perawatan Fasilitas.
- Thomas, R. Hoerr. 2007. Buku Kerja Multiple Intellegences, terjemahan Ary Nilandari. Bandung: Mizan Pustaka.
- Wahyuningsih, A. N. 2011. Pengembangan Media Komik Bergambar Materi Sistem Saraf Untuk Pembelajaran Yang Menggunakan Strategi PQ4R. Jurnal PP, Volume 1, No. 2. (online), diakses 24 Maret 2013.

