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Article

**Development of Eclipse Crossword Assisted Crossword
Learning Media in Digestive System Materials in
Junior High School**

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ABSTRACT

This study aims to produce a product of learning media, namely crossword puzzles assisted by eclipse crossword on the Digestive System material conducted at MTs Walisongo Wonokerto Lumajang. Operationally, the objectives are broken down into two, namely describing the validity of the eclipse crossword-assisted learning media on the digestive system material and describing the students' responses to the eclipse crossword-assisted learning media on the digestive system material. This type of research is a research and development (Research and Development) Borg and Gall model using 7 steps, namely: Research and Information Collection, Planning, Develop Preliminary form of Product, Preliminary Field Testing, Main Product Revision, Main Field Testing, and Operational Product Revision. Based on the results of the validation analysis from material experts, media experts and practitioner experts, it shows that the percentage of the validity of each assessment is 96.5%, 94.5% and 95% with an average value from the experts which is 95% which these results include in the "Very Valid" category, while the results of the analysis of the limited-scale trial and large-scale trials resulted in a score of 87% and 88% which resulted in an average of 88%, this value was included in the "Very Interesting" criteria.

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INTRODUCTION

In the current era of globalization, quality human resources are needed to build the nation to become a more advanced nation. One of the places to create quality human resources is education. Education plays an important role in human life because it can create quality and educated human beings so as to give birth to generations of intellectual and competent nations. There are many ways to facilitate education, one of which is through learning media.

Media is the plural of the word "medium" which means an intermediary or introduction. Many experts interpret the media, one of which is Schram (1997) who argued that the media is

a tool that functions as a messenger that is used in the learning process (Sumiharsono & Dedy, 2017).

Media also is a means of distributing material messages in the learning process delivered by educators so that students easily accept and understand the lessons that have been delivered (Nurhasanah and Hijatul, 2019). Learning media serves to attract students to be motivated and interested in participating in learning. Learning media must be made very interesting so that students are not bored. This is because according to (Supriyono, 2018) states that the media is one component of the learning system that functions as a means of non-verbal communication. One of the learning media that can be used is crossword puzzle media.

Crossword puzzle is a game that is played by filling in the blank spaces in the form of a box with letters that can form a word where the word is the answer to the question (Wirani, 2018). A crossword puzzle (TTS) is a game that gives you a challenge to solve a problem in an exciting atmosphere. TTS is a language game that can be used as one of the learning media in which the way to play is by filling in the boxes provided both vertically and horizontally (Sababalat, et al, 2021). This TTS game can be made with various applications, one of which is the eclipse crossword application. Eclipse itself is an IDE (Integrated Development Environment) for developing software and can be run on all platforms (Setiawan, et al, 2017). This TTS learning media can be applied to the material of the digestive system.

Based on the results of interviews and observations in the field in March 2021, researchers received information that the learning process was carried out offline or face to face and used blackboard media as well as textbooks and worksheets, online learning which is often applied due to the current pandemic. Offline or face-to-face learning is applied alternately and uses blackboard media as well as textbooks and worksheets. While online learning is done by sending parts of the chapter to be studied, then students are asked to summarize and are given assignments also on material that requires practice, such as observing structures and tissues in plants, namely by sending videos to be observed and given assignments. This makes students less active in learning. In this case, the researcher developed a crossword puzzle learning media to attract students' interest in active learning.

Researchers chose the crossword puzzle media assisted by eclipse crossword because the media was not difficult to use nor did it require special skills in its use. The crossword puzzle itself is an educational game that can help students to understand something as well as remind students of the material that has been studied or not. This can increase students' creativity to fill in the answers in the empty boxes. In addition, this crossword puzzle media can be done casually or can be done while having fun.

Researchers chose this development model because it has the aim of developing an effective model or product to meet the interests of certain program activities at certain agencies which in this study emphasizes the analysis of student needs. The advantage of this model is that the structure of the steps is detailed and coherent.

Several studies that are relevant to the research taken by the researcher: The first research entitled "Development of Learning Media equipped with Flash-Based Crosswords on Human Movement System Material for Class XI SMA/MA". Have similarities and differences with research conducted by researchers. The similarity lies in the learning media used, namely Crossword Puzzles (TTS). The difference between the research conducted by Apri Bayu Saputra and the research conducted by the researcher is that in previous studies the use of crossword puzzles or crossword puzzles was carried out on the material of the human movement system in Class XI SMA/MA, while the current study using crossword puzzles or crossword puzzles was carried out on material on digestive system class VIII SMP/MTs.

Further research was carried out by Nur Ulfayanti entitled "Development of Crossword Puzzles (TTS) Educational Media in Biology Subject Class XI at SMA Negeri 12 Makassar".

Have similarities and differences with research conducted by researchers. The similarity lies in the learning media used, namely Crossword Puzzles (TTS). The difference between previous studies and those conducted by researchers is that in previous studies the use of crossword puzzles or crossword puzzles was carried out in Class XI Biology Subjects, while the current research using crossword puzzles or crossword puzzles was carried out on digestive system materials for class VIII SMP/ MTs.

Furthermore, research conducted by Nanda Siti Adi Utami entitled "Development of Learning Media Educational Games based on Android-Based Accounting Crosswords as an Effort to Improve Learning Activities of Class X Accounting 2 Students at SMK Negeri 2 Magelang in the 2017/2018 Academic Year". Have similarities and differences with research conducted by researchers. The similarity lies in the learning media used, namely Crossword Puzzles (TTS). The difference between the previous research and the one conducted by the researcher is that in the previous study the use of crossword puzzles or crossword puzzles was carried out on accounting material, while the current research used crossword puzzles or crossword puzzles on the digestive system material for class VIII SMP/MTs.

METHODS

This research method uses research and development methods or known as Research and Development (R&D). The research development model used in this study is the Borg and Gall development model in (Sugiyono, 2015) which consists of 10 steps, namely 1) research and information collecting (research and information collection), 2) planning (planning), 3) develop preliminary form a product (development of initial product form), 4) preliminary field testing (initial field test), 5) main product revision (product revision), 6) main field testing (main field test), 7) operational product revision (product revision) operational, 8) operational field testing (operational field testing), 9) final product revision (final product revision) and 10) dissemination and implementation (dissemination and implementation). This study only uses up to the 7-step due to limited time, effort, cost and also this study only tested one institution (Kholidia, et al, 2020).

The first stage is the research and information collecting stage, where data collection needs analysis obtained from interviews and observations at MTs Walisongo Wonokerto Lumajang, literature review by reading previous studies that are relevant to the research conducted by researchers, and problem identification. at the institution under study.

Second, planning by doing 1) formulating the goals of the developed media, 2) determining product users, namely class VIII MTs Walisongo students, 3) estimating funds, time and energy, and 4) determining indicators achieved in studying the digestive system material. .

Third, the development of the initial form of the product by designing and developing a product in the form of a crossword book (book) media as a learning medium for the digestive system material using the eclipse crossword application and validation carried out by material experts, media experts and science teachers as expert practitioners.

Fourth, preliminary field testing, by conducting a limited-scale trial using 6 students consisting of 3 students of class VIIIA and 3 students of class VIIIB as respondents to the learning media developed. This stage tests in terms of readability.

Fifth, product revision, by making improvements and improvements to products that have been tested at the initial field test stage.

Sixth, the main field test, by conducting trials on all class VIII students of MTs Walisongo, totaling 39 people, in which there are 22 students of class VIIIA and 17 students of class VIIIB. At this stage testing in terms of attractiveness.

Seventh, the operational product revision which is carried out to improve the product if it encounters deficiencies in the main field trial stage.

This research was conducted at the MTs Walisongo Wonokerto Lumajang institution, namely in class VIII, this was done because it was related to the material taken, namely the digestive system material contained in the odd semester.

The types of data used in this study are quantitative (numeric) and qualitative (descriptive) data. Quantitative data is data in the form of numbers obtained from validators and student response questionnaires, while qualitative data is data in the form of suggestions and comments obtained from validators and students.

The instruments used to collect data are validation questionnaires and student response questionnaires. This is because the purpose of the formulation of the research problem is to determine the validity and response of students to the learning media of crossword puzzles assisted by eclipse crossword on the digestive system material. The questionnaire used in this study was in the form of direct questionnaire distribution. The questionnaire used for quantitative data purposes using a Likert scale. Likert scale is a scale used to measure attitudes, opinions, and perceptions of a person or group about phenomena in education, the Likert scale used is with a score of 1-5 (Djaali and Pudji, 2008).

Instrument validation by experts using a Likert scale and data analysis techniques as follows:

Table 1. Validator Likert Scale

Criteria	Scoring
Very Good	5
Fine	4
Enough	3
Less	2
Very Poor	1

$$V_{-ah} = T_{se} / T_{sh} \times 100\%$$

Information:

V_{-ah} : Percentage Value

T_{se} : Total Empirical Score (Expected Maximum Score)

T_{sh} : Total Expected Score

The criteria for the teaching materials presented are as follow:

Table 2. Validation Criteria

Validation criteria	Validation level
85,01-100,00%	Very valid or can be used without revision
70,01-85,00	Valid or usable but need minor revision
50, 01 – 70,00%	Sufficiently valid, it is recommended not to use it because it needs a major revision
01,00 – 50,00%	Invalid, or should not be used

(Akbar:2016)

While the instruments used to determine the response of students are Likert scale and data analysis techniques as follows:Information:

Table 3. Respondens Likert Scale

Criteria	Scoring
Strongly Agree	5
Agree	4
Doubtful	3
Disagree	2
Disagree	1

$$V_{-au} = \frac{T_{se}}{T_{sh}} \times 100\%$$

Information:

V_{-au} : Percentage value

T_{se} : Total empirical score obtained from student responses

T_{sh} : Total expected score

The percentage criteria obtained through student responses are presented in the form of a table as follows:

Table 4. Student Response Criteria and Attractiveness

Scoring	Criteria
81% - 100%	Very interesting
61% - 80%	Interesting
41% - 60%	Quite interesting
21% - 40%	Not attractive
0% - 20%	Very unattractive

(Akbar:2016)

RESULTS AND DISCUSSION

This research produces a product in the form of printed media (books), namely crosswords assisted by eclipse crosswords on the digestive system material for class VIII students with the hope that the developed media can help students understand the material, especially the digestive system material. Crossword puzzles can help students in terms of remembering as well as understanding and this game is fun (Taufik Hidayat, 2018).

According to Uci and Habibati (2017), in the crossword puzzle media, students are required to be active in the learning process so they don't get bored easily. In addition, answering one question can provoke students to answer other questions because it is helped by one letter from the previous answer. This makes students motivated in learning.

The media of crossword puzzles is made using the eclipse crossword application, the results are in the form of print media or books. This crossword puzzle media discusses the nutrients contained in food, the structure and function of the digestive system in humans, and disorders of the digestive system and how to prevent and overcome them.

This research only reached the seventh stage of the Borg and Gall development model. It also has not yet tested the effectiveness of the developed media. This was done due to time and cost limitations, and this study only tested one institution. The design of the display of the crossword puzzle learning media developed by the researcher is as follows:

Table 5. Crossword Puzzle Media Display Design

Front Cover	Foreword
	

Table of Contents

Daftar Isi

Kata Pengantar ii
 Daftar Isi iii
 Daftar Gambar v
 Daftar Tabel vi
 Petunjuk Penggunaan 1
 Latihan I dan Soal 2
 Pembahasan I Nutrisi 4
 A. Kebutuhan Energi 4
 B. Jenis Nutrisi 4
 Kunci Jawaban Latihan I 11
 Kegiatan Aktivitas/Praktikum 12
 Latihan II dan Soal 14
 Pembahasan II Struktur Dan Fungsi Sistem Pencernaan Pada Manusia 16
 A. Organ Pencernaan Utama 16
 B. Organ Pencernaan Tambahan 22
 Uji Coba 25
 Latihan III dan Soal 26
 Pembahasan III Gangguan Pada Sistem Pencernaan Dan Upaya Mencegah Atau Menanggulangnya 28
 Kegiatan Aktivitas/Praktikum 30

ii

List of Pictures

Daftar Gambar

Gambar 1. Sistem Pencernaan Manusia vii
 Gambar 2. Jenis-Jenis Nutrisi 4
 Gambar 3. Makanan mengandung Karbohidrat 5
 Gambar 4. Makanan mengandung Lemak 5
 Gambar 5. Makanan mengandung Lemak jenuh 6
 Gambar 6. Makanan mengandung Lemak Tak Jenuh 6
 Gambar 7. Makanan mengandung Protein 6
 Gambar 8. Makanan mengandung Vitamin 7
 Gambar 9. Organ Mulut 16
 Gambar 10. Organ Lambung 18
 Gambar 11. Organ Usus Halus 20
 Gambar 12. Organ Usus Besar 21
 Gambar 13. Organ Hati 22
 Gambar 14. Kantung Empedu 23
 Gambar 15. Pankreas 24
 Gambar 16. Usus Halus 30

v

Daftar Tabel

Tabel 1. Perbedaan Lemak Jenuh dan Lemak Tak Jenuh 6
 Tabel 2. jenis-jenis vitamin beserta manfaat dan sumbernya 8
 Tabel 3. jenis-jenis mineral beserta sumber dan manfaatnya 9

vi

Petunjuk Penggunaan

- Media TTS ini dibuat sebagai media pembelajaran biologi khusus materi sistem pencernaan.
- Media TTS ini dapat dikerjakan secara berkelompok maupun secara individual.
- Media TTS ini diisi secara mendatar atau menurun, hal ini tergantung sesuai petunjuk soalnya.
- Sebaiknya soal yang mudah dikerjakan lebih dahulu, sehingga memudahkan mengisi seluruh soal di kolom TTS.
- Jika seluruh kolom TTS sudah terisi meskipun tidak semua, setelah soal terdapat materi atau pembahasan mengenai materi yang terdapat dalam soal tersebut. Hal ini bertujuan agar siswa dapat mengetahui tentang materi yang dibahas di dalam soal TTS.

Kompetensi Dasar (KD):

3.5 Menganalisis sistem pencernaan pada manusia dan memahami gangguan yang berhubungan dengan sistem pencernaan, serta upaya menjaga kesehatan sistem pencernaan.

4.5 Menyajikan hasil penyelidikan tentang pencernaan mekanis dan kimiawi.

Tujuan Pembelajaran:

Tujuan pembelajaran menggunakan media TTS ini adalah siswa dapat memahami dan mengerti lebih dalam tentang materi sistem pencernaan.

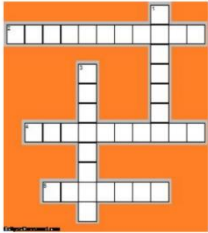
Tujuan pembelajaran sesuai indikator:

- Siswa mampu menyebutkan nutrisi yang terdapat dalam tubuh
- Siswa mampu menyebutkan organ sistem pencernaan beserta fungsinya.
- Siswa mampu mengidentifikasi gangguan pada sistem pencernaan.

1

Crossword Practice I

Latihan I



2

Soal Latihan I

Mendatar

2. Sumber utama energi yang dibutuhkan bagi tubuh

4. Lemak yang memiliki ciri berikat non emulsi, dapat disimpan oleh tubuh, pada pada suhu kamar dan tidak ada ikatan rangkap

5. Nutrisi yang dibutuhkan terdapat kalium, Fosfor, Potasium, Sodium, besi, iodium dan seng

Menurun

1. Nutrisi yang memiliki fungsi sebagai penghasil energi, untuk pertumbuhan dan mengganti sel-sel rusak, pembuat energi dan hormon, dan pembentuk antibody (sistem kekebalan tubuh)

3. Vitamin yang terkandung dalam buah jeruk

3

Discussion of the Practice Crossword I


Pembahasan I

NUTRISI

A. Kebutuhan Energi

Energi sangatlah penting bagi tubuh manusia karena energi dibutuhkan sebagai sumber tenaga untuk melakukan segala aktivitas. Energi berasal dari makanan yang dikonsumsi sehari-hari.

Energi digunakan untuk melakukan suatu pekerjaan dan dilepaskan dalam tubuh melalui proses pembakaran zat-zat makanan. Keseimbangan energi terjadi ketika kalori yang masuk dalam tubuh sama dengan jumlah kalori yang dikeluarkan melalui metabolisme tubuh dan aktivitas otot.



Sumber : id.pinterest.com
 Gambar 2. Jenis-Jenis Nutrisi

B. Jenis Nutrisi

Nutrisi atau biasa dikenal dengan gizi merupakan zat yang dibutuhkan makhluk hidup sebagai sumber energi, mempertahankan kesehatan, pertumbuhan dan energi berlangsungnya fungsi normal pada setiap jaringan dan organ tubuh.

4

Exercise Answer Key I

Kunci Jawaban Latihan I

11

Practicum Activities I

Kegiatan Praktikum (Mengidentifikasi Kandungan Lemak pada Makanan)

Alat dan bahan :

1. Siapkan jenis makanan : nasi, roti, sayuran, buah dan daging
2. Mortar dan alu (*pestle*)
3. Kertas (HVS/Layang-layang)

Cara kerja :

1. Bekerja sama dengan kelompok masing-masing.
2. Kumpulkan jenis makanan : nasi, roti, sayuran, buah dan daging.
3. Hancurkan semua jenis makanan menggunakan mortar dan alu (secara terpisah).
4. Tempatkan makanan pada sehelai kertas, kemudian bungkus makanan dengan sempurna (jangan sampai robek).
5. Beri label nama pada masing-masing makanan agar tidak perlu mencicipi makanan.
6. Diampkan selama 30 menit.

12

Crossword Practice II

Latihan II

14

Discussion of the Practice Crossword II

Pembahasan II

STRUKTUR DAN FUNGSI SISTEM PENCERNAAN PADA MANUSIA

A. Organ Pencernaan Utama

1. Mulut

Mulut (oris) merupakan jalan masuk menuju sistem pencernaan dan berisi organ aksesoris yang berfungsi sebagai proses awal pencernaan.

Sumber : www.scribd.com/doc/100000000/100000000
Gambar 9. Organ Mulut

Makanan yang masuk ke dalam mulut terjadi proses pencernaan secara mekanik dan kimiawi. Organ kelengkapan mulut antara lain:

16

Soal Latihan II

Mendatar

5. enzim yang berfungsi untuk memecah lemak menjadi asam lemak dan gliserol
6. bakteri yang membantu membusukkan sisa-sisa makanan membusuk dari usus dua belas jari
9. enzim yang berfungsi memecah protein menjadi polipeptida
12. organ yang didalamnya terdiri dari duodenum, jejunum dan ileum

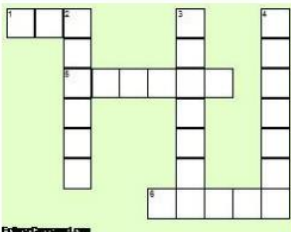
Menurun

1. Organ tambahan yang berfungsi menghasilkan hormon insulin
2. nama lain dari umbel cacing pada tujang selam
3. Nama lain dari kolera a/ far dalam mulut
4. enzim yang berfungsi memecah protein menjadi pepton
7. hormon yang berperan dalam menurunkan kadar gula sehingga tidak mudah terserang diabetes
8. Nama getah yang dihasilkan oleh sel-sel hati yang mengandung kolesterol, garam empedu, bilirubin, kolesin dan elektrolit
11. tempat terjadinya perpeptapan sar-sari makanan pada usus halus

15

Trial Crossword Puzzle

UJI COBA

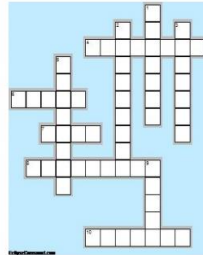


Mendatar	Menurun
1. Enzim yang berada di perut	2. Enzim yang berada di usus halus
5. Enzim yang berada di perut	3. Enzim yang berada di usus halus dan mulut
6. Enzim yang berada di perut	4. Enzim yang berada di usus Halus

25

Crossword Practice III

Latihan III



26

Sml Latihan III

Mendatar

4. Penyakit yang disebabkan karena kelebihan berat badan
6. Nama lain dari usus besar
7. Organ pencernaan tambahan yang berfungsi untuk menetralkan racun yang masuk bersama makanan
8. Organ pencernaan yang memiliki fungsi mengatur kadar air sisa makanan
10. Proses pencernaan yang terjadi ketika makanan dikunyah, dicampur dan ditemas

Menurun

1. Enzim yang berfungsi untuk mencerna amylum menjadi maltosa
2. Penyakit yang disebabkan karena adanya peradangan pada hati
3. Saluran pencernaan yang didalamnya terdapat enzim pepsin, HCl, dan renin
5. Organ pencernaan yang melakukan gerak peristaltik
9. enzim yang berfungsi menghidrolisis protein kasein yang terdapat dalam susu

27

Discussion of the Practice Crossword III

Pembahasan III

GANGGUAN PADA SISTEM PENCERNAAN DAN UPAYA MENCEGAH ATAU MENANGGULANGNYA

A. Obesitas

Obesitas merupakan kondisi tubuh yang memiliki kandungan lemak yang berlebih sehingga mengakibatkan tubuh kelebihan berat badan dan menimbulkan dampak negatif bagi kesehatan. Obesitas dapat terjadi bila konsumsi makanan secara berlebihan dan kurangnya aktivitas tubuh, ada juga yang ditimbulkan akibat karena pewarisan gen atau konsumsi obat tertentu. Upaya untuk mencegah penyakit ini yaitu dengan berolahraga dan mengatur pola makan.

B. Maag

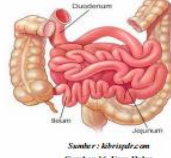
Maag (*indigestion*) merupakan penyakit yang ditandai dengan rasa nyeri yang berasal dari lambung, usus halus bahkan dari kerongkongan. Nama lain dari penyakit maag adalah dispepsia. Sakit ini dapat diakibatkan oleh luka terbuka yang muncul di lapisan dalam lambung (tukak lambung), infeksi bakteri *Helicobacter pylori*, efek samping penggunaan obat

28

Practicum Activities II

demam, diare, dan sakit kepala. Cara mencegah hepatitis dengan menghindari minuman beralkohol.

Kegiatan praktikum (model penyerapan usus halus)



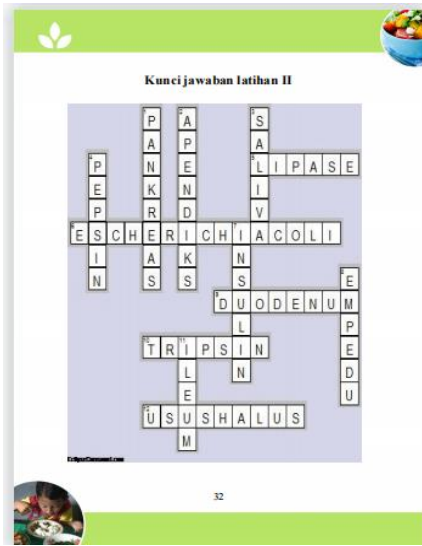
Sumber : kibitipe.com
Gambar 16. Usus Halus

Alat dan bahan :

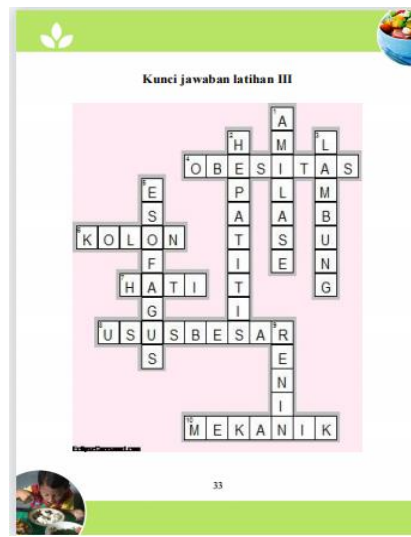
1. Kain katun ukuran 25 cm X 25 cm
2. Kain handuk ukuran 25 cm X 25 cm
3. Wadah untuk menampung air

30

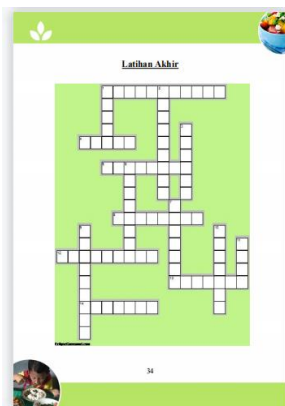
Exercise Answer Key II



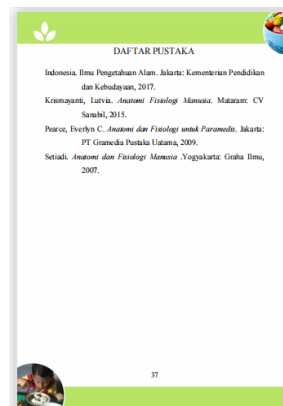
Exercise Answer Key III



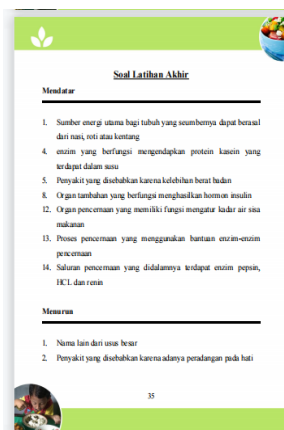
Final Practice



Bibliography



Back Cover



Validation data obtained from material experts, media experts and practitioner experts (science teachers) obtained scores that reached the "Very Valid" criteria, namely the average value reached 96.5% by material experts. The assessment results from media experts are also included in the "Very Valid" category with an average value of 94.5%, then the results

obtained from expert practitioners are also included in the "very valid" criteria with an average value of 95%. The experts who tested the validation of the development of crossword puzzle learning media assisted by eclipse crossword on the digestive system material were determined by several criteria, namely 1) experienced and in accordance with their field, 2) had a minimum education of S2 for material experts and media experts, 3) lecturers at UIN KHAS Jember, 4) expert practitioners by science teachers at MTs Walisongo Wonokerto Lumajang with a minimum education of S1. The results of the validation by experts are as follows.

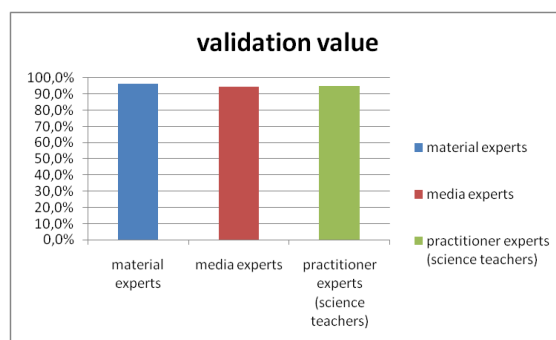


Figure 1. Graph of Validation Results by Experts

After the product was validated by experts and product improvements were made according to the advice of the experts, then the product was tested in an initial field trial (limited scale) with a total of 6 students as respondents, in which there were 3 students of class VIIIA and 3 students of class VIIIB, they were selected randomly. randomized by the teacher with the criteria of high, medium and low ability, then students are given a questionnaire to test the product in terms of readability. After conducting a limited-scale trial and improvements have been made, then the product is then re-tested in the main (large-scale) field trial. Respondents of this trial involved 39 students consisting of 22 students of class VIIIA and 17 students of class VIIIB by being given a questionnaire to assess the product in terms of attractiveness. The results obtained in the limited scale test obtained a percentage value of 87% and in the large scale test obtained a percentage value of 88%. Therefore, the media developed is included in the "Very Interesting" category. The results of the test filled in by the respondents both the limited-scale test and the large-scale test are as follows.

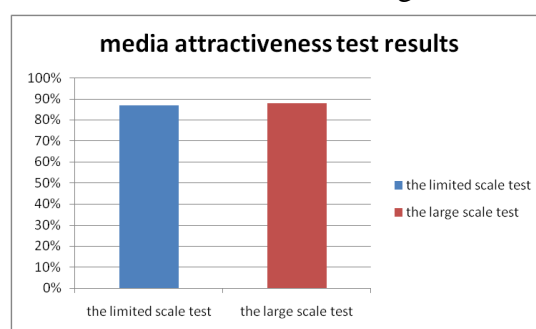


Figure 2. Graph of Field Trial Results

At the product revision stage, there are product parts that need to be improved, such as:

1. Material experts provide suggestions for product improvement, the suggestions given are that foreign words are changed in italics (Italic).
2. Media experts provide suggestions for product improvement, the suggestions given are that the front cover image is changed according to the material such as people while eating, the back cover of the writing is changed to font size 12 and the distance is adjusted, the font size in the editorial section uses space 1, and the background on the section media content is replaced with a more colorful one.

3. At the initial field test stage, one of the students also commented directly that exercise II and exercise III seemed to be confused. So it is necessary to revise the product from the initial field trial results.

Improvements made by researchers based on suggestions from product testers, as follows:

1. From material experts: foreign words are written in italics, such as “pestle” becomes “*pestle*”, “*Escherichia coli*” becomes “*Escherichia coli*”, “*Helicobacter pylori*” becomes “*Helicobacter pylori*”.
2. From media experts: a. changed the cover design with an image of a child eating, stomach ache and nutritious food, b. The editorial section of the cover space size is changed to one, c. The media content background display is replaced with a bright green color, d. The font size for the text on the back cover is changed to 12.
3. From one of the students in the initial field test stage: move the place of practice questions II to the place of practice questions III and vice versa.

The purpose of making improvements to the product is so that the resulting product is ready to be tested on a large scale. Suggestions from students during the initial field trial were also accepted by researchers because they were in accordance with the material described so that the product was also revised or improved.

Based on the results of the data above, the media developed by the researcher has reached the appropriate category. This research is also supported by relevant research regarding the developed crossword puzzle media, namely the research conducted by Apri Bayu Saputra (2017) showing that the feasibility of crossword learning media obtained very suitable results as a learning medium with an average score of material expert validation. by 83.44%, media experts validation by 90.28%, linguists 75%, and evaluation experts by 80.77%. The results of another study conducted by Nur Ulfayanti (2017) showed very decent results. The average score obtained from the validator is 3.3 with a value category of 2.5 V 3.5 and the teacher's questionnaire gets an average score of 4.5 and student responses get a score of 3.96. The results of further research on crossword puzzle learning media were carried out by Nanda Siti Utami (2018) who obtained an average score with a very good category, validation from material experts 4.82 validation from media experts 4.25, validation from practitioner experts 4, 72, and the average score of the student responses was 4.37.

The resulting product can be used by students as expected by researchers, including:

1. Students do not read one source of reading literature, but read literature that can support the material being taught,
2. Students read carefully the existing material and work on questions in the form of crossword puzzles for the digestive system and also carry out practical activities according to written procedures
3. It is hoped that students do not immediately see the answer key when working on crossword questions before the material.

CONCLUSION

The results of data analysis and studies regarding the development of crossword learning media assisted by eclipse crossword can be concluded as follows. 1) The results of the validation by the three validators, namely material experts, media experts and practical experts stated that the eclipse crossword-assisted crossword learning media on the digestive system material developed by the researchers was included in the very valid category and suitable to be used with a score of 96 each, 5%, 94.5% and 95% with the average percentage value from the experts is 95%. 2) The results of the student response test showed that the crossword puzzle media was included in the very interesting category from the limited trial stage and the large-scale trial resulted in a score of 87% and 88%, the average percentage

score was 88%. Thus, it can be said that the crossword puzzle learning media developed by the researcher is feasible to be used as a learning medium.

Suggestions from the results of research that have been carried out are the need to conduct further research in order to develop and test the effectiveness or effect of using the resulting learning media on student learning outcomes because this research has not yet reached the experimental stage

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