Development Of Explosion Box Media Recognizing Culinary Heritage

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Abstract

The objectives of this research: 1) produce a product in the form of explosion box media; 2) analyze the suitability of the explosion box media; 3) analyze the effectiveness of the explosion box media. This Development Research or R&D uses Sugiyono's development model, the stages it goes through include: 1. potential and problems; 2. data collection; 3. product design; 4.design validation; 5. design revision; 6. product testing, and 7. product revision. The research subjects were media experts and material experts who acted as validators, as well as language experts, with one expert each and 30 respondents aged between 7 and 13 years who lived in Kampoeng Heritage Kajoetangan Malang. Data collection uses questionnaires and assessment sheets from material experts, language experts and media experts to evaluate how effective the explosion box media is. Produce: 1) explosion box media getting to know the Kampoeng Heritage Culinary of Kajoetangan Malang; 2) the explosion box media recognizes that the Kampoeng Heritage Kajoetangan Malang Culinary is suitable for use, this is in accordance with the results of validation by material experts who gave a score of 87.5%, media experts 88.6%, and language experts 84.3%; 3.) shows the effectiveness of the explosion box media to get to know the culinary delights of Kampoeng Heritage Kajoetangan Malang which was tested using a validity test and a reliability test which showed a result of 0.755 which means reliable.

INTRODUCTION

Culinary is the most important part of a tourist trip. This is an alternative that supports natural, cultural, historical and maritime tourism potential (Bessière, 2013). The culinary heritage symbolizes the social and cultural heritage of its ethnicity. The foods that exist are very different and unique, and this is influenced by the availability of natural resources, geographic location, environmental location, and food preferences (Kwon & Tamang, 2015). In addition, it can increase its value and preservation and attract tourists with unique culinary experiences (Almansouri et al, 2023). Summarizes traditional foods and drinks eaten by a particular community along with the best local flavors. Food is an important part of cultural identity which

includes forms of skill, creativity, art, tradition and taste (Cherniaieva, 2021). Culinary heritage is a cultural heritage to a community or group that is inherited from previous generations, maintained in the present and given to future generations, therefore culinary heritage has an important role as a cultural identity in a multi-cultural environment (Caust & Vecco, 2017). Traditional food has a historically important role in cultural and regional traditions that contribute to introducing identity and giving people a sense of pride in their region (Almli, 2012).

Culinary tourism is an interesting and fun way to explore culture and experience the rich food available in various places. Culinary tourism is a trip aimed at cuisine and its environment. (Prayogi, 2017). Local food from tourist attractions also falls into this category. History, culture, economy and development of tourism communities are influenced by culinary tourism. This additional value can improve the economy and tourist experience by interacting with the local community (Wijaya, 2019). One of the themed tourist attractions in the city of Malang is Kampoeng Heritage Kajoetangan. In this case, tourism can have a greater effect on the surrounding community, especially a positive one (Ashfahani et al, 2021). Kajoetangan Malang Tourism is located in Gang VI Kauman, Klojen District, Malang City, East Java. This is one of the unique villages in Malang. This village was designated as a cultural heritage site after it was inaugurated by the mayor of Malang in 2018 because it emphasizes its uniqueness. This is supported by the remains that can be built in the area, including an increase in the number of Dutch buildings built only with natural materials, especially houses in the Kayutangan area (Khakim et al, 2019). The attraction displayed by this village is not limited to its typical Dutch-style buildings, but also includes the culinary delights inside. As long as the younger generation and the older generation share knowledge about traditional food, the younger generation can encourage and maintain the preservation of traditional food (Nor et al., 2012). Historical influences and changes in a place shape culinary traditions that continue to be used by individuals, families, and then communities. This tradition is maintained, maintained and shared with the next generation.

To introduce Kampoeng Heritage Kajoetangan food, innovative and inventive educational resources are needed. This is done to create an effective learning atmosphere and ensure that the audience does not get bored when the material presented is explained (Audie, 2019). Learning media are designed to increase interest, desire, motivation and effectiveness of activities, all of which have a positive impact (Badan et al, 2002; Arkadiantika, 2020 & Effendi, 2024). Conveying information or messages to minimize errors is an effort so that the audience can understand it well. To increase the audience's interest in understanding, media is needed (Azhar, 2020; Ruhardi, 2024). Learning media is important for conveying information that enriches the insight of the audience of this function. is the basis for providing information or knowledge. The use of learning media can encourage the audience to learn new things provided by the material provider so that they are easy to understand. The learning media used during the learning process is intended to attract the attention of a larger audience. Learning media can function as a support for learning activities (Nurrita, 2018 & Effendi, 2024). Learning media helps teachers convey information, so it must be made correctly. (Yuli Pratiwi, 2019; Nurjanah, 2024) It is hoped that the explosion box can increase involvement and help the audience, encouraging the delivery of information (Pramesti, 2020; Salsabila, 2023). Games that use the introduction of information are included in explosion box media to give the impression of learning while having fun, making the information easy to understand (Islamy & Suputra, 2022).

LITERATURE REVIEW

Explosion boxes have been studied as innovative and interactive learning tools in various educational settings. These three-dimensional and visually engaging boxes have shown potential in enhancing student engagement, creativity, and learning outcomes. For instance, research by Nabilla & Nora (2022) demonstrated that using explosion boxes in sociology lessons for high school students increased student activity and engagement in the learning process. Similarly, Nasriya et al. (2021) found that utilizing explosion boxes to teach ecosystem components to elementary school students was both interesting and effective in preventing student boredom during lessons. Moreover, Wijayanti et al. (2022) highlighted the effectiveness of explosion box media in enhancing logical thinking skills in 5-6-year-old children. Mutiah et al. (2022) developed EBOP (Explosions Box of Physics) to boost student interest in learning about Free Falling in high school, showcasing the versatility of explosion boxes across different subjects. Additionally, Deviana (2021) concluded that the application of explosion box media increased students' interest in learning history, demonstrating its potential in various academic disciplines.

Explosion boxes have also been applied beyond traditional academic subjects. Daniati et al. (2022) used a Dental Explosion Box 3D to educate students on dental and oral health, illustrating the adaptability of this media format in health education. Sipnaturi & Farida (2020) developed edutainment-based explosion box media for mathematics education, showing the potential of explosion boxes in enhancing interactive learning experiences. In the realm of health education, Rahmiwati (2023) explored the impact of counseling with explosion boxes on improving knowledge and attitudes related to stunting prevention among reproductive-age couples. This study highlights the broader applications of explosion boxes in promoting health awareness and education. Additionally, Laela (2023) evaluated the effect of dental explosion boxes on oral health awareness in preschoolers, emphasizing the role of interactive media in promoting positive health behaviors from a young age. Research by Parobbo (2024) focused on using explosion box media to enhance biology learning outcomes for high school students, showcasing its effectiveness in improving academic performance. Tirtoni et al. (2019) developed Smart Exploding Box based on deep dialogue critical thinking to address challenges in the Industry 4.0 era, highlighting the continuous innovation and adaptation of explosion boxes to meet evolving educational needs.

METHODS

This type of research employs the research and development (R&D) method, which is a research approach that not only produces new products but also develops existing ones into learning tools. The research and development model can be used to create specific products, test their effectiveness, as well as develop and validate them. The procedural model outlines various steps in research and development, including problem identification, data collection, product design, design validation, design revision, product testing, product revision, usage trials, product revision, and mass production (Sugiyono, 2014).
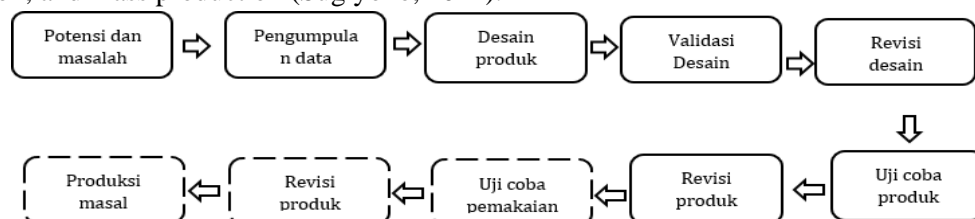

Chart 1. Research and Development Design by (Sugiyono, 2014)

Although the research and development design chart states that there are ten steps, this research only carried out seven: potential and problems, data collection, product design, design validation, design revision, product testing, and product revision. The following are the steps taken in developing the Explosion Box media : 1) this research departs from the problems that occurred in Kampoeng Heritage Kajoetangan, because this problem and development is food that is rarely exposed to by the people of this settlement. As a result, there are concerns that the food at Kampoeng Heritage Kajoetangan will be replaced by time; 2) The collection of data and information related to the development of exploding box products will be processed to become material for product planning intended to overcome problems; 3) Product design, introduction media in the form of an explosion box containing information about the food at Kampoeng Heritage Kajoetangan, the product will be presented with attractive pictures because the explosion box made has many arrangements and is arranged in an interesting way. This explosion box product is made from materials that are easy to find and designed in a very interesting and innovative way; 4) Design validation, experienced validator experts are invited to assess it. This was done by showing the media explosion box that was made and an assessment questionnaire for material experts, media experts and language experts. The purpose of design validation is to find out how good the materials, media and language used are.

Once the product design is validated by validators; 5) Design revisions are carried out. In this stage, the advantages and disadvantages of the design are identified, and researchers use these disadvantages to make the product even better; 6) Product trials are carried out with small groups and large groups are tested on the product. Respondents in the small group were aged 7 to 13 years at Kampoeng Heritage Kajoetangan, while the large group consisted of people aged 7 to 13 years. Based on assessments and recommendations from trial results on explosive media development products to get to know Kampoeng Heritage Kajoetangan culinary delights; 7) product revisions are carried out after seeing the results of stages 1-6.

The location of the research was Kampoeng Heritage Kajoetangan JL Jend Basuki Rachmad Jl. General Bauki Rahmat Gg. 4, Kauman, District. Klojen, Malang City, East Java 65119. The reason for choosing this location is so that the audience can directly apply the Kampoeng Heritage Kajoetangan Malang culinary delights in their daily lives . Heritage Kajoetangan Culinary trial was designed to carry out a feasibility and effectiveness test for analyzing explosion box media from Kampoeng Heritage Kajoetangan culinary delights. This trial was carried out using an assessment questionnaire and involved material experts, media experts and language experts. Ages between 7-13 years at Kampoeng Heritage Kajoetangan will take part in a culinary introduction trial using an explosion box . The trial design was carried out through validation tests with expert validator trial subjects consisting of material experts, media experts and language experts. Apart from expert validators, this questionnaire was tested with respondents who would later be tested in the Kampoeng

Heritage Kajoetangan Malang environment. The type of data obtained from the trial is quantitative data and qualitative data using a Likert scale questionnaire . This research uses an open questionnaire to collect data. The aim is to measure the level of validity and find out how much the respondents understand about the development of explosion box media. In this research, instrument testing is a measuring tool used to test the validity and reliability of the instrument to find out whether the research instrument used for data collection agrees or not (Sugiyono, 2014). by using valid and reliable data collection tools. Data analysis techniques in this research: Data obtained during the feasibility test of validator experts and test subjects with respondents aged 7-13 years at Kampoeng Heritage Kajoetangan Malang. The results of the data were analyzed using

data analysis techniques. The validity of the product produced is based on data from material, media and language expert tests. Data from expert evaluation results for each.

1.) The formula processes data per item $P = \frac{x}{x1}$ x 100% …………………………………(1)

Information :

P : Presentation results subject test try

X : Number of answers from test subjects try

X_1 : Amount answer maximum on evaluation Which done subjecttest try 100% : Part constant

2.) Formula process data in a way overall $P = \frac{\Sigma X}{\Sigma X_1}$ x 100% ………………………………...(2)

Information

P : Presentation results subject test try

ΣX : Number of answers from test subjects try

ΣX_1 : Amount answer maximum on evaluation Which done subjecttest try 100% : Part constant

Table 2. Criteria Level Product Eligibility

Presentation	Level Eligibility	Information
80-100	Very Worth It	No Revision
60-79	Worthy	Not Revised
50-59	Enough Worthy	Revision
<49	No Worthy	Revision

3.) Interval test value

$\frac{68-17}{4} = 12,75$ (13) …………………………………………………………………..(3)

Information

68 : maximum value

17 : minimum value

4 : number of *Likert* scales

Table 3. Effectiveness Interval Values

Intervals	Category
56-68	Very Effective
43-56	Effective
30-43	Quite Effective
17-30	Ineffective

RESULTS AND DISCUSSION

Potential and problems

Researchers interviewed food vendors and local residents to identify possibilities and problems. Getting to know culinary arts includes information about culinary delights that are rarely exposed as well as the media used and their utilization.

Data collection

Material discussed; material about Kampoeng *Heritage* Kajoetangan Malang culinary delights, material components; culinary grouping into 6 groups, namely: staple foods, side dishes, side dishes, vegetables, drinks and snacks, ingredients for making media; Materials used in making *explosion box media* include : glue, scissors, cardboard, *art paper* , etc. and validation.

Product design

In this research, the design or design stage *of the explosion box* is to recognize the Kampoeng *Heritage* Kajoetangan Malang culinary delights, create instruments to validate media, materials and language to validate the validity and reliability of the instruments. Below is a picture
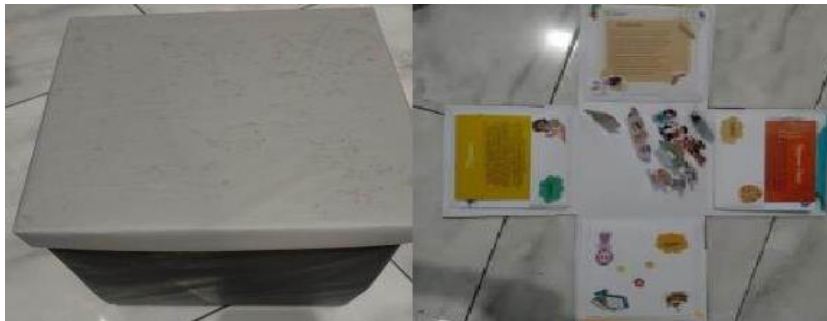
showing the results of media development *explosion box.*

Figure 1. Development Results

Design validation

This development research results in the creation of a fire box media, which can be used after undergoing a series of validation processes conducted by experts in the fields of material, media, and language. The validation process was carried out using a questionnaire as the data collection tool, specifically designed for the fire box product, prior to product trials on respondents who were divided into two groups: a small group and a large group. Material validation for the explosion box media development research took place on Monday, September 25, 2023, by Dr. Dra. Titi Mutiara Kiranawati, MP, a lecturer in the Indonesian Food course at the Faculty of Engineering, State University of Malang, who served as the material expert validator. Revisions were made by improving the content related to introducing the culinary delights of Kampoeng Heritage Kajoetangan Malang, based on the suggestions, criticisms, and guidance provided. The material expert's validation in this study resulted in a score of 87.5%.

Media validation in explosion box media development research was carried out on Friday 22 September 2023 by Mr. Wahyu Nur Hidayat, S.Pd., M.Pd. as a lecturer in Electrical Engineering, Faculty of Engineering, State University of Malang as an expert validator. The validation results by media experts in this study had an assessment of 88.6%, with calculations using data analysis technique formulas. Language validation in explosion box media development research was carried out on Friday 22 September 2023 by Mrs. Dewi Ariani, SS, S.Pd, M.Pd. as a lecturer in Indonesian, Faculty of Letters, State University of Malang as an expert language validator. The validation results by linguists in this study had an assessment of 84.3%, with calculations using data analysis technique formulas.

Design revision

Product revisions were carried out to improve the explosion box media based on suggestions, input and notes from expert validators in terms of material, media, and language aspects.

Figure 2. Design Revision

The input and suggestions for improvement or revision provided by media expert validators are: 1) overall it looks good, the appearance is attractive and good; 2) in the media section it is necessary to develop a main display that shows Kampoeng Heritage Kajoetangan at the center point; 3) initial appearance of the explosion box.

Product trial

Small group trials

Test try group small on study This done by 5 person Respondents aged 7-13 years were selected by using techniques *random sampling* or random And use instrument collection data form questionnaire. Previously respondents notified about media *explosion box* with method use Then after material Which There is in the media has finishedexplained respondents fill in questionnaire Which has prepared that the trial results from small groups with respondents aged 7-13 years in Kampoeng *Heritage* Kajoetangan obtain presentation as big as 93.3% And is at on range 80-100% show thatmedia *explosion box* gets to know the culinary Kampoeng *Heritage* Kajoetangan Malangvery suitable for use in introducing culinary delights.

Large group trials

Test try group big implemented after he did test try small group. Large group trials were carried out on respondents with aged 7-13 years in the Kampoeng *Heritage* Kajoetangan Malang environment. Amountrespondents who follow test try group big as many as 19 respondents. Results test try group big obtain presentation as much 92.6% And is at on range 80-100% matter This show that media *explosion box* This very worthy For used in learning know culinary Kampoeng *Heritage* Kajoetangan Poor. InRespondents were very active in using this media to watch and listen What Which delivered.

Product revision

Revisions and suggestions obtained from expert validators are used as reference for improvements made by researchers to be tested on groups small, that is respondents with age 7-13 year in Kampoeng *Heritage*Kajoetangan Poor Which amount as much 5 person from results test try The small group received a good response so the researchers continued the trial large group with 19 respondents, aged 7-13 year in Kampoeng *Heritage* Kajoetangan Poor. The results of research on the effectiveness of explosion box media recognize the Kampoeng Heritage Kajoetangan Malang Culinary. This research was conducted in the Kampoeng Heritage Kajoetangan Malang environment with ages 7-13 years. Data collection was carried out *offline or in person where the researcher directly attended the Kampoeng Heritage* environment. Before filling in the questionnaire, the researcher explained the *explosion box media* which contained

material about culinary delights, so that before giving the questionnaire, respondents had first played or received an explanation about Kampoeng *Heritage* Kajoetangan culinary delights using *explosion box media.*

Based on this research, the trial that followed the effectiveness with 7-13 year old respondents was 30. From the table above it can also be seen that aged 7 years there were 5 respondents with a percentage of 16.7%, aged 8 years there were 6 respondents with a percentage of 20%, aged 9 aged 5 respondents with a percentage of 16.7%, aged 10 years amounted to 4 respondents with a percentage of 13.3%, aged 11 years amounted to 4 respondents with a percentage of 13.3%, aged 12 years amounted to 4 respondents with a percentage of 13.3% and Age 13 years amounted to 2 respondents with a percentage of 6.7%. The following interval calculation data is used to produce a frequency distribution based on indicator categories on the scale of effectiveness of the development of exploded box media getting to know Culinary Kampoeng *Heritage* Kajoetangan Malang.

Table 4. below describes the effectiveness indicators

Indicator	Items	AnswerScore								Average
		F	n(%)	F	n(%)	F	n(%)	F	n(%)	
Effectiveness	P1	0	0	0	0	13	43.3	17	56.7	
	P2	0	0	2	6,7	17	56.7	11	36.7	
	P3	0	0	1	3.3	18	60.0	11	36.7	
	P4	0	0	1	3.3	16	53.3	13	43.3	
	P5	0	0	2	6,7	16	53.7	12	40.0	
	P6	0	0	3	10.0	17	56.7	10	33.3	
	P7	0	0	5	16.7	15	50.0	10	33.3	**56**
	P8	0	0	5	16.7	13	43.3	12	40.0	
	P9	0	0	4	13.3	15	50.0	11	36.7	
	P10	0	0	2	6,7	19	63.3	9	30.0	
	P11	0	0	4	13.3	14	46.7	12	40.0	
	P12	0	0	1	3.3	19	63.3	10	33.3	
	P13	0	0	2	6,7	15	50.0	13	43.3	
	P14	0	0	2	6,7	19	63.3	9	30.0	
	P15	0	0	3	10.0	18	60.0	9	30.0	
	P16	0	0	2	6,7	14	46.7	14	46.7	
	P17	0	0	1	3.3	16	53.3	13	43.3	

Previously, a validity test was carried out to find out how valid the questions were to test the validity of the effectiveness of the explosion box media which would be tested in the Kampoeng Heritage Kajoetangan Malang environment. Based on the validation test on 25 questions, there were 17 valid questions, of which there were 8 invalid questions, so that the assessment of the effectiveness of the explosion box media carried out in the Kampoeng Heritage Kajoetangan Malang environment only had 17 questions. From the effectiveness test carried out in the Kampoeng Heritage Kajoetangan Malang environment, there were 30 respondents in the age category 7-13 years, where the validity test was declared valid and reliable.

Explosion box media was chosen in this development because the visuals displayed on the media in the form of images and text can attract the attention of respondents which are not usually displayed on other teaching media, have the ability to be folded, taken and opened and closed,

and are made from solid material because they have many side that can be used and remains in an efficient form (Islamy & Suputra, 2022).

Material expert validation aims to ensure that the material provided to respondents is high quality, accurate, and in line with learning objectives. This prevents respondents from getting wrong or invalid information. Material experts help test readability and understanding of material. The aim is that the language and explanations used in learning media are well understood by target respondents, so that they can master the material better. Material experts are also validated to ensure that the material is taught in accordance with the stated learning objectives. Therefore, students will have an integrated and directed learning experience. This validation can encourage learning media developers to try creative and interesting learning approaches. Material expert validation aims to ensure that learning media can provide an effective and efficient learning experience. Material expert validation also aims to identify and reduce errors or deficiencies that may exist in the learning material, so that it is easier for respondents to understand the material well.

The purpose of validation by media experts is to ensure that the media developed has quality, effectiveness and relevance to the learning objectives and target respondents. Media experts will help evaluate whether the learning media is suitable for use in the intended learning context. Media validator experts will find the advantages and disadvantages of the media. Ensure that the learning media is appropriate to the learning objectives. Media expert validators will check whether the media can achieve the expected results. helps determine how effective learning media can improve respondents' understanding and help them achieve learning goals. Respondents will determine whether the media is effective in supporting the learning process. The appropriateness of the media can be assessed by looking at the correct location and similarity, giving color to the elements in the appropriate location and seeing the clarity of function, using letters and font sizes that are appropriate to age development, and using clear visualization to convey the message to be conveyed (Letari & Andriani, 2019). The use of fonts, layouts, images, illustrations, display designs and photos are components of media suitability. The analysis carried out by media experts regarding the level of validity falls into the very feasible category. Designed with bright colors, an attractive writing layout, and images that support the material ensure that it is valid (Mudiono et al, 2017). The use of explosive media shows that respondents at Kampoeng Heritage Kajoetangan Malang obtained better learning outcomes (Sholikah, 2019). Apart from having an attractive appearance, using a fire box has other advantages. The media focuses on the respondent, which makes learning activities more lively; respondents observe more and can explain for themselves the material available in the fire box so that respondents can understand the material best (Bluemel & Taylor, 2012).

Linguist validation ensures that the learning media can achieve learning objectives by ensuring that the learning material is interesting, relevant and appropriate to the user's needs. This may include evaluating the writing style, text structure, and diversity of language used to maintain respondents' interest and motivation. By examining the language used, linguists help optimize the messages conveyed to respondents so that they can help identify or inequalities in the way language is used. To ensure that learning media is effective, high quality and relevant for respondents, language expert validation is an important step. This can help ensure that learning media is used correctly. By using communicative language, the development of exploded box media meets language assessment standards. Language appropriateness includes things such as being easy to read, the information conveyed clearly, the material written in correct Indonesian, and using sentences that are effective and easy to understand. The material in explosion box media

must meet language assessment standards by using communicative language and meet the criteria for continuity and integration of thought flow (Muslich, 2016). Several aspects of language appropriateness include readability, clarity of information or knowledge, writing in Indonesian appropriately, well and correctly, and using effective and efficient sentences so that readers can understand what is written.

CONCLUSION

This research produces explosion box media which is used as a medium to introduce culinary delights in the Kampoeng Heritage Kajoetangan Malang environment. Before giving it to respondents, the researcher validated the media, material and language with expert validators consisting of material experts, media experts and language experts, to see whether this media was suitable for use or not. From the validator's assessment, there are several improvements that must be made before researchers conduct research. Material expert validators obtained an assessment percentage of 87.5% in the very appropriate category, and language expert validators obtained an assessment percentage of 88.6% in the very appropriate category. In this research, product testing was carried out in two stages. The small group trial obtained an assessment percentage of 93.3%, which places it in the very feasible category, and the large group trial obtained an assessment percentage of 92.6%, which places it in the very feasible category. The effectiveness test in this research was also carried out to see whether this media was effective or not. The effectiveness test uses a reliability test and validity test, and this test is declared effective

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