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## THE DEVELOPMENT OF STUDENT WORKSHEET BASES *GOOGLE FORM* TO IMPROVE THE FIFTH GRADE ELEMENTARY SCHOOL CIENCE CONCEPTS UNDERSTANDING

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### ABSTRACT

The problem on the ground is lack of understanding of students' science concepts. This condition can occur because students are less motivated in learning and lack of student participation in class. So this study developed a student worksheet based on google form. This study aims to produce an interactive student worksheet product so that it can improve students' understanding of science concepts. This study uses research and development (r&d) method of borg and gall model. Sample in this study were students of class v at private mi in padalarang area. Results of student worksheet development deserve to be tested. This can be seen from results of validation carried out by media experts who got 89%, material experts got 92%, and expert practitioners got 83.75%, three validations were categorized as very good. Learning to use this student worksheet runs smoothly. This can be seen from student responses, in limited trial obtaining 86%, while in wide trial obtaining 87%, both trials are categorized as very good. This is evidence that there is an increase in students' understanding of science concepts, in limited trial obtaining 70.81 and broad trial obtaining 76.95. Thus, student worksheet based on google form can improve understanding of science concepts for fifth grade elementary school students.

**Keywords:** student worksheet, google form, understanding science concepts

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### INTRODUCTION

Education is defined as a conscious and planned effort to create a learning atmosphere and learning process that can foster students' activeness in developing students' potential to have religious spiritual strength, personality control, intelligence, noble character, skills needed, and live in a stately society (Kistian, 2018). The existence of education makes a very important contribution to the nation. It is carried out through the school level. The school environment itself as a formal environment has several levels, one of which is Elementary School (SD). The learning process in elementary school itself teaches basic skills in learning, such as writing, reading, and arithmetic. Learning that is taught in elementary schools varies, one of which is Natural Sciences.

In essence, science is a collection of knowledge obtained through a scientific process by thinking, conducting investigations, and interacting with technology so that

it can form a scientific attitude and can apply it to everyday life, both in the school environment and the community environment (Firdaus dan Wilujeng, 2018). Science learning aims to help students master a number of facts and concepts about natural phenomena and be able to apply them in their daily lives so that they can instill and develop the scientific attitude that they have (Wardani et al., 2021). Understanding science concepts needs to be improved, because by understanding concepts students are not only limited to knowing the concepts, but students are able to re-explain the material being taught using their own sentences, and can apply it in their daily lives (Kelana et al., 2021).

Understanding the concept is an ability possessed by individuals to understand a concept that is being studied. Students are said to have an understanding of the concept if students understand the meaning and or meaning of a concept (Nahdi et al., 2018). According to Anderson & Krathwol (Hendawati & Kurniati, 2017), the indicators of understanding concepts include: a) interpreting; b) giving examples; c) clarifying; d) summarizing; e) drawing inferences; f) making comparison; and g) describing. But in understanding the concept of science, students still think it is something difficult. Even though science learning learns things related to events that are in the surrounding environment that can be seen directly or felt. A teacher is said to be successful in teaching science, if he can change learning that considers a difficult concept to be an easy concept (Mukhbitah et al., 2019).

Based on the results of interviews with fifth grade teachers at a private MI in the Padalarang area, in science learning not all students understood the concept or not all understood the material well. This can happen because they are less motivated in learning and lack of participation in learning in class. In order to increase understanding of science concepts, teachers can use materials in the form of Student Worksheets

Student worksheet is a guide for the students to use in order to develop cognitive aspects and other aspects in the form of learning to investigate or solve a problem according to the indicators to be achieved (Effendi et al., 2021). It contains activities that can be carried out by the students, so as to activate them in learning in class. However, the facts on the ground show that teachers only use STUDENT WORKSHEETS that are already in schools (Choirudin et al., 2021). Based on the results of subsequent interviews with fifth grade teachers, student worksheet was well used in schools, but still in the form of text books, there was a lack of use of technology, and a lack of active

student involvement in class. To optimize it, innovation is needed in making it, so that it can become interactive student worksheet.

*Goole form* is an application made available by *google docs* Innovation in making student worksheet is by using technology, so that students can make the best use of digital technology, student worksheet is made in the form of Google Form (GF). It is one of the services provided by Google Docs. According to Rahmiyanti (Baskara et al., 2021), GF is an application easy to use even for beginners at the same time, this is because it does not need coding. It is commonly used to create quizzes, online surveys, and forms with lots of accessibility support, such as reading and editing. It has advantages in the world of education, including 1) being able to assist teachers in making test questions; 2) able to collect questionnaires through the website; 3) able to collect teacher and students data; 4) able to make a school admission form (Ngafifah, 2020). GF work system can be done using a cellphone, laptop, computer, or other device, so that it is easy to access anywhere, and anytime.

Studies related to GF-based student worksheet showed good results. Padmasari (2021) stated that it can be an effective teaching material used in improving student learning outcomes. In addition, GF STUDENT WORKSHEET can make it easier for teachers to convey subject matter, students can study independently, and learn to understand and be able to carry out a task because it is easily accessible anywhere and anytime (Sari, 2022). However, from the previous studies, there were no researchers who applied GF-based worksheets in elementary schools and to increase understanding of concepts, especially in science subjects. In fact, GF-based STUDENT WORKSHEET can help elementary school students get to know technology as learning medium and through its activities; GF STUDENT WORKSHEET can help the students improve their understanding of concepts, especially in science subjects.

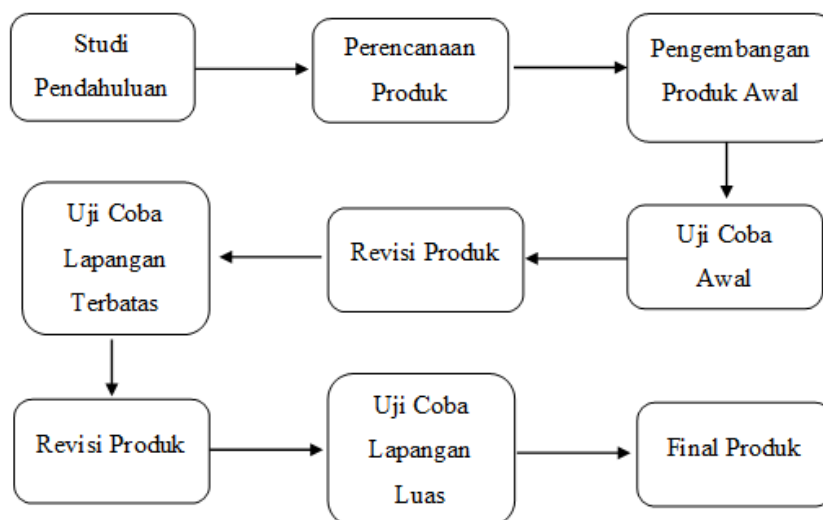
Based on the explanation above, the researchers focused the research on the *Development of Google Form-Based Worksheets to Improve the Ability to Understand Science Concepts for Fifth Grade Elementary School Students*. GF STUDENT WORKSHEET can divert the students from activities that can make them less productive and explain to them that smartphones can be their means of learning and doing the assignments that the teacher gives them.

### **METHODS**

The method used in this study is *Research and Development (R&D)* using Borg and Gall model. According to Sugiyono (in Maksun and Fauzi, 2021), it is a research method used to produce and test the effectiveness of the product being developed. This research was conducted by testing the product, where trials were carried out twice, namely limited field trials and wide field trials. The populations of this study were fifth grade students at a private MI in the Padalarang area. The field trials were limited to class VA with 14 students, while field trials were large in class VC with 21 students. The samples are assumed to have the same characteristics and conditions.

Data collection and analysis techniques in this study used interviews, questionnaires, observation, documentation, and tests. Quantitative data analysis obtained from this study was the normality test, Mann-Whitney test, and N-Gain test, then calculations were performed using IBM SPSS Statistics 26 For Windows and Microsoft Excel. The indicators of understanding the concept used in this study include giving examples of heat transfer events, classifying heat transfer events, explaining various types of heat transfer, comparing heat transfer events, and interpreting heat transfer events.

The procedures of this study were: 1) Preliminary study, conducting interviews with fifth grade teachers at one of the private MI in the Padalarang area; 2) Product Planning, drafting the product to be made; 3) Develop Initial Products, make products according to the draft; 4) Initial Trial, validating the product being developed; 5) Product Revision, improving the product according to the advice and input of experts; 6) Limited Trial, testing the product on a limited basis; 7) Product Revision, product improvement; 8) Extensive Field Trials, extensive testing of products; 9) Final Products; produce products that have been developed and declared feasible. The flow in this research is as follows:



**Fig 1.** The Study Plot

## RESULTS AND DISCUSSIONS

### Result

#### Student Worksheet Development

This research used R&D method using the Borg and Gall developmental model. The steps that have been carried out are as follows:

The preliminary study phase obtained data from a literature review and information regarding the learning conditions in the private MI in the Padalarang area. From the results of the interviews it was found that not all students understood the concept of science, the student worksheet used was still in the form of a text book, and there was a lack of use of technology in the learning process.

The planning stage itself makes a draft and seeks material from various sources. Then a product concept worksheet was created in the form of Microsoft word first, and then continued by using the Google Form. After all the objects have been collected, starting from materials, pictures, videos, and so on. It is continued in the initial product development stage, where the objects that have been collected are then made student worksheet in accordance with the initial design that has been planned. In this stage include things that are considered important in making student worksheet, such as making student worksheet according to its components, choosing background colors, making layouts, managing fonts, and so on that can support making student worksheet.

After the product is designed, it is continued in the initial trial stage. At this stage the product is given to expert lecturers to review the product being developed. Product reviews are carried out by media experts, material experts, and practitioner experts.

The results of the review are in the form of suggestions and input from expert lecturers and practitioners. After the product has been reviewed by experts, it is then followed by the revision stage in the form of suggestions and input on the student worksheet being developed. then the student worksheet products were changed according to the suggestions and input from expert lecturers.

## 1. The Product Feasibility

Validation in this product is carried out by 3 expert validators, including 2 expert lecturers, and 1 expert practitioner (teacher). the results of the validation are in the form of assessments and suggestions regarding the developed student worksheet. to validate the student worksheet, the validators filled out a questionnaire provided by the researcher. The results of the validation of media experts, materials, and practitioners are as follows:

### a. Media Expert

The purpose of this media expert validation is to find out and test student worksheet using a google form based on natural science subjects. Media expert validation was carried out by one of the media expert lecturers. The results of this media validation are as follows:

**Table 1. The Result of Media Expert Validator**

Indicator of Assessment	Score	Criteria
Clarity	90%	Very Good
Programming	85%	Very Good
Sum	89%	Very Good

Based on these results, it can be seen that the validation of the gf-based student worksheet carried out by media experts obtained 89% in the very good category, so it can be concluded that GF-based student worksheet is feasible to use.

### b. Materi Experts

the next validation is from the material expert. it aims at finding out the truth and systematics of the material in gf student worksheet in natural science subjects. material expert validation was carried out by one of the material expert lecturers. the results of the validation of this material are as follows:

**Table 2. The Result of Material Validation**

Indicator of Assessment	Score	Criteria
Content Feasibility	93,75%	Very Good
Presentation Feasibility	100%	Very Good
Language Feasibility	83%	Very Good
Sum	92%	Very Good

Based on these results, it can be seen that the validation of the google form-based student worksheet carried out by material experts obtained 92% in the very good category, so it can be concluded that the material in the google form-based student worksheet is feasible to use.

**c. Practitioner Experts**

The next validation is from the practitioner experts. It aims at determining the eligibility of the student worksheet using a google form based on natural science subjects. expert practitioner validation was carried out by a teacher at a private mi in the padalarang area. the results of this practitioner's validation are as follows:

**Table 3. The Result of Practitioner Expert Validation**

Indicator Assessment	Score	Criteria
Display	75%	Good
Content	93,7%	Very Good
Users' Easiness	87,5%	Very Good
Significances	75%	Good
Implementation	87,5%	Very Good
Sum	83,75%	Very Good

based on these results, it can be seen that the validation of the google form-based student worksheet carried out by expert practitioners obtained 83.75% in the very good category, so it can be concluded that the google form-based student worksheet is feasible to use.

**2. Student Worksheet Practicality**

After going through several stages from product manufacture to product validation, the next step is to conduct product trials. Product trials were conducted twice, namely limited trials and extensive trials. During the research, observations were also carried out by researchers. Trials provide learning using products, and at the end of

learning students are given a response questionnaire to the product being developed.

The results of these two tests are as follows:

### a. Preliminary Limited Field Trial

The limited field trial was conducted on 14 VA class students, where the limited field trial was conducted at one of the private MI in the Padalarang area. Student response to the product being developed is 86% in the good category. After getting the results, they are then submitted back to the lecturer for review. The results of the assessment are as follows:

**Table 4. The Result of the Students' Preliminary Limited Field Trial**

Indicator of Assessment	Score	Criteria
Display	60%	Good
Material	61%	Good
Significances	60%	Good
Sum	86%	Very Good

### b. Secondary Field Trial

After the results were reviewed by the lecturer, then proceed with conducting large field trials. It was carried out at the same school, namely in one of the private MI in the Padalarang area, but the difference was that this wide field trial involved 21 students in the VC class. They response to the product being developed is 87% in the good category. The results of the assessment are as follows:

**Table 5. The Result of the Students' Secondary Field Trial**

Indicator of Assessment	Score	Criteria
Display	91%	Very Good
Material	91%	Very Good
Significances	90%	Very Good
Sum	87%	Very Good

### 3. Student Worksheet Effectivity

In the effectiveness stage, in the form of the results of understanding the concept of IPA on heat transfer material. Before being given to students, the test instruments were validated first by expert lecturers. The understanding of the science concept is made into a pre test and post test. Calculations of the pre test and post test were carried out using the normality test, the Mann-Whitney test, and the N-Gain test. The results of some of these tests are as follows:



**a. Normality Test**

The normality test itself is used to determine the distribution of data from the pre-test and post-test results of limited field trials and wide field trials. The normality test used is the Kolmogorov Smirnov normality test. The results of the limited field trials pre test obtained a significance value of 0.20 more than 0.05, and the post test obtained a significance of 0.02 less than 0.05. While the field trials themselves pre test obtained a significance of 0.01 less than 0.05, and the post test obtained a significance of 0.02 less than 0.05. Based on these two results, H0 is rejected, so it can be concluded that the data in the limited field trial and the wide field trial data are not normally distributed.

**b. Mann-Whitney Test**

The results of the normality test showed that the data was not normally distributed, so it is continued with the Mann-Whitney test. The Mann-Whitney test was used to determine the non-parametric average of the pre-test and post-test results for limited field trials and wide field trials. The results of limited field trials and wide field trials obtained a significance of 0.000, less than 0.05, so H0 was rejected. From these data it was concluded that there were differences in the results of the pre-test and post-test of limited field trials and wide field trials.

**c. N-Gain Test**

The gain normality test (N-Gain) was used to determine the increase in learning outcomes that have been obtained by students in the pre-test and post-test in limited field trials and wide field trials. The N-Gain results in limited field trials are as follows:

**Table 6. N-Gain Test of Preliminary Field Test**

No.	Analysis	Pre Test	Post Test	N-Gain Score
1.	Highest Score	60,00	95,00	0,89
2.	Lowest Score	40,00	80,00	0,60
3.	Mean Score	50,71	85,35	0,70
Criteria		Moderate		

Based on the data above, the results of the gain analysis above in the limited field trial class, the highest score in the pre-test and post-test was 0.89, the lowest value was 0.60, and the average of this trial was 0.70. So in limited field trials, the criteria for "moderate" were obtained. The N-Gain results in wide field trials are as follows:

**Table 7. N-Gain Test of Secondary Field Trial**

No.	Analysis	Pre Test	Post Test	N-Gain Score
1.	Highest Score	55,00	95,00	0,92
2.	Lowest Score	35,00	75,00	0,58
3.	Mean Score	40,24	86,19	0,76
Criteria			High	

Based on the data above, the results of the gain analysis above in the large field trial class obtained the highest score in the pre-test and post-test of 0.92, the lowest value of 0.58, and the average of this trial was 0.76. So, in limited field trials, the criteria for "High" were obtained.

**2. Discussion**

**a. Student Worksheet *baased* Google Form**

Based on the results of R&D research using the Borg and Gall model, the steps for making a Google Form-based worksheet product were obtained. The steps are as follows:

The first stage was a preliminary study in the form of collecting the information and data needed in this research. To collect information and data, the researchers studied a literature review related to the research to be carried out, and conducted interviews with fifth grade teachers at one of the private MI in the Padalarang area. From the interview, several problems were found in learning, including students' understanding of science concepts was still lacking, this was due to the lack of student participation in the learning process while in class. As Bundu said (Lilis & Kelana, 2021), the students' low understanding of the science concept resulted from the less interesting science learning carried out, thus making students passive in the learning process in the classroom. In addition, the STUDENT WORKSHEET used is still in the form of a text book because it follows the activities in the teacher's and student's books. The STUDENT WORKSHEET used on average uses the STUDENT WORKSHEET provided by the school, where the STUDENT WORKSHEET still presents material and practice questions, and is less interesting (Choirudin et al., 2021) and less of technological equipment implementation during learning process. Salsabila dan Aslam (Savitri & Meilana, 2022) said that the important element in education is following technological development in learning process.

The second stage is product planning, whereby making a draft of the student worksheet using the google form and collecting design objects. student worksheet is made attractive by using pictures, videos, and so on, and arranged according to the kd material desired. student worksheet provides a visualization of the material being taught with attractive pictures (susilawati, 2022). apart from that, the preparation of research instruments was also carried out, such as validation and response questionnaires, observations, as well as tests for understanding the concept of science.

The third stage is initial product development based on the draft that has been made which can make it easier for students. student worksheet is made based on the real life of students, this is to facilitate student learning when learning takes place. the development of this student worksheet is reinforced by the theory of cognitivism, based on piaget's opinion (agustina et al., 2019), that the intellectual development of elementary school students enters the concrete operational stage where the learning process begins with more concrete learning, then towards more abstract learning so that students need teaching materials that can make it easier for students to learn. in addition, the development of student worksheet is also reinforced by the theory of behaviorism, where students will become more active and can achieve the expected learning goals if given a stimulus (Zulkurnia et al., 2017).

The fourth stage is the Initial Trial to review and validate the products that have been developed by expert lecturers and expert practitioners. validation is carried out to assess the student worksheet product that is being developed (Ratri et al., 2019). the fifth stage is product revision carried out after the student worksheet products have been reviewed and validated by experts so that they can produce products that are feasible to be tested. Product revisions are carried out to improve the product being developed so that it is truly usable (Permatasari et al., 2018).

The sixth stage is the Limited Field Trial carried out by giving treatments to students, such as giving test questions, giving material explanations, giving student worksheet, and at the end giving a response questionnaire. in line with the study by (Hardianti et al., 2021), that the students are given treatment according to the stages of the student worksheet and give a questionnaire at the end of the lesson. The research was conducted on 14 VA class students, who were then divided into 2 groups. This limited field trial was conducted to find out the initial results in the development of Google Form-based worksheets.

The seventh stage is the second Product Revision, where this revision is carried out to improve the product after being carried out in limited field trials. The eighth stage of the Wide Field Trial is the same as in the limited field trial but the difference is the sample and class. In this trial, 21 VC class students were divided into 5 groups. In line with the study by (Istiqomah, 2021), extensive field trials were carried out to determine the attractiveness and wide confidence of the data. By going through extensive field trials, the feasibility of the product being developed will be seen, so that the product can be used in education. the ninth stage is the final product to produce an student worksheet product that has been declared fit for use. student worksheet is declared eligible if it meets the requirements, namely the tactical requirements regarding the process of using student worksheet, the construction requirements for clarity of sentences, and the technical requirements for objects in STUDENT WORKSHEET (Aswarliansyah, 2020).

### **b. Student Worksheet Based GF Development Feasibility**

The feasibility of GF-based student worksheet is carried out to obtain information, criticism, and suggestions from validators for the student worksheet that is developed so that it becomes a perfect and quality product. A product is said to be of high quality, if the product fulfills the aspects to be achieved. The feasibility of the google form-based student worksheet is obtained from the feasibility assessment data carried out by the validator, namely expert lecturers and expert practitioners. Based on the results of expert validation, the Google Form-based student worksheet is declared valid or suitable for use. The product is declared valid if it meets the criteria set by the researcher. These criteria will be assessed by validators through assessment sheets that have been made previously to determine the level of validity of the developed student worksheet (Minawati & Ayatussa'adah, 2022).

The means score of the validation test from the three validators, the media expert got 89%, the material expert got 92%, and the practitioner expert got 83.75%. These three results obtained the category "Very Good" with a range of  $80\% < x \leq 100\%$ . The validation results are in line with research conducted by (Bano et al., 2021), validation results obtained from validators, including media experts 83%, material experts 82%, and practitioner experts 82%. Based on the validation results, it was stated that the product was declared valid, so that the student worksheet could be used in learning.

According to Endang Widjajanti (in Agustinah et al., 2021), a good student worksheet is a student worksheet that students can use optimally in learning activities, where the student worksheet must meet the requirements, one of which is the construction requirements related to the use of language, sentence structure, vocabulary, level of difficulty, and clarity in the student worksheet, which in essence must be precise which in meaning can be understood by students.

In addition, the design of worksheets, starting from the presentation of objectives, providing motivation, clarity, providing motivation, clarity, sequencing of material, presenting work instructions, presenting problem solving steps, presenting media, to evaluation, which is then packaged properly will make student learning more effective, meaningful, and purposeful (Wiranata & Sujana, 2021). The feasibility of student worksheet is reinforced by the theory of constructivism, where students must be given complex, difficult, and realistic assignments and then given sufficient assistance so that students can complete their assignments properly (Effendi et al., 2021).

### **c. The Responses of GF-Based student worksheet Development**

Student worksheet is used in field trials, namely limited field trials and wide field trials. This trial was carried out by providing learning using student worksheet and then at the end of the lesson students were given a response questionnaire to the developed student worksheet. Student responses to the product being developed, namely the Google Form-based student worksheet, received a positive response. On average from the two trials, the limited field trials obtained 86%, while the wide field trials obtained 87%. Both results obtained the category "Very Good" with a range of  $80\% < x \leq 100\%$ . Based on the study by (Sugiyanto et al., 2018), the results of the student response questionnaire in the small group trial obtained 43.50%, while in the large group trial obtained 41.69%, in this study the results obtained were included in the "Very Good" category.

From the two field trials, students seemed enthusiastic about learning with student worksheet. However, during the implementation there were some students who had difficulties. In the limited field trial, students had difficulty accessing it due to limitations in internet quota and there was a video error in the student worksheet, even though the video was confirmed to match the copy link on YouTube. To overcome this, the student is given an internet hotspot by the researcher and re-provides the actual

YouTube link. So that this incident does not happen again, in the large field trial the researcher asked students to bring cellphones that have internet quota and re-ensure the student worksheet that was made so that the video matches the material. This is in line with the opinion of Toharudin (Tariani et al., 2022);(Kelana et al., 2022) that a good student worksheet can stimulate and motivate students while at the same time increasing high contextualization. Developing exploratory worksheets can support student activities in class, so students don't feel bored with learning in class and students become happier because they can learn while trying (Fanani, 2018). Through practical activities, the students can study independently and continue to try to solve problems in student worksheet. This makes the developed student worksheet strengthened by the learning theory of Constructivism and Behaviorism. Through the activities carried out by students, the learning process will make students active in class, so that students can produce their own knowledges, build their knowledge in solving problems, and as a process in processing information (Rahayuningsih et al., 2018). The learning process if carried out by creating conditions that can provide students to be able to demonstrate a behavior in a relatively long period of time (Siskalia et al., 2017).

#### **d. Science Concept Understanding Improvement**

Data on the results of increasing understanding of the science concept of fifth grade elementary school students were obtained from the results of the pre-test and post-test that they carried out. Before being given to students, the test instruments were tested for validation by expert lecturers. Student worksheet based on google form can improve students' understanding of science concepts in class V SD, this can be seen from the average results of the pre-test and post-test. In limited field trials obtained an average of 70.81. Meanwhile, in the wide field trials, the average was 76.95. Based on these average values, there is an average difference. This is then reinforced by the Mann-Whitney test, namely Sig. (2-tailed) of 0.000, the data indicates less than 0.05.

In addition, the pre-test and post-test results were tested for normality, but the two trials obtained abnormal results, which means that the population used did not come from a normal population distribution or student scores did not vary. This can happen because there are some students who think the test questions are easy to do, and there are also those who think the test questions are difficult to do. From the explanation above, it can be concluded that the Google Form-based student worksheet

on heat transfer material for fifth grade elementary school students is said to be effective. In line with the study by (Maksum dan Fauzi, 2021), that GF-based student worksheet can help students and teachers when learning takes place, because it also provides new experiences for students in terms of learning. In addition, it can also be a guide for students in doing certain jobs so that they can improve and strengthen the learning outcomes that have been obtained by students (Murni & Yasin, 2021).

So, it can be concluded that the google form-based student worksheet can improve the results of understanding the science concept of fifth grade elementary school students. This is reinforced by the learning theory of Cognitivism and Constructivism. According to Vygotsky (Rahayu & Budiyono, 2018), the students built their knowledge as a result of their thinking and daily activity. Another opinion from Vygotsky (Rohmawati & Yuliani, 2018) saying that knowledge is developed by students socially, meaning that students who are in a social interaction will contribute and jointly develop a meaning of knowledge.

### CONCLUSIONS

Based on the results and discussion of the research, the conclusions obtained are as follows:

1. This research produces a product, namely a feasible Google Form-based student worksheet to increase the students' understanding of science concepts in fifth grade, using the Borg and Gall Research and Development (R&D) method.
2. Student worksheet products using Google Form are validated by the validator. The results of the validation show that this product is feasible to use, with the results of media experts obtaining 89%, material experts 92%, and practitioner experts 83.75%. Of the three validations, the product is categorized as "Very Good".
3. Student responses to the Google Form-based student worksheet get the "Very Good" category. In limited field trials, it obtained 86%, while wide field trials obtained 87%.
4. The use of Google Form-based student worksheet can increase the understanding of science concepts in heat transfer material for fifth grade elementary school students. The average acquisition of conceptual understanding in limited field trials was 70.81. Meanwhile, in the wide field trial it was 76.95.

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