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The Intelligent Based Jigsaw Model (JBCC) as an Effort to Increase Study Motivation, HOTS, and Basic Student Learning Outcomes

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Abstract:

This research is research and development education or Research and Development (R&D). The study was conducted in SD Palu Selatan District with a limited sample test conducted in class V at SDN 1 Tatura. The area test was carried out at four elementary schools in South Palu District. Based on the results of the study, it can be concluded that: (1) the design of the JBCC procedure as an effort to increase learning motivation, HOTS, and student learning outcomes, is carried out procedurally through development syntax: origin group discussion - expert group discussion - back to the homegroup - quiz game - assessment. Instruments that are declared valid and suitable for use consist of JBCC diagram and matrix design, teacher and student questionnaires/interviews, lesson plans, teacher and student activity observation sheets, learning motivation, HOTS FRISCO and Bloom's Taxonomy. (2) teachers' perceptions of JBCC on average 89.14% with a very high response category and students agreed with an average score of 4.27, and the response presentation reached 85.39% (very high); (3) significant differences between the control class and the experimental class in the limited test, namely: students' learning motivation; In the little difficulty, the difference in the scores of classical learning motivation between the control class and the experimental study is 0.21, and the percentage is 4.21%. The difference in HOTS assessment results is an average of 0.46 and a rate of 9.20%. Learning ability based on Bloom's Taxonomy level is 0.13 on average and 3.03%. Significant differences between the control class and the experimental class in the comprehensive test (five sample schools): learning motivation averaged 0.93, and 1.8% HOTS averaged 0.32 and 6.12% the Bloom Taxonomy level is an average of 0.15 and a percentage difference of 2.89%. From the research results, it can be concluded that the JBCC development model can be used as an effort to increase learning motivation, HOTS, and student learning outcomes.

Keywords: Jigsaw, intelligent-meticulous, learning motivation, hots, and learning outcomes

1. Introduction

As a teacher who is directly involved in solving the problems faced by students related to their learning outcomes, on this occasion, the researcher thinks that innovating is one of the tasks for the teacher to improve the learning process to achieve the learning outcomes expected by education units and even teachers. The learning model that has been widely used in the learning process at various levels of education is the Jigsaw learning model with constructivist syntax and is designed procedurally or structured, measurable with a predetermined assessment system.

Based on some of the results of previous studies, including research conducted by Hertavi, dkk. (2012); Marfiah (2017); Juwahir & Subagyo (2018); Hijrihani and Wutsqa (2015); and Kurniati (2015), the implementation of the Jigsaw model is effective in increasing the motivation and learning outcomes of students at various levels of education and multiple concepts or learning materials.

The development of a learning model is one example of a breakthrough in creating research formulations in learning to improve the quality of learning in a better direction. Attention to learners' perspective, characteristics, and ownership of the learning process has grown and developed with the creation of fresh and innovative learning models. The theoretical shift has changed the field orientation dramatically from the design field, which is driven by teaching, which is dominated by the learner's role, now developing towards various formats that seek to create a learning environment where students can explore their understanding (Nurdyansyah & Fahyuni, 2016).

Regarding the ability to think critically or think at a high level, the results of measuring student achievement on the results of the National Examination are in line with the successes of PISA and TIMSS, which show that students are still weak in

high-order thinking skills from various sources, often called High Order Thinking Skills (HOTS), such as reasoning, analyzing, and evaluating (Setiawati Dkk., 2018).. In line with Anderson & Krathwohl's statement (Badjeber, dkk., 2018) about the dimensions of the Bloom Taxonomy thought process, which involves the ability to: analyze, evaluate, and create/create.

HOTS, was born from a continuous process, results-oriented with a constant and consistent approach to training and accustomed students. A teacher must be able to facilitate students to become good thinkers and problem solvers. The learning process that is applied should be a place to develop the thinking skills of students.

Learning while playing in Jigsaw learning in this study involves a quiz method named the Jigsaw Learning Model Based on Quiz, which is abbreviated as (JBCC) hoping that it can become a communication medium that can involve students expressing themselves in conveying messages of happiness in themselves. Activities in the quiz group are expected to provide students opportunities to meet the needs of exploring and mastering learning materials that involve affective, cognitive and promotor processes.

Problem-solving skills packaged and developed in JBCC are expected to maximize learning activities in solving problems and provide students with opportunities to establish HOTS. Students are allowed to convey or explore the emotional stress they experience freely and openly, are permitted to process and adjust the difficulties experienced symbolically with more appropriate emotional expressions, practice new behaviors, develop empathy skills with others and use their imagination to think quickly and answer questions appropriately, so that in him appears a sense of confidence in his abilities.

Students are expected to change their mindset through fun learning activities, gain a deep understanding of the difficulties and fears they experience figuratively, develop a bond with the teacher, and build connections with others. The JBCC group is expected to be a positive therapy in providing the freedom to realize self-actualization and grow closer to other people around them and provide opportunities for students to know their environment's positive love and attention. The learning atmosphere is strived to allow students to enjoy the learning process with a happy mood, laugh, and have a pleasant time.

It is hoped that the achievement of learning outcomes through the development of the Jigsaw model into JBCC is expected not only to fulfil the desire to exceed expectations from improving memorization skills, repeating broken facts or knowledge but capturing opportunities to understand difficult concepts and complex ideas, evaluating ideas fresh, and make the essence of their insights from the results of a learning activity. The implementation of JBCC is expected to make an excellent contribution to learning motivation and HOTS, which have a positive impact on the achievement of learning outcomes. As explained in Work dan Setting (1943), motivation is influenced by a person's perception (accurate or inaccurate) of the comparable results (rewards) received and the input (effort) one gives compared to others.

Motivating students' learning is part of an effort to answer the challenges of 21st-century education oriented towards HOTS development; as explained by Karadag (2017), motivation has a strong positive and significant influence on student learning achievement. The quiz approach's choice as a form of innovation in the Jigsaw-Slavin learning model aims to make learning situations fun in a playful environment, hoping that the quiz stages in Jigsaw-Slavin can make students excited about reading and looking for complete information related to the material. Learned so that in seeking knowledge, students use their thinking skills to the fullest, through innovative and careful critical and creative answers to the questions posed as a result of the learning process that involves learning motivation and good higher-order thinking skills. The JBCC model is designed to motivate and encourage students to consciously take part in learning activities that consciously affect their desirability in learning activities to achieve optimal learning activities. The role of cooperative learning provides opportunities for learners to exert as much effort as possible to attain high-level reasoning, build more complete and complex conceptual structures, store information learned more accurately, be more positive, support diverse individual relationships, and learn develops in healthier ways, both in the context of psychological health, self-esteem, and the ability to manage stress and adversity (De Jong and Hawley 1995).

The JBCC learning model is conditioned to motivate and stimulate HOTS's optimal operation through quiz games that provide space for students to remain in a pleasant learning atmosphere (playing loose but with quality), active, innovative, creative, effective, and of high quality. In the end, it can make a positive contribution to the achievement of comprehensive learning outcomes, which are the results of the work of students' thinking systems, in this case, thinking skills or HOTS FRISCO (Focus, Reason, Inference, Situation, Clarity, and Overview) (Ariyana dkk., 2018) and HOTS cognitive Bloom taxonomy thinking level (levels C-4, C5, and C-6), including practical (A1-A5) and psychomotor (P1-P5) which is a unity of learning outcomes in the context of integrated thematic learning.

The explanation above is the background of the researcher's desire to innovate JBCC as a learning model that involves playing activities as an effort to motivate and involve HOTS of students through research entitled "The Intelligent Based Jigsaw Model (JBCC) as An Effort to Increase Study Motivation, HOTS, and Basic Student Learning Outcomes in Palu Selatan District".

2. Method and Materials

The type of research used is JBCC education development research through expert validity testing and work procedures in trials to increase learning motivation, HOTS, and student learning outcomes in SD Palu Selatan District. The stages used to refer to the steps developed by the Puslitjaknov Team (Silalahi 2017) with three main components, namely: (1) development model; (2) development procedures; and (3) testing the development model or product. The following procedures carry out the development stage: (1) research and information collection; (2) planning; (3) develop a preliminary form of product; (4) initial field testing; (5) major product revision; (6) main field testing operational product revision; (8) Operational field testing; (8) final product revision; and (10) dissemination and

implementation so that the proposed product (JBCC) can be appropriately used and can achieve the expectations to be completed as output. Meanwhile, the trial was conducted in 3 (three stages): (1) test 1 (expert test); (2) limited class test; and (3) comprehensive class test.

3. Results

3.1. Data Description

3.1.1. Test Result 1 (Expert Test)

Based on the results of expert testing through design validation through construct validation and other supporting instruments, designs that are declared valid and suitable for use as a development of the Intelligent Intelligence Based Jigsaw learning model (JBCC) are shown in Diagram 1:

Picture 1: Development Model Design

The validity of the interview instrument is strengthened by the validity test results using SPSS with the reliability of the r-table statistical output ($N = n - 2$ ($25 - 2 = 23$ and the value of r-table = 0.334) on the output statistical Correlations. The SPSS test results show that the value of Sig (2-tailed) = 0.834 > 0.334 and Pearson correlation 0.044. One of the requirements is not met, namely the value of Sig. (2-tailed) > 0.05. On average, the questionnaire item gave a score of 1 and 2, which means very disagree and disagree with the statement in the questionnaire, which states that students recognize Jigsaw. This shows that the teacher has not used Jigsaw or introduced Jigsaw to students. Meanwhile, the results of the SPSS statistical test for the teacher questionnaire were carried out on a test of the use of top and wide class products to obtain information about the effectiveness of using JBCC.

3.1.2. Limited Class Test Results

The limited test results are described as follows:

3.1.2.1. Teacher and Student Activities

Before using the JBCC model with an average score of 4.63 (92.50%), class teacher activities were carried out very well. Teaching activities in learning using the JBCC development model on average, 4.70 (94%) were performed very well. Meanwhile, students' activities before using the JBCC learning model were carried out very well on average, 4.44 (87.75%). Students' actions in learning using the JBCC learning model were, on average, 4.85 (97%) carried out very well.

3.1.2.2. Students' Learning Motivation

Before using the JBCC model with an average score of 3.60 (72%) in the excellent category and learning using the JBCC development model, an average of 3.81 (76.29%) good criteria.

3.1.2.3. Hots Frisco

Before using the JBCC model, HOTS FRISCO, an average score of 3.39 (67.73%) in the excellent category and learning using the JBCC development model an average of 3.85 (76.93%) good criteria.

3.1.2.4. Hots Bloom's Taxonomy Level

HOTS in Bloom's Taxonomy level consists of (1) the results of observations on the affective aspect (A1-A5) before using the JBCC model the average score is 4.13 (82.56%), the category is outstanding and in learning using the average JBCC development model 4.26 (85.28%) perfect criteria; (2) the results of observations on the psychomotor aspect (P1-P5) before using the JBCC model the average score of 3.94 (78.72%) is a perfect category and in learning using the JBCC development model an average of 4.17 (83.36 %) ideal criteria; and (3) the results of observations on the cognitive aspects before using the JBCC model with an average score of 3.79 (75.73%) in good category and in learning using the JBCC development model an average of 3.92 (78.40%) good criteria.

3.1.2.5. Learning Outcomes

The results of observations on the affective aspect (A1-A5) before using the JBCC model the average score of 4.13 (82.56%) is a perfect category, and in learning using the JBCC development model, an average of 4.27 (85.39%) criteria ideal.

Based on the results of the statistical test (SPSS) (NPar Tests Wilcoxon Signed Ranks Test), in the Ranks table, the difference value (difference value +/-) is the result of the Wilcoxon signed ranks test analysis, namely: (1) hostile ranks or the negative difference between the pretest and posttest is 0 both at the value of n, the mean Rank, and the sum of positions are $N = 2a$, Mean Rank = 2.25, and full of Rank = 4.50 (there is no decrease in the pretest value to the posttest value); (2) positive ranks or the positive difference between the pretest and posttest results, there are 25 positive data (n), which means that the 25 students experienced an increase in learning outcomes from the pretest and posttest. The mean Rank or growth in the average is 13.00, while the number of positive ranks (sum of positions is 325.00; and (3) ties are the same values using the pretest and posttest is 0, so it can be said that there is no value. Free test and posttest learning. From the results of the output "statistical test" above Asymp. Sig. (2-tailed) is $0.000 < 0.05$, which means that there are differences in learning outcomes for pretest and posttest, so it can also be concluded that there is an effect of using JBCC on the learning outcomes of limited test class students.

The criteria for improving learning outcomes can be seen from the N-Gain calculation of 0.55. The requirements for improving learning outcomes are in normalized gain index $0.3 \leq g \leq 0.7$ (middle) or moderate improvement.

3.1.3. Broad Class Test Results

The limited test results are described as follows:

3.1.3.1. Students' Learning Motivation

Students' motivation in the control class had an average score of 3.80 (75.96%) in the excellent and experimental courses, with an average score of 4.09 (81.84%) with suitable criteria.

3.1.3.2. Hots Frisco

HOTS FRISCO control class average score of 3.65 (73%) good category and learning using the JBCC development model an average of 4.22 (84.33%) perfect criteria.

3.1.3.3. HOTS Bloom's Taxonomy Level

The HOTS observation results at Bloom's Taxonomy Level: (1) in the affective aspect (A1-A5), the control class averaged 4.06 (81.20%) in excellent category and in learning using the JBCC development model an average of 4.52 (90, 40%) excellent criteria; (2) the psychomotor aspect (P1-P5) of the control class with an average of 3.76 (75.20%) in the excellent category and the experimental class with an average of 4.26 (85.20%) with very good criteria; and (3) cognitive aspects of the control class with an average of 3.58 (71.67%) in the good category and the experimental class with an average of 4.40 (88%) with very good criteria.

3.1.3. Learning Outcome

The learning outcomes of the control class averaged 67.81, and the experimental class averaged 91.17.

3.1.4. Different Test Results (Unpaired Samples)

3.1.4.1. Students' Learning Motivation

The hypothesis proposed is that H_a = there is a difference between the control and experimental groups with $df = N - 2$ ($40 - 2 = 38$) = t-table df . $0.05 = 1.68595$. Based on the statistical test output in the Mann-Whitney test above, the Asymp value is known. Sig (2-tailed) of $0.002 < 1.68595$. Therefore, it can be concluded that there is a significant difference between the control class's learning motivation and the experimental class. It can be concluded that there is an effect of using the JBCC model on students' learning motivation.

3.2. Hots Frisco

Based on the statistical test output in the Mann-Whitney test above, the Asymp value is known. Sig (2-tailed) of $0.009 < 1.68595$, therefore, it can be concluded that there is a significant difference between HOTS FRISCO in the control class and the experimental class, and it can be concluded that there is an effect of using the JBCC model on HOTS FRISCO students.

3.2.1. HOTS Bloom's Taxonomy

The statistical test output in the Mann-Whitney test is known: (1) the Asymp value. Sig (2-tailed) of $0.001 < 1.68595$, namely: there is a significant difference between the control class affective and the experimental class (there is an effect of using the JBCC model on the affective of students); (2) Asymp value. Sig (2-tailed) of $0.000 < 1.68595$, namely: there is a significant difference between the control class psychomotor and the experimental class (there is an effect of using the JBCC model on the psychomotor of students: and (3) the Asymp value. Sig (2-tailed) of $0.000 < 1.68595$, namely, there is a significant difference between the cognitive control class and the experimental class (there is an effect of using the JBCC model on the cognitive of students).

3.2.2. T-Test Results of Student Learning Outcomes

Based on the output of independent sample t-test group statistics, it is known that the learning outcomes of the control group and experimental group B data. The average learning outcome (mean) of the control group was 67.81. The experimental group was 91.17, so it can be concluded descriptively that there is a difference in the average learning outcome between the control and experimental groups. Significant (real) or this difference can be seen through the interpretation of the output (independent samples test) through hypothesis testing $\alpha = 0.05\%$ with the degrees of freedom of the test is $n - k = 40 - 2 = 38$. sig. The Levene's test for equality of variances is $0.019 < 1.68595$. The values do not guide the interpretation of the output table for the independent samples test in the Levene's test for equality of variances table. At the equal variances assumed the Sig (2-tailed) value of $0.000 < 1.68595$, so is assumed that H_0 is rejected and H_a is accepted, meaning that there is a significant difference between the average learning outcomes in the control group and the experimental group. At the mean difference in the calculated results of -23.361 (the difference between the average learning outcomes of the control group and the experimental group), namely $67.81 - 91.17 = -23.361$ and the difference between these differences is -27.411 to -19.310 (95% confidence interval of the difference lower upper).

Based on the comparison between the value of t and t in the independent samples t-test, it can be concluded that $t_{count} > t_{table}$ or $11.674 > 1.68595$, meaning that H_0 is rejected. H_a is accepted (there is a difference in the average learning outcomes between the control group and the experimental group) or applying the learning model Jigsaw-Slavin learning with the JBCC development model produces different learning outcomes.

4. Discussion

Model verification is the process of proving that the original model is believed to be effective. Model verification is checking the existence of things that are packaged in the conceptual design into programmed applications. Therefore, validation efforts reinforce that the design development and the tools used are valid and fit for use. Strengthened by a statement, Ainin (2013) that even though the research's initiation is to produce educational products, the resulting product is not automatically declared as an effective product. Therefore, to obtain a product that is feasible before finalization, it is necessary to validate both in the form of product trials and validation or revision by experts or experts so that the resulting product has a level of effectiveness in its implementation. Fulfilment of these requirements in this study was carried out by testing the validity of two experts and thorough product testing, which was carried out through limited class testing and extensive testing.

The use of the development model (JBCC) from the results of limited trials is stated to make a positive contribution to learning motivation, HOTS, and learning outcomes of limited test class students. The contribution of innovation made by using JBCC can be seen from teachers and students' activities, learning motivation, HOTS, and increasing student learning outcomes through pretest and post-test. It was found that the use of JBCC in learning provided a good opportunity for students to develop their literacy skills by reading critically about the material they were studying. This literacy ability is related to the involvement of advanced reading skills, which require thinking critically and creatively. Sugiyarti and Arif (2018) stated that critical thinking can involve students' ability to reason, reveal, analyze and solve problems, communication, collaboration, and (4) creativity.

The excitement of the quiz can be found in the quick-deft-careful activity in answering questions posed as a form of teamwork contributing to the team of origin. The home team's trust to provide the opportunity to be a delegate in a quiz group involves students in improving their ability to recall things that have been discussed both in the team of hope and in the team of experts. The placement of individuals in a team of experts is a good motivation for students, especially to increase self-confidence in their abilities. The confidence increased even more after being given the same opportunity to become a tutor in his home team based on the expert team's discussions. Helping each other as a team during the quiz (support) activity from team members who are not included in the quiz with cheerful applause when the team answers correctly adds to the excitement of learning but remain in a meaningful learning situation.

The contribution of learning motivation that appears in students' ability to complete the posttest is in line with what is described by (Kompri, 2017) that: (1) motivation encourages students to move. Activities in the learning process can be seen from students' enthusiasm to fulfil their responsibilities both in the home team and in the expert team. Other responsibilities are shown from the efforts made as a tutor in their home group and (2) motivation as a guide: motivation in students that arises from the excitement of learning in the JBCC team, seen from the efforts made in conveying the results of the discussion in the expert team to the team origin. At this stage, students become more confident in their abilities because they can explain the material they understand from discussions with a team of experts. Students feel truly as experts who have good abilities in conveying information to their teams.

Meanwhile, HOTS of students related to visual abilities that the teacher can observe shows that students can identify problems well (studying the material provided); can answer questions and provide reasons accompanied by explanations according to their characteristics; students can discuss to reach an agreement like that made in determining team members who become the quiz team; and students can express logical reasons for [response, statement, or answer with clarification of the meaning conveyed].

HOTS involvement (FRISCO) is in line with what was stated by John Dewey (Ariyanadkk., 2018) that high-order thinking skills are critical and creative thinking, namely the ability to think critically in essence as an active process, where students think in-depth about various things related to teaching material, ask questions about things they have not understood in the task they are learning, find multiple information from the learning results both in the home team and in the expert team. Critical and creative thinking skills play an essential role in preparing students to solve their problems individually and in groups. It makes it easier to make decisions and conclusions that are mature and able to be accounted for academically.

He effectiveness of quiz skills on students' ability to complete the posttest becomes a parameter of how high-order thinking is involved through the ability to focus, reason, inference, situation, clarity, overview (FRISCO). JBCC innovation is expected to change the way students think to interpret the meaning needed by analysis, synthesis, associating, and drawing conclusions towards creating creative and productive ideas. Related to the contribution of a quiz to learn motivation to learn, in line with what was stated by Sidamanik and Simalungun (2018) that the enthusiasm of students to answer each question is a form of motivation that arises from within students from a quiz game acts as an alternative to arouse students' learning motivation. This is also supported by the research results (WaliyudindanAnnisah, 2019), which explain that the use of quiz in reading activities can increase learning motivation. Still, in its application, it requires material preparation, quiz concepts and questions that can motivate reading and understand the contents of the text comprehensively.

Quiz makes students more interested in learning because the learning situation is lively and not dull. Regarding the interest in education that arises from the fun learning process, Nasution and Nurdalilah (2018), in their research, states that a quiz is a learning technique through a competition that increases student interest in learning. With this technique, students can measure their abilities by answering questions quickly and accurately. Therefore, it can be concluded that the quiz technique can be used as an alternative to arouse students' interest in learning. Competent care leads students to meaningful learning patterns from a fun process. A fun learning process is a process that involves students in active, innovative, creative, and fun learning activities. Inactive research is defined as the involvement of active students in the team, and a visionary is a form of innovative learning involving students in new and motivating situations; creative is the involvement of students in constructing their knowledge from the results of studying the material both in the home team and the team of experts who are then explored in quiz activities by competing to provide answers quickly and accurately to the questions asked. Fun can be shown from the joy and joy, and there are no signs of boredom in following the learning process.

The achievement of optimal learning outcomes is part of accomplishing a process that involves students' motivation and the ability of students to develop their thinking skills critically and responsibly. The effectiveness of guardship in achieving learning objectives is stated by Sari et al., (n.d.) that quiz has a significant effect on increasing learning motivation and student activity. JBCC innovation is supported by the teacher's statement that the JBCC design is flexible in increasing teacher motivation to teach and learn from students in learning. Learning with homegroup learning teams and experts fosters self-confidence, is effective as a meaningful game to achieve HOTS, makes learning more lively, fun and not dull, increases self-confidence, responsibility, and good cooperation fosters an enthusiastic attitude to follow all a series of learning and quiz skills increase the agility and meaningful learning experience of students.

Fostering student interest in learning through a game approach is more effective and more motivating in promoting curiosity and experience than those not in the form of games (Fauzan, Resdiana, and Hamidin 2017). Games can be used as an effective learning environment to motivate students. Motivation in the learning process becomes a source of high psychological energy. It is reflected in persistence that is not easily discouraged or never gives up before getting what you want. Characteristics can be seen from persistence, tenacity, interest in solving various problems, happy to work independently and in teams, not getting bored with routine tasks, enthusiastic in defending one's opinion, not easy to let go of things believed, holding firm decisions; has been taken with and without the help of others (Rukmana, n.d.).

The difference in students' learning motivation in the control class and the experimental class becomes the benchmark that learning with the JBCC model makes an excellent contribution to students' learning motivation. The broad estuary of a process is the result of measuring the overall achievement of the learning process. HOTS in the category of information and knowledge transfer occurs in meaningful learning. Meaning level learning requires students to remember what they have learned but needs students to understand and be able to use what they have learned. This is in line with the statement Mahanal (2019) that HOTS is a skill that can be trained through learning and can develop properly if it is done deliberately and planned through the application of a learning model that involves students actively (student centered), namely an appropriate learning model and learning environment. and facilitating the development of student thinking (persistence, self-monitoring, openness, and flexibility).

Furthermore, Mahanal explained that the learning model's implementation was not solely focused on the transfer of knowledge of higher-order thinking skills. Stimulus in the form of quick and precise short answers is expected that includes the affective psychomotor and cognitive levels of students. Critical thinking focuses on analyzing, organizing, clarifying, developing, prioritizing, or sorting ideas. Critical thinking can help students to make careful judgments and solve problems well. This is reinforced by Yuliana's statement Chotimah et al., (2020), which explains that critical thinking skills are needed by students considering that currently, science and technology are developing very rapidly. It is possible to obtain information quickly and easily from various sources and places. Anywhere in the world. If students are not equipped with critical thinking skills, it is feared that they will not be able to process, assess and retrieve the information needed to face global challenges.

Discussion trains students to think actively and is encouraged to study the material carefully, as explained by Seniwati Herawati et al., (2019) that the application of Jigsaw increases the activeness of students in the learning process, which is characterized by enthusiastically working on assignments and active questioning. Responsibility to the team makes students feel "valuable" in their friends' eyes so that students try their best to understand the material. Likewise, students try to understand other group members' other materials because there is a sense of shame if they are unable to explain to their team. This shows a high responsibility in him to complete his duties correctly. Based on the explanations above, it can be concluded that JBCC is an effort to increase learning motivation, HOTS, and student learning outcomes.

5. Conclusion

Based on the research data, it can be concluded that:

- JBCC design syntax JBCC is a learning innovation designed to increase learning motivation, HOTS and student learning outcomes.
- The teacher responds strongly to / strongly agrees with the development of JBCC as an innovation to increase learning motivation, HOTS and learning outcomes of elementary school students.
- There is a significant difference in learning motivation, HOTS, and learning outcomes of students in the control class and the experimental study, which indicates that the JBCC model can improve learning motivation, HOTS and student learning outcomes.

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