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Enhancing Grade IV Student Learning Outcomes Through the Implementation of the Discovery Learning Model: A Classroom Action Research on the Theme of Caring for Living Things

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Abstract

This research examines the application of the Discovery Learning learning model to improve student learning outcomes on the theme of caring for living things for class IV students at SD Inpres Panaikang 1, Makassar City. The main problem in this research is the low learning outcomes of class IV students at SD Inpres Panaikang 1 Makassar City. The aim of this research is to apply the discovery learning model to improve student learning outcomes. This research is a classroom action research (CAR) method using the Kemmis and Taggart model. The research subjects were fourth grade students at SD Inpres Panaikang 1, Makassar City. This research consists of 2 cycles, each cycle consisting of planning, implementation, observation and reflection stages. The data collection techniques used in this research were observation and test techniques. The results of the research showed that there was an increase in students' average scores and students' learning completion. The average value in cycle I was 66.67 and in cycle II it increased to 81.11. Student learning completeness in cycle I was 44.44% and in cycle II it increased to 88.89%.
Keywords: Discovery Learning, Learning Outcomes, Thematic Learning.

Introduction

Education plays a very important role in human life and progress. Education will produce quality human resources. Through education, a nation can stand independent, strong and highly competitive so that it will form a young generation who is devoted to God Almighty, has character, intelligence and skills. Apart from that, education also equips humans both physically and emotionally so that they are able to face all forms of challenges in their life journey.

The increasingly rapid development of science and technology requires people to develop themselves so they can keep up with increasingly advanced developments. This is needed to bring the Indonesian nation so that it is not left behind by other nations. This situation allows the knowledge that students learn today to be left behind when they grow up. To overcome this, students must learn about new things continuously.

Education can create quality human resources. Through education, a nation can stand independent, strong and highly competitive by forming a young generation who are devoted to God Almighty, have character, are intelligent and have skills. This is in line with Law no. 20 of 2003 concerning the National Education System Article I paragraph 1 which explains that, education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character. , as well as the skills needed by himself, society, nation and state. This can be realized with a clear education system, namely character-based education.

Education is closely related to learning, because education will run well if it is supported

by a learning process that runs effectively and efficiently. Learning will produce changes in behavior that students experience. This change in behavior can be a process from not knowing to knowing or the emergence of a new understanding. By changing this behavior, good skills and character will be created.

Learning is considered successful if a person can apply it to everyday life, so that learning will be meaningful. David Ausubel (Hidayatul Muamalah and Suyadi 2020:163) says "meaningful learning (meaningful learning) is a process of linking new information with relevant concepts in a person's cognitive structure". When learning is meaningful, the teacher will combine scientific concepts with the experiences students experience in everyday life. So that the scientific concepts taught to students will be understood well and not easily forgotten. The continuous development of the times has made the world of education experience a phase of change that demands improvements to the education system from time to time. This can be seen from the curriculum which always changes from time to time. Currently the curriculum used is the 2013 curriculum. Learning activities for elementary school children in the 2013 curriculum are carried out using thematic (integrated) learning. The implementation of this thematic learning starts from a topic or theme chosen and developed by the teacher together with the students. It is hoped that this theme will provide many benefits, including students easily focusing on a particular theme, understanding the subject matter more deeply and impressively, and being more enthusiastic about learning because they can communicate in real situations, to develop an ability in one subject while studying the subject. other. This thematic (integrated) learning method places greater emphasis on applying the concept of learning while doing something. This is very in accordance with the principles of meaningful learning for students.

Method

Classroom Action Research (PTK) is cyclical (recycled) research carried out by educators and other education personnel to solve problems in the field of education. Classroom action research emphasizes the way a teacher identifies problems and carries out an activity to solve the problem and if it is not successful, it will be repeated again (continuation cycle).

Classroom action research is carried out by educators/prospective educators in the classroom in a collaborative and participatory manner. Collaborative means working together with the class teacher, while participatory means the researcher is assisted by an observer.

This classroom action research will be carried out at SD Inpres Panaikang 1 Makassar City. Held on 11-23 October 2023, precisely in the even semester 2022/2023. The research subjects were fourth grade students at Ipres Panaikang 1 Elementary School, Makassar City. The number of class IV students is 9 people consisting of 8 boys and 1 girl in 2022/2023.

In this classroom action research, the researcher used Kemmis and Mc Taggart. The research was carried out in four stages, namely planning, acting, observing and reflecting. Each implementation step constitutes a cycle. When visualized in chart form, you can see the image below.

The stages carried out by researchers in carrying out this research followed the model developed by Kemmis and Mc. Taggart which consists of 4 stages includes: (1) planning stage (Planning), (2) action implementation stage (Acting), (3) observation stage (Observing), and (4) reflection stage (Reflecting).

Data collection techniques in this research are test and non-test techniques. Arfiyani Agnis, (2018) Data analysis is a process of managing and interpreting data with the aim of making various information appropriate to its function so that it has clear meaning and meaning

in accordance with the research objectives.

The data obtained from this research is data on the results of student and teacher activities and also data on student learning outcomes. Data was obtained through direct observation to determine student activity during the learning process. Arfiyani Agnis, (2018) Data analysis is a process of managing and interpreting data with the aim of making various information appropriate to its function so that it has clear meaning and meaning in accordance with the research objectives. The data obtained from this research is data on the results of student and teacher activities and also data on student learning outcomes. Data was obtained through direct observation to determine student activity during the learning process carried out by observers. Apart from that, we use tests to determine student learning outcom es. This research is said to be successful if there is an increase in student learning outcomes. Success indicators for learning outcomes are measured using changes in increasing learning outcomes. The assessment indicators are:

1. Achieving the minimum completion criteria (KKM) determined by the school, namely 70 out of an ideal score of 100, is categorized as complete individually. Meanwhile, classically it is said to be successful if the student's average score reaches a minimum of 85%
2. There was an increase in student quality from cycle 1 to cycle n in general, which can be seen on the observation sheet, after the discovery learning model was implemented, such as increasing students' self-confidence, being critical and so on.

Results

The initial meeting was held with a time allocation of 2x45 minutes. The learning process consists of three activities, namely introduction, core activities and closing according to the RPP. In the introductory activity, the teacher begins the activity with orientation which includes giving greetings, checking student attendance, and starting the lesson by reading a prayer. Then give an apperception asking questions that are relevant in everyday life related to the material to be studied, for example "have you ever eaten mangoes? and what are the parts of the mango plant? And how do you care for it?" After that, the student teacher conveys the learning objectives.

In the core activity, the teacher shows pictures again of the learning media "plant replicas" as a form of stimulation that will help students in formulating problems. The teacher formulates the problem by asking students the question "name the parts and functions of this plant?". Then the teacher asks one of the students to come forward to show the part of the plant on the plant replica media and state the benefits of the plant. Next, the teacher asks students to choose one type of plant to identify the parts of the plant. From the problems given by the teacher, students are expected to provide temporary answers (hypotheses). Then the teacher distributes the student worksheet (LKS) that has been provided to each student, the teacher then guides the students to make observations according to the instructions on the student worksheet (LKS). The teacher gives students the opportunity to ask questions about student worksheets (LKS). After the students have done the student worksheet (LKS), the teacher asks the students to report the results of their work in front of the class about the parts and functions of plants and how to care for them and also a list of questions about the natural characteristics of the plant's living place/habitat. Then the teacher asks and answers whether there are things that are not understood.

In the final activity, the teacher and students provide conclusions about the material. Provide reinforcement and reflection and convey reinforcement to students. This activity ends

with reading a prayer and closing greetings.

The third meeting contained student learning outcomes testing activities which began with providing motivation to each student to really prepare themselves to take the first cycle learning outcomes tests. Next, the researcher arranged the students' seating, so as not to disturb each other. The test is carried out for 2x45 minutes. After the first cycle learning outcomes test was completed, the researcher carried out an examination to assess the competency of each student. From this activity, competency scores were obtained regarding subtheme 1 animals and plants in my home environment. Next, these values are stated in the statistical table of student learning outcomes scores as follows:

Table 1 Statistics on Learning Outcome Scores for Class IV Students in Cycle I

Statistik Deskriptif	
Siklus I	
Jumlah Responden	9
Rata-Rata	66,67
Median	65
Modus	65
Standar Deviasi	10,606
Varians	112,5
Rentang Nilai	30
Minimum	50
Maximum	80
Jumlah Maksimum Skor	600

From table 2 we can see a picture of students' abilities. The average score of learning outcomes for class IV students at SD Inpres Panaikang 1 Makassar City after the discovery learning model was implemented in cycle I was equal to 66.67 out of a possible ideal score of 100, the highest score is 80 and the lowest score is 50 with a standard deviation of 10.606. The median of 65 and the modus of 65 indicate that the score of 65 is the most dominant score obtained by students in cycle I. Overall these scores provide a picture of the results that do not show good process quality.

If the student learning outcome scores are grouped into five categories, a frequency and percentage distribution is obtained as in the following table:

Table 2 Frequency and Percentage Statistics of Class IV Cycle I Student Learning Outcome Scores

Rentangskor	**Kriteria**	**Siklus I**	
		Frekuensi	**Persentase (%)**
80-100	Very good	2	22,22%
66-79	Good	2	22,22%
60-65	Enough	3	33,33%
46-59	Not enough	2	22,22%
>45	Sangat Kurang	0	0,00%
	Total	**9**	**100%**

Data Analysis Source 2023

Table 2 shows that of the 9 fourth grade students at SD Inpres Panaikang 1 Makassar City, the percentage of student learning outcome scores in thematic learning through the application of the discovery learning model, none of the students were in the very poor category, 2 students (22.22%) were in the very poor category. poor, 3 students (33.33%) are in the sufficient category, 2 students (22.22%) are in the good category and 2 students (22.22%) are in the very good category.

Based on the results of data analysis in table 4.2, the average score for student learning outcomes in cycle I was 66.67. If the student's average score is included in table 4.3, the average score is in the good category. This means that the average increase in learning outcomes for class IV students at SD Inpres Panaikang 1 Makassar City in thematic learning through the application of the discovery learning model in the implementation of cycle I is in the sufficient category. If student learning outcomes in cycle I are analyzed, the percentage of student learning completeness in cycle I can be seen in the following table:

Table 3 Description of Complete Learning Outcomes of Class IV Students at SD Negeri 47 Baru Towa Cycle I

Skor	Kategori	Frekuensi	Persentase (%)
0 ≤ Nilai < 70	Not Completed	5	55,56%
70 ≤ Nilai ≤ 100	Completed	4	44,44%
Jumlah		**9**	**100%**

From table 3 it shows that the percentage of classical completeness is 44.44%, namely 4 students out of 9 students are in the complete category and 29.41% or 5 students out of 9 students are in the incomplete category, meaning there are 5 students who need improvement because they have not achieve individual completion criteria. This also shows that classical completeness has not been achieved in cycle I, because only 44.44% have achieved completeness out of 85% of students who should have achieved completeness. In the implementation of cycle I, observations were carried out regarding ongoing teacher and student activities using observation sheets which has been made. Observers put a tick (√) on the aspects observed. The results of observations of teacher observations and student observations in implementing the discovery learning model are known from the analysis of teacher activity observation sheets and student activity observation sheets. The following is a table of results from observations of the implementation of the discovery learning model in cycle I.

Table 4 Teacher Activity Observation Sheet in Cycle I Meetings 1 and 2

Tahap	Total Skor		Persentase (%)		Kategori	
	OBS 1	OBS 2	OBS 1	OBS 2	OBS 1	OBS 2
Pertemuan 1	25	25	41,67%	41,67%	Sedang	Sedang
Pertemuan 2	31	32	51,67%	53,33%	Sedang	Sedang

Source: 2023 Data Analysis Results

The observation results in table 4 show that learning activities through the application of the discovery learning model in thematic learning on the theme of caring for living creatures, subtheme 1 animals and plants in my home environment, in cycle I of the first meeting, the total score was the total score which included preliminary activities, core activities and activities. Finally, observers 1 and 2 obtained the same score, namely 25 with a percentage of 41.67% and

were in the medium category.

Test and non-test preparation includes preparing teacher activity observation sheets and student activity observation sheets during the learning process, making student worksheets (LKS), making evaluation questions in the form of 20 multiple choice questions, and as an evaluation assessment tool.

Table 5 Cycle II Planning Schedule

No	Day/Date	Meeting	Material
1	Senin, 18 Oktober 2023	Meeting 1	Create questions to prepare for interviews and identify the role of animals as natural resources (Indonesian and natural science)
2	Kamis, 21 Oktober 2023	Meeting II	Identify animal parts and their functions and create written questions using standard vocabulary and effective sentences
3	Sabtu, 23 Oktober 2023	Meeting III	Giving cycle II learning results tests

After the second cycle learning outcomes test was completed, the researcher carried out an examination to assess the competency of each student. From this activity, competency scores were obtained regarding subtheme 2 diversity of living creatures in my environment. Next, these values are stated in the statistical table of student learning outcomes scores as follows:

Table 6 Statistics on Learning Outcome Scores for Class IV Students in Cycle II

Statistik Deskriptif	
SIKLUS II	
Number of Respondents	9
Average	81,11
Median	85
Mode	85
Standard Deviation	8,579
Variance	73,61
Value Range	25
Minimum	65
Maximum	90
Jumlah Maksimum Skor	730

Source: 2021 Data Analysis Results

From table 6 above, you can see an overview of students' abilities, the average score of learning outcomes for class IV students at SD Negeri 47 Baru-Baru Towa in thematic learning after applying the discovery learning model in cycle II was 81.11 from the ideal score which might reach 100, the highest score is 90 and the lowest score is 65 with a standard deviation of 8.579. Median 85 indicates that 50 percent of students scored 85 and above and 50 percent of students scored 85 and below. A mode of 85 indicates that a score of 85 is the most dominant

score obtained by students in cycle II. If the student learning outcome scores are grouped into five categories, a frequency and percentage distribution is obtained as presented in the following table:

Table 7 Frequency Statistics and Percentage Scores for Class IV Cycle II Students' Learning Outcomes

Rentang skor	Kriteria	SIKLUS II	
		Frekuensi	Persentase (%)
80-100	Very good	7	77,78%
66-79	Good	1	11,11%
60-65	Enough	1	11,11%
46-59	Not enough	0	0,00%
>45	Very Lees		0,00%
Total		9	100%

Table 7 shows that of the 9 fourth grade students at SD Inpres Panaikang 1 Makassar City, the percentage of student learning outcome scores in thematic learning through the application of the discovery learning model, there were no students in the very poor or poor categories, 1 student (11.11%) was in the sufficient category, 1 student (11.11%) was in the good category and 7 students (77.78%) were in the very good category.

Discussion

This research is classroom action research (PTK) which aims to improve student learning outcomes by applying the discovery learning model to fourth grade students at SD Inpres Panaikang 1 Makassar. Based on the research results stated previously, it can be concluded that in general there is an increase in students' learning outcomes by giving tests at the end of each lesson, so that the implementation of this research shows satisfactory results in the learning outcomes of class IV students at SD Inpres Panaikang 1 Makassar. The learning process in cycle I of this research applies the steps of the discovery learning model such as providing stimulus, identifying problems, collecting data, observing, proving and concluding. Learning activities that apply the discovery learning model emphasize the student discovery process. Stimulation and problem identification are important in implementing learning models that influence student outcomes. This is in line with stated by Gagne (Dimyati and Mudjiono: 2015) who said that learning is an interaction between students' internal states and students' cognitive processes with stimuli from their environment, this cognitive strategy is students' ability to channel and direct their cognitive activities which include the use of concepts and rules in solving problems . And from this process produces a learning outcome. However, in reality, this was not achieved optimally because the learning components which included student stimulation and problem identification were not implemented well in cycle I. Apart from that, seen from the analysis of the observation sheet which was in the medium category, it showed that teacher and student activities were not going well. This is the reason why the research results in cycle I as a whole are still not good in terms of process or in terms of student learning outcomes

Research facts in cycle I are reflected to serve as a basis for preparing preparations for action in cycle II. This is done so that in cycle II the learning process can be carried out optimally so that improvements occur. For this reason, several findings are the cause of not achieving results in accordance with the specified success indicators. In cycle II everything will be

optimized and its effectiveness improved, such as students who are less active and independent in learning which causes learning to not be carried out well will be corrected during learning actions taking place in cycle II. Apart from that, learning media which was limited in cycle I will be further optimized in cycle II. Furthermore, indicators of learning outcomes that have not been achieved will be more focused by emphasizing indicators that have not been achieved in cycle I. With preparations that have been planned based on reflection on the results of research in cycle I, research in cycle II will be carried out by perfecting all research components that have not been carried out well in cycle I.

Cycle II uses a discovery learning model with the same steps as in cycle I. The discovery learning model places more emphasis on the process of student discovery of learning material so that in cycle II the implementation of the learning model steps is more optimized. This is based on the reflection of cycle I which shows that there are several things that must be improved in cycle II. Optimizing the learning model steps has been implemented in cycle II, such as student stimulation activities which are made more creative by adding several learning media in cycle II, making students more active and able to identify problems well during the learning process. This is very influential in the next stage, thereby making the learning process run well and increasing teacher and student activity during the learning process in cycle II. After making improvements during the learning process in cycle II, there was an increase in learning outcomes which were better than the previous cycle. This can be seen from the learning outcomes test given at the end of the cycle II meeting which was in the very good category which was previously in the sufficient category. Apart from that, there was an increase in teacher and student activity in cycle II, teacher and student activity was in the very good category.

Conclusion

Based on the results of classroom action research that has been carried out, it can be concluded that the application of the discovery learning model can improve the learning outcomes of class IV students at SD Inpres Panaikang 1 Makassar City in thematic learning on the theme of caring for living things. This is proven by the research results which show that in cycle I student learning outcomes were in the sufficient category, and experienced an increase in cycle II to the very good category.

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References

Ading Muslihudin, 2020, Implementasi Model Discovery Learning Berbantuan Video Dalam Utpaya Meningkatkan Hasil Belajar Siswa Kelas V SD Negeri 1 Suganangan, *Jurnal Elementaria Edukasia*, Vol. 2 (1). (Diakses pada 14 Juli 2020)

Anas Sudijono, 2021, *Pengantar Evaluasi Pendidikan*, PT. Raja Grafindo Persada,Jakarta

Arfiyani Agnis Livia Arum, 2021, *Peningkatan Kemampuan Berfikir Kreatif Dan Hasil Belajar Siswa Kelas V Pada Pembelajaran Ipa Melalui MetodeDiscovery Learning SDN Ngablak*, Universitas Sanata Dharma Yogyakarta,Yogyakarta

Asrul dkk, 2020, *Evaluasi Pembelajaran,* Citapustaka Media, Bandung

Dewi Yugaswati Ningsih, 2021, Penggunaan Model Pembelajaran *DiscoveryLearning* Untuk

Meningkatkan Prestasi Belajar Siswa Pada Tema Peduli Terhadap Mahluk Hidup, Universitas Pasundan, Bandung.

Dianita Eka Prasasti dkk, 2021, Peningkatan Keterampilan Berpikir Kritis Dan Hasil Belajar Matematika Melalui Model Discovery Learning Di Kelas IV SD, *Jurnal Basicedu* Vol. 3 (1): 174 – 179. (Diakses pada 14 Juli 2020).

Dimyati dan Mudjiono, 2015, *Belajar Dan Pembelajaran*, Rineka Cipta, Jakarta Doni

Setiawan Pramono, 2018, Penggunaan Metode Discovery Learning Untuk Meningkatkan Keaktifan Dan Kompetensi Siswa Pada Mata Pelajaran Perawatan Kelistrikan Kendaraan Ringan Kelas XI TKR 3 Di SMK Negeri2 Yogyakarta, Program Studi Pendidikan Teknik Otomotif Fakultas Teknik, Universitas Negeri Yogyakarta, Yogyakarta.

Eka Nur Dian Saputri & Hani Masita, 2019, Faktor-Faktor Yang Mempengaruhi Belajar, *Jurnal Edupedia,* Vol. 1 (1). (Diakses pada 21 Juli 2020).

Endang Sri Rahayu, 2015, Upaya Meningkatkan Keterampilan Berfikir Kritis Siswa Dengan Menggunakan Model Pembelajaran Cooperative Script Pada Mata Pelajaran IPS Kelas V, *Skripsi*, Jurusan Pendidikan Guru Madrasah Ibtidaiyah Fakultas Ilmu Tarbiyah Dan Keguruan, Universitas Hidayatullah,Jakarta.

Firosalia Kristin 2016, Analisis Model Pembelajaran Discovery Learning Dalam Meningkatkan Hasil Belajar Siswa SD, Jurnal *Pendidikan Dasar PerKhasa,* Vol. 2 (1): 91-98. (Diakses pada 14 Juli 2020).

Galih Prayoga, 2016, Penggunaan Model Project Based Learning Untuk Menumbuhkan Sikap Teliti Dan Disiplin Serta Meningkatkan Nilai Hasil Belajar Pada Pembelajaran Tematik, Universitas Pasundan, Bandung.

Gina Rosarina dkk, 2016, Penerapan Model Discovery Learning Untuk Meningkatkan Hasil Belajar Siswa Pada Materi Perubahan Wujud Benda, *Jurnal Pena Ilmiah*,Vol. 1 (1). (Diakses pada 14 Juli 2020)

Guntur Hendra Pamungkas dkk, 2019, Peningkatan Proses Dan Hasil Belajar Ipa Kelas 5 Tema 6 Subtema 3 Dengan Model Pembelajaran Discovery Learning, *Jurnal Basicedu*, Vol.3 (1): 43- 46. (Diakses pada 14 Juli 2020)

Haidir & Salim, 2022*, Strategi Pembelajaran Suatu Pendekatan Bagaimana Meningkatka kegiatan Belajar Siswa Secara Transformatif*, Perdana Publishing, Medan

Hidayatul Muamalah & Suyadi, 2020, Pelaksanaan Teori Belajar Bermakna David Ausubel Dalam Pembelajaran Pendidikan Agama Islam, *Jurnal Pendidikan Islam* Vol, 5 (01): 23-36. (Diakses pada 20 Juli 2020).

Inayatu Mubarokah, 2021, Pengaruh Penerapan Model Pembelajaran Discovery Learning Terhadap Hasil Belajar Tema 8 Subtema 3 Tentang Memelihara Ekosistem Siswa Kelas V Sekolah Dasar Negeri 1 Palapa Kota Bandar Lampung, Jurusan Ilmu Pendidikan Fakultas Keguruan dan Ilmu Pendidikan, Universitas Lampung, Bandar Lampung.

Ismaul Husna, 2021, Peningkatan Hasil Belajar Melalui Model Pembelajaran Discovery Learning Tema 1 Kelas Iv Sd Negeri 1 Beringin Raya Kemiling Bandar Lampung, Jurusan Ilmu Pendidikan Fakultas Keguruan dan Ilmu Pendidikan, Universitas Lampung, Bandar Lampung.

Kemndikbud, 2016, *Pembelajaran Tematik Terpadu Tema 3 Peduli Terhadap Mahluk Hidup Buku Guru SD/MI Kelas IV*, Kemendikbud, Jakarta.

Kunandar, 2020, *Penilaian Autentik (Penilaian Hasil Belajar Peserta Didik Berdasarkan Kurikulum 2013),* , PT. Raja Grafindo Persada, Jakarta

Muhammad Afandi dkk, 2013, Model dan Metode Pembelajaran di Sekolah, Unissula Press, Semarang.

Ngalim Purwanto, 2020, Prinsip-Prinsip Teknik Evaluasi Pengajaran, PT Remaja Rosdakarya, Bandung

Nurdyansyah, & Eni Fariyatul Fahyuni, 2020, Inovasi Model Pembelajaran, Nizamial Learning Center, Sidoarjo

Rumini & Naniek Sulistya Wardani, 2020, Upaya Peningkatan Hasil Belajar Tema Berbagai Pekerjaan Melalui Model Discovery Learning Siswa Kelas 4 SDN Kutoharjo 01 Pati Kabupaten Pati Semester 1 Tahun Ajaran 2014-2015, jurnal pendidikan dan kebudyaan, vol.6 (1): 19-40. (Diakses pada 14 Juli 2020)

Rusman, 2019, *Pembelajaran Tematik Terpadu*, PT. RajaGrafindo Persada, Saur Tampubolon, 2014, *Penelitian Tindakan Kelas Sebagai Pengembangan Profesi Pendidik Dan Keilmuan*, Erlangga, Jakarta

Wahid, A., Ahmad, M. A., & Pattaufi, P. (2021). Character-Based 4c Learning Model To Improving Students' Metacognitive Abilities: A Develop Phase Of Research & Development. Universal Journal Of Educational Research, 9(3), 650–659. Https://Doi.Org/10.13189/Ujer.2021.090324.

Wahid, A., dkk (2023). Upaya Menumbuhkan Jiwa Enterpreneur Peserta Didik Melalui Kearifan Lokal Sd Inpres 10/73 Kabupaten Bone.Community Development Journal

Wahid, A., dkk (2023). Pelatihan Penyusunan Instrumen Implementasi Projek ProfilPelajar Pancasila Pada Tema Kewirausahaan Di Kelas IV Di UPT SD Inpres 7/83 Tanete Kecamatan Cina. Community Development Journal Pengabdian Masyarakat, Vol. 4 No. 5,10769–10773.Https://doi.org/10.31004/cdj.v4i5.21778.