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# The Effect of Using Quartet Card Media on The Ability to Understand the Concept of IPAS for Elementary School Students

Shofa, Ira Maya<sup>1</sup>, & Fajrie, Nur<sup>1\*</sup>

<sup>1</sup>Muria Kudus University, Jl. UMK North Ring, Gondangmanis, Bae, Kudus – 59327 Central Java, INDONESIA

\*Corresponding author email: [nur.fajrie@umk.ac.id](mailto:nur.fajrie@umk.ac.id)

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**Abstract:** This research is based on the lack of students' understanding of how to get all of our needs. The problem of the needs of many students who can distinguish between urgent needs and not and have not known the process of fulfilling needs in the old days before there was money. This research aims to find out the impact of using quartet card media on the understanding of the concept of IV grade SDN Nganguk students. Quantitative research with pre-experimental design design in the form of one group pretest and posttest carried out with subjects 12 students' IV grade SDN Nganguk. The data collection techniques used include observations, interviews, and tests. Data analysis is used using descriptive statistical data analysis such as a normality test and a paired sample t-test. His findings show that students' understanding of the concept of needs is increasing. Paired sample t-test results obtained Sig. 2-tailed = 0,000 < 0.05. The conclusion that the use of quartet card media can influence the understanding of the concept of fourth grade students SDN Nganguk on the IPAS material on the chapter how to get all our needs.

**Keywords:** Quartet cards, concept understanding, IPAS

## 1. Introduction

Natural and Social Sciences (IPAS) is one of the main subjects of teaching in primary school. This is a development of the Free Curriculum that blends natural sciences (IPA) and social sciences (IPS) into one sub-theme. The load of IPAS studies living and dead things in the universe and their interaction and considers human life as an individual and social being that interacts with its environment. According to (Septiana & Winangun, 2023) in learning IPAS can help students understand the content and context of IPAS, strengthen reading, writing and counting skills, as well as acquire living skills in everyday life.

In the implementation of IPAS learning at the primary school level, teachers should train students' critical thinking skills, for example in understanding basic concepts on a learning material, applying and developing the knowledge that has been taught by teachers. In (Waluyo, 2018) Students have an important role in determining a person's understanding of concepts, because at this stage they are building the foundations of conceptual understanding that will form the basis for further learning. But sometimes there are misunderstandings or misconceptions at the elementary school level and can have long-term consequences because misunderstanding can persist for a long time if not corrected. Therefore, efforts are needed to detect and correct misunderstanding or misunderstood at the primary school stage. Thus, students can build a solid and accurate understanding of concepts, which will be a strong foundation for further learning. Internal factors refer to aspects that originate from within the student, such as the level of thinking maturity, learning readiness, and motivation, while external factors refers to things that come from outside the student such as learning planning, teaching strategy, use of media, and learning methods applied.

Understanding of concepts is the ability of students to master a number of learning materials, not only knowing, and knowing but also reapplying concepts in a form that is easy to understand and able to apply them. Accordingly (State et al., 2019) conceptual understanding is the ability of a person to understand or capture the meaning of a material or

information received, and then be able to express it again in a clear and accurate way. This process involves the analysis, interpretation, and synthesis of information so that it can produce new ideas or thoughts that are inherent or related to the material. If the understanding of concepts is enhanced, students will have a solid foundation to master other important skills, such as problem-solving, communication, and reasoning towards learning. (Arsiyanto et al., 2021).

Students are said to be able to understand concepts of a matter if they can demonstrate some of these things: (1) redefine a concept, (2) classify objects according to their concepts, (3) give examples and non-examples of the concept, (4) present concepts in various forms, (5) develop the necessary conditions of a concept, (6) use, utilize, and choose procedures, (7) apply concepts to problem-solving. (Rahayu, 2018). So, students' success in understanding a concept can be observed through their ability to explain, apply, and use the concept in a variety of contexts and situations. The use of media in learning plays a crucial role in facilitating students' understanding of concepts. According to Asnawir and Usman (2002), the use of learning media has several important functions. First, learning media helps students to better understand abstract concepts. Second, it helps teachers in the teaching process by providing effective tools. Third, the use of media gives students a more real experience, so they can associate these concepts with real situations in their lives.

Media card game pancasila quartet in research (Hardhita, 2022) is effective in improving student understanding of the application of pancasila values in everyday life. In cycle I with lecture method and power point media, the percentage of pupils who obtained a punch score was 50%, when improvements were made in cycle II with a quartet card game medium, the percent of pupils who received a punched score increased by 85%. Based on the results of the study (Students et al., n.d.) obtained the result of the test hypothesis of the research showed the calculation of the Independent sample t-test, if significant = 0,00 then the significant value is  $0,00 < 0,05$  in this case means rejected  $H_0$  and received  $H_a$ . As well as supported by the effectiveness test results that showed that the value of 0,359 with the criterion of great effectivity, then it can be determined that students who use quarter cards are more effective than students who encourage conventional learning.

Based on the results of research conducted by (Anggraini, 2017) it can be concluded that the application of the Teams Games Tournament (TGT) learning model with the help of quartet card media is effective in improving the understanding of the concept of services and the role of the figure towards Indonesian independence in the students of the fifth grade in SD State Soropadan. This increase can be seen from the average grade data of the class and the percentage of classical student skill. In the pre-test phase, only 5.6% of students achieved proficiency, with an average score of 51. Following the application of the TGT model in cycle I, the percentage of proficiencies of students increased to 30.6%, with a mean score of 59.7. Then, in the second cycle, there was a significant improvement where the average grade score reached 75.8%, with the student proficience rate reaching 83.3%.

In the observation of Class IV at SDN Nganguk, there are several factors that cause problems in IPAS learning. First, some students tend to be quiet and seem to pay attention to learning, but when asked by teachers, they find it difficult to answer. Second, in one class there are variations in student interests, which sometimes make it difficult for teachers to adjust learning to their interests. Third, the time limitation of teachers so they do not have enough time to create learning media. To solve these problems, the use of learning media can be an effective solution. By using relevant and interesting learning media, it can increase the interest and motivation of students in the learning process. This will help students to understand the concepts taught by teachers more quickly.

Quartet card learning media is one of the learning methods that uses quartet card games as a tool to work on certain concepts to students. The quartet card itself is a game played using a set of cards containing four cards of the same value in each set. Each card has a picture or information related to a particular topic. Because the author will conduct learning research using quarter card media to test the students' ability to understand concepts on the material how to get all our needs on the load of Class IV IPAS in SDN Nganguk Village Kudus District, Indonesia.

## 2. Methodology

This research is a quantitative study with experimental methods. The design used in this research is Pre Experimental Design, which involves only one class as an experimental class with no control class. The pre-experimental form used in this study is One Group Pretest-Posttest, this study was carried out in the fourth semester of the school year 2023/2024 at Nganguk SDN. The population in this research is in Nganguk SDN with a sample of the entire students of class IV with a number of 12 Students to find out the ability to understand the concepts of students with the help of Media Quarted Card on learning IPAS.

**Table 1: Research Design One Group Pretest-Posttest**

<i>Pre-Test</i>	<i>Treatment</i>	<i>Post-Test</i>
O <sub>1</sub>	X	O <sub>2</sub>

On the design of the above examination is done twice, i.e. before and after the treatment is given. The test given before the treatment is called Pre-Test (O<sub>1</sub>) after giving the Pretest then the author gives the treatment using the Quarted Card (X) medium on the learning of the IPAS, after which at the final stage the author provides the Post-test (O<sub>2</sub>). The

data collection technique in this study is by lifting. A questionnaire containing an indicator of the student's understanding of concepts on an IPAS load of my need's material. Here's the pattern of the research procedure.

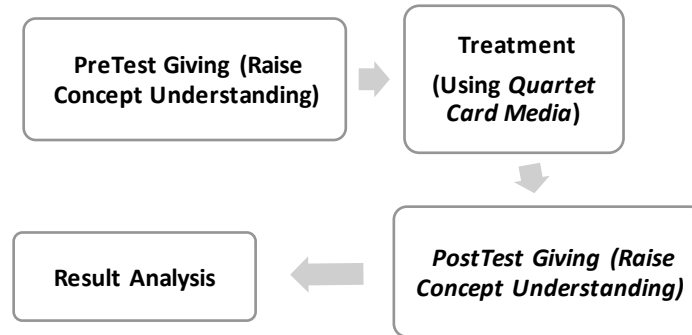


Figure 2: Research Procedures

The data analysis technique used is with the Normality Test to determine whether the data is distributed normally or not. Data is said to be distributed normal when the dimension value of significance is greater than the significance level of 0.05 ( $sig > 0.05$ ), while data is said not to be normal if the dimension is smaller than the significant level of 0.5 ( $sig < 0.05$ ) (Kurniawan, 2017). After performing the normality test and the data obtained normal then the next step is to perform the Paired T Test to find out the average difference before and after the treatment given. After knowing the difference of the average then the researcher can formulate a hypothesis whether there is a difference in the understanding of the student concepts between before being treated using the Quartet Card media and after having been treated with the Quartett Card media.

### 3. Result

The researchers obtained data on understanding of IPAS concepts from the pre- and post-test lift scores. The difference between average scores of understanding of the IPAS concept can be known by giving the lift at the beginning of the meeting and at the end of it. Before the treatment with the Quartet Card media in the learning of IPAS students still did not know about how to get all our needs.

After giving the learning treatment using the Quartet Card media on the load IPAS theme how to get all the needs we finally students will understand the concept of how to obtain all our needs. The impact of the use of Quartet card media on students' ability to understand the concepts can be known by the data analysis on the first hypothesis that students experience improvement in the test results paired t test with a score  $sig. (2\text{-tailed}) = 0,000 < 0,05$ . So, it can be concluded that the average value of the score raised before and after graduation is very significant. So, the use of Quartet Card media can influence students' ability to understand concepts.

Table 1: Recapitulation of Pretest and Posttest Results Students of Class IV SDN Nganguk

Descriptive Statistics								
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Pretest	12	35	40	75	655	54,58	11.572	133.902
Posttest	12	15	70	85	960	80,00	5.222	27,273
Valid N (listwise)	12							

The embossed table shows a pretest value before applying a Quartet Card media with a low value of 40 and a highest value of 70. Posttest results after applying a Quartett Card medium with a lower value of 75 and a maximum value of 85. For an average score of 80,00. So, the results of this study show that there is an improved understanding of the concept of students by using Quartet Card media in the load of IPAS.

The normality test is a test used to determine whether the data used in the study is distributed normally or not. Normality test is carried out with the Shapiro-Wilk test where data used is less than 100. The test criterion is that if the sig value is  $> 0.05$ , then the data is said to be normal. In this study, a Pretest score of 0.234 was obtained, and a PosTest value of 0.033. Since the value is greater than 0.05, it can be concluded that the data of the pretest and posttest values are distributed normally. Here's the output of the normality test data and the test paired sample t test.

**Table 2: Results of Calculation of Normality Test Data Pretest and Posttest**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Pretest	.237	12	.061	.913	12	.234
PostTest	.247	12	.041	.846	12	.033

a. Lilliefors Significance Correction

**Table 3: Result Test Paired Sample T-test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest - PostTest	-25.417	8.107	2.340	-30.567	-20.266	-10.861	11	.000

Paired Sample T Test is a test used to compare averages of data from the same source and subject between before and after the treatment to determine whether or not the use of Quartet Card media has an influence on student's conceptual capability. Based on the Paired Sample Test output table above, it is known that the Sig. (2-tailed) value is  $0,000 < 0,05$ , then  $H_0$  is rejected and  $H_a$  is accepted. So, it can be concluded that there is an influence of students' understanding of concepts before and after giving treatment with the help of media Quartet Card for students of class IV SDN Nganguk in the load of IPAS on the material how to get all our needs.

#### 4. Discussion

The result of the average value of understanding the concepts of IPAS students with testing the difference between the average score of pretest and posttest using the test paired sample t test that the result before given treatment obtained a score of 54.58% and the result posttest after given treatment received a result of 80,00%. From the average can be concluded that after given the treatment, the average student score can increase by 25.42%. From these results can be seen that there is a difference in the understanding of the student concept. It's seen when learning goes on that there's a difference between before and after treatment. Students who have not initially understood how to get all our needs become aware of how to meet the needs of the past and the present and can distinguish which needs should be immediately met and which not.

Students who were initially less enthusiastic about learning are now very enthusiast about learning because by playing the Quartet Card, it gives students a passion for learning and as learning proceeds they are active in asking and they are quicker to capture the material taught by the teacher. It is in line with (Prasetaga tanyas, 2020) that most students are also enthusiastic about following learning with quartet media, as well as can reduce student boredom during learning. The application of the quarter card game method makes it easier for students to understand the material. By playing, students feel interested and happy to learn. Once they are happy with learning, students are expected to have a positive attitude towards the lesson, which will result in effective learning. It is also in line with (Rifqa Afisa et al., 2023) that learning media can help teachers and learners in the learning process, can facilitate the delivery of learning material in an attractive manner as well as students are easier in receiving material and will be easily remembered by students.

Obtained differences from understanding the concept of how to obtain the need obtained because of the learning of IPAS using Quartet Card media. Students are very enthusiastic about learning and actively interact with friends and teachers, they enjoy learning while playing, they can know what a need is, how to meet a requirement, and they can distinguish between urgent and not urgent needs. In such learning students are formed into several groups so that they will teach each other with their group friends and the whole group will choose the right understanding of the concept.

Understanding concepts is an important element in learning. According to (Dede et al., 2018) students are said to understand concepts when students can redefine the material they have learned based on their own understanding so that learning will make sense. According to (Apriliyana et al., 2023) problem solving requires rules, and those rules are based on the concepts one possesses, mastering many concepts helps one solve problems better. In a study (Mulyono, Julia & Dadang, 2016) the importance of the use of quartet card media inside IPAS students can attract the attention of students and can improve the learning outcomes of primary school students.

To enable students to learn in the classroom, teachers can use quartet card media in IPS subjects so that students do not get bored with a lot of material. It is in line with research (Giwangsa, 2021) that quarter media is worthy to be used in IPS learning in schools, this is because the media is easy to use, fun and can improve student learning motivation. Using media in classroom learning can improve the understanding of what teachers teach. Effective use of media can

make students happier to follow lessons and improve their understanding about what is being taught. This can be seen as the teacher explains the topic using the learning media (Siswa et al., n.d.).

By applying the media quartet card about the need to learn IPAS makes students more active and enthusiastic when following the lesson. By forming small groups in learning makes students interested, motivated and able to absorb material easily, because it is done learning while playing so students will quickly better understand the concept of the need matrix on the load of IPAS.

## 5. Conclusion

The author can conclude that on the basis of the results can be found a difference between before and after the application of the media quartet card against the understanding of the concept of the students of class IV SDN Nganguk on the material how to obtain all our needs. The result can be seen on the test results paired sample t test which showed the value sig. (2-tailed) = 0,000 < 0,05 with the criterion Sig.p < 0.05 stated that H<sub>0</sub> was rejected and H<sub>a</sub> accepted. Thus the authors conclude that the use of quartet card media can influence students' understanding of the concept of IPAS on the material how to get all our needs.

## References

- Apriliyana, D. A., Masfu'ah, S., & Riswari, L. A. (2023). Analisis Pemahaman Konsep Matematika Siswa Kelas V pada Materi Bangun Ruang. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 6(6), 4166–4173. <https://doi.org/10.54371/jiip.v6i6.2149>
- Arsiyanto, A. R., Wanabuliandari, S., & Fajrie, N. (2021). Faktor-Faktor Hasil Pemahaman Konsep Matematis Dalam Pembelajaran Masa Pandemi Covid-19. *Jurnal Ilmiah P2M STKIP Siliwangi*, 8(1), 1–14.
- Dede, N. salim, Afriyuni, Y. devi, & Fauziah, A. nurul. (2018). Upaya Meningkatkan Pemahaman Konsep Siswa Melalui Penerapan Metode Demonstrasi Pada Mata Pelajaran Ipa. *Jurnal Cakrawala Pendas*, 4(2), 9–16.
- Giwangsa, S. F. (2021). Pengembangan Media Kartu Kuartet Pada Pembelajaran Ips Sekolah Dasar. *Pedagogi: Jurnal Penelitian Pendidikan*, 8(1), 40–48. <https://doi.org/10.25134/pedagogi.v8i1.3992>
- Hardhita, R. S. (2022). Penggunaan Media Permainan Kartu Kuartet Pancasila pada Tentang Penerapan Nilai Pancasila Dalam Kehidupan Sehari-Hari Pendahuluan Dalam dunia pendidikan , media pembelajaran merupakan hal yang sangat penting untuk menumbuhkan semangat belajar dalam diri p. *Edustream: Jurnal Pendidikan Dasar*, VI(November), 120–127.
- Kurniawan, D. E. (2017). Pengaruh Intensitas Bermain Game Online Terhadap Perilaku Prokrastinasi Akademik Pada Mahasiswa Bimbingan Dan Konseling Universitas PGRI Yogyakarta. *Jurnal Koseling Gusjigang*, 3(1), 97–103. <http://jurnal.umk.ac.id/index.php/gusjigang/article/download/1120/1071>
- Mulyono, Julia & Dadang, K. (2016). Penggunaan Media Kartu Kwartet untuk Meningkatkan Hasil Belajar Siswa Pada Materi Peninggalan Sejarah HinduBuddha di Indonesia dalam Mata Pelajaran IPS. *Jurnal Pena Ilmiah*, 1(1).
- Negara, I. P. B. J., Suniasih, N. W., & Sujana, I. W. (2019). Determinasi Disiplin Belajar Dan Interaksi Sosial Terhadap Pemahaman Konsep Ips Siswa Kelas V. *Media Komunikasi FPIPS*, 18(2), 87–96. <https://doi.org/10.23887/mkfis.v18i2.22243>
- Prasetyaningtyas, S. (2020). Penerapan Metode Permainan Kartu Kwartet Untuk Meningkatkan Prestasi Belajar Dan Keaktifan Belajar Pada Materi Klasifikasi Makhluk Hidup Kelas Vii Smp N 1 Semin. *Ideguru: Jurnal Karya Ilmiah Guru*, 5(1), 100–108. <https://doi.org/10.51169/ideguru.v5i1.118>
- Rahayu, Y. (2018). Analisis Kemampuan Pemahaman Matematis Siswa Smp Pada Materi Himpunan: Studikasusdi Smp Negeri 1 Cibadak. *Pasundan Journal of Research in Mathematics Learning and Education*, 3 No. 2, 96. <https://www.journal.unpas.ac.id/index.php/symmetry/article/view/1284/677>
- Rifqa Afisa, Z., Fajrie, N., & Pratiwi, I. A. (2023). Pengembangan Media Komik Edukasi Berbasis Kearifan Lokal Untuk Meningkatkan Hasil Belajar Kognitif Siswa Kelas V Mi Pim Mujahidin. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, 08(01), 3848–3861.
- Septiana, A. N., & Winangun, I. M. A. (2023). Analisis Kritis Materi Ips Dalam Pembelajaran Ipas Kurikulum Merdeka Di Sekolah Dasar. *Ilmiah Pendidikan Guru Sekolah Dasar*, 1(1), 43–54. [file:///C:/Users/hp/Downloads/3479-7788-1-PB \(2\).pdf](file:///C:/Users/hp/Downloads/3479-7788-1-PB%20(2).pdf)
- Siswa, P., Mata, P., Ips, P., & Iv, K. (n.d.). *Efektivitas kartu kuartet terhadap kemampuan pemahaman siswa pada mata pelajaran ips kelas iv*. 119–126.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif*. Alfabeta, Cv.