



The Effect of Hypnoteaching Learning Method on Students' Problem-Solving Skills and Concept Understanding

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Abstract

Hypnoteaching is not just teaching because it is a teaching strategy that increases students' motivation and learning quality. Hypnoteaching can also be interpreted as a combination of teaching that involves the conscious mind and the subconscious mind. This research aims to know the effect of the Hypnoteaching method on students' problem-solving skills and conceptual understanding. This research employed a quasi-experimental design. The samples were determined using cluster random sampling. The population of this study was the entire seventh-grade students of MTs SA Raudlatul Huda Al-Islamy. The Multivariate Analysis of Variant (MANOVA) was used to analyze students' problem-solving skills and concept understanding, with the degree of significance of 0.05. Therefore, it can be concluded that the Hypnoteaching method influence students' problem-solving skills and concept understanding.

INTRODUCTION

The success of students' learning depends on several factors, one of which is the teacher [1]. A teacher can also be called as *Al-Murabbi* which means someone who tries to grow, foster, guide, and direct all the students' potential persistently and sustainably. Mathematics is one of the essential subjects that must be taught by the teacher as an educator. Mathematics is one of the most useful knowledge in life. Almost every part of our life contains mathematics [2]–[5]. It is also beneficial for life and the future. However, mathematics is also considered a difficult subject area for students. Mathematics is considered difficult and the use of learning methods does not support the learning process which causes students to be uninterested to learn. Consequently, the students cannot achieve the learning objectives. These problems cause low problem-solving skills and concept understanding.

Problem-solving in mathematics is an activity to find solutions to mathematical problems using mathematical knowledge. Problem-solving can also be interpreted as finding a way out of a problem. A student is said to be able to solve problems well if they are following the steps of problem-solving, namely understanding the problem, planning, implementing the plans, and looking back [6]. However, a significant number of students cannot solve problems well. It was proven by the results of observations by the researchers at MTs SA Raudlatul Huda Al-Islamy. There, students' problem-solving skills test results were low. Only 42.2% of students got scores above the criteria of minimum mastery (KKM). The remaining 57.7% got scores below the KKM.

Besides problem-solving skills, another factor that is no less important and greatly influences the mathematics learning process is conceptual understanding. Understanding the concept means that the students master the mathematical concepts of learning material and can apply them clearly

and logically. Concept understanding is an important foundation for solving mathematical and everyday problems. However, many students have low concept understanding. Based on the field data, 44.4% of students could obtain scores score above the KKM, while the remaining 55.56% scored below the KKM. This phenomenon might be caused many students who do not pay attention to the teachers' explanation. Besides, learning using conventional methods seems boring.

One method that is interesting, creative, imaginative, and unique is Hypnoteaching. Hypnoteaching comes from the word "*hypnosis*" which means suggesting. Therefore, Hypnoteaching is a method where the teacher suggests or motivates students to remember the delivered material [7]. Hypnoteaching presents material through subconscious language [8]. It is a learning method that collaborates several elements, namely the science of hypnosis, communication, psychology, and teaching techniques in the classroom [9]. Novian Triwidia Jaya, in the book Hypnoteaching, states that Hypnoteaching is not just teaching because it is a teaching strategy that increases students' motivation and learning quality. Hynoteaching can also be interpreted as a combination of teaching that involves the conscious mind and the subconscious mind [10]. Hypnoteaching can also be interpreted as the art of communicating by suggesting so that students become smarter [11]. In its implementation, the Hypnoteaching steps are as follows:

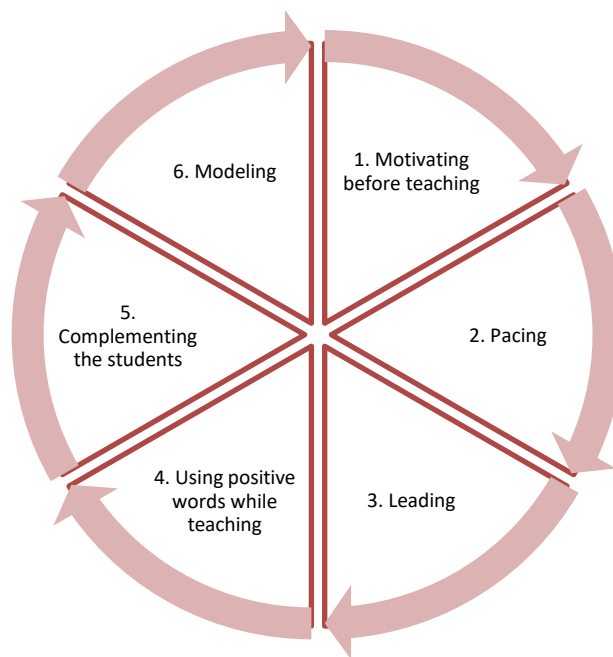


Figure 1. Hypnoteaching Learning Steps

The Hypnoteaching learning method consists of six stages. The first stage is the intention and motivation before teaching. At this stage, the teachers prepare to learn materials and motivate themselves to provide the best learning to students. The second stage is the pacing stage. At this stage, the teachers instruct the students to follow and listen to the lesson well and focus on understanding the learning material. The third stage is the leading stage. Teachers direct or lead after the pacing process has been performed. The fourth stage is the stage where the teachers use positive words when teaching. This step is a supporting step within the pacing and leading steps. A positive word will make students' subconscious minds reject negative words. The fifth stage is the stage where the teachers complement the students [12].

Previous researchers investigate the influence of the Hypnoteaching method on the fifth-grade students' mathematics learning outcomes at elementary schools [13], the effect of the Hypnoteaching method on students' mathematical abilities on trigonometric comparison [14].

They also investigate the mathematical problem-solving ability using cooperative learning 'Think-Pair-Share with heuristic approach [15], see concept understanding using interactive multimedia [16], and students' learning outcomes and learning activities improvements [9].

Previous researchers also examined concept understanding that can be improved through interactive multimedia-based learning media [17], [18], guided-discovery learning model [19], and guided-discovery learning based on the culture of Toba [20]. Besides, problem-solving skills have also been studied before. Problem-solving skills can be improved through blended learning with animated videos[21] and problem-based learning models [22]. The novelty in this study is to determine the effect of the Hypnoteaching method on students' problem-solving skills and conceptual understanding. Therefore, this study was conducted to see the influence of the Hypnoteaching method on students' problem-solving skills and conceptual understanding.

RESEARCH METHOD

A quasi-experimental design was employed in this research. This experimental research has a control group but does not fully control the external variables that affect the implementation of the research [23]. The Hypnoteaching method was the independent variable and the problem-solving skills and concept understanding were the dependent variables.

The data collection techniques of this research were tests and documentation. The population of this study consisted of all seventh-grade students of MTs SA Raudlatul Huda Al-Islamy. Two classes were used as the sample classes. The first class that served as the experimental class applied the Hypnoteaching method and the second class that served as the control class applied the conventional learning method. Cluster random sampling was used to determine the sample where the members of the population are taken randomly without regarding the existing strata in the population.

The data analysis techniques used in this research were:

1. Normality test to determine whether the data were normally distributed or not. Lilliefors test was used in the normality test.
2. Homogeneity test to determine whether the two data came from a homogeneous sample. To test the homogeneity, the researchers used the Bartlett method.
3. Hypothesis testing using the Manova data analysis technique. MANOVA is a statistical analysis technique used to test the similarity of the mean of several variables from several populations at once or a technique to test the similarity of the average vector of several populations.

RESULTS AND DISCUSSION

After the learning process has been completed and the problem-solving skills and concept understanding data had been collected properly, the highest score (X_{\max}), the lowest score (X_{\min}), the mean (\bar{x}), median (M_e), mode (M_o), and standard deviation (s) in each class were obtained.

Table 1. The Description of Problem-Solving Skills Data

Classes	X_{\max}	X_{\min}	Central Tendency			Group Variance	
			\bar{x}	M_e	M_o	R	s
Experimental	100	68.75	85.87	81.25	87.5	31.25	10.04
Control	100	50	75.22	75	75	50	12.08

Based on the posttest of the problem-solving skills displayed in Table 1, the experimental class obtained maximum and minimum scores of 100 and 68.75. In the control class, the maximum and minimum scores were 100 and 50. The experimental class that applied the Hypnoteaching learning method was higher than the control class that applied the conventional learning method.

Table 2. The Description of Concept Understanding Data

Classes	X_{\max}	X_{\min}	Central Tendency			Group Variance	
			\bar{x}	M_e	M_o	R	s
Experimental	100	68.5	85.64	87.50	87.50	31.25	9.14
Control	100	50	76.11	75	75	50	11.03

Table 2 displays the posttest results of the experimental class. The obtained maximum and minimum scores were 100 and 68.75, while the control class obtained maximum and minimum scores of 100 and 50. Therefore, the posttest results of the conceptual understanding of the experimental class that applied the Hypnoteaching learning method were higher than the posttest results of the control class that applied the conventional learning method. The following are the results of the normality test on problem-solving skills and concept understanding:

Table 3. Normality Test Results of Problem-solving Skills and Concept Understanding

Information		p-Value	Significance	Test Decision
Problem-solving skills	Experimental	0.078	0.05	Normal Distribution
	Control	0.106	0.05	
Concept Understanding	Experimental	0.200	0.05	
	Control	0.182	0.05	

Based on Table 3, both classes obtained p-values of more than 0.05. Therefore, the students came from a normally distributed population. After the data had been known to be normally distributed, then the homogeneity test was performed. The results which can be seen in Table 4:

Table 4. The Results of Homogeneity Test of Problem-solving Skills and Concept Understanding

Statistics	Problem-solving skill
p-Value	0.734
Homogeneity	p-Value > 0.05
Conclusion	Homogeneous

Based on Table 4, it can be seen that the problem-solving skills data and concept understanding data came from the same or homogeneous population variance because the obtained p-value was 0.734 which was higher than 0.05. The next step was testing the hypothesis. The hypothetical test performed in this research was the MANOVA test (Multivariate Analysis of Variance) assisted by SPSS 26. The first test conducted was the test of the influence between subjects/variables (Test of Between-Subjects Effects). The results of the test can be seen in the following table:

Table 5. Test of Between-Subjects Effects

Manova Hypothesis	Ability	p-Value	Decision
Hypnoteaching Method	Problem-Solving	0.001	H_{0A} is rejected
	Concept Understanding	0.001	H_{0B} is rejected

Table 5 shows that the Hypnoteaching method on problem-solving skills obtained a p-value of 0.001 which was lower than 0.05. Thus, H_{0A} was rejected and H_{1A} was accepted. Therefore, there was an effect of the Hypnoteaching method on problem-solving skills.

The Hypnoteaching method on concept understanding obtained a p-value of 0.001 which was lower than 0.05. Thus, H_{0B} was rejected and H_{1B} was accepted. It can be concluded that there was an effect of the Hypnoteaching method on concept understanding.

After the tests had been performed on hypothesis 1 and hypothesis 2, then a Multivariate test was performed to see the effect of the learning method on both problem-solving skills and concept understanding. The MANOVA test results can be seen in the table below:

Table 6. Multivariate Test

Influence		p-Value	Decision
Hypnoteaching Method	Wilks' Lambda	0.000	H_{0C} is rejected

Based on table 6, it can be seen that the Wilks' Lambda test obtained a p-value of 0.000 with a significance level of 0.05. This shows the p-value was lower than 0.05, so there was an effect of the Hypnoteaching method on problem-solving skills and concept understanding.

It can be seen that there was a significant difference between the class that applied the Hypnoteaching method and the class that applied the conventional learning model. Therefore, the Hypnoteaching method affected students' problem-solving skills and concept understanding.

Problem-solving in learning mathematics is a basic skill that must be possessed. The problem-solving steps mutually support one another. The problem-solving consists of four steps, namely understanding the problem, planning the problem, solving the problem, and re-checking all the steps that have been done [24]. In solving problems, mathematical ideas are needed. The ability related to understanding mathematical ideas functionally is called conceptual understanding. Giving direction to students must be correct, otherwise, the concept obtained by students will not right [25]. Concept understanding is an essential basis for one's network of ideas in guiding thoughts [26]. Concept understanding is a skill or ability to understand and explain the situation of a class or group which has a general nature known in mathematics.

The Hypnoteaching method better improves students' problem-solving skills and concept understanding compared to the conventional teaching methods because the students are given examples of questions about algebraic form material to be discussed with the group during the learning process. The Hypnoteaching learning method also makes students more focused in the group discussion process because the group discussion stages in the Hypnoteaching method are structured that can motivate and can make learning more interesting [27].

Based on the research results, there was a relationship between the two dependent variables in this study, namely problem-solving skills and concept understanding. If students' conceptual understanding increases, the problem-solving skills will also increase and vice-versa.

CONCLUSIONS AND SUGGESTIONS

After the research has been carried out, the researchers draw several conclusions. First, there was an effect of the Hypnoteaching method on students' mathematical problem-solving skills in algebraic form material. Second, there was an effect of the Hypnoteaching method on students' mathematical concept understanding in algebraic form material. Third, there was an effect of the Hypnoteaching method on students' problem-solving skills and mathematical concept understanding in algebraic form material.

Based on the research results, the researchers suggest further researchers prepare to learn materials as well as possible in applying the Hypnoteaching method because not all subjects can use this method. Further researchers are also expected to choose the right time to get the best results. Besides, several factors affecting mathematical problem-solving skills and mathematical concept understanding should be considered so that the limitations of the research can be minimized for future research.

REFERENCES

- [1] M. Syazali, "Pengaruh Model Pembelajaran Creative Problem Solving Berbantuan Maple II Terhadap Kemampuan Pemecahan Masalah," *Al-Jabar: Jurnal Pendidikan Matematika*, no. 1, pp. 91–98, 2015.
- [2] Fatimah, *Matematika Asyik Dengan Metode Pemodelan*. Bandung: Mizan, 2009.
- [3] F. Rosyida, S. Utaya, and B. Budijanto, "Pengaruh Kebiasaan Belajar dan Self-Efficacy Terhadap Hasil Belajar Geografi di SMA," *Jurnal Pendidikan Geografi*, vol. 21, no. 2, Art. no. 2, Jun. 2016, doi: 10.17977/jpg.v21i2.5903.
- [4] Choirudin, E. F. Ningsih, M. S. Anwar, A. Choirunnisa, and A. Maselena, "The Development of Mathematical Students Worksheet Based on Islamic Values Using Contextual Approach," *International Journal on Emerging Mathematics Education*, vol. 3, no. 2, Art. no. 2, Apr. 2020, doi: 10.12928/ijeme.v3i2.13286.
- [5] Apri Wahyudi and Choirudin, "Pengembangan Alat Peraga Pembelajaran Matematika Materi Perkalian Berbasis Montessori," *Jurnal Manajemen Pendidikan Islam Al-Idarah*, vol. 4, no. 2, Art. no. 2, 2019.
- [6] H. A. Susanto, *Pemahaman Pemecahan Masalah Berdasarkan Gaya Kognitif*. Yogyakarta: Deepublish, 2015.
- [7] Q. Qomario, "Pengaruh Hypnoteaching dalam Contextual Teaching and Learning Terhadap Kemampuan Komunikasi Matematis," *Refleksi Edukatika: Jurnal Ilmiah Kependidikan*, 2018, doi: 10.24176/re.v9i1.2808.
- [8] E. Y. Rahmawati, "Pengaruh penerapan Metode Hypnoteaching Terhadap Motivasi Belajar Mahasiswa Universitas Indraprasta PGRI," *Formatif: Jurnal Ilmiah Pendidikan MIPA*, vol. 9, no. 1, pp. 83–90, 2015.

- [9] B. A. Setiawan, "Pengaruh Metode Hypnoteaching Terhadap Aktifitas Belajar dan Dampaknya Terhadap Aktifitas Belajar Siswa Kelas VII Pada Mata Pelajaran Al-Islam di SMP Muhammadiyah Jember," vol. 1, no. 1, 2018.
- [10] Salami, "Hypnotic Teacher dan Hypnoteaching," vol. 3, no. 1, 2017.
- [11] A. Budianto and N. S. Wiratama, "Hypnoteaching Dalam Pembelajaran Sejarah". *Edutama*, vol. 4, no. 2, 2017.
- [12] N. Yustisia, *Hypnoteaching: Seni Ajar Mengeksplorasi Otak Peserta Didik*. Jogjakarta: Ar-Ruzz Media, 2017.
- [13] P. Diantari, I. W. Wiarta, I. G. Agung, and O. Negara, "Pengaruh Model Pembelajaran Problem Based Learning Berbasis Hypnoteaching Terhadap Hasil Belajar Matematika Siswa Kelas V SD Jurusan Pendidikan Guru Sekolah Dasar, FIP Universitas Pendidikan Ganesha," *Jurnal Mimbar PGSD Universitas Pendidikan Ganesha*, 2014.
- [14] H. I. Alitah, W. S. Satiti, and K. Khotimah, "Pengaruh Metode Hypnoteaching Terhadap Kemampuan Matematika Siswa Pada Materi Perbandingan Trigonometri," *Journal of Education and Management Studies*, vol. 1, no. 2, p. 11, 2018.
- [15] Z. Zulfah, "Pengaruh Penerapan Model Pembelajaran Kooperatif Tipe Think Pair Share Dengan Pendekatan Heuristik Terhadap Kemampuan Pemecahan Masalah Matematis Siswa MTs Negeri Naumbai Kecamatan Kampar," *Jurnal Cendekia : Jurnal Pendidikan Matematika*, 2017, doi: 10.31004/cendekia.v1i2.23.
- [16] D. Novitasari, "Pengaruh Penggunaan Multimedia Interaktif Terhadap Kemampuan Pemahaman Konsep Matematis Siswa," *FIBONACCI: Jurnal Pendidikan Matematika dan Matematika*, 2016, doi: 10.24853/fbc.2.2.8-18.
- [17] I. D. Kurniawati and S. Nita, "Media Pembelajaran Berbasis Multimedia Interaktif Untuk Meningkatkan Pemahaman Konsep Mahasiswa," *DoubleClick: Journal of Computer and Information Technology*, 2018, doi: 10.25273/doubleclick.v1i2.1540.
- [18] M. S. Anwar, C. Choirudin, E. F. Ningsih, T. Dewi, and A. Maselena, "Developing an Interactive Mathematics Multimedia Learning Based on Ispring Presenter in Increasing Students' Interest in Learning Mathematics," *Al-Jabar: Jurnal Pendidikan Matematika*, vol. 10, no. 1, Art. no. 1, Jul. 2019, doi: 10.24042/ajpm.v10i1.4445.
- [19] U. Arifah and A. A. Saefudin, "Menumbuhkembangkan Kemampuan Pemahaman Konsep Matematika Dengan Menggunakan Model Pembelajaran Guided Discovery Learning," *UNION: Jurnal Pendidikan Matematika*, vol. 5, no. 3, p. 271, 2017.
- [20] R. Hutagalung, "Peningkatan Kemampuan Pemahaman Konsep Matematis Siswa Melalui Pembelajaran Guided Discovery Berbasis Budaya Toba di SMP Negeri 1 Tukka," *Journal of Mathematics Education and Science*, 2017.
- [21] I. G. P. Sudiarta and I. W. Sadra, "Pengaruh Model Blended Learning Berbantuan Video Animasi Terhadap Kemampuan Pemecahan Masalah Dan Pemahaman Konsep Siswa," *Jurnal Pendidikan dan Pengajaran*, 2016, doi: 10.23887/jppundiksha.v49i2.9009.
- [22] H. Cahyani and R. W. Setyawati, "Pentingnya Peningkatan Kemampuan Pemecahan Masalah Melalui PBL untuk Mempersiapkan Generasi Unggul Menghadapi MEA," *PRISMA, Prosiding Seminar Nasional Matematika*, 2016.
- [23] Sugiyono, *Metode Penelitian Kualitatif, Kuantitatif, dan RnD*, 19th ed. Bandung: Alfabeta, 2013.

- [24] W. Hidayat and R. Sariningsih, "Kemampuan Pemecahan Masalah Matematis dan Adversity Quotient Siswa SMP Melalui Pembelajaran Open Ended," *JNPM (Jurnal Nasional Pendidikan Matematika)*, 2018, doi: 10.33603/jnpm.v2i1.1027.
- [25] A. G. Fahrudin, E. Zuliana, and H. S. Bintoro, "Peningkatan Pemahaman Konsep Matematika melalui Realistic Mathematic Education Berbantu Alat Peraga Bongpas," *ANARGYA: Jurnal Ilmiah Pendidikan Matematika*, 2018, doi: 10.24176/anargya.v1i1.2280.
- [26] M. M. Trianggono, "Analisis Kausalitas Pemahaman Konsep Dengan Kemampuan Berpikir Kreatif Siswa Pada Pemecahan Masalah Fisika," *Jurnal Pendidikan Fisika dan Keilmuan (JPFK)*, 2017, doi: 10.25273/jpfk.v3i1.874.
- [27] E. Edistria, B. Rahman, and A. A. Abdillah, "Penerapan Hypnoteaching Untuk Meningkatkan Kemampuan Self-Regulated Learning Mahasiswa Papua Dalam Mata Kuliah Desain Pembelajaran," *Epigram*, 2019, doi: 10.32722/epi.v16i1.1423.