

THE EFFECT OF CONTEXTUAL TEACHING AND LEARNING (CTL) APPROACH ASSISTED BY ARTICULATE STORYLINE ON MATHEMATICAL LITERACY SKILLS AND MATHEMATICAL CONNECTIONS

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ABSTRACT

Mathematical literacy skills and mathematical connections are essential aspects in the development of a deep understanding of mathematical concepts. This study aims to investigate the effect of the application of the Contextual Teaching and Learning (CTL) approach assisted by Articulate Storyline on mathematical literacy skills and mathematical connections in the context of mathematics learning. An experimental method with a pretest-posttest control group design was used in this study. The population in this study was all grade VII students of SMP Negeri 11 Kota Cilegon. Samples were taken using purposive sampling techniques so that the samples obtained were class VII-A students as a control class and class VII-B as an experimental class with 35 students in each class. The data collection technique uses 6 items of essay tests, mathematical literacy skills, and mathematical connections. The data were analyzed by data normality test, data homogeneity, t-test, as well as quantitative descriptive analysis. Results were obtained (1) paired sample t-test in the experimental class and control class respectively obtained $t_{\text{calculate}} \text{ values} < t_{\text{table}} 0.076 < 0.05$ so that H_0 was accepted and H_1 was rejected. (2) Independent sample t-test in experimental class and control class obtained $t_{\text{calculate}} \text{ values} < t_{\text{table}} 0.000 < 0.05$ so that H_0 was rejected and H_1 was accepted. The conclusions of this study are: (1) There is no difference in students' mathematical literacy skills and mathematical connections before learning in experimental and control classes. (2) The mathematical literacy ability of students given the Contextual Teaching and Learning (CTL) approach assisted by Articulate Storyline is better than the conventional learning model. (3) The mathematical connection ability of students given the Contextual Teaching and Learning (CTL) approach assisted by Articulate Storyline is better than conventional learning models.

Keywords: Contextual Teaching and Learning (CTL), mathematical literacy, mathematical connection, Articulate Storyline, mathematics education.

INTRODUCTION

Mathematics is the queen of science has an important role both in school and in everyday life. The concepts and principles used in mathematics cannot be separated from developments that occur in other sciences. Therefore, mathematics helps other fields of science to develop businesses that produce discoveries and knowledge. In

addition, the purpose of the mathematics curriculum is to encourage students to participate in creative activities that involve intuition, imagination, and discovery (Siswono, 2018: 119). If students achieve their maths learning goals well, they can experience the benefits and usefulness of maths lessons in many ways. Both in elementary, middle and high school,

mathematics lessons are often used in everyday life. Therefore, the school requires students to study mathematics.

In addition, mathematics is considered problematic by many students. This is due to the fact that teachers use only the lecture method and rarely use the medium when teaching. As a result, it is difficult for students to understand the concepts taught. Given the importance of mathematics and its problems, this effort should begin by improving the teacher's learning process by offering a learning approach with learning concepts that encourage teachers to relate the material taught to students' real-world situations. In addition, this approach also encourages students to make connections between what they know and how it can be applied in everyday life. The application of Contextual Teaching and Learning is one way to achieve this.

Contextual approach is an approach that helps students know the meaning of the lessons they learn in their school at school through interactions between these lessons using the context of daily life, both personally, socially, and culturally (Aisyah, et al, 2007). With this, it can be concluded that the contextual approach (Contextual Teaching and Learning) is a learning concept that helps teachers in relating teaching materials to students' daily life situations and encourages students to understand the meaning of lessons taught at school.

Learning mathematics in schools not only aims to support the development of science, but is also needed in solving problems of daily needs, especially those needed in the world of work. Therefore, students' ability to formulate, apply, and interpret mathematics in a variety of situations is essential. This ability includes mathematical reasoning and the use of mathematical concepts, facts, procedures, and tools to describe, explain, and predict phenomena and relate them to everyday life. Thus, mathematical literacy is an important ability that students must have.

Literacy is an essential skill that every student must possess. Much of the

educational process relies on people's ability and awareness to read and write. "Literacy is the ability to access, understand, and use something intelligently through various activities, including reading, viewing, listening, writing, and speaking," according to a statement issued by the Ministry of Education and Culture in 2016. Students who have good literacy skills can absorb information well, which allows them to generate ideas and work. This ability is a significant first step for the success of the learning process.

Kusumah (2011) defines mathematical literacy as not just having minimal knowledge of mathematics, but also includes "doing mathematics" and using mathematical ideas in various aspects of life. Mathematical literacy possessed by students can be seen from how students use mathematical abilities and skills to solve problems that may occur in various situations or contexts.

Many factors cause students' low mathematical literacy, one of which may be because the majority of students in Indonesia do not like mathematics. According to Darhim (2004), mathematics is often considered as a confusing collection of formulas and numbers. The focus of mathematics education today is mastery of mathematical material or concepts, so the ability to memorize formulas and procedures becomes more critical. In addition, the primary purpose of learning mathematics remains only to train students to be able to do mathematics (train students to do it) and not to achieve the role and importance of learning mathematics. Therefore, the approach to learning mathematics must be changed. Learning mathematics should aim to teach students to think mathematically, so that they can master the mathematical concepts they learn. Not only "know how" but also "know why" (Wijaya, 2012) the purpose of learning mathematics should be to teach students to think mathematically.

One of the abilities of students in mathematics lessons that is still low is mathematical connections. As the results of Sugiman's research (in Sudirman et al., 2018)

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which suggests up to an average percentage of mastery of each aspect of the connection is the connection between mathematics topics 63%, between mathematics topics 41%, mathematics with other subjects 56% and mathematics with real life 55%. The impact of low student achievement is the quality of student learning which affects the low mathematical connection ability of students. Through mathematical connections, students' knowledge will realize the usefulness and benefits that exist in mathematics both from school and from outside school.

Mathematical connection skills need to be trained to students in school. When students can relate ideas to math, they will have more profound and longer connections because they will see connections between maths topics and other things in everyday life. Even a student's mathematical connections can change the way they learn math and increase their desire to learn.

Many learning approaches can help learners improve mathematical connection skills. However, each learning model has advantages and disadvantages. One of the advantages of the CTL approach is that classroom learning techniques are more productive and can take place scientifically. While the weakness of the CTL approach is that active learners are only able to apply the relationship of the material to their experience when the teacher explains the lesson and relates it to everyday life. Whereas inactive learners can only listen to active learners, there is no reciprocal conversation between learners.

With this, innovation is needed to update the learning atmosphere in the classroom using multimedia Articulate Storyline to complement the teaching and learning process, so researchers want to know whether there is an influence on the use of multimedia Articulate Storyline in mathematics learning. It aims to increase the attractiveness of students, avoiding students from boredom in mathematics subjects.

This Articulate Storyline learning media is an alternative media used because of the many authoring tools programs, Articulate Storyline is a Mix Programming Tools software that can help designers learn from beginner to expert levels, making it an alternative learning media. The advantages of the Articulate Storyline program include easy-to-use smart brainware with interactive tutorial procedures through templates that can be published offline or online, allowing users to format them in the form of a personal web; CDs, word processing, and Learning Management System (LMS). In addition, this Articulate Storyline media is multimedia-based, which means a blend of various types of media (file formats) such as text, images, graphics, sound, animation, video, interaction, and others. This media is then packaged into digital (computerized) files, which are used to convey messages to the public. With that, Articulate Storyline learning media is one alternative to help students improve literacy skills and mathematical connections as learning media because learning currently uses Android.

Based on the results of observations that researchers have made at SMP Negeri 11 Kota Cilegon in grade VII, researchers found that the mathematical literacy ability and connection of students in the medium category are low, especially in the field of writing, it has been seen around 60%, the remaining 30% - 40% are still lacking how to write good answers. In addition, researchers also found that about 80% of children were less active or less interested in the learning they followed. After interviews with several students, they said that Mathematics learning is still complex to accept because teachers rarely use media, so learning becomes monotonous. Because of monotonous learning, the classroom atmosphere at the time of learning becomes less conducive.

Based on the description above, therefore the author is interested in researching the "Effect of Contextual Teaching and Learning (CTL) Approach

Assisted by Articulate Storyline on Mathematical Literacy Ability and Mathematical Connection"

METHODS

Based on the problems studied, the method used in this study uses quasi-experiments or known as pseudo-experiments. According to Arifin (in Muzhaffar, 2020) stated that all subjects in the study group must get treatment, not randomly drawn subjects. In line with Sugiyono's statement, 2022 fattened that subjects were not randomly grouped in quasi-experimental research. Therefore, this method was chosen because in schools it is not possible to create new classes, so pre-existing classes are used.

The research design used in this study was the nonequivalent pretest-posttest control group design. This design involved two groups, namely the experimental group that received the Contextual Teaching and Learning (CTL) approach and the control group that accepted the conventional learning model. According to Sugiyono, 2022 the form of this research design is described as follows:

Experiment Class: O_1 X O_2

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Control Class: O_1 - O_2
Information:

O_1 = Pretest students' literacy skills and mathematical connections

= Posttest students' literacy skills and mathematical connections O_2

X = Application of Contextual Teaching and Learning (CTL) approach

- = Application of conventional models

---- = Sampling using purposive sampling techniques

The reason researchers use quasi-experimental research with the nonequivalent pretest-posttest control group design is because there is no need to regroup samples randomly, but use classes that have been assigned by the

school so as not to change the school's learning system. In addition, researchers can optimize the time of researching because it does not require particular time to form new classes and different rooms.

The purpose of this research method is to provide an overview to researchers of how research is carried out, so that problems can be solved. Like research in general, data collection techniques in descriptive research are carried out with documentation studies followed by observation and *pretest* and *posttest* tests. The research data was processed based on appropriate data analysis techniques, and in this study variables were measured through the process of dividing *pretest and posttest tests, which then used the SPSS Statistics Version 27 program by entering data on pretest and posttest test results and processed using statistical calculations.* The independent variable in this study is the Contextual Teaching and Learning (CTL) approach assisted by Articulate Storyline or also called variable (X), and the dependent variable is mathematical literacy ability and mathematical connections or also called variable (Y).

RESULTS AND DISCUSSION

From the research that has been done, data on pretest and posttest results were obtained in experimental and control classes. The data was obtained from the test instrument description of students' mathematical problem solving ability statistical material given to students of grades VII B and VII A totaling 35 people each. The data from pretest and posttest research obtained from experimental and control classes are as follows:

1) Normality Test Results

The normality test is carried out to find out whether the research data is standard or not. The meaning of ordinary in this test is the distribution of the data produced evenly, so that the population used in the study comes from the same or average population. Pretest and posttest

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data obtained from experimental and control classes were tested using the Kolmogorov Smirnov test using SPSS software version 27. The data can be said to be normally distributed if the sig is $> \alpha$, where the value of $\alpha = 0.05$. The results of the normality test of pretest and posttest data, mathematical literacy ability and mathematical connections are shown in figure 4.3

Tests of Normality						
Kolmogorov-Smirnov ^a				Shapiro-Wilk		
KELAS	Statistic	df	Sig.	Statistic	df	Sig.
HASIL PRE_EKS LITERASI	.138	35	.088	.962	35	.256
POST_EKS	.111	35	.200*	.975	35	.610
PRE_KONTROL	.139	35	.086	.970	35	.435
POST_KONTROL	.127	35	.166	.974	35	.549

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Gambar 4.3. Hasil Uji Normalitas

Figure 4.3 shows that the significant values for the *control and experimental class pretests* are 0.088 and 0.086 respectively where the Sig. > 0.05 . Similarly, the control and experimental class *posttest* Sig. values were 0.200 and 0.166 respectively where the sig values > 0.05 . This shows that the research data is usually distributed.

2) Analysis Results of Paired Sample t-test

The paired sample t-test was carried out on experimental class pretest data using the Contextual Teaching and Learning (CTL) approach assisted by Articulate Storyline. This test is used to determine differences in students' initial literacy skills and mathematical connections before being treated with Contextual Teaching and Learning (CTL) approaches assisted by Articulate Storyline and conventional models. The following are the paired sample t-test results in figure 4.5

Paired Samples Test									
Paired Differences									
	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
Pair				Lower	Upper				
1 PRE-TEST EKS - PRE-TEST KNTRL	-1.371	4.433	.749	-2.894	.151	-1.830	34	.076	

Figure 4.5. Analysis Results of Paired Sample t-test

Based on figure 4.5 above, the value of Sig. (2-tailed) of $0.076 < 0.05$ so that H_0 is accepted and H_1 is rejected. Because H_0 was accepted and H_1 was rejected, it can be concluded that there was no significant difference in pretest results in the experimental class and the control class in students' literacy ability and mathematical connections.

3) Analysis Results of Independent Sample t-test

The independent sample t-test was conducted on experimental class posttest data using the Contextual Teaching and Learning (CTL) approach assisted by Articulate Storyline and control class posttest data using conventional learning models. This test was used to determine the difference between the average score of students' literacy ability and mathematical connections in experimental and control classes after treatment.

Independent Samples Test									
Levene's Test for Equality of Variances									
t-test for Equality of Means									
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
HASILBELAJARLITERASI	6.275	.015	7.631	68	.000	13.171	1.726	9.727	16.616
			7.631	57.569	.000	13.171	1.726	9.716	16.627

Figure 4.6. Analysis Results of Independent Sample t-test

Based on figure 4.6 above, a Sig. (2-tailed) value of $0.000 < 0.05$ is obtained so that H_0 is rejected and H_1 is accepted. Since H_0 was rejected and H_1 was accepted, it can be concluded that there is a significant difference in posttest results between the experimental class and the control class in students' literacy ability and mathematical connections.

So it can be concluded that the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* has a significant effect on students' literacy skills and mathematical connections compared to conventional learning models. Looking at the final average, the literacy skills and mathematical connections of students who use the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* are better than conventional learning models.

Discussion

This study aims to determine the effect of the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* on literacy skills and mathematical connections carried out in grade VII of SMP Negeri 11 Cilegon City. In the experimental class, the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* was applied, while in the control class, conventional learning was applied. The learning material taught in the experimental class and the control class during the study was an integer.

1. Mathematical Literacy Skills

Based on the results of data management, it was concluded that there were differences in mathematical literacy skills before and after learning in the experimental class and control class. In the control class using conventional learning models experienced differences in problem abilities before and after learning. Likewise, in experimental classes that use the *Contextual Teaching and Learning* (CTL) learning model assisted by *Articulate Storyline*, students experience differences in students' mathematical literacy skills before and after learning.

As for the final ability of mathematical literacy of students in the experimental class and the control class, there was a difference. In the experimental

class, the average score was more significant than the average score of the control class. So that the *Contextual Teaching and Learning* (CTL) learning model assisted by *Articulate Storyline* is better than the conventional learning model on students' mathematical literacy abilities. In line with Nurfitrianti's statement (2016) they were stated that there is an influence of the application of the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* on mathematical literacy skills compared to the use of expository learning models.

2. Mathematical Connection Capabilities

Based on the results of data management, it was concluded that there were differences in mathematical connection capabilities before and after learning in the experimental class and control class. In the control class using conventional learning models experienced differences in problem abilities before and after learning. Likewise, in experimental classes that use the *Contextual Teaching and Learning* (CTL) learning model assisted by *Articulate Storyline*, students experience differences in students' mathematical connection abilities before and after learning.

As for the final ability of the mathematical connection, the students in the experimental class and the control class have differences. In the experimental class, the average score was more significant than the average score of the control class. So that the *Contextual Teaching and Learning* (CTL) learning model assisted by *Articulate Storyline* is better than the conventional learning model on students' mathematical connection abilities. In line with Nurfitrianti's statement (2016) states that there is an influence of the application of the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* on the ability of mathematical

connections compared to the use of expository learning models.

CONCLUSION

The results of research at SMP Negeri 11 Kota Cilegon in grade VII regarding the use of *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* on literacy skills and mathematical connections obtained the following conclusions:

1. There was no difference in students' mathematical literacy skills and mathematical connections before learning in experimental and control classes.
2. The mathematical literacy ability of students given the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* is better than conventional learning models.
3. The mathematical connection ability of students given the *Contextual Teaching and Learning* (CTL) approach assisted by *Articulate Storyline* is better than conventional learning models.

REFERENCES

- Ahmad, M. (2019). Peningkatan kemampuan literasi matematika siswa sekolah menengah pertama melalui pendekatan kontekstual. *Jurnal Education and Development*, 7(2), 103-103.
- Amalia, R., Fadilah, F., Komarudin, M., & Kusuma, J. W. (2021). Development of Mathematics E-Books in Improving Mathematical Literacy and Entrepreneurial Spirit. *Al-Ishlah: Jurnal Pendidikan*, 13(3), 2425-2434.
- Anwar, S., Pujiastuti, H., & Mutaqin, A. (2019). Pengaruh Contextual Teaching and Learning dan Self Regulated Learning Terhadap Kemampuan Koneksi Matematis. *Prima: Jurnal Pendidikan Matematika*, 3(2), 116-133.
- Antika, R. (2015). Pembelajaran matematika kontekstual untuk meningkatkan literasi matematis dan motivasi belajar siswa SMP (Doctoral dissertation, Universitas Pendidikan Indonesia).
- Arief, H. (2022). MENINGKATKAN MOTIVASI BELAJAR MATEMATIKA SISWA MELALUI PENERAPAN CONTEXTUAL TEACHING AND LEARNING (CTL) PADA SISWA KELAS IV SDN 20 BATTANG. *Jurnal Saintifik*, 20(3), 165-172.
- Gunawan, I. M. S., Sarilah, S., Gunawan, I. M., & Kholisussadi, K. (2021). Pelatihan Metode Pembelajaran Contextual Teaching Learning untuk Meningkatkan Motivasi Belajar Siswa. *Jurnal Pengabdian UNDIKMA*, 2(1), 59-63.
- Harahap, E. (2021). Pengaruh Pendekatan Contextual Teaching And Learning Berbantuan Media Tiga Dimensi Terhadap Motivasi Dan Hasil Belajar Matematika. *Journal of Education, Humaniora and Social Sciences (JEHSS)*, 3(3), 829-835.
- Harrikanti, F. (2017). Kemampuan Koneksi Matematis Siswa Dengan Menggunakan Pendekatan Contextual Teaching And Learning (CTL) Pada Materi Geometri Di Kelas XII Man 2 Banda Aceh (Doctoral dissertation, UIN Ar-Raniry Banda Aceh).
- Janah, S. N. (2015). Pengaruh penggunaan multimedia articulate storyline dalam meningkatkan hasil pembelajaran fiqh di Madrasah Aliyah Negeri 3 Kediri (Doctoral dissertation, Universitas Negeri Islam Maulana Malik Ibrahim).
- Karim, A. (2017). Analisis Pendekatan Pembelajaran CTL (Contextual Teaching And Learning) Di SMPN 2 Teluk Jambe Timur, Karawang. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 7(2).

- Kulsum, V. S. (2016). PENDEKATAN CONTEXTUAL TEACHING AND LEARNING UNTUK MENINGKATKAN KEMAMPUAN PEMECAHAN MASALAH MATEMATIS DAN MOTIVASI BELAJAR SISWA (Penelitian Eksperimen terhadap Siswa Kelas V SDN Cimalaka III, Kecamatan Cimalaka, Kabupaten Sumedang) (Doctoral dissertation, UNIVERSITAS PENDIDIKAN INDONESIA).
- Marjani, L. (2019). Pengaruh pendekatan contextual teaching and learning (CTL) terhadap kemampuan pemecahan masalah matematis siswa kelas VIII MTs Darul Qur'an Bengkel (Doctoral dissertation, UIN Mataram).
- Maryanti, M., & Qadriah, L. (2018). Pengaruh Pembelajaran Contextual Teaching and Learning (CTL) terhadap Kemampuan Koneksi Matematis Siswa SMA Berbasis Gender. *Jurnal Peluang*, 6(2), 39-46.
- Masjaya, M., & Wardono, W. (2018, February). Pentingnya Kemampuan Literasi Matematika untuk Menumbuhkan Kemampuan Koneksi Matematika dalam Meningkatkan SDM. In *PRISMA, Prosiding Seminar Nasional Matematika* (Vol. 1, pp. 568-574).
- Musriliani, C., Marwan, M., & Ansari, B. I. (2015). Pengaruh pembelajaran contextual teaching learning (ctl) terhadap kemampuan koneksi matematis siswa smp ditinjau dari gender. *Jurnal Didaktik Matematika*, 2(2).
- Nyolandra, P. R. (2021). Pengaruh Pendekatan Contextual Teaching and Learning terhadap Kemampuan Koneksi Matematis Siswa di Sekolah Dasar. In *Renjana Pendidikan: Prosiding Seminar Nasional Pendidikan Dasar* (Vol. 2, No. 1, pp. 1733-1742).
- Putrianasari, D. D., & Wasitohadi, W. (2015). Pengaruh Penerapan Pendekatan Contextual Teaching and Learning (Ctl) Terhadap Hasil Belajar Matematika Ditinjau Dari Motivasi Belajar Siswa Kelas 5 Sd Negeri Cukil 01 Kecamatan Tengaran-Kabupaten Semarang. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 5(1), 57-77.
- Ritonga, A. I. (2019). Pengaruh Model Pembelajaran Kooperatif Tipe Think Pair Share (TPS) dan Model Pembelajaran Contextual Teaching and Learning (CTL) terhadap Kemampuan Pemecahan Masalah Matematika ditinjau dari Motivasi Belajar Siswa Pada Materi Integral di Kelas XI MAS Al-Washliyah 22 Tembung Tahun Pelajaran 2018/2019 (Doctoral dissertation, Universitas Islam Negeri Sumatera Utara).
- Setyaningsih, S., Rusijono, R., & Wahyudi, A. (2020). Pengaruh penggunaan media pembelajaran interaktif berbasis Articulate Storyline terhadap motivasi belajar dan hasil belajar siswa pada materi Kerajaan Hindu Budha di Indonesia. *Didaktis: Jurnal Pendidikan Dan Ilmu Pengetahuan*, 20(2).
- Soleh, M. (2017). PENGARUH STRATEGI CONTEXTUAL TEACHING AND LEARNING (CTL) TERHADAP KEMAMPUAN LITERASI MATEMATIKA SISWA KELAS VII PADA MATERI BANGUN DATAR DI SMP NEGERI 35 BATANGHARI.
- Yani, F. (2021). Pengaruh Pendekatan Kontekstual (Contextual Teaching And Learning, Ctl) Dengan Berbantuan Media Komik Bergerak Terhadap Kemampuan Literasi Numerasi Siswa Kelas Rendah (Doctoral dissertation, Universitas Pendidikan Indonesia).
- N. Achmadi, "PENGARUH PENGGUNAAN MODEL CONTEXTUAL TEACHING AND LEARNING (CTL) TERHADAP KEMAMPUAN BERBICARA MATA PELAJARAN BAHASA INDONESIA SISWA KELAS VI", *JURNAL EDUCATION AND DEVELOPMENT*, vol. 7, no. 2, p. 136, May 2019."
- Widiyastuti, E., Ramadan, D. P., Sugihandardji, C., Gunawan, G., &

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Storyline on Mathematical Literacy Skills and Mathematical Connections***

Kusuma, J. W. (2023).
MATHEMATICAL LITERACY
ABILITY OF JUNIOR HIGH SCHOOL
STUDENTS BASED ON
INTRAPERSONAL INTELLIGENCE.
International Journal of Economy,
Education and Entrepreneurship, 3(1),
344-354.