### The Effectiveness of the Influence of Digital Storybooks Based on Sasak Local Wisdom on Interpersonal Intelligence and Writing Skills

Syaiful Musaddat<sup>1\*</sup>, Ni Ketut Suarni<sup>2</sup>, Nyomen Dantes<sup>3</sup>, Ida Bagus Putrayasa<sup>4</sup>

1,2,3,4Ganesha University of Education, Singaraja Bali, Indonesia

*E-Mail;* <sup>1</sup>syaiful\_musaddat@unram.ac.id; <sup>2</sup>niketut.suarni@undiksha.ac.id; <sup>3</sup>dantes@undiksha.ac.id; <sup>4</sup>ib.putrayasa@undiksha.ac.id

**Abstracts:** This study discusses the effectiveness of the implementation of digital storybooks based on local Sasak wisdom on the interpersonal intelligence and writing skills of Fourth-grade Elementary School students in Mataram City, Indonesia. The research involved 291 students and 25 teachers in 9 elementary schools. Sample selection used cluster random sampling technique. Data was collected through observation and test methods using questionnaires and action tests. Data were analyzed using multivariate analysis techniques (Manova) and transformed into effect sizes (ES). The research results show that: (1) The effectiveness of the implementation of digital storybooks based on Sasak local wisdom on students' interpersonal intelligence is relatively high because the ES is 0.987. (2) The effectiveness of the implementation of digital storybooks based on local Sasak wisdom on writing skills is also relatively high because the ES is 0.857. (3) The effectiveness of the simultaneous implementation of digital storybooks based on Sasak's local wisdom on interpersonal intelligence and writing skills is also relatively high because the ES is 0.899. Digital storybooks based on Sasak's local wisdom on interpersonal intelligence and writing skills because all ES is in the high effectiveness on interpersonal intelligence and writing skills because all ES is in the high effectiveness on interpersonal intelligence and writing skills of elementary books based on local Sasak wisdom have high effectiveness on interpersonal intelligence and writing skills of elementary school students.

Keywords: Digital Storybooks, Sasak Local Wisdom, Interpersonal Intelligence, Writing Skills

#### 1. INTRODUCTION

The demands of development in the 4.0 era and society 5.0 era on the competence of the younger generation (students) are very high. To survive and develop, students must have global competence. There are three interrelated dimensions of global competence, namely: (1) empathy for people with different cultural identities, (2) ability to communicate, and (3) broad and in-depth knowledge of science. [1] [2]. In Indonesia, the estuary of these three dimensions of global competence are students who are characterful, skilled, and intelligent. This is under the Graduate Competency Standards (SKL) for Indonesian students based on the 2013 curriculum, namely: (1) individuals who have faith, have noble character, are self-confident, and are responsible in the realm of attitude; (2) individuals who master science, technology, art in the realm of knowledge; and (3) individuals who are capable of thinking and acting productively and creatively in the realm of skills [3] [4].

Real conditions show that nationally, Indonesian education has not succeeded in producing students with character, skill, and intelligence. The results of research and surveys show that the quality of Indonesian students is low. (1) research results from the Indonesian Education Monitoring Network (JPPI) regarding the position of education, placing Indonesia in 7th place out of 14 sample countries, even below Ethiopia and the Philippines. (2) research results from Central Connecticut State University in the United States in 2017 regarding the most literate countries placed Indonesian students in second place from the bottom in terms of reading and writing abilities. (3) Taufik Ismail's research results in 2000 concluded that Indonesian students were still nearsighted in reading and crippled in writing. Fourth, the results of the TIMSS (Trends in International Mathematics and Science Study) study regarding the ability to carry out scientific procedures also placed Indonesian students in 36th place out of 49 sample countries (PISA Prom Results, 2015).

The same thing also happened to students in Mataram City. The results of the Lecturer Assignment Program in Schools in Mataram City in 2018 and 2019 found that in almost all schools there was a lack of students' social character, namely respecting each other and working together. Most students are also still weak in terms of writing

skills. This problem can be overcome by utilizing existing local wisdom so that learning is contextual and close to students' lives.

Local wisdom is nobility, high values, truth, goodness, and beauty that are appreciated by community members. Local wisdom can also be defined as local ideas, values, or views that are wise, full of wisdom, and of good value, which are embedded, followed, and used as guidelines for building relationship patterns and fighting for life goals. [5]. Local wisdom is also a traditional truth, which comes from a deep understanding of the local environment to face the natural challenges in which they have lived for generations. [6].

The success of using local wisdom as a medium and means of improving the guality of students in basic education has been widely proven. Local wisdom can build a pattern of harmonious social relations among village teenagers. Local wisdom can be used as a guide to life for multicultural communities in facing the era of the Industrial Revolution 4.0 [2]. Local wisdom "malik" is effective in preserving the environment (Mansur, 2018). Local wisdom and biodiversity in the "Ciletuh Geopark" are effective as media and learning resources in elementary and middle school social studies learning [6]. Local wisdom is also effective in elementary school science learning (Rahmatih, et al., 2020), Sasak's local wisdom can improve the character of discipline and honesty [7]. Sasak's local wisdom has also been proven to be a means of resolving conflicts that occur among children and the community [8]. The results of research using a case study in one school in Lombok stated that forms of local wisdom that can suppress student deviant behavior in the current era of disruption can be in the form of folklore [9]. There is also data showing that children with high interpersonal intelligence, which is 16.67% (28 of 168 samples), almost all come from areas that still strongly carry out various Sasak traditions and local wisdom. [10]. This is because almost all of Sasak's local wisdom is rich in social character [11]. However, in today's young generation, very few know, sesenggak and Sasak stories as part of their local wisdom. [12]. Therefore, local wisdom values need to be preserved and utilized to build children's character and intelligence. Conservation can be done through the development of digital storybooks based on local wisdom.

Based on the explanation above, research and development of a digital book based on local Sasak wisdom was carried out. This digital storybook based on local Sasak wisdom has been tested to see its effect on the interpersonal intelligence and writing skills of fourth-grade elementary school students [13]. Interpersonal intelligence and writing skills were chosen because they are the main underpinnings of the global competencies needed by today's students. Interpersonal intelligence is the ability to build relationships with other people and understand differences in other people's moods and feelings [14]. Therefore, interpersonal intelligence includes sensitivity to facial expressions, voice, movement, and gestures (Agustini, et al. 2019). In this case, there are four important elements of interpersonal intelligence, namely: (1) reading social cues; (2) providing empathy; (3) controlling emotions, and (4) expressing emotions appropriately [15]. Children with high interpersonal intelligence usually have lots of friends, like group activities, often help, and are role models for their friends [16]. Meanwhile, writing skills are the ability to think, express opinions, and express emotions using written language. Writing skills are not only the ability to compose sentences according to certain rules but also the use of various things outside of language to express thoughts in written language, completely, completely, and clearly [7]. Writing skills are not just a process, but also a complex activity [14]. This is because it involves organized thinking and various technical requirements, such as the concept of ideas, effective sentences, paragraph coherence, correct spelling, and adequate vocabulary. [11].

Based on the results and findings of the research that has been carried out, this article will discuss several important things, namely: (1) the effectiveness of the influence of the implementation of digital storybooks based on Sasak local wisdom on interpersonal intelligence, (2) the effectiveness of the influence of the implementation of digital storybooks based on local wisdom Sasak on writing skills, and (3) on both simultaneously.

#### 2.1 Research Design

This type of research is development research. according to the views of Borg and Gall (1983), and Sugiyono (2014), namely the process of developing and validating products used in education and learning. The model used in this research is the Four-D model from Thiagarajan. This model consists of 4 stages, namely Define, Design, Develop, and Disseminate.

#### 2.2 Research Subjects

This research involved several parties, instrument validator subjects: 5 people Product validator subjects: 15 people Practicality test subjects using individual groups or small groups and large groups. Individual groups or small groups involve 6 students and 2 teachers. The large group involved 70 students and 5 teachers, namely: 20 students and 2 teachers from Model School in Mataram, 30 students and 2 teachers from Cakranegara School, and 20 students and 1 teacher from Ampenan School. The effective test subjects were class IV students as research targets, namely from 6 schools in Mataram City. In this case, the gualifications of schools in advanced and less advanced literacy programs, city centers, and suburbs are considered [17]. The effectiveness test subjects involved 68 students from 3 schools as the experimental group and 71 students from 3 schools as the control group.

#### 2.3 Research Instrument

In collecting data in this research, several instruments were used, namely: learning observation sheets, interview guidelines, expert questionnaires, teacher and student response questionnaires, interpersonal intelligence questionnaires, and action tests (writing skills tests). All instruments are declared valid. The reliability of the interpersonal intelligence instrument was 0.941 (very high category) and the writing skills instrument was 0.852 (very high category).

#### 2.4 Data Analysis Technique

Data analysis uses descriptive qualitative analysis techniques [18] [19] Miles and Huberman's data analysis stages consist of four steps, namely data collection, data reduction, data presentation, and conclusion (Miles & Huberman, 1994). The validity uses the Lawshe method. Its practicality is through user responses, namely teachers and students. Effectiveness through an independent t-test preceded by a prerequisite test [19]. The data analysis method to obtain the validity of the results of developing digital storybooks based on Sasak local wisdom is using descriptive analysis techniques using the CVR (Content Validity Ratio) method, to obtain practicality by determining the average percentage of users (teachers and students). Meanwhile, effectiveness was carried out using inferential statistical analysis (manova) with the help of the SPSS version 26 program, which was transformed into effect size (ES). The results of data analysis are presented using non-formal methods, namely presentation using words or sentences, not symbols [20]. Practicality level conversion uses as follows.

| Table 2.1 Conversion of Practicality Achievement Levels |               |  |  |  |
|---|---------------|--|--|--|
| Achievement Level (%)                                   | Information   |  |  |  |
| 90 - 100  | Very good     |  |  |  |
| 75 – 89   | Good          |  |  |  |
| 65 – 74   | Enough        |  |  |  |
| 55 - 64   | Not good      |  |  |  |
| 0 – 54  | Very Not Good |  |  |  |

|--|

(Source: Dawes, 2008)

The conversion of product effectiveness levels uses Dantes' criteria, which are as follows.

#### **Table 2.2 Conversion for Effectiveness Level**

| Efek Size (ES) | Information          |
|----------------|----------------------|
| ES < 0,2       | Low Effectiveness    |
| 0,8 ≤ ES < 0,2 | Medium Effectiveness |
| ES ≥ 0,8       | High Effectiveness   |
|                |                      |

(Source: Dantes & Rasben, 2017).

#### 3. RESULTS AND DISCUSSION

#### 3.1 Result

#### 3.1.1. Analysis Result for Descriptive Statistics

Data analysis was carried out using the SPSS version 26 program. Descriptive statistical analysis of interpersonal intelligence data in the experiment (A1Y1) showed a mean value of 0.556 with a standard deviation of 0.239, while in the control group (A2Y1) the mean value was 0.404 with a standard deviation of 0.154. Meanwhile, analysis of writing skill data in the experiment (A1Y2) showed a mean value of 0.560 with a standard deviation of 0.271, while in the control group (A2Y2) the mean value was 0.321 with a standard deviation of 0.279. More details regarding this can be seen in Table 3.1 as follows.

| Descriptive statistics | A1Y1   | A1Y2   | A2Y1   | A2Y2   |
|------------------------|--------|--------|--------|--------|
| N                      | 68     | 68     | 71     | 71     |
| Mean                   | 0,556  | 0,560  | 0,404  | 0,321  |
| Median                 | 0,555  | 0,600  | 0,370  | 0,310  |
| Mode                   | 0,950  | 0,670  | 0,310  | 0,001  |
| Standard Deviation     | 0,239  | 0,271  | 0,154  | 0,279  |
| Variance               | 0,057  | 0,074  | 0,024  | 0,078  |
| Skewness               | 0,133  | -0,443 | 1,090  | 0,263  |
| Kurtosis               | -1,112 | -0,717 | 1,276  | -0,881 |
| Range                  | 0,900  | 1,060  | 0,730  | 1,100  |
| Minimum                | 0,050  | -0,110 | 0,150  | -0,200 |
| Maximum                | 0,950  | 0,950  | 0,880  | 0,900  |
| Total                  | 37,800 | 38,070 | 28,680 | 22,760 |

Table 3.1 Analysis Results for Descriptive Statistics

Information: A1 = Trial group (experiment); A2 = Comparison group (control); Y1 = Interpersonal Intelligence (KI); and Y2 = Writing Skills (KM)

The distribution of Y1 frequencies in the experimental group (A1Y1) and the control group (A2Y1) is based on the gain of normalized scores (GNs), namely: A1Y1: 34 people (50.00%) in the medium category, 23 people (33.82%) in the high category, and 11 people (16.18%) were in the low category, while A2Y1: 50 people (70.42%) were in the medium category, 4 people (5.63%) were in the high category, and 17 people (23.94%) were in the low category. A comparison of the distribution of A1Y1 and A2Y1 can be seen in Table 3.2 below.

#### Table 3.2 Frequency Distribution of A1Y1 and A2Y1

| Score           | Catagoria | Experiment Group (A1Y1) |            | Control Group (A2Y1) |            |
|-----------------|-----------|-------------------------|------------|----------------------|------------|
|                 | Category  | Fo                      | Persentile | Fo                   | Persentile |
| (g) > 0,70      | Hight     | 23                      | 33,82      | 4                    | 5,63       |
| 0,30 ≤(g) ≥0,70 | Medium    | 34                      | 50,00      | 50                   | 70,42      |
| (g) < 0,30      | Low       | 11                      | 16,18      | 17                   | 23,94      |
| То              | tal       | 68                      | 100,00     | 71                   | 100,00     |

Sumber kategori dari Hake (1999)

Distribution of Y2 frequencies in the experimental group (A2Y2) and control class (A2Y2) based on normalized score gain (GNs), namely: A2Y2: 33 people (48.53%) in the medium category, 25 people (36.76%) in the high category, and 10 people (14.70%) were in the low category, while A2Y2: 32 people (45.07%) were in the medium category, 8 people (11.27%) were in the high category, and 31 people (43.66%) were in the low category. A comparison of the distribution of A1Y2 and A2Y2 can be seen in Table 3.3 below.

| Table 3.3 Frequency Distribution of A1Y2 and A2Y2 |          |          |                         |    |             |  |
|---|----------|----------|-------------------------|----|-------------|--|
| 0   |          | Experime | Experiment Group (A1Y2) |    | roup (A2Y2) |  |
| Score   | Category | Fo       | Persentile              | Fo | Persentile  |  |
| (g) > 0,70  | Hight    | 25       | 36,76471                | 8  | 11,26761    |  |
| 0,30 ≤(g) ≥0,70                                   | Medium   | 33       | 48,52941                | 32 | 45,07042    |  |
| (g) < 0,30  | Low      | 10       | 14,70588                | 31 | 43,66197    |  |
| T   | otal     | 68       | 100,00                  | 71 | 100,00      |  |

Source; from Hake (1999)

Based on Table 3.3 and Figure 3.2 above, you can see the comparison of A1Y2 and A2Y2. In this case, A1Y2 is better than A2Y2. For the high category, A1Y2 is more numerous than A1Y2. The low category also shows that A1Y2 is better than A2Y2 because the number in the low category is greater in A1Y2.

#### 3.1.2. Test Results for Analysis Prerequisites

Before the data were analyzed using MANOVA, analysis prerequisite tests were carried out, namely, normality of data distribution, homogeneity of variance, and variance matrix, as well as multicollinearity tests. The normality test results are presented in Table 3.4 as follows.

|       | Table 3.4 Test Results for Normality of Data Distribution |    |       |  |  |  |  |
|-------|---|----|-------|--|--|--|--|
| Group | Standard Deviation  | N  | Sig.  |  |  |  |  |
| A1Y1  | 0, 23635716   | 68 | 0,458 |  |  |  |  |
| A2Y1  | 0, 15369508   | 71 | 0,265 |  |  |  |  |
| A1Y2  | 0, 22806983   | 68 | 0,671 |  |  |  |  |
| A2Y2  | 0, 27768256   | 71 | 0,318 |  |  |  |  |

### Table 3.4 Test Results for Normality of Data Distribution

Table 3.4 shows the results of the data distribution normality test with Kolmogorov-Smirnov showing a sig value. > 0.05. Thus, it can be stated that all data groups are normally distributed. The results of the group homogeneity test are presented in Table 3.5 as follows.

|    | Table 5.5 Results of the Homogeneity of Variance Test |                  |     |        |       |  |  |
|----|---|------------------|-----|--------|-------|--|--|
|    |   | Levene Statistic | df1 | df2    | Sig.  |  |  |
| Y1 | Based on Mean   | 1,935            | 1   | 66     | 0,169 |  |  |
|    | Based on Median                                       | 0,279            | 1   | 66     | 0,599 |  |  |
|    | Based on the Median and wadjusted df                  | with0,279        | 1   | 56,120 | 0,599 |  |  |
|    | Based on trimmed mean                                 | 1,890            | 1   | 66     | 0,174 |  |  |
| Y2 | Based on Mean   | 0,742            | 1   | 66     | 0,398 |  |  |
|    | Based on Median                                       | 0,834            | 1   | 66     | 0,364 |  |  |

#### Table 3.5 Results of the Homogeneity of Variance Test

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| Based on the Median   | and with0,834 | 1 | 65,913 | 0,364 |
|-----------------------|---------------|---|--------|-------|
| Based on trimmed mean | 0,819         | 1 | 66     | 0,369 |

Based on Table 3.5, the results of the variance homogeneity test with Levene's Test of Equality of Error Variances show sig. > 0.05. Thus, it can be stated that the variance of data on interpersonal intelligence (Y1) and writing skills (Y2) is homogeneous. The results of the variance matrix homogeneity test are presented in Table 3.6 as follows.

| Table 3.6 Box's Test of Equality of Covariance Matrices |             |  |  |
|---|-------------|--|--|
| Description   | Volume      |  |  |
| Box's M   | 12,904      |  |  |
| F   | 4,233       |  |  |
| df1   | 3           |  |  |
| df2   | 3594626,589 |  |  |
| Sig.  | 0,051       |  |  |

Based on Table 3.6 Box's Test of Equality of Covariance Matrices, the variance matrix test results show the Box's M number of 12.904; The F value is 4.233, and the big number. of 0.051, namely > 0.05. Thus, it can be concluded that the variance matrix between the variables interpersonal intelligence (Y1) and writing skills (Y2) is homogeneous. The results of the correlation test between dependent variables are presented in Table 3.7 as follows.

|           | Table 3.7 Test Results for Multicollinearity |       |       |  |  |  |  |
|-----------|--|-------|-------|--|--|--|--|
| Variables |  | Y1    | Y2    |  |  |  |  |
| Y1        | Pearson Correlation                          | 1     | 0,216 |  |  |  |  |
|           | Sig. (2-tailed)                              |       | 0,011 |  |  |  |  |
|           | Ν  | 139   | 139   |  |  |  |  |
| Y2        | Pearson Correlation                          | 0,216 | 1     |  |  |  |  |
|           | Sig. (2-tailed)                              | 0,011 |       |  |  |  |  |
|           | Ν  | 139   | 139   |  |  |  |  |
|           |  |       |       |  |  |  |  |

Based on Table 3.7, the calculated r-value is 0.216 < 0.8, it can be stated that the variables interpersonal intelligence (Y1) and writing skills (Y2) do not experience multicollinearity. Thus, based on the results of the prerequisite tests carried out, it can be concluded that all prerequisite test results have met the independent t-test requirements.

#### 3.1.3. Analysis for Inferential Statistics

The results of the inferential analysis of interpersonal intelligence through one-way ANOVA analysis can be seen in Table 3.8 as follows.

|                      |                      | AN  | AVC         |        |        |  |
|----------------------|----------------------|-----|-------------|--------|--------|--|
| Value of Interperson | al Intelligence (Y1) |     |             |        |        |  |
|                      | Sum of Squares       | Df  | Mean Square | F      | Sig.   |  |
| Between Groups       | ,802                 | 1   | ,802        | 19,962 | <0,001 |  |
| Within Groups        | 5,503                | 137 | ,040        |        |        |  |
| Total                | 6,305                | 138 |             |        |        |  |

Table 3.8 Results of Inferential Analysis of KI (Y1)

From the Tests of Between-Subjects Effects table, it can be seen that the dependent variable Y1 has an F value of 19,962 with a significance value of less than 0.001, which means that H0 is rejected. Therefore, it can be concluded that there is an influence of the learning model (A) on interpersonal intelligence (Y1). Meanwhile, the

results of the inferential analysis of writing skills through one-way ANOVA analysis can be seen in Table 3.9 as follows.

| Table 3.9 Results of Inferential Analysis of KM (Y2) |                |     |             |        |        |  |  |  |  |
|--|----------------|-----|-------------|--------|--------|--|--|--|--|
| ANOVA  |                |     |             |        |        |  |  |  |  |
| Value of Writing Skills (Y2)                         |                |     |             |        |        |  |  |  |  |
|  | Sum of Squares | df  | Mean Square | F      | Sig.   |  |  |  |  |
| Between Groups                                       | 1,987          | 1   | 1,987       | 26,314 | <0.001 |  |  |  |  |
| Within Groups  | 10,344         | 137 | ,076        |        |        |  |  |  |  |
| Total  | 12,330         | 138 |             |        |        |  |  |  |  |

From the Tests of Between-Subjects Effects table, it can be seen that the dependent variable Y2 has an F value of 25,314 with a significance value of less than 0.001, which means that H0 is rejected. Therefore, it can be concluded that there is an influence of the learning model (A) on Writing Skills (Y2). The results of the inferential analysis of interpersonal intelligence and writing skills simultaneously through multivariate analysis can be seen in Table 3.10 as follows.

| Multivariate Tests |                    |       |                      |            |               |       |                    |    |
|--------------------|--------------------|-------|----------------------|------------|---------------|-------|--------------------|----|
| Effect             |                    | Value | F                    | Hypothesis | s df Error df | Sig.  | Partial<br>Squared | Et |
|                    | Pillai's Trace     | ,887  | 531,279 <sup>b</sup> | 2,000      | 136,000       | ,000  | ,887               |    |
| Intercept          | Wilks' Lambda      | ,113  | 531,279 <sup>b</sup> | 2,000      | 136,000       | ,000, | ,887               |    |
|                    | Hotelling's Trace  | 7,813 | 531,279 <sup>b</sup> | 2,000      | 136,000       | ,000, | ,887               |    |
|                    | Roy's Largest Root | 7,813 | 531,279 <sup>b</sup> | 2,000      | 136,000       | ,000, | ,887               |    |
|                    | Pillai's Trace     | ,238  | 21,191 <sup>b</sup>  | 2,000      | 136,000       | ,000, | ,238               |    |
| Class              | Wilks' Lambda      | ,762  | 21,191 <sup>b</sup>  | 2,000      | 136,000       | ,000  | ,238               |    |
|                    | Hotelling's Trace  | ,312  | 21,191 <sup>b</sup>  | 2,000      | 136,000       | ,000, | ,238               |    |
|                    | Roy's Largest Root | ,312  | 21,191 <sup>b</sup>  | 2,000      | 136,000       | ,000, | ,238               |    |
| a. Design:         | Intercept + Class  |       |                      |            |               |       |                    |    |
| D. EXACUST         | 40S0C              |       |                      |            |               |       |                    |    |

#### Table 3.10 Analysis Results for Multivariate KI (Y1) and KM (Y2)

The analysis results show that the F values for Pillae Trace, Wilk Lambda, Hotelling Trace, and Roy's Largest Root have a significance that is smaller than 0.001. This means that the F prices for Pillae Trace, Wilk Lambda, Hotelling Trace, and Roy's Largest Root are all significant. Therefore, there are differences in interpersonal intelligence (Y1) and writing skills (Y2) between students taught in the experimental group (A1) and the control group (A2).

Tests of between-subjects effects show that the relationship between learning using digital storybooks (Class/X) and Y1 gives an F value of 19.962 with a significance of <0.05. This shows that there is an influence on Y1 caused by differences in learning models (Class/X). Meanwhile, the relationship between the learning model (Class/X) and skill Y2 gives an F value of 26.314 with a significance of <0.05. This shows that there is an influence on KM caused by differences in learning models (Class/X). So it can be stated that there is a significant influence of learning using digital storybooks simultaneously on KI and KM. This can be observed in Table 3.11 as follows.

| Tests of Between-Subjects Effects |                       |                         |      |             |         |       |                    |     |  |
|-----------------------------------|-----------------------|-------------------------|------|-------------|---------|-------|--------------------|-----|--|
| Source                            | Dependent<br>Variable | Type III Sum<br>Squares | ofdf | Mean Square | F       | Sig.  | Partial<br>Squared | Eta |  |
| Corrected Model                   | KI                    | ,802 <sup>a</sup>       | 1    | ,802        | 19,962  | ,000  | ,127               |     |  |
|                                   | KM                    | 1,987⁵                  | 1    | 1,987       | 26,314  | ,000  | ,161               |     |  |
| Intercent                         | KI                    | 31,999                  | 1    | 31,999      | 796,642 | ,000  | ,853               |     |  |
| intercept                         | KM                    | 26,916                  | 1    | 26,916      | 356,495 | ,000  | ,722               |     |  |
| Class                             | KI                    | ,802                    | 1    | ,802        | 19,962  | ,000, | ,127               |     |  |
| 01400                             | KM                    | 1,987                   | 1    | 1,987       | 26,314  | ,000, | ,161               |     |  |

Table 3 11 Analysis Results of Tests of Between-Subjects Effects KI (Y1) and KM (Y2)

| Error           | KI          | 5,503                  | 137 | ,040 |
|-----------------|-------------|------------------------|-----|------|
|                 | KM          | 10,344                 | 137 | ,076 |
| Total           | KI          | 38,100                 | 139 |      |
| lotal           | KM          | 38,944                 | 139 |      |
| Corrected Total | KI          | 6,305                  | 138 |      |
|                 | KM          | 12,330                 | 138 |      |
| a. R Squared =  | ,127 (Adjus | sted R Squared = ,121) |     |      |
| b. R Squared =  | ,161 (Adjus | sted R Squared = ,155) |     |      |

#### 3.1.4. Independent T-test

The results of the independent t-test on interpersonal intelligence (KI) and writing skills (KM) can be seen in Table 3.12 as follows.

| Variables | Ν  | Mean  | SD    | F      | Т     | Sig.   | ES    | category              |
|-----------|----|-------|-------|--------|-------|--------|-------|-----------------------|
| A1Y1      | 68 | 0,556 | 0,239 | 19.962 | 4.468 | < 0.05 | 0.987 | High<br>Effectiveness |
| A2Y1      | 71 | 0,404 | 0,154 | ,      | .,    | ,      | -,    |                       |
| A1Y2      | 68 | 0,560 | 0,271 | 26 314 | 5 130 | < 0.05 | 0 857 | High<br>Effectiveness |
| A2Y2      | 71 | 0,321 | 0,279 | 20,514 | 5,150 | < 0,05 | 0,007 |                       |
| A1Y1Y2    | 68 | 0,558 | 0,255 | 21 101 | 4 603 | < 0.05 | 0 800 | High<br>Effectiveness |
| A2Y1Y2    | 71 | 0,363 | 0,217 | 21,131 | 4,005 | < 0,05 | 0,033 |                       |

Table 3.12 Independent t-test results of Interpersonal Intelligence (KI) and Writing Skills (Y2)

Based on Table 3.12 it is known: (1) the Y1 t value is calculated from the root of F Manova (F AY1:19.962, namely 4.468; 2-tailed significance value < 0.05. Mean Y1A1 0.556 > Y1A2 0.404. ES value 0.987 is included in the high effectiveness category; (2) t Y2 value from the root of F Manova (F AY2: 26.314, namely 5.130; 2-tailed significance value < 0.05. Mean Y2A1 0.560 > Y2A2 0.321. ES-value The value of 0.857 is included in the high effectiveness category; (3) the simultaneous t value calculated from the root of F Wilks Lambda A is 21.191; 2-tailed significance < 0.05. Mean Y1Y2A1 0.558 > Y1Y2A2 0.363. The ES value is 0.899 including in the high effectiveness category.

#### 4. DISCUSSION

# 4.1. The Effectiveness of Digital Storybooks Based on Sasak Local Wisdom on Students' Interpersonal Intelligence

Based on the results of data analysis, it is known that the Y1 t value, which is calculated from the root of F Manova (F AY1: 19.962), is 4.468 and the 2-tailed significance value is <0.005, indicating that there is a significant difference in Y1 between the experimental group (A1) and the control (A2). Mean Y1A1 0.556 > Y1A2 0.404. There was an increase in the mean value of Y1A1 before and after receiving treatment, namely from 64.54 to 85.22. Likewise, the average value of Y1A1 > Y1A2, namely. 85.22 and 76.96. This means that learning using digital storybooks based on local Sasak wisdom is more effective in improving Y1 compared to learning without using digital storybooks. This is reinforced by the ES value of 0.987, which is included in the high effectiveness category.

The aspect that shows the best development based on the results of this research is the existence of the group, which has a mean from 67.75 before treatment to 90.69 after treatment. The next two aspects also experienced an increase, namely emotional expression from an average of 65.08 to 89.24 and empathy from 61.26 to 88.74. This

further strengthens that there is a significant influence due to the use of digital storybooks based on local Sasak wisdom on the interpersonal intelligence of fourth-grade elementary school students in the city of Mataram [21]

#### 4.2. The Effectiveness of Digital Storybooks Based on Sasak Local Wisdom on Students' Writing Skills

Based on the results of data analysis, it is known that the Y1 t value, which is calculated from the root of F Manova (F AY1: 19.962), is 4.468 and the 2-tailed significance value is <0.005, indicating that there is a significant difference in Y1 between the experimental group (A1) and the control (A2). Mean Y1A1 0.556 > Y1A2 0.404. There was an increase in the mean value of Y1A1 before and after receiving treatment, namely from 64.54 to 85.22. Likewise, the average value of Y1A1 > Y1A2, namely. 85.22 and 76.96. This means that learning using digital storybooks based on local Sasak wisdom is more effective in improving KI compared to learning without using digital storybooks. This is reinforced by the ES value of 0.857, which is included in the high effectiveness category.

Based on the results of this research, it can be stated that learning using digital storybooks based on local Sasak wisdom is very effective in improving the writing skills of fourth-grade elementary school students in Mataram City. The results of this study are in line with the results of previous research. Hastuti and Rakhmawati (2023) prove that the use of digital media can improve students' writing skills. Yamaç and Ulusoy (2016) concluded that the use of digital stories, digital storybooks, and/or digital folk tales can improve students' writing skills, both in terms of story elements and the number of words produced. [22] proves that storytelling activities using digital media are quite effective in improving students' non-linguistic abilities, competencies, and productive language skills (speaking and writing). Moreover, Elenein (2019) and Syafryadin & Salniwati (2019) found that digital storytelling can also improve elementary school students' communication skills. also prove that technology-based media can improve the creativity and writing skills of elementary school students [23] [10].

# 4.3. Effectiveness of Digital Storybooks Based on Local Sasak Wisdom on Interpersonal Intelligence and Writing Skills Simultaneously

Based on the results of data analysis, it is known that the simultaneous t value of Y1Y2, which is calculated from the root of FWilks Lambda A: 21.191, is 4.603; 2-tailed significance <0.001. Mean Y1Y2A1 0.558 > Y1Y2A2 0.363. The ES value is 0.899, including the high effectiveness category. Thus, learning using digital storybooks based on local Sasak wisdom is simultaneously very effective in improving the interpersonal intelligence and writing skills of fourth-grade elementary school students. In this context, there are differences in interpersonal intelligence (Y1) and writing skills (Y2) between students taught in the trial/experimental group (A1) and the comparison/control group (A2).

The t-test results show: (1) the 2-tailed significance value for interpersonal intelligence is <0.001. This means that there is a significant difference in interpersonal intelligence between the test/experimental group (A1) and the comparison/control group (A2). In this case, the average Y1A1 0.556 > Y1A2 0.404, which means that learning using digital storybooks based on local Sasak wisdom is more effective in increasing interpersonal intelligence compared to learning models without using digital storybooks. This is reinforced by the ES value of 0.987, which is included in the high category; (2) 2-tailed significance value for writing skills <0.001. This means that there is a significant difference in writing skills (Y2) between the trial/experimental group (A1) and the control (A2). In this case, the average Y2A1 0.560 > Y2A2 0.321, which means that learning using digital storybooks based on local Sasak wisdom is more effective in improving writing skills compared to learning models without using digital storybooks. This is reinforced by the ES value of 0.201. This means that there is a significant difference in writing skills (Y2) between the trial/experimental group (A1) and the control (A2). In this case, the average Y2A1 0.560 > Y2A2 0.321, which means that learning using digital storybooks based on local Sasak wisdom is more effective in improving writing skills compared to learning models without using digital storybooks. This is reinforced by the ES value of 0.857, which is included in the high category; (3) 2-tailed significance value simultaneously for interpersonal intelligence and writing skills <0.005. This means that there are significant differences in interpersonal intelligence (Y1) and writing skills (Y2) between the trial/experimental group (A1) and the comparison/control (A2). In this case, the average Y1Y2A1 0.558 > Y1Y2A2 0.363.

#### CONCLUSION

Based on the research results and discussion, it can be concluded: (1) The effectiveness of the implementation of digital storybooks based on Sasak's local wisdom on the interpersonal intelligence of fourth-grade elementary school students in Mataram City is relatively high because the ES is 0.987. (2) The effectiveness of the implementation of digital storybooks based on local Sasak wisdom on the writing skills of fourth-grade elementary school students in Mataram City is also relatively high because the ES is 0.857. (3) The effectiveness of the simultaneous implementation of digital storybooks based on Sasak's local wisdom on the interpersonal intelligence and writing skills of class IV Dasat School students in Mataram City is also relatively because the ES is 0.857. These simultaneous results indicate that the use of digital storybooks based on local Sasak wisdom in learning has a positive influence on the interpersonal intelligence and writing skills of fourth-grade elementary school students in Mataram City, Indonesia.

The results of this study have several implications for educational research and practice. The intended implications include: (1) the same development needs to be carried out immediately using other Sasak story bases or stories from the Samawa and Mbojo tribes; (2) this digital storybook based on local Sasak wisdom can be tested to improve other types of social character including the character of Pancasila students or other language skills such as speaking, reading or listening; and (3) this digital storybook based on local Sasak wisdom can also be used by parents at home or in the community to instill and develop various children's characters that match the exemplary traits of the characters in the story.

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