

EDUTAINMENT EDUCATION FOR CHILD-FRIENDLY SCHOOL: A CONSTRUCTIVISM THEORY PERSPECTIVE

INAYAH^{1,*}, GITA HINDRAWATI²,
IWAN HERMAWAN³, SARTONO⁴, ANNISA NUR AULIA⁵

^{1,2,3,5}Business Administration Department, Politeknik Negeri Semarang,
Jl. Prof. Soedarto, Tembalang, Semarang, 50275, Indonesia

⁴Accountancy Department, Politeknik Negeri Semarang,
Jl. Prof. Soedarto, Tembalang, Semarang, 50275, Indonesia

*Corresponding Author: inayah_pkp08@yahoo.com

Abstract

Perspective studies related to fun child-friendly education have attracted the attention of many researchers. Fun learning includes aspects of teaching aids to teacher competence that can increase the role of edutainment in the classroom so that studies related to edutainment are crucial to build. However, the limitation of teachers in developing teaching methods in previous studies is a problem in this study. This research direction offers an empirically tested Edutainment Learning Method to improve Child-Friendly School Performance. The method used in this research is a quantitative method with a positivist paradigm. The number of samples in this study was 138 respondents who were processed using the Structural Equation Model (SEM) analysis tool using SMART-PLS software. This study found the effect of the Edutainment Learning Method mediation variable that bridges the Teaching Aids variable to the Edutainment Learning Method 0.184 and the effect of the Educational Competence variable that bridges the Storytelling Education variable to the Edutainment Learning Method variable 0.426. The perspective of this study uses constructivism theory and Edutainment Learning Theory with practical implications that schools need to provide an infrastructure capable of integrating audio and visual-based learning tools so that an edutainment atmosphere can be formed.

Keywords: Child-friendly school performance, Educational competence, Edutainment learning method, Storytelling education, Teaching aids.

1. Introduction

Studies related to Child-Friendly Education have been conducted in various countries, the theme of this study will be related to social aspects, safety, and fun education. The focus of child-friendly school education in some countries as well as in India is related to the safety of the educational environment [1], Myanmar study discusses child protection [2], as well as Korean studies related to social justice [3]. All three agreed that the important aspects of child-friendly schools are social, safety and fun learning. Child-friendly education is considered important as the country's biggest investment because a quality generation lies in the early years of early childhood education [1]. Child education by implementing child-friendly education utilizes the motives of play and curiosity that can improve children's abilities [4]. Children's abilities are supported by a comfortable environment, patient educators, and a surrounding environment that supports child-friendly school education programs.

The child-friendly school education program also prioritizes education and entertainment, which is education with a pleasant atmosphere, including individualized and gender-appropriate teaching, and supports teachers' ability to implement active, collaborative and democratic learning in the context of edutainment [5]. The implementation of the Edutainment Learning Method will pay attention to various aspects such as teaching aids that are in line with current technologies such as AR, machine learning, and the Internet of Things (IoT) [6]. Another important aspect is the ability of the storytelling teacher as the subject of the edutainment learning method to transfer knowledge to the children. The teacher's storytelling ability will build an atmosphere that influences children to enjoy the story plot that carries knowledge and cognitive material about character education. The teacher's storytelling ability will be equivalent to the presence of a fun-filled knowledge transfer.

Departing from the phenomenon of bullying, the transfer of knowledge about noble character is an effort to prevent bullying in the school environment. However, in practice, there is still physical and mental violence committed by teachers against their students. The study of child-friendly schools has been regulated in Government Regulation PP and PA No. 08 of 2014 which includes an understanding of the concept of child-friendly schools, their establishment and development. According to data released by the United Nations Children's Fund (UNICEF) child abuse is widespread in homes, schools and communities in Indonesia [7].

In Indonesia, 12.285 children experienced violence and the data continues to increase in 2020 to 12.425 and 2022 to 15.972 children [8]. For example, children who play mobile legends can have a negative psychological impact because the game has elements of violence [9], besides that, teachers who hit their students [10]. Physical attacks at school tend to be experienced by boys and teachers often use physical and emotional forms of punishment to discipline children [7]. Such violence can cause physical and mental suffering that affects a child's future character. The pain that children experience due to violence adversely affects their mental health, and psychosocial functioning, and leads to a counterproductive character trait for their growth and development. Kızıltepe et al. [11], so developing a nuanced, child-friendly approach is a learning challenge in ECE today.

This study has problems that depart from the limitations of previous studies, namely on the constructs of Teaching Aids and Educational Competence, where

teachers have limitations in developing educational aids for learning quality [12]. This is in line with the study Haron et al. [12] which recommends re-examining teachers' skills in developing educational aids because teaching effectiveness depends on teachers' skills and attitudes, so this is a further research recommendation.

The study of the edutainment learning method is crucial to build so the question in this study is whether the three constructs of Teaching Aids, Storytelling Education, and Educational Competence have a significant influence on the Edutainment Learning Method and its impact on Child-Friendly School Performance. The purpose of this study is to offer Edutainment Learning Method variables that are used to fill the body of knowledge in the child-friendly school education domain that has not been studied quantitatively through the perspective of Constructivism Theory and Edutainment Theory.

2. Literature Review

2.1. Constructivism theory

Constructivism Theory was first introduced by Vygotsky [13] which explains learning that emphasizes the active role of students in building their understanding [14]. Knowledge and understanding are not acquired passively but actively through personal experience and experimental activities experienced by students. In addition, this theory was also developed by Bruffee [15] and Wertsch [16] which emphasizes the primacy of social interaction as a driving force and prerequisite for students' cognitive development through ideas encountered in the sociocultural realm [17]. In this study, Constructivism Theory is the basis for developing learning methods with storytelling. Constructivism Theory is not only about the context of the teacher telling the story, but students are also invited to imagine and interact in the course of the story.

2.2. Edutainment theory

Education and Entertainment or Edutainment is expressed as a container that combines several components such as sound, animation, video, writing and images, as well as a place to have fun and learn [18]. The main purpose of Edutainment is to attract students' attention and make them focus on the events and teaching materials while learning [19]. Edutainment Theory is derived from Empiric Learning Theory which defines learning as the process of creating knowledge that is capable of generating experience. Knowledge consists of the results of information perception and processing [20]. Empirical learning theory is used in many areas of education where entertainment is used to engage students in the learning process with the help of acting and drama methods [21]. It can create a positive impact on the teacher and a comfortable learning atmosphere [22]. Edutainment Theory can explain teaching aids, edutainment learning methods, and Child-Friendly school performance. It is based on the fact that the three are interrelated in creating a fun learning environment.

2.3. Teaching aids for ECE

Teaching Aids are learning tools that can be used for the learning process [23]. Learning tools can activate the educational process based on innovative approaches to the education system [24]. The use of teaching aids is considered an important

component in the learning process that is indispensable for improving students' understanding of learning. In a study conducted by Harson et al. [12] and Inayah et al. [25], several indicators build teaching aids [26], namely, the use of technology-assisted teaching aids enhanced students' interest (TC1), namely teaching aids can provide support in student learning, for example by providing technology facilities. The next indicator is the use of multimedia materials (TC2), which means that in learning the school utilizes the use of multimedia such as educational videos connected to the internet. Furthermore, skilled in using technology tools (audio, video, software, computers) (TC3) which means that each teacher can run Educational Aids at school. The indicator of using technology-assisted teaching aids (TC4) is that in the learning process the school applies technology.

2.4. Storytelling education

Storytelling is the process of a teacher using vocalizations, narrative structures, and mental images to communicate with students [27]. Storytelling Education can support and provide motivation for learning and improve skills in analysing [28]. Teachers in schools can use stories to introduce, explain and memorably discuss material. Storytelling is also a way for teachers to create comfortable learning. According to Hofman-Bergholm [29] there are several indicators in Storytelling, namely transformative engagement (SE1), namely Storytelling as a learning medium that inspires students according to the values in the story. The next indicator is enhanced understanding and critical thinking (SE2) where teachers in schools need to implement reflective discussions in class related to current issues. The indicator of influence on worldview (SE3) is that the school provides space to exchange views, context and emotions (SE4) which means that schools apply storytelling as a learning tool.

2.5. Educational competence

In a learning process, teachers who have competence are needed. Teacher competence is understood as specific cognitive performance that is functionally responsive to situations and demands in a particular domain [30]. One well-known researcher, M.C. Leod, states that a teacher's competence is determined by his ability to carry out his duties ethically and practically [31]. Teachers must draw on a wide range of knowledge and assemble it into coherent understandings and skills to master the core challenges of teaching [32]. According to Wardoyo et al. [33] several indicators build educational competence, namely actively participating in learning activities (EC1), and the active role of teachers in the learning process in the classroom. Then the second and third indicators, namely developing student potential (EC2) and motivating students' willingness to learn (EC3), explain that schools provide a forum for students to develop their talents, and when students are actively learning, schools give appreciation.

The indicators of ensuring the level of understanding and adapting learning activities (EC4), continuing to improve teaching methods (EC5), paying attention to learning objectives (EC6), and teaching by the learning objectives and life context (EC7) explain the methods and learning outcomes. Furthermore, increasing student motivation (EC8) and providing opportunities for students to ask questions (EC9) explain teaching that motivates students so that their courage to express their opinions increases.

2.6. Edutainment learning method

Edutainment comes from the words education and entertainment, which means a learning process with educational and entertainment substances that blend harmoniously so that learning is more fun [34]. Fun learning is generally done by using games, role-playing, and demonstrations in the context of edutainment [35]. According to Cheong [36] four indicators build the Edutainment Learning Method, namely fun teaching session (ELM1) and lesson class with environment (ELM2), namely the application of a fun and entertaining learning environment. The next indicator is a teaching session filled with a variety of interesting and varied operations (ELM3) and edutainment may employ information and communication technology (ELM4) the application of interesting learning by utilizing technology.

2.7. Child-friendly school performance

Child-Friendly School is a formal, non-formal and informal education unit that is safe, clean, healthy, caring and environmentally cultured [37]. On the other hand, by implementing Child-Friendly School, schools can guarantee, fulfil, and respect children's rights protect them from violence, discrimination, and other ill-treatment and support children's participation. According to Milfayetty and Hajar [38] Child-Friendly School Performance has three indicators, namely child-friendly school policy (CFSP1) related to the success of the implemented curriculum. Teaching and learning process (CFSP2) is the learning process that is in line with the child-friendly school program. The next indicator is facilities and infrastructure (CFSP3), which is related to the facilities provided by the school that support the child-friendly school program. These indicators build Child-Friendly School Performance.

2.8. Teaching aids and edutainment learning method

The use of Teaching Aids supports creating a fun learning process [39]. Playing and learning with teaching aids inside and outside the classroom, packaged in the concept of edutainment learning, can create a fun and appropriate atmosphere for early childhood. Previous research shows that learning using teaching aids can encourage positive student attitudes compared to learning using conventional techniques [36]. The use of teaching aids is also able to maintain emotional connection and attract and maintain students' interest and attention [40], so that Teachings Aids have a significant influence on the Edutainment Learning Method. The hypothesis is proposed as follows:

H1: Teaching Aids has a significant effect on the Edutainment Learning Method.

2.9. Storytelling education and edutainment learning method

Storytelling Education is learning by using storytelling techniques. In creating a comfortable learning environment, storytelling is one of the components that support a fun learning atmosphere because it helps build children's imagination [41]. In line with research conducted by Musyayyadah and Ningsih [42] Storytelling Education affects the Edutainment Learning Method because, in learning, teachers need to innovate so that it makes an impression on students. Learning techniques using storytelling can help students remember the learning that has been done so that the learning process is effective and well-received by students. The hypothesis proposed is as follows:

H2: Storytelling Education has a significant effect on the Edutainment Learning Method

2.10. Storytelling and educational competence

Learning with good storytelling techniques is supported by good teacher competence. The more the teacher has competence in storytelling, the better the teacher will be at presenting stories in the classroom. Storytelling in the classroom must be able to keep students carried away by a good atmosphere [43].

H3: Storytelling has a significant effect on Educational Competence

2.11. Educational competence and edutainment learning method

The quality of education can be measured by competent teachers. Fun learning is also supported by teacher competence that can present the concept of a fun learning space in the context of independent play [44]. Research conducted by Rusilowati and Wahyudi [45] shows that teacher competence affects creating a learning atmosphere, especially teachers who have certification have more ability to make social relationships and know the characteristics of each student so that a pleasant learning atmosphere can be formed. The hypothesis proposed is as follows:

H4: Educational Competence has a significant effect on the Edutainment Learning Method

2.12. Edutainment learning method and child-friendly school performance

A pleasant learning atmosphere can create a child-friendly school. This is because one of the indicators of Child-Friendly School Performance is the teaching and learning process [38]. A fun learning process can create a comfortable atmosphere so that a child-friendly school can be formed. The hypothesis is as follows:

H5: Edutainment Learning Method has a significant effect on Child-Friendly School Performance

2.13. Edutainment learning method as a mediator

Edutainment, a combination of education and entertainment, is commonly employed in teaching by integrating interactive and enjoyable elements like games and multimedia. This method acts as a facilitator to boost motivation, cognitive engagement, and active learning. Its effectiveness depends on well-organized classroom setups, which include flexible seating arrangements, the incorporation of music, and visual stimuli, and the use of educational tools that enhance both the learning process and outcomes. According to Feiyue [46] edutainment learning method serves as a means to create an enjoyable and interactive learning atmosphere. It is used to mediate improvements in student motivation, engagement, and material comprehension through creative classroom setups, music, visualization, and educational tools. As a result, edutainment helps enhance student focus and improves learning outcomes.

2.14. Educational competence as a mediator

Educational competence serves an essential mediating role in enhancing learning outcomes across various educational settings. For example, research by Liu et al. [47]

indicates that during the shift to online teaching due to the COVID-19 pandemic, the competence of teachers significantly impacted students' perceived learning results. The findings reveal that teachers' abilities to effectively utilize online tools and adapt their teaching strategies were crucial in mediating the connection between instructional approaches and student achievement. In another study focused on adult education, the role of educators' mediation skills is highlighted as they foster independent learning [48]. Hypothesis model as shown in Fig. 1.

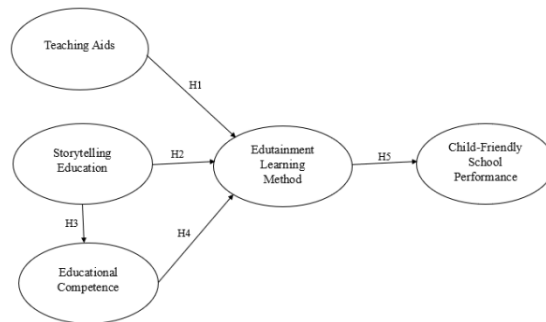


Fig. 1. Hypothesis model.

3. Methods

Primary data were obtained directly from the field and then analysed in this study. Respondents in this study were school principals whose institutions have implemented child-friendly school programs in the Sukoharjo District. Principals became respondents in this study because they were considered as policymakers who were equivalent to managers [49]. The number of respondents in this study has met the adequacy of the sample calculated based on the indicators of the Teaching Aids variable according to Haron et al. [12] as many as four indicators. Indicators of the Storytelling Education variable according to Hofman-Bergholm [29] as many as four indicators. Indicators of the Educational Competence variable according to Wardoyo et al. [33] a total of nine. Indicators of the Edutainment Learning Method variable according to Cheong [36] there are four indicators. Indicators of the Child-Friendly School Performance variable according to [38] as many as three indicators, so the sample adequacy in this study is 120 (24×5) [50].

The data collected were 165 respondents and the method of obtaining data by distributing questionnaires by filling in self-assessments based on purposive sampling techniques. Purposive sampling is a sampling technique based on the researcher's determination of the most appropriate sample that is considered representative of a population [51]. In this study, questionnaires were distributed, but after analysing outlier data, the data processed in this study was 138 of the total data collected. The approach used in this study is a positivism approach, which is a real study based on data and can be logicalized by the mind [52]. The analytical tool used is Structural Equation Modelling (SEM) which is analysed with SMART-PLS software. SEM is a multivariate analysis method that can be used to describe the linear relationship simultaneously between indicators and variables that cannot be measured directly or latent variables [53]. The use of SMART-PLS is based on the processed sample included in the small category [54].

4. Results and Discussion

4.1. Result

This study was initiated by distributing questionnaires to school principals in Sukoharjo district who implemented a child-friendly school program. Based on the data in Table 1, it shows that the number of female respondents is more than the number of men with a total of 135 female respondents and 3 male respondents which can be presented as 97.83% for women and 2.1% for men. The female profession is more nominating because women are more caring, good at communication, and more patient in assisting students [55]. The data also shows that the status of private schools is 135 schools with a percentage of 97.83% and public schools are 3 schools with a percentage of 2.1%, which means that private schools dominate over public schools. This is because private schools can be more adaptable in adjusting the curriculum and current educational trends [56]. From the data it can also be concluded that respondents with a length of teaching >5 years were more, namely 71.01% or 98 respondents, then respondents with a length of teaching of 1-5 years were 31 respondents or 22.46% of the total data, and a length of teaching of less than 1 year there were 9 respondents or 6.52%. Respondents who have been teaching for >5 years know more about educational transformation so that they are more aware of the child-friendly school program.

Table 1. Demographic characteristics of respondents.

Characteristics	Total	Percentage
Gender		
Male	3	2.17%
Female	135	97.83%
Total	138	100%
Status of School		
Public School	3	2.17%
Private School	135	97.83%
Total	138	100%
Years of teaching		
<1 year	9	6.52%
1-5 year	31	22.46%
>5 year	98	71.01%
Total	138	100%

Source: processed research data

Testing in this study was carried out by conducting two tests, namely the Convergent Validity and Discriminant Validity tests, the first is Convergent Validity tested to measure the validity of an indicator in a variable. The requirement for the indicator to be said to be valid is to have a value of more than 0.70 (>0.70) [54, 57]. However, it can also be said to be valid if it is more than 0.5 or 0.6 (>0.5 or >0.6). Based on the data in Table 2, the indicator value of the Teaching Aids (TA) variable has met the cut-off because it is above >0.70. Then the indicator value of the Storytelling Education (STE) variable is also above > 0.70 so it has met the cut-off. Furthermore, in the indicators of the Educational Competence (EC) variable, there are two indicators, namely EC1 and EC9, which have a value of > 0.6 and seven other indicators that have a value of > 0.70 so that the indicators of the EC variable have also met the cut-off. The next indicators are from the Edutainment Learning Method (ELM) and Child-Friendly School Performance (CFSP) variables which are also >0.70, so that all indicators of the five variables can be said to be valid.

Table 2. Loading factor.

	TA	STE	EC	ELM	CFSP		TA	STE	EC	ELM	CFSP
TA1	0.891					EC5			0.830		
TA2	0.907					EC6			0.854		
TA3	0.822					EC7			0.755		
TA4	0.833					EC8			0.817		
STE1		0.890				EC9			0.618		
STE2		0.942				ELM1				0.904	
STE3		0.929				ELM2				0.939	
STE4		0.932				ELM3				0.909	
EC1			0.661			ELM4				0.837	
EC2			0.759			CFSP1					0.924
EC3			0.829			CFSP2					0.934
EC4			0.726			CFSP3					0.854

Source: processed research data

The next data processing is to test the construct reliability taken from the Cronbach's Alpha value, a variable can be said to be reliable if the Cronbach's Alpha value is above 0.70 (>0.70) [58]. The data presented in Table 3 shows that Cronbach's Alpha value of all variables is in the range of 0.886-0.942 so from these data all variables are reliable because they are more than the specified cut-off.

The second test is Discriminant Validity which is carried out to test the difference between latent variables and other variables. A high Discriminant Validity value indicates that a variable can explain the measured phenomenon. This test can be seen from the Composite Reliability and Average Variant Extract (AVE) values. The value of Composite Reliability (CR) must be above 0.70 (>0.70) [59] which from the data in Table 3 shows that the CR value of all variables is > 0.70 with a value range of 0.922-0.959, so that all variables have met the cut-off.

Discriminant Validity is also seen from the Average Variance Extracted (AVE) value, which must be above 0.05 (>0.05) [60, 61]. The data in Table 3 the value of AVE on each variable has met the cut-off, which is in the range of values 0.585-0.853.

Table 3. Cronbach's Alpha, Composite Reliability, and Average Variance Extract (AVE).

Latent Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Teaching Aids (TA)	0.886	0.922	0.747
Storytelling Education (STE)	0.942	0.959	0.853
Educational Competence (EC)	0.909	0.926	0.585
Edutainment Learning Method (ELM)	0.919	0.943	0.807
Child-Friendly School Performance (CFSP)	0.889	0.931	0.818

Source: processed research data

Discriminant validity is also tested based on the Fornell-Lacker Criterion value which is seen from the correlation value between latent variables and their variables which must be greater than the correlation with other variables [58]. Table 4 shows

that the correlation between the Teaching Aids (TA) variable and its variables is greater than the correlation with other variables, which is 0.864. The correlation between the Storytelling Education (STE) variable and its variable is also greater at 0.923, the Educational Competence (EC) variable and its variable is 0.765, the Edutainment Learning Method (ELM) variable and its variable is 0.898, and the Child-Friendly School Performance (CFSP) variable and its variable is 0.905, so the relationship of all variables to each variable is greater than to other variables.

Table 4. Fornell-Lecker criterion test value.

Variable	TA	STE	EC	ELM	CFSP
TA	0.864	0.662	0.660	0.663	0.554
STE		0.923	0.731	0.633	0.607
EC			0.765		0.738
ELM			0.778	0.898	0.736
CFSP					0.905

Source: processed research data

In testing the Fit Model, there are Standardized Root Mean Square Residual (SRMR), Chi-Square and NFI. SRMR is a measure of the absolute value of fit with a value of 0 being a perfect fit and a good fit value is when SRMR is less than 0.80 (<0.80) [62]. Based on Table 5, the SRMR value is 0.067 which is less than 0.80 so it can be said to be good. Then the Chi-Square value is used to measure the overall fit of the model [62]. However, according to Tabachnik and Fidel [63] in samples below 200 Chi-Square cannot assess whether the model in the study can be said to be suitable or not because Chi-Square is susceptible to sample size. Therefore, Tabachnik and Fidel [63] recommends that alternative calculations using Chi-Square/Degree of Freedom (df) are acceptable if they have a range of 2.0-5.0, although there is no consensus on this. According to Rigdon [64] df can be found using the formula $df = m(m+1)/2 - 2m - \xi(\xi-1)/2$ and the data obtained a df value of 242 from the calculation of $24*(24+1)/2 - 2*24 - 5(5-1)/2 = 242$. Based on these alternative calculation recommendations, the Chi-Square/df produces a value of 2.195 which is still in the category that Chi-Square is acceptable. Then for the Normed Fit Index (NFI) according to Tabachnik and Fidel [63] is the NFI value can be said to be fit if it is more than 0.95 (>0.95). However, according to Khan et al. [65] and Khalil et al. [66], if the value is still in the range of 0-1 and close to 1, the NFI value is still acceptable. In processing the data, the NFI value is 0.805 so it is acceptable. Testing the hypothesis value as shown in Fig. 2.

Table 5. Model fit.

	Saturated Model	Estimated Model
SRMR	0.067	0.094
d_ULS	1.343	2.663
d_G	0.823	0.895
Chi-Square	613.160	626.122
NFI	0.805	0.801

Source: processed research data

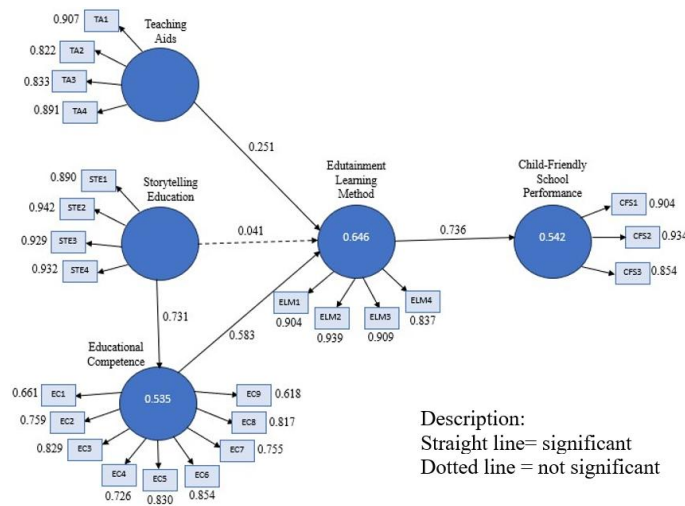


Fig. 2. Testing the hypothesis value.

Source: processed research data

Testing the value of the hypothesis is analysed by testing the Original Sample (O), namely testing the direction of the relationship between the dependent and independent variables, if the value is positive then the effect of the relationship is also positive. Based on the table, the results of the Original Sample (O) are all positive. The relationship between Teaching Aids (TA) to Edutainment Learning Method (ELM) is 0.251, Storytelling Education (STE) to ELM is 0.041, STE to Educational Competence (EC) is 0.731, EC to ELM is 0.583, and ELM to Child-Friendly School Performance (CFSP) is 0.736. Then, the value of the T-Statistic is said to be accepted if it is greater than 1.96 (>1.96) [67]. Based on the data processing, the T-Statistic value in hypothesis 2 is not accepted because it is less than the specified cut-off, which is only 0.515, while the other hypotheses are accepted because they meet the cut-off. Based on the direct effect of the independent variable on the dependent variable, it can be said that it has an effect if the P-values or significance values are less than 0.05 (<0.05) [68]. Table 6 shows that STE has no effect on ELM with a significance of 0.607 which is >0.05 . However, the relationship between TA and ELM has a positive effect with a significance value of 0.001. Likewise, the relationship between STE has a positive effect on TL, EC and ELM, and ELM and CFSP with a significance of 0.000.

Table 6. Testing the hypothesis value.

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Decision
TA → ELM	0.251	0.251	0.076	3.319	0.001	Accepted
STE → ELM	0.041	0.031	0.080	0.515	0.607	Rejected
STE → EC	0.731	0.738	0.040	18.133	0.000	Accepted
EC → ELM	0.583	0.591	0.086	6.763	0.000	Accepted
ELM → CFSP	0.736	0.737	0.046	16.153	0.000	Accepted

Source: processed research data

4.2. Discussion

This study examines the relationship between Teaching Aids (TA) and Edutainment Learning Method (ELM) and whether it has an influence or not. Previous research conducted by Kuzmina et al. [40] said that learning tools can attract students' interest and attention in class so that learning in class can be fun. Based on the tests conducted, it shows that there is a significant influence between TA on ELM, so **hypothesis 1 is accepted**. One of the indicators that build TA is skill in using technology tools (audio, video, software, computers) where teachers must be able to use learning tools at school. If this indicator is associated with one of the indicators in the ELM variable, namely actively participating in learning activities, which is the active role of teachers in the learning process, then when teachers can use learning tools, teachers have played an active role in the learning process. The implication that can be done by the school is to provide training and facilities related to learning tools that are more varied for teachers.

The next test is the relationship between Storytelling Education (STE) and ELM, this study shows that there is no significant influence between STE on ELM so **hypothesis 2 is rejected**. If the relationship is tested from the relationship of one of the STE indicators to ELM, namely Enhanced understanding and critical thinking, STE teachers need to provide space for reflective discussions in class to discuss current issues. However, the implementation of the discussion is certainly supported by indicators contained in ELM, namely increasing student motivation and providing opportunities for students to ask questions, which means that teachers must be able to explain teaching that motivates students to express their opinions. When the teacher cannot provide a forum and motivate students to have an opinion, the reflective discussion in the classroom will not run smoothly. Holding meetings with teachers to discuss current issues so that teachers are better trained to conduct discussions in the classroom can be one of the recommendations that can be implemented by the school.

Then, this study also examines the relationship between STE and Educational Competence (EC), data processing in this study shows that there is a significant influence between STE and ELM, so **hypothesis 3 in this study is accepted**. One of the indicators that make up STE is transformative engagement where storytelling can inspire students according to the values in the story. When teachers provide learning to students through storytelling and can inspire students, then the teacher has implemented a varied learning method or in the ELM indicator called A Teaching Session Filled Variety of Interesting and Varied Operations, so there is a connection between STE and ELM variables.

The relationship between EC and ELM is also tested in this study, the test results show that there is a significant influence between EC and ELM. This agrees with research conducted by Tavdgiridze et al. [44] which shows that a pleasant learning space depends on the way teachers teach in the classroom. The way teachers teach in the classroom is influenced by their competencies. If the indicator in EC is associated with the indicator in ELM, namely when a teacher succeeds in motivating students to continue learning or in the EC indicator it is called motivating students' willingness to learn, the children will feel happy so that the Fun Teaching Session can be created, so **hypothesis 4 is accepted**. The implication that can be done by the school is to provide opportunities for teachers to take special certification exams related to children's school programs.

The last hypothesis testing is to test the relationship between ELM and Child-Friendly School Performance (CFSP). The study conducted by Milfayetty and Hajar [38] explains that a fun learning process can create a child-friendly school. If the indicators of the two variables are connected, namely if the school implements interesting learning with the use of technology, for example with augmented reality (AR) based books or web-based educational games, the learning process is in line with the child-friendly school program. Therefore, **hypothesis 5 in this study is accepted**. Thus, the implication that can be done by the school is to improve learning methods and media such as AR-based books or web-based educational games.

In addition to testing these hypotheses, this study also conducted tests to determine the effect of EC variables in mediating STE on ELM. Based on the value of the direct effect between STE to ELM in Fig. 2, the result is 0.041 and is stated to have no significant effect, but when STE to ELM through EC, the result is 0.426, so the ELM variable can fully mediate the STE variable on the ELM variable. For this reason, the implication that can be done by the school is to improve teacher competence through certification exams, workshops, and training related to learning with storytelling techniques so that teachers can carry out learning with these techniques well which can have an impact on the learning atmosphere in the classroom.

5. Conclusions

The conclusion of this study shows that Teaching Aids (TA) and Educational Competence (EC) have a significant effect on the Edutainment Learning Method (ELM) and can improve Child-Friendly School Performance (CFSP). However, Storytelling Education (STE) has no direct influence on ELM so to get its influence and improve CFSP is through EC. This means that the more teachers conduct fun learning, the more teachers utilize learning tools to achieve an edutainment classroom environment.

This is also comparable to Storytelling Education, the more teachers have the capability or competence in teaching and can create a cheerful learning atmosphere, the easier it will be for teachers to carry out learning methods by telling stories. Teachers will be more confident so that the stories told can be understood by students and inspire students. This research fills the realm of science with Constructivism

Theory and Edutainment Learning Theory at the organizational level. The practical implication that can be applied by the school is the provision of infrastructure that can integrate audio and visual-based learning tools that can be connected by an internet connection to be able to conduct learning with videos or web-based educational games. It can also add interactive reading books such as books using the Augmented Reality (AR) system to create a fun learning space using varied learning tools.

This study has several limitations that need to be tested again related to the role of edutainment learning methods to students because in this study the role of edutainment learning methods only focuses on the role of teachers in carrying out learning techniques by telling stories, learning tools in creating a fun learning atmosphere, and teacher competence in supporting learning. So, it becomes a further research recommendation for further research to test the instrument again with students, action research, and experimental research related to the educational teaching aids developed.

References

1. Jadhav, C. (2019). Developing child friendly environment in early childhood education classrooms of physical education. *Think India Journal*, 22(13), 1810-1819.
2. Barai, N. (2022). *Physical environment of Child Friendly Space (CFS) as an intervention of child protection: in case of forcibly displaced Rohingya Children in Cox's Bazar*. MSc dissertation, Department of Architecture, Brac University.
3. Shaeffer, S. (2019). Inclusive education: A prerequisite for equity and social justice. *Asia Pacific Education Review*, 20(2), 181-192.
4. Watson, J.; Dreibelbis, R.; Auger, R.; Deola, C.; King, K.; Long, S.; Chase, R.P.; and Cumming, O. (2019). Child's play: Harnessing play and curiosity motives to improve child handwashing in a humanitarian setting. *International Journal of Hygiene and Environmental Health*, 222(2), 177-182.
5. Kitheka, J.M. (2015). *School factors influencing implementation of child friendly programmes in public primary schools in Kangundo sub-county, Kenya*. MSc dissertation, Department of Educational Administration and Planning, University of Nairobi.
6. Palamar, S.P.; Bielienka, G.V.; Ponomarenko, T.O.; Kozak, L.V.; Nezhyva, L.; and Voznyak, A.V. (2021). Formation of readiness of future teachers to use augmented reality in the educational process of preschool and primary education. *Proceedings of the 4th International Workshop on Augmented Reality in Education (AREdu 2021)*, Kryvyi Rih, Ukraine, 2898, 334-350.
7. Unicef. (2025). Child protection: Keeping children safe from violence, neglect and exploitation. Retrieved November 14, 2025, from <https://www.unicef.org/indonesia/child-protection>
8. Briliany, N.; and Laksemi, A.A.A. (2024). The role of teachers in creating a child-friendly school at TK negeri pembina gianyar bali. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, 731-742.
9. Marican, M.N.Y.; and Yusni, N.Z.B.M. (2022). *The Negative Impact of Social Media on Teenagers in Singapore and Malaysia*. Akademi Tamadun Islam.
10. Gusfre, K.S.; Støen, J.; and Fandrem, H. (2023). Bullying by teachers towards students-A scoping review. *International journal of bullying prevention*, 5(4), 331-347.
11. Kızıltepe, R.; Irmak, T.Y.; Eslek, D.; and Hecker, T. (2020). Prevalence of violence by teachers and its association to students' emotional and behavioral problems and school performance: Findings from secondary school students and teachers in Turkey. *Child Abuse & Neglect*, 107, 104559.
12. Haron, M.Z.; Othman, M.K.H.; and Awang, M.I. (2019). Technology-assisted teaching aids in teaching and learning: Evidence from the Malaysian Tahfiz Ulul Albab Model (TMUA). *International Journal of Innovative Technology and Exploring Engineering*, 8(12), 4401-4404.
13. Vygotsky, L.S. (1978). *Mind in society: Development of higher psychological processes*. Harvard university press.

14. Fatimah, S.; Rosidin, D.N.; and Hidayat, A. (2022). Student-based learning in the perspective of constructivism theory and Maieutics method. *International Journal Of Social Science And Human Research*, 5(5), 1632-1637.
15. Bruffee, K.A. (1986). Social construction, language, and the authority of knowledge: A bibliographical essay. *College English*, 48(8), 773-790.
16. Wertsch, J.V. (1991). *Voices of the mind: Sociocultural approach to mediated action*. Harvard University Press.
17. Nyikos, M.; and Hashimoto, R. (1997). Constructivist theory applied to collaborative learning in teacher education: In search of ZPD. *The Modern Language Journal*, 81(4), 506-517.
18. Druin, A.; and Solomon, C. (1996). *Designing multimedia environments for children: Computers, creativity, and kids*. John Wiley & Sons, Inc.
19. Okan, Z. (2003). Edutainment: Is learning at risk? *British Journal of Educational Technology*, 34(3), 255-264.
20. Kolb, D.A. (2013). The process of experiential learning. *Culture and processes of adult learning*, Routledge.
21. Brennan, R.; and Pearce, G. (2009). Educational drama: a tool for promoting marketing learning? *International Journal of Management Education (Oxford Brookes University)*, 8(1).
22. Aksakal, N. (2015). Theoretical view to the approach of the edutainment. *Procedia-Social and Behavioral Sciences*, 186, 1232-1239.
23. Kelana, J.J.B.; Kelana, J.B.; and Pratama, D.F. (2019). Improving the capability of prospective primary school teachers in making science-based science teaching materials based on ICT media assisted literacy. Proceedings of the 5th *International Conference on Education and Technology (ICET 2019)*, Kota Batu, Jawa Timur, Indonesia.
24. Musakhonovna, K.L. (2022). Peculiarities of using modern educational tools to increase the effectiveness of teaching the natural sciences and direct students to independent activities. *Asian Journal of Multidimensional Research*, 11(5), 182-191.
25. Inayah, I.; Hermawan, I.; Sadriatwati, S.E.; Rusmini, R.; and Putri, D.N. (2020). Leadership dan computer background dalam mendorong progrowth oriented serta pengaruhnya terhadap readiness to change. *Prosiding Seminar Hasil Penelitian dan Pengabdian Masyarakat*, 3, 983-999.
26. Inayah, I.; Hermawan, I.; Sadriatwati, S. E.; Setyadi, D.; Indrasari, F.; and Sari, A. N. I. (2023). Implementasi APE Inovatif dan PTK Melalui Peran Internet Center pada PAUD Al-Kamilah Semarang. *Prosiding Seminar Hasil Penelitian dan Pengabdian Masyarakat*, 5(1), 553-560.
27. Maureen, I.Y.; van der Meij, H.; and de Jong, T. (2020). Enhancing storytelling activities to support early (digital) literacy development in early childhood education. *International Journal of Early Childhood*, 52(1), 55-76.
28. Lemonidis, C.; and Kaiafa, I. (2019). The effect of using storytelling strategy on students' performance in fractions. *Journal of Education and Learning*, 8(2), 165-175.
29. Hofman-Bergholm, M. (2022). Storytelling as an educational tool in sustainable education. *Sustainability*, 14(5), 2946.

30. Kaiser, G.; and König, J. (2019). Competence measurement in (mathematics) teacher education and beyond: Implications for policy. *Higher Education Policy*, 32(4), 597-615.
31. Wordu, H.; and Isiah, C.E. (2020). Teachers' competence for effective teaching and learning for the 21st century schools in Nigeria. *IJAR*, 6(1), 235-237.
32. König, J.; Jäger-Biela, D.J.; and Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European journal of teacher education*, 43(4), 608-622.
33. Wardoyo, C.; Satrio, Y.D.; Narmaditya, B.S.; and Wibowo, A. (2021). Do technological knowledge and game-based learning promote students achievement: Lesson from Indonesia. *Heliyon*, 7(11).
34. Pojani, D.; and Rocco, R. (2023). Edutainment: Role-playing versus serious gaming in planning education. *Journal of Planning Education and Research*, 43(3), 585-597.
35. Khadijah, K.; Arlina, A.; Addaudy, M.J.; and Maisarah, M. (2021). The effect of edutainment learning model on early childhood socio-emotional development. *Jurnal Pendidikan Usia Dini*, 15(2).
36. Cheong, D.C.S. (2023). E-Learning as edutainment: The challenges and solutions for students of higher educational institution in Kuala Lumpur, Malaysia. *International Journal of Novel Research and Development*, 8(7), 2456-4184.
37. Sunandar, A.; Efendi, M.; Ediyanto, E.; Thahar, M.M.; Ulfah, N.H.; Adha, M.A.; Lailiyah, N.; and Firdiana, A.D. (2022). Healthy school management model of child-friendly schools: Children nutrition status and learning atmosphere. *MOJEM: Malaysian Online Journal of Educational Management*, 10(2), 73-89.
38. Milfayetty, S.; and Hajar, I. (2021). The effect of transformational leadership of school principles, school committee participation, teacher performance, and school culture on children-friendly school performance at public primary school in Deli Serdang Regency. *Proceedings of the 6th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2021)*, Medan, Indonesia.
39. Adnyani, L.D.S.; Suprianti, G.A.P.; Marsakawati, N.P.E.; and Narotama, P.D.A. (2021). Powtoon as the implementation of edutainment for young learners. *Proceedings of the 2nd International Conference on Technology and Educational Science (ICTES 2020)*.
40. Kuzmina, N.N.; Kochkina, D.V.; Korotkova, E.G.; and Kuzmina, N.M. (2023). Implementation of edutainment technology in foreign students' language teaching. *Bulletin of the South Ural State University. Ser. Education. Educational Sciences*, 15(1), 82-96.
41. Rizvic, S.; Boskovic, D.; Okanovic, V.; Sljivo, S.; and Zukic, M. (2019). Interactive digital storytelling: Bringing cultural heritage in a classroom. *Journal of Computers in Education*, 6, 143-166.
42. Musyayyadah, U.; and Ningsih, T. (2022). Implementation of character-based edutainment in learning. *Proceedings of the International Conference of Early Childhood Education in Multiperspectives*, 383-388.

43. Del-Moral-Pérez, M.E.; Villalustre-Martínez, L.; and Neira-Piñero, M.D.R. (2019). Teachers' perception about the contribution of collaborative creation of digital storytelling to the communicative and digital competence in primary education schoolchildren. *Computer Assisted Language Learning*, 32(4), 342-365.
44. Tavgiridze, L.; Didmanidze, I.; Sherozia, N.; Khasaia, I.; Kotomenkova, O.; and Vinogradova, A. (2020). The quality of training future teachers in the context of digitalization of education. *Proceedings of the International Scientific Conference-Digital Transformation on Manufacturing, Infrastructure and Service*, Saint Petersburg Russian Federation.
45. Rusilowati, U.; and Wahyudi, W. (2020). The significance of educator certification in developing pedagogy, personality, social and professional competencies. *Proceedings of the 2nd Social and Humaniora Research Symposium (SoRes 2019)*, Bandung, Indonesia.
46. Feiyue, Z. (2022). Edutainment methods in the learning process: Quickly, fun and satisfying. *International Journal of Environment, Engineering and Education*, 4(1), 19-26.
47. Liu, Y.; Zhao, L.; and Su, Y.S. (2022). The impact of teacher competence in online teaching on perceived online learning outcomes during the COVID-19 outbreak: A moderated-mediation model of teacher resilience and age. *International journal of environmental research and public health*, 19(10), 6282.
48. Aguiar, M.; and Silva, A.M. (2013). Mediation competences in adult education and training in Portugal and France. *The European Journal of Social & Behavioural Sciences*, 4(1), 177-188.
49. Robbins, S.P.; Bergman, R.; Stagg, I.; and Coulter, M. (2014). *Management*. Pearson Australia.
50. Hair F.; Jr, J.; Sarstedt, M.; Hopkins, L.; and G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European business review*, 26(2), 106-121.
51. Berndt, A.E. (2020). Sampling methods. *Journal of human lactation*, 36(2), 224-226.
52. Lin, A.C. (1998). Bridging positivist and interpretivist approaches to qualitative methods. *Policy studies journal*, 26(1), 162-180.
53. Collier, J. (2020). *Applied structural equation modeling using AMOS: Basic to advanced techniques*, Routledge.
54. Hair, J.F.; Risher, J.J.; Sarstedt, M.; and Ringle, C.M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
55. Munir, F.; and Aboidullah, M. (2018). Gender differences in transformational leadership behaviors of school principals and teachers' academic effectiveness. *Bulletin of Education and Research*, 40(1), 99-113.
56. Wang, J.; Yang, M.; and Maresova, P. (2020). Sustainable development at higher education in China: A comparative study of students' perception in public and private universities. *Sustainability*, 12(6), 2158.
57. Hussain, D.; Abbas, H.; and Wang, D. (2021). Contributing agents for Forest management of rural areas: An analysis through smart PLS methods. *Journal of Business Strategies*, 15(1), 109-134.

58. Gerson, G.D. (2016). Partial least square: Regression & structural equation models. *Ashebero USA: Statistical Publishing Associates*.
59. Henseler, J.; Ringle, C.M.; and Sarstedt, M. (2012). *Using partial least squares path modeling in advertising research: Basic concepts and recent issues*. In Okazaki, S. (Ed.), *Handbook of research on international advertising*. Edward Elgar Publishing.
60. Chin, W.W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
61. Hock, M.; and Ringle, C.M. (2010). Local strategic networks in the software industry: An empirical analysis of the value continuum. *International Journal of Knowledge Management Studies*, 4(2), 132-151.
62. Hu, L.T.; and Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: A multidisciplinary journal*, 6(1), 1-55.
63. Tabachnik, D.; and Fidel, J. (2012). Structural equation modeling: Guidelines for determining model fit. *J Bus Res Methods*, 6(5), 1-55.
64. Rigdon, E.E. (1994). Calculating degrees of freedom for a structural equation model. *Structural Equation Modeling: A Multidisciplinary Journal*, 1(3), 274-278.
65. Khan, M.; Lee, H.Y.; and Bae, J.H. (2019). The role of transparency in humanitarian logistics. *Sustainability*, 11(7), 2078.
66. Khalil, S.; Kallmuenzer, A.; and Kraus, S. (2024). Visiting museums via augmented reality: An experience fast-tracking the digital transformation of the tourism industry. *European Journal of Innovation Management*, 27(6), 2084-2100.
67. Girma, M. (2023). Kaizen and productivity: The mediating effect of the customer-supplier relationship using smart-PLS. *Istanbul Management Journal*, (94), 1-15.
68. Ghozali, I.; and Latan, H. (2015). Partial least squares konsep, teknik dan aplikasi menggunakan program smartpls 3.0 untuk penelitian empiris. *Semarang: Badan Penerbit UNDIP*, 4(1), 35-46.