

APPENDICES

Appendix 1 Permission Letter



KEMENTERIAN PENDIDIKAN TINGGI, SAINS, DAN TEKNOLOGI
UNIVERSITAS PENDIDIKAN GANESHA

FAKULTAS BAHASA DAN SENI
Jalan A.Yani No. 67 Singaraja Bali Kode Pos 81116
Telepon (0362) 21541 Fax. (0362) 27561
Laman: fbs.undiksha.ac.id

Nomor : 467/UN48.7.1/DT/2025

5 Februari 2025

Perihal : **Permohonan Izin Observasi**

Yth. Kepala SD Lab Undiksha
di Singaraja

Dalam rangka pengumpulan data untuk Memenuhi Observasi Awal Untuk Proposal Penelitian, dengan hormat kami mohon agar Bapak/Ibu mengizinkan mahasiswa di bawah ini:

Nama : Ni Luh Putu Devi Puspitasari
NIM : 2212021064
Jurusan : Bahasa Asing
Program Studi : Pendidikan Bahasa Inggris
Jenjang : S1
Tahun Akademik : 2024/2025

untuk mencari data yang diperlukan pada institusi yang Bapak/Ibu pimpin.
Atas perhatian dan bantuan Bapak/Ibu, kami ucapkan terima kasih.

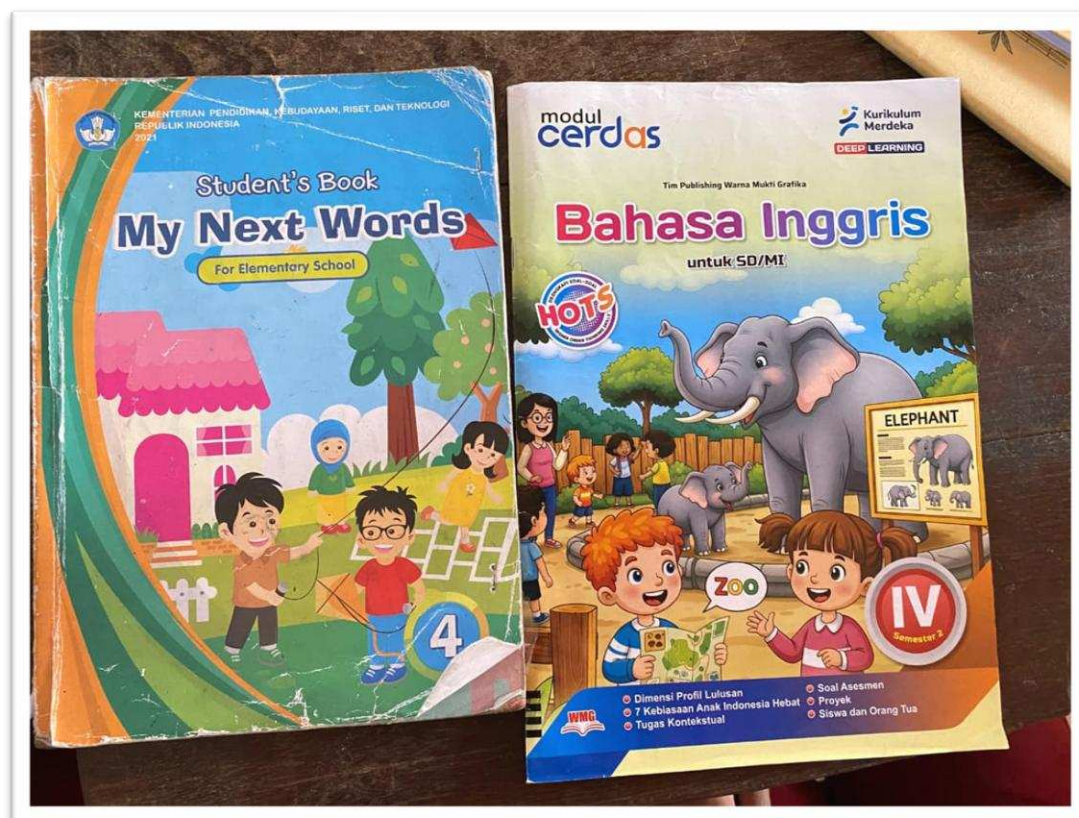
a.n. Dekan,
Wakil Dekan I,

Ni Luh Putu Eka Sulistia Dewi
NIP. 198104192006042002

Tembusan:

1. Dekan FBS Undiksha Singaraja
2. Kooprodi. Pendidikan Bahasa Inggris
3. Sub Bagian Pendidikan FBS

Appendix 2 Text-based English Learning Materials



Appendix 3 Final Storyline

STORYLINE DIGITAL STORYBOOK

By Ni Luh Putu Devi Puspitasari - 2212021064

Theme : SDG 10 - Reduced Inequalities
Topic : Respecting different learning abilities in the classroom
Title : The Book That Made Turtle Cry
Grade : 4th Students

Characterization

1. Turtle (Main Character)

- A fourth-grade student in an animal class
- Learns English more slowly than friends
- Quiet, gentle, and tries hard
- Often feels left behind when reading
- Represents students with different learning abilities

2. Rabbit (Supporting Character)

- A fast learner and confident reader
- Likes to laugh and show off
- Does not realize his words can hurt others
- Slowly learns empathy and kindness

3. Teacher Owl (Supporting Character)

- Wise and calm teacher
- Guides students through questions, not punishment
- Helps students understand differences

4. Animal Classmates (Mob)

- Active and curious
- Follow Rabbit at first
- Learn to respect differences together

Synopsis:

The Book That Made Turtle Cry tells the story of a quiet turtle who feels nervous when a new English book is given in class. While other students seem confident and excited, Turtle struggles to read the words on the page. When Rabbit laughs and calls the book easy, Turtle feels smaller and smaller until tears fall onto the book.

Through gentle guidance from Teacher Owl, the class learns that learning is not the same for everyone. Rabbit begins to understand that his laughter can hurt others, and he chooses to change his behavior. In the end, the book remains the same, but the classroom becomes a kinder and fairer place where students support each other.

This story highlights the importance of empathy, respect, and equal learning opportunities, supporting the values of SDG 10: Reduced Inequalities for young learners.

Table 1 Storybook and Illustration

Page	Illustration		Draft Stories
Cover	Scene focus	Emotional classroom moment	The Book That Made Turtle Cry
	Setting	Animal classroom	
	Illustration detail	Turtle sitting at his desk holding an open book, tears falling onto the pages. Rabbit sitting beside him looking confused. Teacher Owl standing calmly in front of the class. Soft pastel classroom colors.	
	Character emotion	Turtle (sad), Rabbit (confused), Teacher Owl (calm)	
	Ambience	Quiet, emotional, reflective	
1	Scene focus	Sudden accident (hook)	“BRAKK!!” The English book fell on the floor.
	Setting	Classroom	
	Illustration detail	English book falling from Turtle’s desk, book open in the air, Turtle startled, classmates turning their heads.	
	Character emotion	Turtle (shocked), classmates (surprised)	
	Ambience	Sudden, silent	
2	Scene focus	Class reaction	Everyone looked at Turtle.
	Setting	Classroom	

	Illustration detail	Students staring at Turtle, Rabbit leaning forward, Turtle frozen in his seat.	
	Character emotion	Turtle (embarrassed), Rabbit (curious)	
	Ambience	Awkward	
3	Scene focus	Power shift	Turtle picked up the books slowly. Rabbit grabbed the book.
	Setting	Classroom	
	Illustration detail	Turtle reaches for the book. Rabbit's hand moves faster.	
	Character emotion	Turtle (surprised), Rabbit (bold)	
	Ambience	Unfair	
4	Scene focus	Showing off	Rabbit read the book aloud.
	Setting	Classroom	
	Illustration detail	Rabbit holds the book high and reads aloud.	
	Character emotion	Rabbit (proud), Turtle (insecure)	
	Ambience	Provoking	
5	Scene focus	Arrogant remark	🗨 Rabbit: "This book is easy!"
	Setting	Turtle's desk	
	Illustration detail	Rabbit smiles wide. Turtle looks down.	
	Character emotion	Rabbit (arrogant), Turtle (small)	
	Ambience	Uncomfortable	
6	Scene focus	Turtle struggles	Turtle looked at the words.
	Setting	Turtle's desk	
	Illustration detail	Turtle stares at crowded words.	
	Character emotion	Turtle (confused)	
	Ambience	Heavy	
7	Scene focus	Mocking continues	🗨 Rabbit: "You read too slow."
	Setting	Classroom	
	Illustration detail	Rabbit laughs. Some students smile.	
	Character emotion	Rabbit (careless), Turtle (hurt)	

	Ambience	Pressured	
8	Scene focus	Social pressure (complication)	Students laughed. Turtle looked down.
	Setting	Classroom	
	Illustration detail	More students watch Turtle.	
	Character emotion	Turtle (ashamed)	
	Ambience	Stressful	
9	Scene focus	Withdrawal	Turtle closed the book.
	Setting	Turtle's desk	
	Illustration detail	Turtle closes the book. Shoulders drop.	
	Character emotion	Turtle (sad)	
	Ambience	Low	
10	Scene focus	Emotional peak	Tears fell on the page. The book became wet.
	Setting	Close-up on book	
	Illustration detail	Tears fall on the page. Page becomes wet.	
	Character emotion	Turtle (crying)	
	Ambience	Still	
11	Scene focus	Teacher notices	Teacher Owl walked closer.
	Setting	Classroom	
	Illustration detail	Teacher Owl walks toward Turtle and holds the book.	
	Character emotion	Teacher Owl (gentle)	
	Ambience	Caring	
12	Scene focus	Teacher explains	🗨 Teacher Owl: "Books feel different for each child."
	Setting	Turtle's desk	
	Illustration detail	Teacher Owl bends down. Turtle looks up.	
	Character emotion	Turtle (listening)	
	Ambience	Safe	
13	Scene focus	Teacher's question & response	🗨 Teacher Owl: "Can you help Turtle read?"
	Setting	Classroom	

	Illustration detail	Teacher Owl looks at Rabbit. Rabbit looks back quietly.	🗨️ Rabbit: “Yes, I can.”
	Character emotion	Rabbit (hesitant)	
	Ambience	Serious	
14	Scene focus	Change of behavior	Rabbit moved his chair. Rabbit sat beside Turtle.
	Setting	Classroom	
	Illustration detail	Rabbit moves his chair next to Turtle.	
	Character emotion	Rabbit (calm), Turtle (hopeful)	
	Ambience	Warm	
Back Cover (Blurb)	Scene focus	Quiet reflection after the story	<i>What if a book feels heavier than it looks?</i> Some words are easy for many friends, but not for everyone. This story reminds us that kindness can make learning feel lighter.
	Setting	Soft classroom background (no desks clearly shown) or simple pastel background	
	Illustration detail	Turtle and Rabbit sitting side by side reading the same book, Turtle smiling gently, no tears, Rabbit calm and friendly, Book placed between them as a shared space, Background minimal, warm colors (light blue, beige, soft green), and No teacher present to give a sense of independence and growth.	
	Character emotion	Turtle (Calm, relieved, confident), Rabbit (Kind, understanding)	
	Ambience	Warm, peaceful, hopeful	

General Comment:

Appendix 4 Validation of Instrument from Expert 1

Validation of the Research Instrument for Observation Sheet

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating students' needs (Target Needs: Necessities, Lacks, Wants; and Learning Needs). Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items:

- Read each item thoroughly.
- Determine whether the item corresponds appropriately to the aspect being measured.
- Place a checkmark (✓) in either the R or NR column.
- Provide comments or recommended revisions in the Remarks column.
- Review all items systematically to ensure content validity.

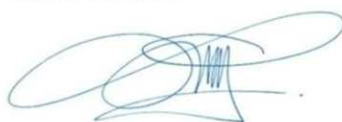
No	Aspect	Indicator	R	NR	Remarks
1	Necessities	Is there availability of reading materials and exercises related to Reduced Inequalities (SDG-10)?	✓	☐	
2	Necessities	Do students need guidance to stay focused while reading?	✓	☐	
3	Necessities	Do students need clear explanations of unfamiliar SDG-10 terms?	✓	☐	
4	Necessities	Is the story length appropriate to avoid cognitive overload?	✓	☐	
5	Necessities	Is the reading content aligned with students' cognitive level?	✓	☐	
6	Lack	Do students lack understanding of SDG-10 concepts?	✓	☐	
7	Lack	Do students lack strategies to interpret SDG-related content?	✓	☐	
8	Lack	Do students have limited prior knowledge to examples of Reduced Inequalities?	✓	☐	
9	Lack	Do students struggle to connect between story content and real-world issues?	✓	☐	

10	Lack	Do students show limited awareness of SDG-10 relevance to problem-solving?	✓	☐	
11	Wants	Do students prefer stories with themes related to Waste reduction?	✓	☐	
12	Wants	Do students prefer visually appealing reading materials?	✓	☐	
13	Wants	Do students prefer characters that match their age or personality	✓	☐	
14	Wants	Do students prefer stories connected to real-life situation?	✓	☐	
15	Wants	Do students engage with reading materials?	✓	☐	
16	Learning Needs	Do students need relatable characters to support engagement and comprehension?	✓	☐	
17	Learning Needs	Do students need guided questions to stay engaged during reading?	✓	☐	
18	Learning Needs	Do students need visual or interactive elements to support understanding?	✓	☐	
19	Learning Needs	Do students prefer individual, pair, or group reading activates?	✓	☐	

General Comment:

Date:

Validator Instrument



Dr. Ni Wayan Surya Mahayanti, S.Pd., M.Pd.
NIP. 1128805172012122002

Validation of the Research Instrument for Interview Guide

This validation sheet is used by teachers to assess the clarity, relevance, and alignment of each item in the Interview Guide Instrument for SDG-10: Reduced Inequalities Integration in Reading Lessons. Validators are expected to review each interview item carefully and determine whether it accurately represents the construct it is intended to measure (Necessities, Lacks, Wants, or Learning Needs).

Rating Criteria:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each interview item thoroughly under the *Item/Indicator* column.
2. Determine whether the item aligns with the specific aspect being measured, such as Necessities, Lacks, Wants, Learning Preferences, Classroom Conditions, Teacher Support, or Material Requirements.
3. Place a checkmark (✓) in either the R (Relevant) or NR (Not Relevant) column.
4. If needed, provide comments, suggestions, or recommended revisions in the Remarks column.
5. Review all items consistently and systematically to help ensure the content validity and appropriateness of the interview instrument.

No	Category	Question /Items	R	NR	Remarks
20	Necessities	Do teachers understand the concept of Sustainable Development Goals (SDGs)?	✓	☐	
21	Necessities	Do teachers know which SDG-10 topics grade 4 students can understand easily?	✓	☐	
22	Necessities	Can teachers identify SDG-10 topics that are relevant to students' daily life?	✓	☐	
23	Necessities	Can teachers prioritize which SDG-10 topic should be introduced first to grade 4 students?	✓	☐	

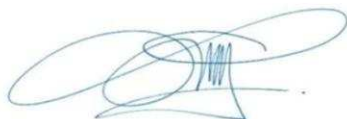
24	Lacks	Do teachers understand their role in using the SDG-10 digital storybook in class?	✓	☐	
25	Lacks	Can teachers identify possible challenges in using the SDG-10 digital storybook?	✓	☐	
26	Lacks	Do teachers know what the best strategies to implement the SDG-10 digital storybook for student grade 4?	✓	☐	
27	Lacks	Do teachers know which aspects of SDG-10 are most difficult for students to understand?	✓	☐	
28	Wants	Do teachers know which SDG-10 subtopics are most suitable for English reading lessons?	✓	☐	
29	Wants	Do teachers understand whether students learn better individually or in groups?	✓	☐	
30	Wants	Do teachers understand which learning style such as individual or group is the best while implementing SDG-10 based digital storybook?	✓	☐	
31	Learning Preferences	Can teachers identify factors that support students' comprehension of SDG-10?	✓	☐	
32	Learning Preferences	Do teachers know what support students need to identify cause-effect relationships, main ideas, and supporting details related to SDG-10?	✓	☐	
33	Learning Preferences	Do teachers know which teaching activities are most effective when integrating SDG-10?	✓	☐	
34	Learning Preferences	Do teachers know which reading activities best help students understand SDG-10 such as shared reading, guided reading, or group reading?	✓	☐	
35	Classroom Conditions	Can teachers predict how students respond to interactive reading activities?	✓	☐	
36	Classroom Conditions	Do teachers know which classroom conditions help students stay engaged when reading activities?	✓	☐	
37	Classroom Conditions	Can teachers identify students' preferred learning styles such as visual, auditory, or multimodal when reading SDG-10 stories?	✓	☐	
38	Teacher Support	Do teachers know what students benefit from supplementary aids such as pictures, audio, or animation?	✓	☐	

39	Teacher Support	Do teachers know which types of feedback help students understand story sequences and waste reduction messages?	✓	☐	
40	Teacher Support	Do teachers know how long the story is most suitable for teaching SDG-10 to grade 4 students?	✓	☐	
41	Material Requirements	Do teachers know which types of characters are easiest for students to understand in SDG-10 stories?	✓	☐	
42	Material Requirements	Do teachers know which types of story content are most suitable for SDG-10 lessons?	✓	☐	
43	Material Requirements	Do teachers know what SDG-10 content can be effectively included in reading stories and how students respond to waste reduction themes?	✓	☐	
44	Material Requirements	Do teachers know which SDG-10 themes are most engaging for grade 4 students?	✓	☐	
45	Material Requirements	Do teachers know what support or resources are needed to help them teach SDG-10 effectively?	✓	☐	

General Comment:

Date:

Validator Instrument



Dr. Ni Wayan Surya Mahayanti, S.Pd., M.Pd.

NIP. 198805172012122002

Validation of the Research Instrument for the Criteria of the Digital Storybook Reading Content.

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating digital storybook reading content. Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria

Validators should mark one of the following options for each item:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each item under the **Items** column thoroughly.
2. Determine whether the item corresponds appropriately to the aspect being measured, such as Purposeful, Sustained, and Interactive.
3. Place a checkmark (✓) in **either** the **R** or **NR** column.
4. Provide comments, suggestions, or recommended revisions in the **Remarks** column if necessary.
5. Review all items systematically to ensure content validity of the instrument.

Notes for Validators

- Consider the clarity, relevance, and alignment of each item with the theoretical framework of digital storybook quality.
- Comments are highly encouraged, especially for items marked **NR**, to guide the improvement of the instrument.
- The overall feedback will be used to revise and refine the research instrument before implementation.

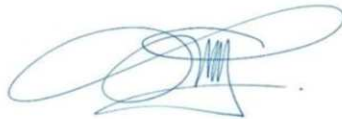
NO	Aspect	Items	R	NR	Remarks
1	Purposeful	The digital storybook has a clear learning goal and supports school-related learning content.	✓	☐	
2	Purposeful	The digital storybook multimedia features such as images, sound, and animation is chosen to strengthen the content of the story.	✓	☐	
3	Purposeful	The digital storybook content is presented concisely, not long, and does not require technical knowledge.	✓	☐	
4	Sustained	The digital storybook story and features keep the children engaged while reading until the end.	✓	☐	
5	Sustained	The digital storybook use cliffhangers, light conflicts, or curiosity that encourage children to continue reading.	✓	☐	
6	Sustained	The digital content in digital storybooks provides small variations that encourage curiosity every time they are opened.	✓	☐	
7	Intercultural	The language, names, or expressions in the story reflect the cultural realities depicted.	✓	☐	
8	Intercultural	There is no character in digital storybook is depicted as inferior/superior based on cultural background.	✓	☐	
9	Intercultural	The digital storybook story shows that cross-cultural cooperation strengthens shared values.	✓	☐	
10	Interactive	In the digital storybook there are no excessive visual or audio elements to confuse the child.	✓	☐	
11	Interactive	The digital storybook interaction helps children follow the story's progress gradually.	✓	☐	
12	Interactive	The digital storybook activating features provides additional information that deepens understanding.	✓	☐	

13	Child friendly	The digital storybook uses simple language that suits children's reading level.	✓	☐	
14	Child friendly	The amount of text per page is age-appropriate, and the narrative language is simple and child-friendly.	✓	☐	
15	Child friendly	The visual elements in the digital storybook are not too crowded and there is no distracting music or sound.	✓	☐	
16	Accessible	The digital storybook includes helpful features like audio.	✓	☐	
17	Accessible	The digital storybook provides simple pop-up explanations for difficult words.	✓	☐	
18	Accessible	The digital storybook uses basic animations that help children understand the meaning of the story.	✓	☐	
19	Personalizable	The digital storybook invites children to give a simple personal response at the end of the story.	✓	☐	
20	Personalizable	The digital storybook asks children to choose which character they would like to be.	✓	☐	
21	Personalizable	The digital storybook asks children to choose their favorite part of the story.	✓	☐	
22	Creative	The digital storybook uses imaginative visuals such as unique characters, settings, or objects	✓	☐	
23	Creative	The digital storybook uses sound effects or music that match the situation in the story for example calm music in peaceful scenes, lively sounds in action scenes	✓	☐	
24	Creative	The digital storybook includes creative animation effects such as simple movements or transitions that enhance the reading experience.	✓	☐	
25	Social	The digital storybook shows characters interacting in	✓	☐	

		positive social ways for example helping and sharing.			
26	Social	The digital storybook presents simple situations that illustrate social values such as empathy respect, or kindness.	✓	☐	
27	Social	The digital storybook includes scenarios where characters work together to solve a problem, promoting teamwork and cooperation.	✓	☐	

General Comment:

Date:
Validator Instrument



Dr. Ni Wayan Surya Mahayanti, S.Pd., M.Pd.
NIP. 198805172012122002

Validation of the Research Instrument for the Reading Behavioural Engagement based Reading Material

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating reading behavioural engagement-based reading material. Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria

Validators should mark one of the following options for each item:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each item under the **Items** column thoroughly.
2. Determine whether the item corresponds appropriately to the aspect being measured, such as Purposeful, Sustained, and Interactive.
3. Place a checkmark (✓) in **either** the **R** or **NR** column.
4. Provide comments, suggestions, or recommended revisions in the **Remarks** column if necessary.
5. Review all items systematically to ensure content validity of the instrument.

Notes for Validators

- Consider the clarity, relevance, and alignment of each item with the theoretical framework of digital storybook quality.
- Comments are highly encouraged, especially for items marked **NR**, to guide the improvement of the instrument.
- The overall feedback will be used to revise and refine the research instrument before implementation.

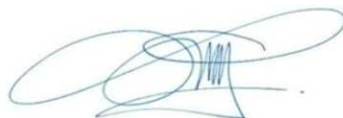
NO	Aspect	Items	VR	QR	Remarks
1	Effort	The Digital Storybook is able to encourage students to keep reading even when the story is difficult.	✓	☐	
2	Effort	The Digital Storybook is able to motivate students to try harder in understanding the story.	✓	☐	
3	Effort	The Digital Storybook is able to encourage students to reread parts of the story to improve their understanding.	✓	☐	
4	Persistence	The Digital Storybook is able to support students to finish the story until the end.	✓	☐	
5	Persistence	The Digital Storybook is able to help students continue reading even when they encounter difficult words.	✓	☐	
6	Persistence	The Digital Storybook is able to help students return to the story and continue reading after short breaks.	✓	☐	
7	Attention	The Digital Storybook is able to maintain students' attention during reading activities.	✓	☐	
8	Attention	The Digital Storybook is able to help students stay focused without being easily distracted.	✓	☐	
9	Attention	The Digital Storybook is able to keep students focused through features that maintain their engagement.	✓	☐	
10	Positive Conduct	The Digital Storybook is able to promote positive behaviour during reading sessions.	✓	☐	
11	Positive Conduct	The Digital Storybook is able to reduce disruptive behaviour while students are reading.	✓	☐	
12	Positive Conduct	The Digital Storybook is able to promote responsible use of digital tools during reading activities.	✓	☐	
13	Active Participation	The Digital Storybook is able to encourage students to participate actively in shared reading activities.	✓	☐	
14	Active Participation	The Digital Storybook is able to stimulate students to share their reading experiences with peers.	✓	☐	

15	Active Participation	The Digital Storybook is able to motivate students to join discussions related to the story.	✓	☐	
16	Reading Frequency	The Digital Storybook is able to increase how often students read storybooks at home or in school.	✓	☐	
17	Reading Frequency	The Digital Storybook is able to motivate students to borrow or choose more storybooks to read.	✓	☐	
18	Reading Frequency	The Digital Storybook is able to encourage students to read storybooks more regularly.	✓	☐	
19	Interaction with Texts	The Digital Storybook is able to inspire students to explore more about the story they read.	✓	☐	
20	Interaction with Texts	The Digital Storybook is able to help students connect the story to their own experiences or knowledge.	✓	☐	
21	Interaction with Texts	The Digital Storybook is able to motivate students to explore other stories with similar themes.	✓	☐	

General Comment:

Date:

Validator Instrument



Dr. Ni Wayan Surya Mahayanti, S.Pd., M.Pd.
NIP. 198805172012122002

Validation of the Research Instrument Expert Validation Checklist on SDG-10 Based Content

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating digital storybook SDG-10 related content. Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria

Validators should mark one of the following options for each item:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each item under the *Items* column thoroughly.
2. Determine whether the item corresponds appropriately to the aspect being measured, such as Purposeful, Sustained, and Interactive.
3. Place a checkmark (✓) in **either** the **R** or **NR** column.
4. Provide comments, suggestions, or recommended revisions in the **Remarks** column if necessary.
5. Review all items systematically to ensure content validity of the instrument.

Notes for Validators

- Consider the clarity, relevance, and alignment of each item with the theoretical framework of digital storybook quality.
- Comments are highly encouraged, especially for items marked **NR**, to guide the improvement of the instrument.
- The overall feedback will be used to revise and refine the research instrument before implementation.

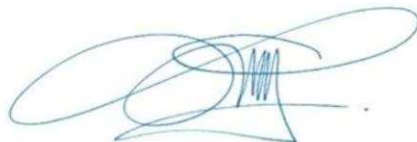
NO	Aspect	Items	R	NR	Remarks
1	Behavior in Promoting Equality	The storybook presents situations that help students understand the importance of treating others equally regardless of their differences, such	✓	☐	

		as abilities, backgrounds, or personal characteristics.			
2	Behavior in Promoting Equality	The storybook illustrates inclusive behaviors, such as respecting, helping, and cooperating with peers from diverse backgrounds in daily school contexts.	✓	☐	
3	Behavior in Promoting Equality	The storybook demonstrates how empathy and understanding can support individuals who may experience exclusion or discrimination.	✓	☐	
4	Behavior in Promoting Equality	The storybook encourages students to reflect on fairness and unfairness in social interactions, promoting positive attitudes toward diversity and inclusion.	✓	☐	
5	Behavior in Promoting Equality	The storybook promotes social responsibility by encouraging students to support, include, and stand up for others in their environment.	✓	☐	

General Comment:

Date:

Validator Instrument



Dr. Ni Wayan Surya Mahayanti, S.Pd., M.Pd.
NIP. 198805172012122002

Appendix 5 Validation of Instrument from Expert 2

Validation of the Research Instrument for Observation Sheet

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating students' needs (Target Needs: Necessities, Lacks, Wants; and Learning Needs). Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria:

Score	Category
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- Place a checkmark (✓) in either the R or NR column.
- Provide comments or recommended revisions in the Remarks column.
- Review all items systematically to ensure content validity.

No	Aspect	Indicator	R	NR	Remarks
1	Necessities	Is there availability of reading materials and exercises related to Reduced Inequalities (SDG-10)?	✓	☐	
2	Necessities	Do students need guidance to stay focused while reading?	✓	☐	
3	Necessities	Do students need clear explanations of unfamiliar SDG-10 terms?	✓	☐	
4	Necessities	Is the story length appropriate to avoid cognitive overload?	✓	☐	
5	Necessities	Is the reading content aligned with students' cognitive level?	✓	☐	
6	Lack	Do students lack understanding of SDG-10 concepts?	✓	☐	
7	Lack	Do students lack strategies to interpret SDG-related content?	✓	☐	
8	Lack	Do students have limited prior knowledge to examples of Reduced Inequalities?	✓	☐	
9	Lack	Do students struggle to connect between story content and real-world issues?	✓	☐	

10	Lack	Do students show limited awareness of SDG-10 relevance to problem-solving?	✓	☐	
11	Wants	Do students prefer stories with themes related to Waste reduction?	✓	☐	
12	Wants	Do students prefer visually appealing reading materials?	✓	☐	
13	Wants	Do students prefer characters that match their age or personality	✓	☐	
14	Wants	Do students prefer stories connected to real-life situation?	✓	☐	
15	Wants	Do students engage with reading materials?	✓	☐	
16	Learning Needs	Do students need relatable characters to support engagement and comprehension?	✓	☐	
17	Learning Needs	Do students need guided questions to stay engaged during reading?	✓	☐	
18	Learning Needs	Do students need visual or interactive elements to support understanding?	✓	☐	
19	Learning Needs	Do students prefer individual, pair, or group reading activates?	✓	☐	

General Comment:

Date:

Validator Instrument



Ni Luh Putu Era Adnyayanti, S.Pd., M.Pd.
NIP. 198904082023212043

Validation of the Research Instrument for Interview Guide

This validation sheet is used by teachers to assess the clarity, relevance, and alignment of each item in the Interview Guide Instrument for SDG-10: Reduced Inequalities Integration in Reading Lessons. Validators are expected to review each interview item carefully and determine whether it accurately represents the construct it is intended to measure (Necessities, Lacks, Wants, or Learning Needs).

Rating Criteria:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each interview item thoroughly under the *Item/Indicator* column.
2. Determine whether the item aligns with the specific aspect being measured, such as Necessities, Lacks, Wants, Learning Preferences, Classroom Conditions, Teacher Support, or Material Requirements.
3. Place a checkmark (✓) in either the R (Relevant) or NR (Not Relevant) column.
4. If needed, provide comments, suggestions, or recommended revisions in the Remarks column.
5. Review all items consistently and systematically to help ensure the content validity and appropriateness of the interview instrument.

No	Category	Question /Items	R	NR	Remarks
20	Necessities	Do teachers understand the concept of Sustainable Development Goals (SDGs)?	✓	☐	
21	Necessities	Do teachers know which SDG-10 topics grade 4 students can understand easily?	✓	☐	
22	Necessities	Can teachers identify SDG-10 topics that are relevant to students' daily life?	✓	☐	
23	Necessities	Can teachers prioritize which SDG-10 topic should be introduced first to grade 4 students?	✓	☐	

24	Lacks	Do teachers understand their role in using the SDG-10 digital storybook in class?	✓	☐	
25	Lacks	Can teachers identify possible challenges in using the SDG-10 digital storybook?	✓	☐	
26	Lacks	Do teachers know what the best strategies to implement the SDG-10 digital storybook for student grade 4?	✓	☐	
27	Lacks	Do teachers know which aspects of SDG-10 are most difficult for students to understand?	✓	☐	
28	Wants	Do teachers know which SDG-10 subtopics are most suitable for English reading lessons?	✓	☐	
29	Wants	Do teachers understand whether students learn better individually or in groups?	✓	☐	
30	Wants	Do teachers understand which learning style such as individual or group is the best while implementing SDG-10 based digital storybook?	✓	☐	
31	Learning Preferences	Can teachers identify factors that support students' comprehension of SDG-10?	✓	☐	
32	Learning Preferences	Do teachers know what support students need to identify cause-effect relationships, main ideas, and supporting details related to SDG-10?	✓	☐	
33	Learning Preferences	Do teachers know which teaching activities are most effective when integrating SDG-10?	✓	☐	
34	Learning Preferences	Do teachers know which reading activities best help students understand SDG-10 such as shared reading, guided reading, or group reading?	✓	☐	
35	Classroom Conditions	Can teachers predict how students respond to interactive reading activities?	✓	☐	
36	Classroom Conditions	Do teachers know which classroom conditions help students stay engaged when reading activities?	✓	☐	
37	Classroom Conditions	Can teachers identify students' preferred learning styles such as visual, auditory, or multimodal when reading SDG-10 stories?	✓	☐	

38	Teacher Support	Do teachers know what students benefit from supplementary aids such as pictures, audio, or animation?	✓	☐	
39	Teacher Support	Do teachers know which types of feedback help students understand story sequences and waste reduction messages?	✓	☐	
40	Teacher Support	Do teachers know how long the story is most suitable for teaching SDG-10 to grade 4 students?	✓	☐	
41	Material Requirements	Do teachers know which types of characters are easiest for students to understand in SDG-10 stories?	✓	☐	
42	Material Requirements	Do teachers know which types of story content are most suitable for SDG-10 lessons?	✓	☐	
43	Material Requirements	Do teachers know what SDG-10 content can be effectively included in reading stories and how students respond to waste reduction themes?	✓	☐	
44	Material Requirements	Do teachers know which SDG-10 themes are most engaging for grade 4 students?	✓	☐	
45	Material Requirements	Do teachers know what support or resources are needed to help them teach SDG-10 effectively?	✓	☐	

General Comment:

Date:

Validator Instrument



Ni Luh Putu Era Adnyayanti, S.Pd., M.Pd.
NIP. 198904082023212043

Validation of the Research Instrument for the Criteria of the Digital Storybook Reading Content.

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating digital storybook reading content. Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria

Validators should mark one of the following options for each item:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each item under the **Items** column thoroughly.
2. Determine whether the item corresponds appropriately to the aspect being measured, such as Purposeful, Sustained, and Interactive.
3. Place a checkmark (✓) in **either** the **R** or **NR** column.
4. Provide comments, suggestions, or recommended revisions in the **Remarks** column if necessary.
5. Review all items systematically to ensure content validity of the instrument.

Notes for Validators

- Consider the clarity, relevance, and alignment of each item with the theoretical framework of digital storybook quality.
- Comments are highly encouraged, especially for items marked **NR**, to guide the improvement of the instrument.
- The overall feedback will be used to revise and refine the research instrument before implementation.

NO	Aspect	Items	R	NR	Remarks
1	Purposeful	The digital storybook has a clear learning goal and supports school-related learning content.	✓	☐	
2	Purposeful	The digital storybook multimedia features such as images, sound, and animation is chosen to strengthen the content of the story.	✓	☐	
3	Purposeful	The digital storybook content is presented concisely, not long, and does not require technical knowledge.	✓	☐	
4	Sustained	The digital storybook story and features keep the children engaged while reading until the end.	✓	☐	
5	Sustained	The digital storybook use cliffhangers, light conflicts, or curiosity that encourage children to continue reading.	✓	☐	
6	Sustained	The digital content in digital storybooks provides small variations that encourage curiosity every time they are opened.	✓	☐	
7	Intercultural	The language, names, or expressions in the story reflect the cultural realities depicted.	✓	☐	
8	Intercultural	There is no character in digital storybook is depicted as inferior/superior based on cultural background.	✓	☐	
9	Intercultural	The digital storybook story shows that cross-cultural cooperation strengthens shared values.	✓	☐	
10	Interactive	In the digital storybook there are no excessive visual or audio elements to confuse the child.	✓	☐	
11	Interactive	The digital storybook interaction helps children follow the story's progress gradually.	✓	☐	
12	Interactive	The digital storybook activating features provides additional information that deepens understanding.	✓	☐	
13	Child friendly	The digital storybook uses simple language that suits children's reading level.	✓	☐	
14	Child friendly	The amount of text per page is age-appropriate, and the narrative language is simple and child-friendly.	✓	☐	
15	Child friendly	The visual elements in the digital storybook are not too crowded and there is no distracting music or sound.	✓	☐	
16	Accessible	The digital storybook includes helpful features like audio.	✓	☐	
17	Accessible	The digital storybook provides simple pop-up explanations for difficult words.	✓	☐	
18	Accessible	The digital storybook uses basic animations that help children understand the meaning of the story.	✓	☐	

19	Personalizable	The digital storybook invites children to give a simple personal response at the end of the story.	✓	☐	
20	Personalizable	The digital storybook asks children to choose which character they would like to be.	✓	☐	
21	Personalizable	The digital storybook asks children to choose their favorite part of the story.	✓	☐	
22	Creative	The digital storybook uses imaginative visuals such as unique characters, settings, or objects	✓	☐	
23	Creative	The digital storybook uses sound effects or music that match the situation in the story for example calm music in peaceful scenes, lively sounds in action scenes	✓	☐	
24	Creative	The digital storybook includes creative animation effects such as simple movements or transitions that enhance the reading experience.	✓	☐	
25	Social	The digital storybook shows characters interacting in positive social ways for example helping and sharing.	✓	☐	
26	Social	The digital storybook presents simple situations that illustrate social values such as empathy respect, or kindness.	✓	☐	
27	Social	The digital storybook includes scenarios where characters work together to solve a problem, promoting teamwork and cooperation.	✓	☐	

General Comment:

Date:
Validator Instrument



Ni Luh Putu Era Adnyayanti, S.Pd., M.Pd.
NIP. 198904082023212043

Validation of the Research Instrument for the Reading Behavioral Engagement based Reading Material

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating reading behavioral engagement-based reading material. Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria

Validators should mark one of the following options for each item:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each item under the **Items** column thoroughly.
2. Determine whether the item corresponds appropriately to the aspect being measured, such as Purposeful, Sustained, and Interactive.
3. Place a checkmark (✓) in **either** the **R** or **NR** column.
4. Provide comments, suggestions, or recommended revisions in the **Remarks** column if necessary.
5. Review all items systematically to ensure content validity of the instrument.

Notes for Validators

- Consider the clarity, relevance, and alignment of each item with the theoretical framework of digital storybook quality.
- Comments are highly encouraged, especially for items marked **NR**, to guide the improvement of the instrument.
- The overall feedback will be used to revise and refine the research instrument before implementation.

NO	Aspect	Items	VR	QR	Remarks
1	Effort	The Digital Storybook is able to encourage students to keep reading even when the story is difficult.	✓	□	
2	Effort	The Digital Storybook is able to motivate students to try harder in understanding the story.	✓	□	
3	Effort	The Digital Storybook is able to encourage students to reread parts of the story to improve their understanding.	✓	□	
4	Persistence	The Digital Storybook is able to support students to finish the story until the end.	✓	□	
5	Persistence	The Digital Storybook is able to help students continue reading even when they encounter difficult words.	✓	□	
6	Persistence	The Digital Storybook is able to help students return to the story and continue reading after short breaks.	✓	□	
7	Attention	The Digital Storybook is able to maintain students' attention during reading activities.	✓	□	
8	Attention	The Digital Storybook is able to help students stay focused without being easily distracted.	✓	□	
9	Attention	The Digital Storybook is able to keep students focused through features that maintain their engagement.	✓	□	
10	Positive Conduct	The Digital Storybook is able to promote positive behavior during reading sessions.	✓	□	
11	Positive Conduct	The Digital Storybook is able to reduce disruptive behavior while students are reading.	✓	□	
12	Positive Conduct	The Digital Storybook is able to promote responsible use of digital tools during reading activities.	✓	□	
13	Active Participation	The Digital Storybook is able to encourage students to participate actively in shared reading activities.	✓	□	
14	Active Participation	The Digital Storybook is able to stimulate students to share their reading experiences with peers.	✓	□	

15	Active Participation	The Digital Storybook is able to motivate students to join discussions related to the story.	✓	☐	
16	Reading Frequency	The Digital Storybook is able to increase how often students read storybooks at home or in school.	✓	☐	
17	Reading Frequency	The Digital Storybook is able to motivate students to borrow or choose more storybooks to read.	✓	☐	
18	Reading Frequency	The Digital Storybook is able to encourage students to read storybooks more regularly.	✓	☐	
19	Interaction with Texts	The Digital Storybook is able to inspire students to explore more about the story they read.	✓	☐	
20	Interaction with Texts	The Digital Storybook is able to help students connect the story to their own experiences or knowledge.	✓	☐	
21	Interaction with Texts	The Digital Storybook is able to motivate students to explore other stories with similar themes.	✓	☐	

General Comment:

Date:

Validator Instrument



Ni Luh Putu Era Adnyayanti, S.Pd., M.Pd.
NIP. 198904082023212043

Validation of the Research Instrument Expert Validation Checklist on SDG-10 Based Content

This validation sheet is used by expert validators to assess the relevance and clarity of each item in the research instrument for evaluating digital storybook SDG-10 related content. Validators are asked to review each item carefully and determine whether the item is appropriate, relevant, and aligned with the intended construct.

Rating Criteria

Validators should mark one of the following options for each item:

Score	Category
R (Relevant)	The item is appropriate, clearly stated, and accurately represents the intended aspect. No revision or only minor revision is needed.
NR (Not Relevant)	The item does not fit the intended aspect, is unclear, or requires major revision.

How to Validate the Items

1. Read each item under the *Items* column thoroughly.
2. Determine whether the item corresponds appropriately to the aspect being measured, such as Purposeful, Sustained, and Interactive.
3. Place a checkmark (✓) in **either** the **R** or **NR** column.
4. Provide comments, suggestions, or recommended revisions in the **Remarks** column if necessary.
5. Review all items systematically to ensure content validity of the instrument.

Notes for Validators

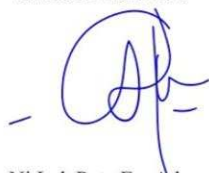
- Consider the clarity, relevance, and alignment of each item with the theoretical framework of digital storybook quality.
- Comments are highly encouraged, especially for items marked **NR**, to guide the improvement of the instrument.
- The overall feedback will be used to revise and refine the research instrument before implementation.

NO	Aspect	Items	R	NR	Remarks
1	Behavior in Promoting Equality	The storybook presents situations that help students understand the importance of treating others equally	✓	☐	

		regardless of their differences, such as abilities, backgrounds, or personal characteristics.			
2	Behavior in Promoting Equality	The storybook illustrates inclusive behaviors, such as respecting, helping, and cooperating with peers from diverse backgrounds in daily school contexts.	✓	☐	
3	Behavior in Promoting Equality	The storybook demonstrates how empathy and understanding can support individuals who may experience exclusion or discrimination.	✓	☐	
4	Behavior in Promoting Equality	The storybook encourages students to reflect on fairness and unfairness in social interactions, promoting positive attitudes toward diversity and inclusion.	✓	☐	
5	Behavior in Promoting Equality	The storybook promotes social responsibility by encouraging students to support, include, and stand up for others in their environment.	✓	☐	

General Comment:

Date:
Validator Instrument



Ni Luh Putu Era Adnyayanti, S.Pd., M.Pd.
NIP. 198904082023212043

Appendix 6 Observation Result

Instrument for Observation Sheet

Instruction for Completing the Learners' Needs Observation Sheet (SDG-Based Reading Material Development)

This observation sheet is designed to identify students' needs related to SDG-based reading materials, specifically focusing on Reduced Inequalities (SDG-10). The instrument evaluates several aspects categorized into Target Needs (Necessities, Lacks, Wants) and Learning Needs. Please read each item carefully and observe actual conditions during reading activities.

Rating Scale

Score	Category
A (Available)	The information, practice, or condition mentioned in the item is present or applicable in your teaching context.
NA (Not Available)	The information, practice, or condition is not present or does not apply to your teaching context.

How to Complete the Observation Sheet

1. Read each item in the indicator column carefully.
2. Observe students' behavior, reading materials, and classroom conditions.
3. Place a checkmark (✓) in **A** if the item is observed, or **NA** if it is not observed.
4. Provide brief notes or explanations in the Remarks column if needed.

Important Notes

- Observations should be based only on visible and measurable evidence during reading activities.
- If an item appears partially, inconsistently, or unclearly, please specify details in the Remarks column.
- This instrument may be used for observing one class or comparing needs across multiple classes.
- The findings from this instrument will support the development of a digital SDG-based storybook aligned with students' needs.

Observation date: Wednesday, 5th February 2025

A. Observation Sheet					
No	Aspect	Indicator	A	NA	Remarks
1	Necessities	Is there availability of reading materials and exercises related to Reduced Inequalities (SDG-10)?	☐	☒	There are no reading materials or exercises related to Reduced Inequalities
2	Necessities	Do students need guidance to stay focused while reading?	☒	☐	Students often get easily distracted and lose focus when reading long, text-heavy passages without visual aids.
3	Necessities	Do students need clear explanations of unfamiliar SDG-10 terms?	☒	☐	Students are unfamiliar with terms like “equality” or “inclusion” and require simplified explanations in English.
4	Necessities	Is the story length appropriate to avoid cognitive overload?	☒	☐	Current reading materials are sometimes too long, making students feel overwhelmed and tired before finishing the story.
5	Necessities	Is the reading content aligned with students’ cognitive level?	☒	☐	The language level needs to be adjusted to A1/A2 level to match the students’ limited English vocabulary.
6	Lack	Do students lack understanding of SDG-10 concepts?	☒	☐	Students have never been formally introduced to the concept of reduced inequalities in an English learning context.
7	Lack	Do students lack strategies to interpret SDG-related content?	☒	☐	Students struggle to connect global issues with their daily lives due to the lack of relatable narrative media.
8	Lack	Do students have limited prior knowledge to examples of Reduced Inequalities?	☒	☐	Students’ knowledge is limited to basic social rules and they lack exposure to

					diverse examples of social inclusion.
9	Lack	Do students struggle to connect between the story content to real-world issues?	✓	☐	Students still experienced difficulties in relating story content to real-life social issues without teacher guidance, especially topics related to fairness and inclusiveness.
10	Lack	Do students show limited awareness of SDG-10 relevance to problem-solving?	✓	☐	Most students showed limited understanding of SDG-10 concepts and were not yet able to relate issues of fairness and inequality to everyday problem-solving situations.
11	Wants	Do students prefer stories with themes related to fairness, equality, and inclusiveness?	✓	☐	Students showed greater interest in stories that contained meaningful social themes and situations related to students' daily experiences.
12	Wants	Do students prefer visually appealing reading materials?	✓	☐	Students appeared more engaged and attentive when reading materials contained colourful illustrations, interactive features, and visually attractive layouts.
13	Wants	Do students prefer characters that match their age or personality	✓	☐	Students responded positively to characters that reflected their age, school life experiences, and relatable personalities.
14	Wants	Do students prefer stories connected to real-life situation?	✓	☐	Students showed higher participation and interest when the stories were closely connected to real-life situations and social

					interactions familiar to them.
15	Wants	Do students engage with reading materials?	✓	☐	Some students actively participated during reading activities, although several students still required teacher guidance to maintain focus and engagement throughout the activity.
16	Learning Needs	Do students need relatable characters to support engagement and comprehension?	✓	☐	Relatable and age-appropriate characters helped students understand the storyline more easily and supported their reading engagement.
17	Learning Needs	Do students need guided questions to stay engaged during reading?	✓	☐	Students became more focused and responsive when guided questions and teacher prompts were provided during the reading activity.
18	Learning Needs	Do students need visual or interactive elements to support understanding?	✓	☐	Visual illustrations, animations, and interactive elements helped students maintain attention and supported their understanding of the story content.
19	Learning Needs	Do students prefer individual, pair, or group reading activities?	✓	☐	Most students appeared more focused and actively engaged during individual reading activities, especially when they interacted directly with the digital storybook features independently.

Appendix 7 Interview Result

Instrument of Interview Guide

Instruction for completing the SDG-10 needs analysis instrument

This instrument is designed to gather information about teachers' perceptions, challenges, preferences, and needs related to integrating SDG-10: Reduced Inequalities into English reading lessons at the elementary school level. The instrument consists of several categories, including Necessities, Lacks, Wants, Learning Preferences, Classroom Learning Conditions, Teacher Support, and Material Requirements.

Please read each item carefully and observe actual conditions during reading activities.

Rating Scale

Score	Category
A (Available)	The information, practice, or condition mentioned in the item is present or applicable in your teaching context.
NA (Not Available)	The information, practice, or condition is not present or does not apply to your teaching context.

How to Complete the Observation Sheet

1. Read each item in the indicator column carefully.
2. Observe students' behavior, reading materials, and classroom conditions.
3. Place a checkmark (✓) in A if the item is observed, or NA if it is not observed.
4. Provide brief notes or explanations in the Remarks column if needed.

How to Complete the Instrument

1. Read each item thoroughly in the Item/Indicator column.
2. Decide whether the information or condition described is available or not in your classroom, teaching experience, or understanding of SDG-10.
3. Place a checkmark (✓) in either the A (Available) or NA (Not Available) column.
4. If needed, write additional explanations, examples, or notes in the Remarks column.
5. Continue until you have completed all items across all categories.

Important Notes: Your responses should be based on your real teaching experience and actual classroom conditions.

No	Category	Question /Items	A	NA	Remarks
20	Necessities	Do teachers understand the concept of Sustainable Development Goals (SDGs)?	☐	☒	The teacher had limited understanding of

					the SDGs concept and had not previously integrated SDG-related topics into English reading activities.
21	Necessities	Do teachers know which SDG-10 topics grade 4 students can understand easily?	✓	☐	The teacher believed that simple topics such as fairness, helping others, respecting differences, and inclusiveness were easier for grade 4 students to understand.
22	Necessities	Can teachers identify SDG-10 topics that are relevant to students' daily life?	✓	☐	The teacher stated that themes related to friendship, equal treatment, kindness, and respecting classmates were closely connected to students' daily experiences.
23	Necessities	Can teachers prioritize which SDG-10 topic should be introduced first to grade 4 students?	✓	☐	The teacher suggested introducing simple concepts of fairness and kindness first before discussing broader issues related to inequality.
24	Lacks	Do teachers understand their role in using the SDG-10 digital storybook in class?	✓	☐	The teacher understood the importance of guiding students during reading activities and supporting students' comprehension through explanations and questioning.
25	Lacks	Can teachers identify possible challenges in using the SDG-10 digital storybook?	✓	☐	The teacher identified several challenges such as maintaining

					students' focus, differing reading abilities, and students' unfamiliarity with SDG-related topics.
26	Lacks	Do teachers know what the best strategies are to implement the SDG-10 digital storybook for student in grade 4?	✓	☐	The teacher suggested using guided reading activities, visual support, and interactive discussions to help students stay engaged during reading.
27	Lacks	Do teachers know which aspects of SDG-10 are most difficult for students to understand?	✓	☐	The teacher explained that abstract concepts related to inequality and discrimination were more difficult for grade 4 students to fully understand.
28	Wants	Do teachers know which SDG-10 subtopics are most suitable for English reading lessons?	✓	☐	The teacher considered themes such as fairness, empathy, inclusiveness, and helping others as suitable topics for English reading lessons.
29	Wants	Do teachers understand whether students learn better individually or in groups?	✓	☐	The teacher observed that most students appeared more focused and actively engaged during individual reading activities.
30	Wants	Do teachers understand which learning style such as individual or group is the best while implementing SDG-10 based digital storybook?	✓	☐	The teacher preferred individual reading activities because students were more concentrated and interacted more independently with the digital storybook features.

31	Learning Preferences	Can teachers identify factors that support students' comprehension of SDG-10?	✓	☐	The teacher explained that visual illustrations, simple language, relatable situations, and teacher guidance helped students understand SDG-10 concepts better.
32	Learning Preferences	Do teachers know what support students need to identify cause-effect relationships, main ideas, and supporting details related to SDG-10?	✓	☐	The teacher stated that students needed guided questions, vocabulary explanations, and simple examples to understand the story content and identify important information.
33	Learning Preferences	Do teachers know which teaching activities are most effective when integrating SDG-10?	✓	☐	The teacher believed that storytelling, guided discussions, and reflective questioning were effective activities for integrating SDG-10 into reading lessons.
34	Learning Preferences	Do teachers know which reading activities best help students understand SDG-10 such as shared reading, guided reading, or group reading?	✓	☐	The teacher considered guided reading activities more effective because students needed assistance in understanding unfamiliar vocabulary and SDG-related messages.
35	Classroom Conditions	Can teachers predict how students respond to interactive reading activities?	✓	☐	The teacher observed that students responded positively to interactive reading activities and appeared more enthusiastic when visual and

					interactive features were included.
36	Classroom Conditions	Do teachers know which classroom conditions help students stay engaged when reading activities?	✓	☐	The teacher explained that a supportive classroom atmosphere, clear instructions, and the use of interactive digital media helped students stay focused during reading activities.
37	Classroom Conditions	Can teachers identify students' preferred learning styles, such as visual, auditory, or multimodal when reading SDG-10 stories?	✓	☐	The teacher observed that most students preferred multimodal learning activities that combined visuals, audio, and interactive elements during reading.
38	Teacher Support	Do teachers know what students benefit from supplementary aids such as pictures, audio, or animation?	✓	☐	The teacher stated that pictures, audio narration, and simple animations helped students understand the storyline and maintain their attention while reading.
39	Teacher Support	Do teachers know which types of feedback help students understand story sequences and fairness and inclusiveness messages?	✓	☐	The teacher explained that simple explanations, guided corrections, and reflective questions helped students understand story sequences and the moral messages related to fairness and inclusiveness.
40	Teacher Support	Do teachers know how long the story is most suitable for teaching SDG-10 to grade 4 students?	✓	☐	The teacher preferred short and simple stories because grade 4 students tended to lose focus when

					reading texts that were too long.
41	Material Requirements	Do teachers know which types of characters are easiest for students to understand in SDG-10 stories?	✓	☐	The teacher stated that characters with similar age, school experiences, and daily-life situations were easier for students to understand and relate to.
42	Material Requirements	Do teachers know which types of story content are most suitable for SDG-10 lessons?	✓	☐	The teacher considered simple daily-life stories containing friendship, fairness, empathy, and helping others as the most suitable content for SDG-10 lessons.
43	Material Requirements	Do teachers know what SDG-10 content can be effectively included in reading stories and how students respond to fairness and inclusiveness themes?	✓	☐	The teacher explained that themes related to fairness, respecting differences, kindness, and inclusiveness could be effectively integrated into reading stories and were easier for students to understand.
44	Material Requirements	Do teachers know which SDG-10 themes are most engaging for grade 4 students?	✓	☐	The teacher believed that themes about friendship, helping others, equal treatment, and respecting differences were the most engaging for grade 4 students.
45	Material Requirements	Do teachers know what support or resources are needed to help them teach SDG-10 effectively?	✓	☐	The teacher stated that visual learning materials, interactive digital media, vocabulary support, and clear

				teaching guidance were needed to help implement SDG-10 effectively in reading lessons.
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Appendix 8 Checklist Result from Expert 1

A. Researcher's Identity

Name : Ni Luh Putu Devi Puspitasari
NIM : 2212021064
Study Program : English Language Education
University : Universitas Pendidikan Ganesha
Thesis Title : DEVELOPMENT OF DIGITAL STORYBOOK ON SDG-10
TO FACILITATE READING BEHAVIOURAL ENGAGEMENT OF FOURTH
GRADE STUDENTS AT SD LAB UNDIKSHA

B. Identity of the Product Being Evaluated

Title : The Book That Made Turtle Cry
Theme : SDG-10 (Reduced Inequalities)
Grade : 4th
School : SD LAB UNDIKSHA
Type of Product : Digital Storybook
Product Link : <https://the-book-that-made-turtle-cry.netlify.app/>

C. Expert's Identity

Name : Dr. Ni Wayan Surya Mahayanti, S.Pd., M.Pd.
NIP : 198805172012122002
Institution : Universitas Pendidikan Ganesha

CRITERIA OF DIGITAL STORYBOOK INSTRUMENT

Research Objective:

To evaluate the quality of the developed SDG-10 digital storybook, as assessed by experts, in terms of content, design, and relevance to literacy and sustainability education.

INSTRUMENT DEVELOPMENT BASIS

The development of this digital storybook evaluation instrument is based on the quality criteria introduced by Vackova et al. (2023), which explains that a good digital storybook should be clear, engaging, interactive, and suitable for young learners. These criteria help ensure that the digital book supports learning and provides a positive reading experience. For SDG-10, the instrument includes indicators that check whether the storybook promotes inclusion, shows diverse characters, and teaches fairness in simple and meaningful ways. The items in the instrument focus on important aspects such as the clarity of the learning goals, the ability of the story to keep children interested, the cultural sensitivity of the content, the usefulness of interactive features, and the child-friendly design of the interface. By using these criteria, the instrument helps evaluate whether a digital storybook is effective, easy to use, and supportive of SDG-10 values in the classroom.

REFERENCES

- UNESCO. (2017). Education for Sustainable Development Goals: Learning objectives. United Nations Educational, Scientific and Cultural Organization
- Vackova, P., Cermakova, A. L., & Kucirkova, N. I. (2023). Children's digital books: Development, testing and dissemination of quality criteria. In *Children's Digital Books: Development, Testing and Dissemination of Quality Criteria* (Issue August). <https://doi.org/10.31265/usps.268>

Blueprint Criteria of Digital Storybook

Answer Scale: 4. VR= Very Relevant; 3. QR= Quite Relevant; 2. SR= Somewhat Relevant; 1. NR= Not Relevant

Category	Aspects	Items	No Item
Quality of Digital Storybook	Purposeful	- The Digital Storybook has a clear learning goal and supports school-related learning content. - Multimedia such as images, sound, animation is chosen to strengthen the content of the story. - The information is presented concisely, not long, and does not require technical knowledge.	1-3
	Sustained	- The story and features of this digital storybook keep the children engaged in reading until the end. - Stories use cliffhangers, light conflicts, or curiosity that encourage children to continue reading. - Digital content provides small variations that encourage curiosity every time it is opened.	4-6
	Intercultural	- The language, names, or expressions in the story reflect the cultural realities depicted. - No character is depicted as inferior/superior based on cultural background. - The story shows that cross-cultural cooperation strengthens shared values.	7-9
	Interactive	- There are no excessive visual or audio elements to confuse the child. - Interaction helps children follow the story's progress gradually. - Activating features provides additional information that deepens understanding.	10-12
	Child friendly	- Use of simple and clear language appropriate for children's reading level - The amount of text per page is age-appropriate, and the narrative language is simple and child-friendly. - The visual elements are not too crowded and there is no distracting music or sound.	13-15
	Accessible	- Availability of features that support children in reading like audio - Presence of simple explanations for difficult words - Use of visual or animated aids that help children understand the story	16-18

	Personalizable	- Opportunities for children to give a simple personal response at the end of the story - Availability of options for children to choose preferred characters - Opportunities for children to select their favourite part of the story	19-21
	Creative	- Use of imaginative visuals that attract children attention for example, unique characters or settings - Presence of sound effects or music that match the events in the story - Use of animation effects such as movement or transitions that enhance engagement and interest	22-24
	Social	- Presence of character interactions that model positive social behavioural like helping, sharing or cooperating - Inclusion of scenarios that illustrate social values such as empathy, respect, or kindness - Opportunities for characters to work together to solve problems, promoting teamwork	25-27

3	Purposeful	The digital storybook content is presented concisely, not long, and does not require technical knowledge.	☐	☐	☐	✓	
4	Sustained	The digital storybook story and features keep the children engaged while reading until the end.	☐	☐	✓	☐	The loading is too long
5	Sustained	The digital storybook use cliffhangers, light conflicts, or curiosity that encourage children to continue reading.	☐	☐	✓	☐	
6	Sustained	The digital content in digital storybooks provides small variations that encourage curiosity every time they are opened.	☐	☐	☐	✓	
7	Intercultural	The language, names, or expressions in the story reflect the cultural realities depicted.	☐	☐	☐	✓	
8	Intercultural	There is no character in digital storybook is depicted as inferior/superior based on cultural background.	☐	☐	☐	✓	
9	Intercultural	The digital storybook story shows that cross-cultural cooperation strengthens shared values.	☐	☐	☐	✓	
10	Interactive	In the digital storybook there are no excessive visual or audio elements to confuse the child.	☐	☐	☐	✓	
11	Interactive	The digital storybook interaction helps children follow the story's progress gradually.	☐	☐	☐	✓	
12	Interactive	The digital storybook activating features provides additional information that deepens understanding.	☐	☐	☐	✓	
13	Child friendly	The digital storybook uses simple language that suits children's reading level.	☐	☐	☐	✓	
14	Child friendly	The amount of text per page is age-appropriate, and the narrative language is simple and child-friendly.	☐	☐	☐	✓	
15	Child friendly	The visual elements in the digital storybook are not too crowded and there is no distracting music or sound.	☐	☐	☐	✓	

16	Accessible	The digital storybook includes helpful features like audio.	☐	☐	☒	☐	
17	Accessible	The digital storybook provides simple pop-up explanations for difficult words.	☐	☐	☐	☒	
18	Accessible	The digital storybook uses basic animations that help children understand the meaning of the story.	☐	☐	☐	☒	
19	Personalizable	The digital storybook invites children to give a simple personal response at the end of the story.	☐	☐	☐	☒	
20	Personalizable	The digital storybook asks children to choose which character they would like to be.	☐	☐	☐	☒	
21	Personalizable	The digital storybook asks children to choose their favorite part of the story.	☐	☐	☐	☒	
22	Creative	The digital storybook uses imaginative visuals such as unique characters, settings, or objects	☐	☐	☐	☒	
23	Creative	The digital storybook uses sound effects or music that match the situation in the story for example calm music in peaceful scenes, lively sounds in action scenes	☐	☐	☒	☐	
24	Creative	The digital storybook includes creative animation effects such as simple movements or transitions that enhance the reading experience.	☐	☐	☒	☐	
25	Social	The digital storybook shows characters interacting in positive social ways for example helping and sharing.	☐	☐	☐	☒	
26	Social	The digital storybook presents simple situations that illustrate social values such as empathy respect, or kindness.	☐	☐	☐	☒	
27	Social	The digital storybook includes scenarios where characters work together to solve a problem, promoting teamwork and cooperation.	☐	☐	☐	☒	

SDG-10 LEARNING OBJECTIVE INSTRUMENT

Research Objective:

To evaluate the quality of the SDG-10 learning objectives integrated into the digital storybook, as assessed by experts, in terms of their accuracy, appropriateness, and alignment with sustainability education for young learners.

INSTRUMENT DEVELOPMENT BASIS

The development of this instrument is based on the Education for Sustainable Development (ESD) framework, especially the learning objectives for Sustainable Development Goal 10 (Reduced Inequality) proposed by UNESCO (2017). SDG-10 highlights the importance of helping learners understand fairness, respect differences, and promote equal opportunities for everyone. In line with this, the instrument is designed to evaluate how well a digital storybook supports cognitive, socio-emotional, and behavioral learning related to inclusion and equality. From the behavioral perspective, the instrument includes indicators that assess whether the storybook encourages students to take small actions that promote fairness, appreciate diversity, and respond to unequal situations in a positive way. It also looks at how the story connects to real-life experiences, helps children recognize unequal treatment, and motivates them to practice inclusive behavior in their school environment. By using these SDG-10 learning objectives, the instrument ensures that the evaluation is clear, age-appropriate, and aligned with international standards for promoting equality in education.

REFERENCES

- UNESCO. (2017). Education for Sustainable Development Goals: Learning objectives. United Nations Educational, Scientific and Cultural Organization
- Vackova, P., Cermakova, A. L., & Kucirkova, N. I. (2023). Children's digital books: Development, testing and dissemination of quality criteria. In *Children's Digital Books: Development, Testing and Dissemination of Quality Criteria* (Issue August). <https://doi.org/10.31265/usps.268>

SDG 10 Reduced Inequalities based material through Digital Storybook.

Answer Scale: 4. VR= Very Relevant; 3. QR= Quite Relevant; 2. SR= Somewhat Relevant; 1. NR= Not Relevant

Category	Aspect	Indicators Specific	Nomor Butir
Behavioural Learning Objective SDG-10	Behavior in Promoting Equality	- The storybook explains the importance of treating others fairly regardless of their differences. - The storybook illustrates how students can show respect, empathy, and inclusiveness in daily school interactions. - The storybook demonstrates how individual and collective actions contribute to creating an inclusive and supportive school environment. - The storybook encourages students to reflect critically on behaviors related to exclusion, unfair treatment, or discrimination. - The storybook promotes a culture of equality and inclusiveness by encouraging students to appreciate diversity and respect others.	1– 5

Instrument Expert Validation Checklist on SDG-10 Based Content

Instruction For Completing the Digital Storybook Criteria Instrument

This instrument is designed to evaluate the quality of a digital storybook based on SDG-10 learning objectives, particularly in promoting equality, inclusion, respect for diversity, and reducing discrimination among students. The assessment focuses on how well the storybook reflects values such as empathy, fairness, and acceptance of individual differences. Experts are expected to assess each item carefully based on the relevance to these principles.

Rating Scale

Use the following scale to indicate the level of relevance for each item:

Score	Category
1. VR (Very Relevant)	The item is highly relevant and fully aligns with the characteristics of the digital storybook.
2. QR (Quite Relevant)	The item is moderately relevant, though some elements may be less strong.
3. SR (Somewhat Relevant)	The item is slightly relevant and only partially reflected in the storybook.
4. NR (Not Relevant)	The item is not relevant or not observed in the digital storybook.

How to Complete the Instrument

1. Read each item in the *Items* column thoroughly.
2. Determine the extent to which the digital storybook fulfills the criterion.
3. Place a checkmark (✓) in **one** of the following columns: **VR, QR, SR, or NR**.
4. If needed, provide explanations or notes in the **Remarks** column.
5. Continue rating all items across all aspects.

Important Notes

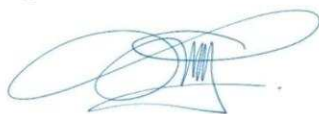
- Evaluations should be based solely on observable features in the digital storybook.
- If an item is unclear, partially present, or difficult to assess, please include comments in the *Remarks* column.
- This instrument may be used to evaluate a single digital storybook or for comparing multiple storybooks.

E. Instrument Expert Validation Checklist on SDG-10 Based Content							
NO	Aspect	Items	1 NR	2 SR	3 QR	4 VR	Remarks
1	Behavior in Promoting Equality	The storybook presents situations that help students understand the importance of treating others equally regardless of their differences, such as abilities, backgrounds, or personal characteristics.	☐	☐	☐	☒	

2	Behavior in Promoting Equality	The storybook illustrates inclusive behaviors, such as respecting, helping, and cooperating with peers from diverse backgrounds in daily school contexts.				✓	
3	Behavior in Promoting Equality	The storybook demonstrates how empathy and understanding can support individuals who may experience exclusion or discrimination.				✓	
4	Behavior in Promoting Equality	The storybook encourages students to reflect on fairness and unfairness in social interactions, promoting positive attitudes toward diversity and inclusion.				✓	
5	Behavior in Promoting Equality	The storybook promotes social responsibility by encouraging students to support, include, and stand up for others in their environment.				✓	

General Comment:

Date: Monday, 6th April 2026
Expert



Dr. Ni Wayan Surya Mahayanti, S.Pd., M.Pd.
NIP. 198805172012122002

Appendix 9 Checklist Result from Expert 2

A. Researcher's Identity

Name : Ni Luh Putu Devi Puspitasari
NIM : 2212021064
Study Program : English Language Education
University : Universitas Pendidikan Ganesha
Thesis Title : DEVELOPMENT OF DIGITAL STORYBOOK ON SDG-10
TO FACILITATE READING BEHAVIOURAL ENGAGEMENT OF FOURTH
GRADE STUDENTS AT SD LAB UNDIKSHA

B. Identity of the Product Being Evaluated

Title : The Book That Made Turtle Cry
Theme : SDG-10 (Reduced Inequalities)
Grade : 4th
School : SD LAB UNDIKSHA
Type of Product : Digital Storybook
Product Link : <https://the-book-that-made-turtle-cry.netlify.app/>

C. Expert's Identity

Name : Ni Luh Putu Era Adnyayanti, S.Pd.,M.Pd.
NIP : 198904082023212043
Institution : Universitas Pendidikan Ganesha

CRITERIA OF DIGITAL STORYBOOK INSTRUMENT

Research Objective:

To evaluate the quality of the developed SDG-10 digital storybook, as assessed by experts, in terms of content, design, and relevance to literacy and sustainability education.

INSTRUMENT DEVELOPMENT BASIS

The development of this digital storybook evaluation instrument is based on the quality criteria introduced by Vackova et al. (2023), which explains that a good digital storybook should be clear, engaging, interactive, and suitable for young learners. These criteria help ensure that the digital book supports learning and provides a positive reading experience. For SDG-10, the instrument includes indicators that check whether the storybook promotes inclusion, shows diverse characters, and teaches fairness in simple and meaningful ways. The items in the instrument focus on important aspects such as the clarity of the learning goals, the ability of the story to keep children interested, the cultural sensitivity of the content, the usefulness of interactive features, and the child-friendly design of the interface. By using these criteria, the instrument helps evaluate whether a digital storybook is effective, easy to use, and supportive of SDG-10 values in the classroom.

REFERENCES

- UNESCO. (2017). Education for Sustainable Development Goals: Learning objectives. United Nations Educational, Scientific and Cultural Organization
- Vackova, P., Cermakova, A. L., & Kucirkova, N. I. (2023). Children's digital books: Development, testing and dissemination of quality criteria. In *Children's Digital Books: Development, Testing and Dissemination of Quality Criteria* (Issue August).
<https://doi.org/10.31265/usps.268>

Blue Print Criteria of Digital Storybook

Answer Scale: 4. VR= Very Relevant; 3. QR= Quite Relevant; 2. SR= Somewhat Relevant; 1. NR= Not Relevant

Category	Aspects	Items	No Item
Quality of Digital Storybook	Purposeful	- The Digital Storybook has a clear learning goal and supports school-related learning content. - Multimedia such as images, sound, animation is chosen to strengthen the content of the story. - The information is presented concisely, not long, and does not require technical knowledge.	1-3
	Sustained	- The story and features of this digital storybook keep the children engaged in reading until the end. - Stories use cliffhangers, light conflicts, or curiosity that encourage children to continue reading. - Digital content provides small variations that encourage curiosity every time it is opened.	4-6
	Intercultural	- The language, names, or expressions in the story reflect the cultural realities depicted. - No character is depicted as inferior/superior based on cultural background. - The story shows that cross-cultural cooperation strengthens shared values.	7-9
	Interactive	- There are no excessive visual or audio elements to confuse the child. - Interaction helps children follow the story's progress gradually. - Activating features provides additional information that deepens understanding.	10-12
	Child friendly	- Use of simple and clear language appropriate for children's reading level - The amount of text per page is age-appropriate, and the narrative language is simple and child-friendly. - The visual elements are not too crowded and there is no distracting music or sound.	13-15
	Accessible	- Availability of features that support children in reading like audio - Presence of simple explanations for difficult words - Use of visual or animated aids that help children understand the story	16-18

	Personalizable	- Opportunities for children to give a simple personal response at the end of the story - Availability of options for children to choose preferred characters - Opportunities for children to select their favourite part of the story	19-21
	Creative	- Use of imaginative visuals that attract children attention for example, unique characters or settings - Presence of sound effects or music that match the events in the story - Use of animation effects such as movement or transitions that enhance engagement and interest	22-24
	Social	- Presence of character interactions that model positive social behavioural like helping, sharing or cooperating - Inclusion of scenarios that illustrate social values such as empathy, respect, or kindness - Opportunities for characters to work together to solve problems, promoting teamwork	25-27

Instrument Criteria of Digital Storybook

Instruction For Completing the Digital Storybook Criteria Instrument

This instrument is designed to evaluate the quality of a digital storybook based on several aspects, including Purposeful, Sustained, Intercultural, Interactive, and Child-Friendly, Accessible, Personalizable, Creative, and Social. Please read each item carefully and assess how well the digital storybook meets the stated criteria.

Rating Scale

Use the following scale to indicate the level of relevance for each item:

Score	Category
1. VR (Very Relevant)	The item is highly relevant and fully aligns with the characteristics of the digital storybook.
2. QR (Quite Relevant)	The item is moderately relevant, though some elements may be less strong.
3. SR (Somewhat Relevant)	The item is slightly relevant and only partially reflected in the storybook.
4. NR (Not Relevant)	The item is not relevant or not observed in the digital storybook.

How to Complete the Instrument

1. Read each item in the *Items* column thoroughly.
2. Determine the extent to which the digital storybook fulfills the criterion.
3. Place a checkmark (✓) in **one** of the following columns: **VR, QR, SR, or NR**.
4. If needed, provide explanations or notes in the **Remarks** column.
5. Continue rating all items across all aspects.

Important Notes

- Evaluations should be based solely on observable features in the digital storybook.
- If an item is unclear, partially present, or difficult to assess, please include comments in the *Remarks* column.
- This instrument may be used to evaluate a single digital storybook or for comparing multiple storybooks.

NO	Aspect	Items	4	3	2	1	Remarks
			VR	QR	SR	NR	
1	Purposeful	The digital storybook has a clear learning goal and supports school-related learning content.	☐	☒	☐	☐	
2	Purposeful	The digital storybook multimedia features such as images, sound, and animation	☒	☐	☐	☐	

		are chosen to strengthen the content of the story.	☒	☐	☐	☐	
3	Purposeful	The digital storybook content is presented concisely, not long, and does not require technical knowledge.	☒	☐	☐	☐	
4	Sustained	The digital storybook story and features keep the children engaged while reading until the end.	☒	☐	☐	☐	
5	Sustained	The digital storybook use cliffhangers, light conflicts, or curiosity that encourage children to continue reading.	☒	☐	☐	☐	
6	Sustained	The digital content in digital storybooks provides small variations that encourage curiosity every time they are opened.	☒	☐	☐	☐	
7	Intercultural	The language, names, or expressions in the story reflect the cultural realities depicted.	☒	☐	☐	☐	
8	Intercultural	There is no character in digital storybook is depicted as inferior/superior based on cultural background.	☐	☒	☐	☐	
9	Intercultural	The digital storybook story shows that cross-cultural cooperation strengthens shared values.	☒	☐	☐	☐	
10	Interactive	In the digital storybook there are no excessive visual or audio elements to confuse the child.	☒	☐	☐	☐	
11	Interactive	The digital storybook interaction helps children follow the story's progress gradually.	☒	☐	☐	☐	
12	Interactive	The digital storybook activating features provides additional information that deepens understanding.	☐	☒	☐	☐	
13	Child friendly	The digital storybook uses simple language that suits children's reading level.	☒	☐	☐	☐	

14	Child friendly	The amount of text per page is age-appropriate, and the narrative language is simple and child-friendly.	☒	☐	☐	☐	
15	Child friendly	The visual elements in the digital storybook are not too crowded and there is no distracting music or sound.	☒	☐	☐	☐	
16	Accessible	The digital storybook includes helpful features like audio.	☒	☐	☐	☐	
17	Accessible	The digital storybook provides simple pop-up explanations for difficult words.	☐	☒	☐	☐	
18	Accessible	The digital storybook uses basic animations that help children understand the meaning of the story.	☒	☐	☐	☐	
19	Personalizable	The digital storybook invites children to give a simple personal response at the end of the story.	☐	☒	☐	☐	
20	Personalizable	The digital storybook asks children to choose which character they would like to be.	☐	☒	☐	☐	
21	Personalizable	The digital storybook asks children to choose their favorite part of the story.	☐	☒	☐	☐	
22	Creative	The digital storybook uses imaginative visuals such as unique characters, settings, or objects	☒	☐	☐	☐	
23	Creative	The digital storybook uses sound effects or music that match the situation in the story for example calm music in peaceful scenes, lively sounds in action scenes	☒	☐	☐	☐	
24	Creative	The digital storybook includes creative animation effects such as simple movements or transitions that enhance the reading experience.	☒	☐	☐	☐	

25	Social	The digital storybook shows characters interacting in positive social ways for example helping and sharing.	☒	☐	☐	☐	
26	Social	The digital storybook presents simple situations that illustrate social values such as empathy respect, or kindness.	☒	☐	☐	☐	
27	Social	The digital storybook includes scenarios where characters work together to solve a problem, promoting teamwork and cooperation.	☒	☐	☐	☐	

SDG-10 LEARNING OBJECTIVE INSTRUMENT

Research Objective:

To evaluate the quality of the SDG-10 learning objectives integrated into the digital storybook, as assessed by experts, in terms of their accuracy, appropriateness, and alignment with sustainability education for young learners.

INSTRUMENT DEVELOPMENT BASIS

The development of this instrument is based on the Education for Sustainable Development (ESD) framework, especially the learning objectives for Sustainable Development Goal 10 (Reduced Inequality) proposed by UNESCO (2017). SDG-10 highlights the importance of helping learners understand fairness, respect differences, and promote equal opportunities for everyone. In line with this, the instrument is designed to evaluate how well a digital storybook supports cognitive, socio-emotional, and behavioral learning related to inclusion and equality. From the behavioral perspective, the instrument includes indicators that assess whether the storybook encourages students to take small actions that promote fairness, appreciate diversity, and respond to unequal situations in a positive way. It also looks at how the story connects to real-life experiences, helps children recognize unequal treatment, and motivates them to practice inclusive behavior in their school environment. By using these SDG-10 learning objectives, the instrument ensures that the evaluation is clear, age-appropriate, and aligned with international standards for promoting equality in education.

REFERENCES

- UNESCO. (2017). Education for Sustainable Development Goals: Learning objectives. United Nations Educational, Scientific and Cultural Organization
- Vackova, P., Cermakova, A. L., & Kucirkova, N. I. (2023). Children's digital books: Development, testing and dissemination of quality criteria. In *Children's Digital Books: Development, Testing and Dissemination of Quality Criteria* (Issue August). <https://doi.org/10.31265/usps.268>

SDG 10 Reduced Inequalities based material through Digital Storybook.

Answer Scale: 4. VR= Very Relevant; 3. QR= Quite Relevant; 2. SR= Somewhat Relevant; 1. NR= Not Relevant

Category	Aspect	Indicators Specific	Nomor Butir
Behavioural Learning Objective SDG-10	Behavior in Promoting Equality	- The storybook explains the importance of treating others fairly regardless of their differences. - The storybook illustrates how students can show respect, empathy, and inclusiveness in daily school interactions. - The storybook demonstrates how individual and collective actions contribute to creating an inclusive and supportive school environment. - The storybook encourages students to reflect critically on behaviors related to exclusion, unfair treatment, or discrimination. - The storybook promotes a culture of equality and inclusiveness by encouraging students to appreciate diversity and respect others.	1– 5

Instrument Expert Validation Checklist on SDG-10 Based Content

Instruction For Completing the Digital Storybook Criteria Instrument

This instrument is designed to evaluate the quality of a digital storybook based on SDG-10 learning objectives, particularly in promoting equality, inclusion, respect for diversity, and reducing discrimination among students. The assessment focuses on how well the storybook reflects values such as empathy, fairness, and acceptance of individual differences. Experts are expected to assess each item carefully based on the relevance to these principles.

Rating Scale

Use the following scale to indicate the level of relevance for each item:

Score	Category
1. VR (Very Relevant)	The item is highly relevant and fully aligns with the characteristics of the digital storybook.
2. QR (Quite Relevant)	The item is moderately relevant, though some elements may be less strong.
3. SR (Somewhat Relevant)	The item is slightly relevant and only partially reflected in the storybook.
4. NR (Not Relevant)	The item is not relevant or not observed in the digital storybook.

How to Complete the Instrument

1. Read each item in the *Items* column thoroughly.
2. Determine the extent to which the digital storybook fulfills the criterion.
3. Place a checkmark (✓) in **one** of the following columns: **VR, QR, SR, or NR**.
4. If needed, provide explanations or notes in the **Remarks** column.
5. Continue rating all items across all aspects.

Important Notes

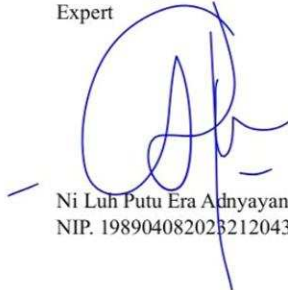
- Evaluations should be based solely on observable features in the digital storybook.
- If an item is unclear, partially present, or difficult to assess, please include comments in the *Remarks* column.
- This instrument may be used to evaluate a single digital storybook or for comparing multiple storybooks.

E. Instrument Expert Validation Checklist on SDG-10 Based Content						
NO	Aspect	Items	1 NR	2 SR	3 QR	4 VR
1	Behavior in Promoting Equality	The storybook presents situations that help students understand the importance of treating others equally regardless of their differences, such as abilities, backgrounds, or personal characteristics.	☐	☐	☐	☒

2	Behavior in Promoting Equality	The storybook illustrates inclusive behaviors, such as respecting, helping, and cooperating with peers from diverse backgrounds in daily school contexts.	☐	☐	☐	☒	
3	Behavior in Promoting Equality	The storybook demonstrates how empathy and understanding can support individuals who may experience exclusion or discrimination.	☐	☐	☐	☒	
4	Behavior in Promoting Equality	The storybook encourages students to reflect on fairness and unfairness in social interactions, promoting positive attitudes toward diversity and inclusion.	☐	☐	☐	☒	
5	Behavior in Promoting Equality	The storybook promotes social responsibility by encouraging students to support, include, and stand up for others in their environment.	☐	☐	☐	☒	

General Comment:

Date: Friday, 1st April 2026
Expert



Ni Luh Putu Era Adnyayanti, S.Pd.,M.Pd.
NIP. 198904082023212043

Appendix 10 Checklist Result from the Teacher

READING BEHAVIOURAL ENGAGEMENT INSTRUMENT

Research Objective:

To evaluate the quality of the developed SDG-10 digital storybook, as assessed by teachers, in terms reading behavioral engagement.

INSTRUMENT DEVELOPMENT BASIS

The development of this instrument is based on the idea of reading behavioral engagement, which describes how students show their involvement in reading through their actions. Following the concepts from Fredricks et al. (2004); Guthrie (2004); McGeown and Smith (2024), the instrument focuses on key aspects such as effort, persistence, attention, positive conduct, active participation, reading frequency, and interaction with texts. In the context of SDG 10, the instrument measures how students behave when reading stories that promote fairness, inclusion, and respect for diversity. It looks at how much effort students give when reading about equality, how long they stay engaged, how well they focus, and how they participate in discussions about fairness. It also observes how often they read, how they explore the story further, and how they show positive behavior when interacting with inclusive content. This framework helps provide a clear understanding of students' reading involvement based on their real actions while learning about SDG-10.

REFERENCES

- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109.
- Guthrie, J. T., & Wigfield, A. (2000). Engagement and motivation in reading. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), **Handbook of reading research** (Vol. 3, pp. 403–422). Lawrence Erlbaum.
- McGeown, S., & Smith, K. C. (2024). Reading Engagement Matters! A New Scale to Measure and Support Children's Engagement with Books. *Reading Teacher*, 77(4), 462–472. <https://doi.org/10.1002/trtr.2267>

Blueprint of Reading Behavioural Engagement Validation

Answer Scale: 4. VR= Very Relevant; 3. QR= Quite Relevant; 2. SR= Somewhat Relevant; 1.

NR= Not Relevant

Category	Aspect	Items	No Item
Reading Behavioural Engagement	Effort	- The Digital Storybook increases students' reading effort. - The Digital Storybook encourages students to try harder. - The Digital Storybook supports students in rereading difficult parts.	1-3
	Persistence	- The Digital Storybook helps students finish the story. - The Digital Storybook keeps students reading through challenges. - The Digital Storybook promotes consistent reading until completion.	4-6
	Attention	- The Digital Storybook maintains students' attention. - The Digital Storybook helps students stay focused. - The Digital Storybook reduces distraction during reading.	7-9
	Positive Conduct	- The Digital Storybook encourages positive reading behavioural. - The Digital Storybook supports orderly reading routines. - The Digital Storybook promotes responsible digital use.	10-12
	Active Participation	- The Digital Storybook encourages student participation. - The Digital Storybook stimulates sharing during reading. - The Digital Storybook increases involvement in reading activities.	13-15
	Reading Frequency	- The Digital Storybook increases reading frequency. - The Digital Storybook motivates students to read more. - The Digital Storybook encourages regular reading habits.	16-18
	Interaction with Texts	- The Digital Storybook encourages deeper story exploration. - The Digital Storybook promotes connections with the story. - The Digital Storybook motivates reading of similar texts.	19-21

Instrument Reading Behavioral Engagement

Instruction For Completing the Reading Behavioral Engagement Instrument

This instrument is designed to evaluate students' Reading Behavioural Engagement when using a digital storybook based on several aspects, including Effort, Persistence, Attention, Positive Conduct, Active Participation, Reading Frequency, and Interaction with Texts. Please read each item carefully and assess how well the digital storybook supports students' engagement in each area.

Rating Scale

Use the following scale to indicate the level of relevance for each item:

Score	Category
1. VR (Very Relevant)	The item is highly relevant and fully aligns with the characteristics of the digital storybook.
2. QR (Quite Relevant)	The item is moderately relevant, though some elements may be less strong.
3. SR (Somewhat Relevant)	The item is slightly relevant and only partially reflected in the storybook.
4. NR (Not Relevant)	The item is not relevant or not observed in the digital storybook.

How to Complete the Instrument

1. Read each item in the item's column thoroughly.
2. Determine the extent to which the digital storybook fulfils the criterion.
3. Place a checkmark (✓) in **one** of the following columns: **VR, QR, SR, or NR**.
4. If needed, provide explanations or notes in the **Remarks** column.
5. Continue rating all items across all aspects.

Important Notes

- Evaluations should be based on students' observable behaviours while using the digital storybook.
- If an item is unclear or difficult to assess, please provide additional explanation in the Remarks column.
- This instrument may be used to evaluate engagement with a single digital storybook or to compare students' engagement across multiple storybooks.

NO	Aspect	Items	1 NR	2 SR	3 QR	4 VR	Remarks
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1	Effort	The Digital Storybook is able to encourage students to keep reading even when the story is difficult.	☐	☐	☐	✓	
2	Effort	The Digital Storybook is able to motivate students to try harder in understanding the story.	☐	☐	☐	✓	
3	Effort	The Digital Storybook is able to encourage students to reread parts of the story to improve their understanding.	☐	☐	☐	✓	
4	Persistence	The Digital Storybook is able to support students to finish the story until the end.	☐	☐	☐	✓	
5	Persistence	The Digital Storybook is able to help students continue reading even when they encounter difficult words.	☐	☐	☐	✓	
6	Persistence	The Digital Storybook is able to help students return to the story and continue reading after short breaks.	☐	☐	☐	✓	
7	Attention	The Digital Storybook is able to maintain students' attention during reading activities.	☐	☐	☐	✓	
8	Attention	The Digital Storybook is able to help students stay focused without being easily distracted.	☐	☐	☐	✓	
9	Attention	The Digital Storybook is able to keep students focused through features that maintain their engagement.	☐	☐	☐	✓	
10	Positive Conduct	The Digital Storybook is able to promote positive behaviour during reading sessions.	☐	☐	☐	✓	
11	Positive Conduct	The Digital Storybook is able to reduce disruptive behaviour while students are reading.	☐	☐	☐	✓	
12	Positive Conduct	The Digital Storybook is able to promote responsible use of digital tools during reading activities.	☐	☐	☐	✓	
13	Active Participation	The Digital Storybook is able to encourage students to participate actively in shared reading activities.	☐	☐	☐	✓	
14	Active Participation	The Digital Storybook is able to stimulate students to share their reading experiences with peers.	☐	☐	☐	✓	
15	Active Participation	The Digital Storybook is able to motivate students to join discussions related to the story.	☐	☐	☐	✓	

16	Reading Frequency	The Digital Storybook is able to increase how often students read storybooks at home or in school.	☐	☐	☐	☒	
17	Reading Frequency	The Digital Storybook is able to motivate students to borrow or choose more storybooks to read.	☐	☐	☐	☒	
18	Reading Frequency	The Digital Storybook is able to encourage students to read storybooks more regularly.	☐	☐	☐	☒	
19	Interaction with Texts	The Digital Storybook is able to inspire students to explore more about the story they read.	☐	☐	☒	☐	
20	Interaction with Texts	The Digital Storybook is able to help students connect the story to their own experiences or knowledge.	☐	☐	☐	☒	
21	Interaction with Texts	The Digital Storybook is able to motivate students to explore other stories with similar themes.	☐	☐	☐	☒	

General Comment

Date: Monday, 6th April 2026
Expert



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