



APPENDICES

1	Content Expert evaluation sheet.	a. The learning objective stated clearly.				√		4
		b. Interactivity in design					√	5
		c. Learning Objectives are in accordance with the ATP (<i>Alur Tujuan Pembelajaran</i>) Learning Objectives Flow or syllabus				√		4
		d. The scope and depth of learning objectives				√		4
		e. Contextuality between learning objectives and games					√	5
		f. Boost motivation					√	5
		g. Compatibility of learning strategies.					√	5
		h. Ease to understanding.				√		4
		i. The accuracy and consistency of the games.					√	5

		j. Consistency of the games with learning objectives.				√		4
Total								45

2. Media Expert Evaluation

The media expert evaluation was adapted from Findawati and Suprianto,(2014).

Instruction

1. This evaluation sheet is filled by expert judges. Give checklist mark (√) in the scoring column and if there are comments. It can be filled in the comment column.
2. There are 5 scopes of scoring for every component.
3. Give checklist mark in the scoring column with the following information
(5) Excellent (4) Good (3) Average (2) Poor (1) Very Poor.

No	Instrument's Name	Item Statements	Score					Total
			1	2	3	4	5	
1	Media Expert evaluation sheet	a. Clarity of the program instruction.					√	5
		b. Effectiveness of the learning media.					√	5
		c. Compatibility in				√		4

		smartphones and web						
		d. The ease of application management				√		4
		e. Utilization of interactive design				√		4
		f. Sound clarity				√		4
		g. Creativity of design					√	5
		h. Appropriate selection of application or software or tool types for development				√		4
Total								35

Singaraja, 09 November 2022


 Made Hery Santosa, Ph.D.
 NIP. 197910232003121001

Appendix 2 Second Expert Judgement sheet

EXPERT JUDGEMENT SHEET

Topic	ICT Materials Development
Title	Developing Vocabulary Supplementary Material Game-Based Using Educandy For 10th Grade SMA Negeri 1 Amlapura
Games	https://linktr.ee/educandy_games
Expert	Made Hery Santosa, Ph. D & Kadek Sintya Dwi, S.Pd., M. Pd.
Institution	Universitas Pendidikan Ganesha

Description

These evaluation sheets are used to judge the quality of Vocabulary supplementary material game-based developed using Educandy for the tenth grade at SMA Negeri 1 Amlapura Bali. The games developed are to support or help teachers in teaching vocabulary in some topics such as personality description, nature description, things in town, village, mountain, sea, suburb, food and drink hobbies, and leisure activities. Regarding this point, it is a necessity to get your response and suggestions about the content and media of this product.

3. Content Expert Evaluation

The content expert evaluation was adapted from Findawati and Suprianto,(2014).

Instruction

4. This evaluation sheet is filled by expert judges. Give checklist mark (√) in the scoring column and if there are comments. It can be filled in the comment column.
5. There are 5 scopes of scoring for every component.
6. Give checklist mark in the scoring column with the following information
(5) Excellent (4) Good (3) Average (2) Poor (1) Very Poor.

4. Media Expert Evaluation

The media expert evaluation was adapted from Findawati and Suprianto,(2014).

Instruction

4. This evaluation sheet is filled by expert judges. Give checklist mark (√) in the scoring column and if there are comments. It can be filled in the comment column.
5. There are 5 scopes of scoring for every component.
6. Give checklist mark in the scoring column with the following information
(5) Excellent (4) Good (3) Average (2) Poor (1) Very Poor.

No	Instrument's Name	Item Statements	Score					Total
			1	2	3	4	5	
1	Media Expert evaluation sheet	i. Clarity of the program instruction.					√	5
		j. Effectiveness of the learning media.					√	5
		k. Compatibility in smartphones and web				√		4
		l. The ease of application management				√		4

		m. Utilization of interactive design				√		4
		n. Sound clarity				√		4
		o. Creativity of design					√	5
		p. Appropriate selection of application or software or tool types for development				√		4
Total								35

Singaraja, 09 November 2022



Kadek Sintya Dwi, S.Pd., M. Pd.
NIP. 19880323015042004

Appendix 3 Alur Tujuan Pembelajaran (ATP)



Glosarium: Aktivitas C1-C6 adalah aktivitas berpikir berjenjang yang mengacu pada taksonomi Bloom revisi yakni C1- mengingat, C2-memahami, C3-mengaplikasi, C4-menganalisis, C5-mengevaluasi, dan C6-mencipta.

CAPAIAN PEMBELAJARAN FASE E (SMA KELAS 10)

Pada akhir fase E, peserta didik menggunakan teks lisan, tulisan dan visual dalam bahasa Inggris untuk berkomunikasi sesuai dengan situasi, tujuan, dan pemirsa/pembacanya. Berbagai jenis teks seperti **narasi, deskripsi, prosedur, eksposisi, recount, report, dan teks asli** menjadi rujukan utama dalam mempelajari bahasa Inggris di fase ini. Peserta didik menggunakan bahasa Inggris untuk menyampaikan keinginan/perasaan dan berdiskusi mengenai topik yang dekat dengan keseharian mereka atau isu yang hangat sesuai usia peserta didik di fase ini. Mereka membaca teks tulisan untuk mempelajari sesuatu/mendapatkan informasi. Keterampilan inferensi tersirat ketika memahami informasi dalam bahasa Inggris mulai berkembang. Peserta didik memproduksi teks tulisan dan visual yang lebih beragam, dengan kesadaran terhadap tujuan dan target pembaca.

A. MENYIMAK & BERBICARA

Pada akhir fase E, peserta didik menggunakan bahasa Inggris untuk berkomunikasi dengan guru, teman sebaya dan orang lain dalam berbagai macam situasi dan tujuan. Mereka **menggunakan dan merespon** pertanyaan dan menggunakan strategi untuk **memulai dan mempertahankan percakapan dan diskusi**. Mereka **memahami dan mengidentifikasi** ide utama dan detail relevan dari diskusi atau presentasi **mengenai topik yang dekat dengan kehidupan pemuda**. Mereka menggunakan bahasa Inggris untuk **menyampaikan opini** terhadap isu yang dekat dengan kehidupan pemuda dan untuk **membahas minat**. Mereka **memberikan pendapat dan membuat perbandingan**. Mereka menggunakan elemen non-verbal seperti bahasa tubuh, kecepatan bicara, dan nada suara untuk dapat dipahami dalam sebagian konteks.

B. MEMBACA & MEMIRSA

Pada akhir fase E, peserta didik **membaca dan merespon** berbagai macam teks seperti **narasi, deskripsi, prosedur, eksposisi, recount, dan report**. Mereka membaca untuk mempelajari sesuatu atau untuk **mendapatkan informasi**. Mereka **mencari dan mengevaluasi detail spesifik** dan inti dari berbagai macam jenis teks. Teks ini dapat berbentuk cetak atau digital, termasuk diantaranya teks visual, multimodal atau interaktif. **Pemahaman mereka terhadap ide pokok, isu-isu atau pengembangan plot dalam berbagai macam teks mulai berkembang**. Mereka **mengidentifikasi** tujuan penulis dan mengembangkan keterampilannya untuk melakukan **inferensi** sederhana dalam memahami informasi tersirat dalam teks.

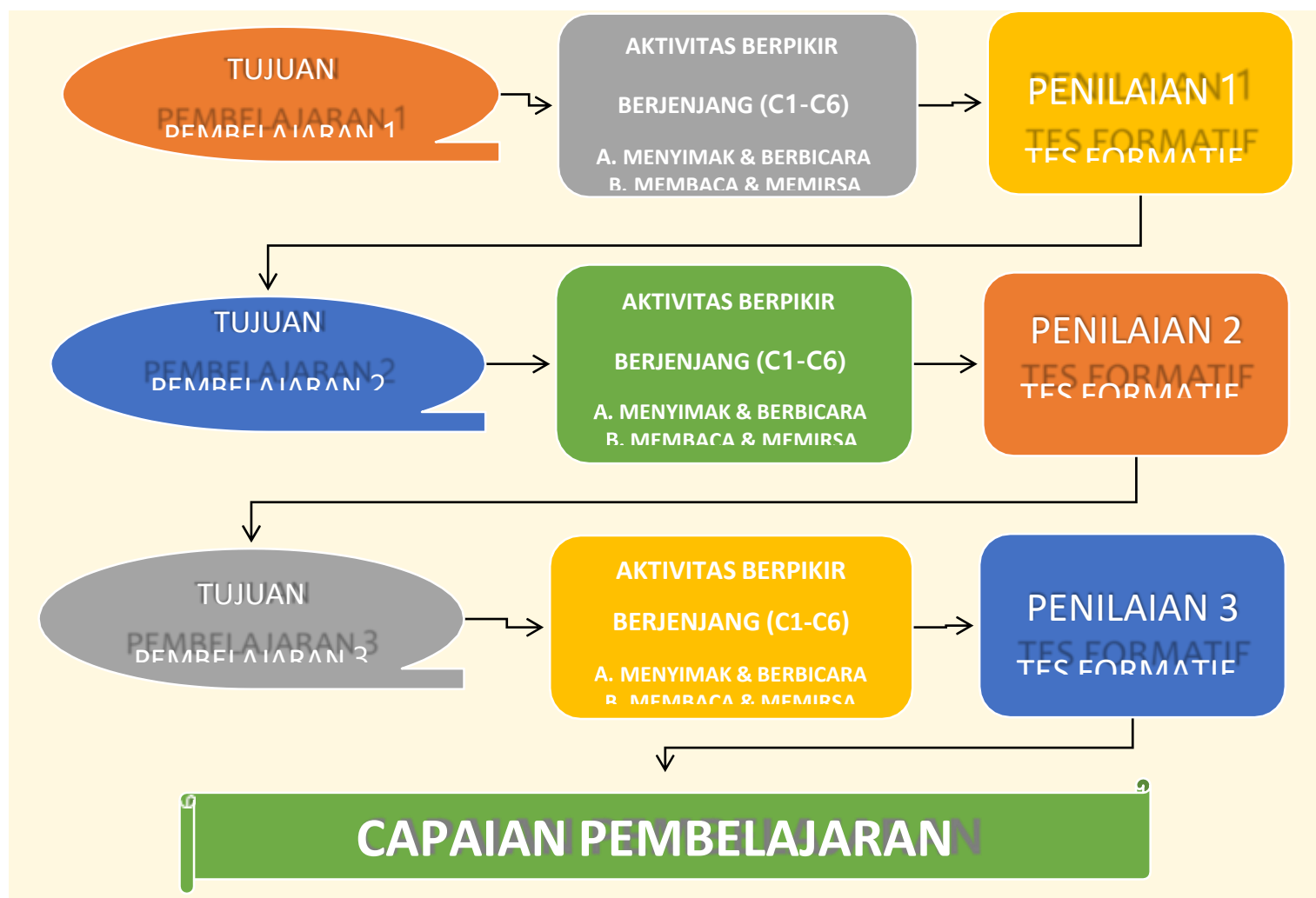
C. MENULIS & MEMPRESENTASIKAN

Pada akhir fase E, peserta didik **menulis** berbagai jenis **teks fiksi dan non-fiksi**, melalui aktivitas yang dipandu, menunjukkan kesadaran peserta didik terhadap tujuan dan target pembaca. Mereka **membuat perencanaan, menulis, mengulas dan menulis ulang** berbagai jenis tipe teks dengan menunjukkan **strategi koreksi diri, termasuk tanda baca dan huruf besar**. Mereka menyampaikan ide menggunakan **kosa kata dan kata kerja umum dalam tulisannya**. Mereka **menyajikan informasi** menggunakan berbagai mode presentasi untuk menyesuaikan dengan pembaca/pemirsa dan untuk mencapai tujuan yang berbeda-beda, dalam bentuk cetak dan digital.

/PROFIL PELAJAR PANCASILA

Beriman, bertakwa kepada Tuhan YME, dan berakhlak mulia, Berkebinekaan Global, Bergotong-royong, Mandiri, Bernalar Kritis dan Kreatif.

ALUR dan TUJUAN PEMBELAJARAN BAHASA INGGRIS FASE E (SMA KELAS 10)



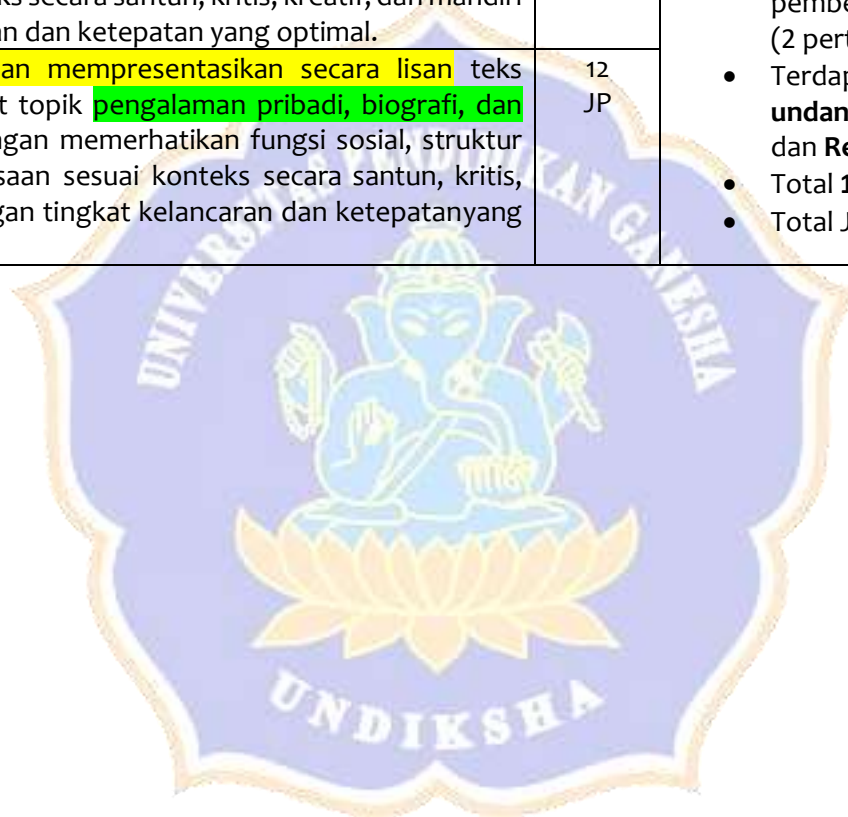
Glosarium: Aktivitas C1-C6 adalah aktivitas berpikir berjenjang yang mengacu pada taksonomi Bloom revisi yakni C1- mengingat, C2-memahami, C3-mengaplikasi, C4-menganalisis, C5-mengevaluasi, dan C6-mencipta.

TUJUAN PEMBELAJARAN			ACUAN KEBAHASAAN
NO (Kelas.Sub Keterampilan. Urutan Aktivitas)	A. MENYIMAK dan BERBICARA	ALOKASI WAKTU	
10. A.1	<p>Mengaplikasikan dan menyimpulkan makna secara kontekstual fungsi sosial, struktur teks, dan unsur kebahasaan serta merancang teks interaksi transaksional lisan yang melibatkan ungkapan kebutuhan, perasaan, dan sikap (<i>needs, feelings and attitudes</i>) secara kritis, kreatif dan santun terkait topik fenomena alam dan sosial dengan tingkat kelancaran dan ketepatan yang optimal.</p> <p>(Perhatikan intonasi, nada, kecepatan ujaran, volume suara, penekanan untuk memengaruhi makna, penggunaan <i>personal preference, feelings and emotions</i> serta strategi inisiasi dan pemertahanan pertuturan)</p>	8 JP	<p>1. TOPIK</p> <ul style="list-style-type: none"> Natural & Social phenomena Effective learning Interest, hobby, and Leisure time activities Digital technology & Social Media Usage in Learning Indonesia Cultural Diversity The Physical & Social Environment of Community Academic & Social Activities Life styles & Current affairs Human, Flora & Fauna Personal History Biography Indonesia history World history <p>2. FUNGSI</p> <ul style="list-style-type: none"> Asking & giving opinion Expressing agreement and disagreement
10. A.2	<p>Mengaplikasikan dan menyimpulkan makna secara kontekstual fungsi sosial, struktur teks, dan unsur kebahasaan serta merancang teks interaksi transaksional lisan yang melibatkan tindakan memberi dan meminta pendapat (<i>asking & giving opinion</i>) serta menyetujui dan tidak menyetujui (<i>agree & disagree</i>) secara kritis, kreatif dan santun terkait topik fenomena alam dan sosial dengan tingkat kelancaran dan ketepatan yang optimal.</p> <p>(Perhatikan intonasi, nada, kecepatan ujaran, volume suara, penekanan untuk memengaruhi makna, penggunaan <i>thinking verbs</i> serta strategi inisiasi dan pemertahanan pertuturan)</p>	8 JP	
10. A.3	<p>Mengaplikasikan dan menyimpulkan makna secara kontekstual fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan atau tulis berbentuk lagu dan puisi secara kritis, kreatif dan santun terkait topik kehidupan remaja dengan tingkat kelancaran dan ketepatan yang optimal.</p>	8 JP	
10. A.4	<p>Menganalisis dan menyimpulkan makna secara kontekstual fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan berbentuk naratif fiksi dan non fiksi</p>	8 JP	

	(<i>narrative</i>) secara kritis, kreatif dan santun terkait topik keanekaragaman budaya Indonesia dengan tingkat kelancaran dan ketepatan yang optimal.		<ul style="list-style-type: none"> • Asking questions to clarify or follow up information • Justifying personal preferences • Expressing needs and feelings • Showing strategies • Promoting • Relaxing • Entertaining • Reporting • Educating • Inviting • Informing
10. A.5	Menganalisis dan menyimpulkan makna secara kontekstual fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan berbentuk <i>deskriptif</i> (<i>descriptive</i>) secara kritis, kreatif dan santun terkait topik lingkungan fisik dan sosial masyarakat dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	
10. A.6	Menganalisis dan menyimpulkan makna secara kontekstual fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan berbentuk <i>prosedur</i> (<i>procedure</i>) secara kritis, kreatif dan santun terkait topik fenomena alam dan sosial dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	
10. A.7	Menganalisis dan menyimpulkan makna secara kontekstual fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan berbentuk <i>recount</i> secara kritis, kreatif dan santun terkait topik pengalaman pribadi, biografi, dan peristiwa bersejarah dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	
NO (Kelas.Sub Keterampilan. Urutan Aktivitas)	B. MEMBACA dan MEMIRSA	ALOKASI WAKTU	<p>3. TIPE TEKS</p> <ul style="list-style-type: none"> • Song • Poem • Advertisement, Invitation & Announcement • Narrative • Descriptive • Procedure • Recount <p>4. GRAMATIKA</p> <ul style="list-style-type: none"> • Past tenses • Present tenses • Passive forms • Articles (countable & uncountable) • Figurative language • Cohesive devices • Gerunds & Infinitives • Connective words • Thinking verbs to express opinion • Sequential words/phrases
10.B.1	Menganalisis menyimpulkan makna dan mengevaluasi fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan dan tulis berbentuk <i>iklan</i> (<i>advertisement</i>), <i>undangan</i> (<i>invitation</i>) dan <i>pengumuman</i> (<i>announcement</i>) secara kritis, kreatif dan jujur terkait topik fenomena alam dan sosial dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	
10.B.2	Menganalisis menyimpulkan makna dan mengevaluasi fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan dan tulis berbentuk <i>naratif fiksi dan nonfiksi</i> (<i>narrative</i>) secara kritis, kreatif dan jujur terkait topik keanekaragaman budaya Indonesia dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	

10.B.3	Menganalisis menyimpulkan makna dan mengevaluasi fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan dan tulis berbentuk deskriptif (<i>descriptive</i>) secara kritis, kreatif dan jujur terkait topik lingkungan fisik dan sosial masyarakat dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	<ul style="list-style-type: none"> • Descriptive words • Aspects of literature • Stylistic word • Prepositional phrases and some technical vocabularies to communicate meaning • Conversational gambits • Intonation, tone, pacing, volume and emphasis to affect meaning. 	
10.B.4	Menganalisis menyimpulkan makna dan mengevaluasi fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan dan tulis berbentuk prosedur (<i>procedure</i>) secara kritis, kreatif dan jujur terkait topik fenomena alam dan sosial dengan tingkat kelancaran dan ketepatan yang optimal.			
10.B.5	Menganalisis menyimpulkan makna dan mengevaluasi fungsi sosial, struktur teks, dan unsur kebahasaan teks lisan dan tulis berbentuk recount secara kritis, kreatif dan jujur terkait topik pengalaman pribadi, biografi, dan peristiwa bersejarah dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP		
NO (Kelas.Sub Keterampilan. Urutan Aktivitas)	c. MENULIS dan MEMPRESENTASIKAN			ALOKASI WAKTU
10.C.1	Merancang dan mempresentasikan teks lisan dan tulis berbentuk iklan (<i>advertisement</i>), undangan (<i>invitation</i>) dan pengumuman (<i>announcement</i>) terkait topik fenomena alam dan sosial dengan memerhatikan fungsi sosial, struktur teks, dan unsur kebahasaan sesuai konteks secara santun, kritis, kreatif, dan mandiri dengan tingkat kelancaran dan ketepatan yang optimal.	12 JP		
10.C.2	Merancang teks tulis dan mempresentasikan secara lisan teks berbentuk naratif fiksi dan non fiksi (<i>narrative</i>) terkait topik keanekaragaman budaya Indonesia dengan memerhatikan fungsi sosial, struktur teks, dan unsur kebahasaan sesuai konteks secara santun, kritis, kreatif, dan mandiri dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	<p>5. KOSAKATA</p> <ul style="list-style-type: none"> • Personality description • Nature description • Art & Cultural issue • Information & Communication Technology • Hardware & software • Things in town, village, mountain, sea, suburb • Habitat • Physical & Social Environment • Food & drink • Life style • Social media • Hobby & Leisure activity • Books & Literature • Shopping, painting, cooking, gardening • Travel & holiday • Project research <p>6. ASESMEN</p> <ul style="list-style-type: none"> • Listening & Speaking performances • Understanding & Constructing conversation • Reading comprehension • Writing & Presenting performances 	
10.C.3	Merancang teks tulis dan mempresentasikan secara lisan teks berbentuk deskriptif (<i>descriptive</i>) terkait topik lingkungan fisik dan sosial masyarakat dengan memerhatikan fungsi sosial, struktur teks, dan unsur kebahasaan sesuai konteks	8 JP		

	secara santun, kritis, kreatif, dan mandiri dengan tingkat kelancaran dan ketepatan yang optimal.		7. ALOKASI WAKTU <ul style="list-style-type: none"> • 4 JP/Pertemuan (JP: Jam Pelajaran) • Secara umum tiap tujuan pembelajaran berdurasi 8 JP (2 pertemuan) • Terdapat 12 JP untuk teks undangan, iklan, pengumuman dan Recount. • Total 17 Tujuan pembelajaran • Total JP selama setahun 144 JP
10.C.4	Merancang teks tulis dan mempresentasikan secara lisan teks berbentuk prosedur (procedure) terkait topik fenomena alam dan sosial dengan memerhatikan fungsi sosial, struktur teks, dan unsur kebahasaan sesuai konteks secara santun, kritis, kreatif, dan mandiri dengan tingkat kelancaran dan ketepatan yang optimal.	8 JP	
10.C.5	Merancang teks tulis dan mempresentasikan secara lisan teks berbentuk recount terkait topik pengalaman pribadi, biografi, dan peristiwa bersejarah dengan memerhatikan fungsi sosial, struktur teks, dan unsur kebahasaan sesuai konteks secara santun, kritis, kreatif, dan mandiri dengan tingkat kelancaran dan ketepatan yang optimal.	12 JP	



Appendix 4 Blueprint of the product

No	Learning Objectives	Topics	Indicators	Vocabulary	Level Cognition				Types of Games	Numbers of Questions
					C1	C2	C3	C4		
1	Memorize English Vocabulary in the field of personality description	Descriptive text	Students are able to play and finish the game	1. Broad-minded= berwawasan luas 2. Famous= terkenal 3. Prominent= menonjol 4. Cautious = waspada 5. Clever=pintar 6. Communicative= komunikatif 7. Confident= percaya diri 8. Considerate= pertimbangan 9. Consistent= konsisten 10. Courageous= termotivasi 11. Curious=penasaran 12. Creative=kreatif 13. Diligent = rajin 14. Eager= berani 15. Emotional=emosional 16. Enthusiastic= antusias 17. Friendly=ramah 18. Funny= lucu 19. Generous=dermawan 20. Grateful= bersyukur 21. Honest=jujur 22. Humble= rendah hati 23. Imaginative= imaginatif 24. Innovative= inovatif 25. Inspiring= menginspirasi	1-34				words	34

				26. Kind= baik 27. Open-minded= pemikiran terbuka 28. Organized= terorganisi 29. Patient= sabar 30. Polite= ramah 31. Productive=produktif 32. Professional= professional 33. Religious= religious Responsible= bertanggung jawab						
2	Memorize English Vocabulary in the field of nature description	Descriptive text	Students are able to play and finish the game	1. Spectacular= spektakules 2. Relaxing= Me relaksasi 3. Pleasant= senang 4. Beautiful = indah 5. Clean= bersih 6. Incredible = menakjubkan 7. Green= green 8. Colorful = penuh warna 9. Rainy= hujan 10. Cloudy = berawan 11. Bright = cerah Flawless = tanpa kerusakan atau kekurangan	1-12				Matching pairs	12
3	Memorize English Vocabulary in the field of things in town, village,	Narrative text	Students are able to play and finish the game	1. Beach = pantai 2. Bush = semak” 3. Canyon = lembah 4. Cloud = Awan 5. Desert = Gurun pasir 6. Field = lapangan	1-32				Matching pairs	32

	mountain, sea and suburb.			<p>7. Flood = banjir 8. Village = desa 9. Town = kota 10. Mountain = gunung 11. Trunk = kayu 12. Volcano = gunung api 13. Waterfall = air terjun 14. Grass = rumput 15. Jungle = hutan 16. Shore = pesisir 17. Flowers = bunga 18. Hill = tebing 19. Pond = kolam 20. Canopy = kanopi 21. Tree = pohon 22. Wood = kayu 23. Cliff = jurang 24. Lake = danau 25. Rainbow = pelangi 26. Mushroom =jamur 27. Sea = laut 28. River = sungai 29. Rock = batu 30. Storm = badai 31. Sky = langit 32. Branch = cabang</p>						
4	Memorize English	Recount text	Students are able to	<p>1. Workout = olah raga 2. Travel = perjalanan</p>	1- 20				words	30

Vocabulary in the field of hobbies and leisure activities		play and finish the game	<ul style="list-style-type: none"> 3. Aerobics = aerobik 4. Camping = berkemah 5. Hiking = lintas alam 6. Gardening = gardening 7. Painting = lukisan 8. Jogging = lari pagi 9. Diving = menyelam 10. Photography = fotografi 11. Watch = menonton 12. Reading = membaca 13. Movies = film 14. Singing = menyanyi 15. Dancing = menari 16. Swimming = menyelam 17. Biking = bersepeda 18. Basketball = basket 19. Football = sepak bola 20. Badminton = bulutangkis 							
Total Number Items										110



Appendix 5 Vocabulary supplementary material game-based using Educandy



Foods and Drinks



Hobbies and Leisure Activities



Nature Descriptions



Personality Description



Things in town, village, mountain, sea, suburb	
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Appendix 6 Instrument validation

Name I Kadek Rauh Suardana
 NIM 1912021010
 Topic ICT Materials Development
 Title Developing Vocabulary Supplementary Material Game-based Using Educandy for Tenth Grade SMA Negeri 1 Amlapura
 Games https://linktr.ee/educandy_games
 Validator Made Hery Santosa, Ph. D & Kadek Sintya Dwi, S.Pd., M. Pd.
 Institution Universitas Pendidikan Ganesha

Summary

This study is conducted to develop vocabulary game-based supplementary material for the tenth grade in SMA Negeri 1 Amlapura. Based on preliminary observation, the problem found is in the field of vocabulary mastery in tenth grade. The existing problem would be solved by developing game-based digital supplementary material using Educandy by applying Design and Development (DnD) proposed by Richey and Klein, (2005). The development of the would be used to help students to improve their vocabulary through a game activity that can be accessed from a smartphone (through an app that can be downloaded from the Play store or websites).The material selected are vocabularies in the topics Personality description, nature description, things in town, village, mountain, sea, suburb, food and drink hobby, and leisure activity. The product was be validated through adapted content and media expert judgment proposed by Findawati and Suprianto, (2014) and the User Experience Questionnaire (UEQ) adopted from Hinderks et al., (2019).

The Origin of Instrument

Original Content and Expert Judgement

1. Media Expert Judgement

No	Pernyataan	Sangat Bagus	Bagus	Kurang	Sangat Kurang
1	Kejelasan petunjuk penggunaan program				

2	Keterbacaan teks/tulisan				
3	Kualitas tampilan gambar				
4	Sajian animasi				
5	Komposisi warna				
6	Keterjelasan suara				
7	Daya dukung musik				

2. Content Expert Judgement

No	Pernyataan	Sangat Bagus	Bagus	Kurang	Sangat Kurang
1	Kejelasan tujuan pembelajaran				
2	Relevansi tujuan pembelajaran dengan SK/KD/Kurikulum				
3	Cakupan dan kedalaman tujuan pembelajaran				
4	Ketepatan penggunaan strategi pembelajaran				
5	Interaktivitas				
6	Pemberian motivasi belajar				
7	Kontekstualitas dan aktualitas				
8	Kelengkapan dan kualitas bahan bantuan belajar.				
9	Kesesuaian materi dengan tujuan pembelajaran				

10	Kedalaman materi				
11	Kemudahan untuk dipahami				
12	Sistematis, runut, dan alur logika jelas.				
13	Kejelasan uraian, pembahasan, contoh, simulasi dan 97atihan.				
14	Konsistensi evaluasi dengan tujuan pembelajaran.				
15	Ketepatan dan ketetapan alat evaluasi				
16	Pemberian umpan balik terhadap hasil evaluasi				

The Dimension of Each Item Statement

According to (Findawati & Suprianto, 2014) there are two dimensions of evaluating learning media including Software engineering aspects and Learning Design aspect. The software engineering aspect measures the effectiveness and efficiency of the development of learning media that includes several dimensions such as reliability, maintainability, usability, appropriateness, compatibility. Meanwhile, learning design aspect measure the clarity and relevancy of the between learning objective and content of the media. The aspect includes the dimension of clarity, relevancy, depth, appropriateness, interactivity, motivation.

NO	DIMENSION	DEFINITION
1	Software Engineering Aspects (Media Expert Judgements)	Software engineering aspects are defined as the degree of the suitability of chosen platform to the development of the product.
2	Learning Design Aspects (Content Expert Judgements)	Learning design aspects are defined as the degree of correct use of learning strategies

NO	DIMENSION	SUB DIMENSION	DEFINITION
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1	Software Engineering	Reliability	The degree of how reliable is the games
		Interactivity	The degree of how good and interactive the games' display.
		Compatibility	The degree of how compatible the game can be played.
		Appropriateness	The degree of how the games are appropriate with the content.
2	Learning Design	Clarity	The degree of how clear is the learning objectives.
		Interactivity	The degree of how the games interact with the users.
		Contextuality	The degree of how good the game represents the learning material.
		Usability	The degree of how convenient the game is to be accessed.

Blueprint of Media and Expert Judgements

1. Content Expert Evaluation Sheet

The content expert evaluation sheet is filled by expert judges. Give a checklist mark in the scoring column and if there are comments, please fill the comment column. The content expert evaluation sheet is adapted from Findawati and Suprianto, (2014)

No	Instrument's Name	Indicators	Item Statements
1.	Content Expert	Clarity	1. The objective is clear and simple
		Interactivity	2. Interactivity in design

evaluation sheet.	Contextuality	3. Learning Objectives are in accordance with the ATP (<i>Alur Tujuan Pembelajaran</i>) Learning Objectives Flow or syllabus 4. The learning material in accordance with the Basic Competence (KD)
	Usability	5. Compatibility of the learning strategies 6. Ease to understanding learning
	Consistency	7. Suitability of the games with the learning materials. 8. Suitability of the game with the topic of material. 9. The accuracy and consistency of the games.

2. Media Expert Evaluation Sheet

The media expert evaluation sheet is filled by expert judges. Give a checklist mark in the scoring column and if there are comments, please fill the comment column. The media expert evaluation sheet is adapted from Findawati and Suprianto, (2014)

No	Instrument's Name	Indicators	Item Statements
1	Media Expert evaluation sheet	Reliability	1. Clarity Instructions use the program 2. Effectiveness of the game
		Compatibility	3. Compatible with smartphones and web 4. The ease of application management
		Interactivity	5. Readability of text/writing 6. The display's quality 7. The creativity of the design 8. Color composition
		Appropriateness	9. Appropriate selection of application or software or tool types for development

INSTRUMENT VALIDATION

The product evaluation would be done by the experts to test the quality of digital vocabulary supplementary materials as a teaching medium. In the same line, this evaluation would also be used as guidance for the research development. The expert judgment sheet contains several aspects that represent the materials namely; content evaluation and media evaluation. The content evaluation sheet is used to assess the product that is used to teach vocabulary meanwhile the media evaluation sheet was used to assess the guidance on how to use the product. Both product evaluation sheets are adapted from Findawati and Suprianto (2014). which already represents the key elements of required data to show whether a product of learning materials is appropriate or not. The following tables are the content expert evaluation sheet and media expert evaluation sheet.

Content Expert Evaluation

This evaluation sheet is filled by expert judges. Give a checklist mark (√) in the scoring column and if there are comments, they can be filled in the comment column.

The Content Expert Evaluation was adapted from Findawati and Suprianto,(2014).

No	Instrument's Name	Item Statements	Relevant	Irrelevant	Comments
1	Content Expert evaluation sheet.	k. The learning objective stated clearly.	√		
		l. Interactivity in design	√		
		m. Learning Objectives are in accordance with the ATP (<i>Alur Tujuan Pembelajaran</i>) Learning Objectives Flow or syllabus	√		
		n. The scope and depth of learning objectives	√		
		o. Contextuality between learning objectives and games	√		
		p. Boost motivation	√		

		q. Compatibility of learning strategies.	√		
		r. Ease to understanding.	√		
		s. The accuracy and consistency of the games.	√		
		t. Consistency of the games with learning objectives.			

Media Expert Evaluation Sheet

The media expert evaluation sheet is filled by expert judges. Give a checklist mark in the scoring column and if there are comments, please fill the comment column. The media expert evaluation sheet is adapted from Findawati & Suprianto, (2014)

No	Instrument's Name	Item Statements	Relevant	Irrelevant	Comment
1	Media Expert evaluation sheet	q. Clarity of the program instruction.	√		
		r. Effectiveness of the learning media.	√		
		s. Compatibility in smartphones and web	√		
		t. The ease of application management	√		
		u. Utilization of interactive design	√		
		v. Sound clarity	√		
		w. Creativity of design	√		

		x. Appropriate selection of application or software or tool types for development	√		
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Singaraja, 18 October 2022



Name I Kadek Rauh Suardana
 NIM 1912021010
 Topic ICT Materials Development
 Title Developing Vocabulary Supplementary Material Game-based Using Educandy for Tenth Grade SMA Negeri 1 Amlapura
 Games https://linktr.ee/educandy_games
 Validator Made Hery Santosa, Ph. D & Kadek Sintya Dwi, S.Pd., M. Pd.
 Institution Universitas Pendidikan Ganesha

Summary

This study is conducted to develop vocabulary game-based supplementary material for the tenth grade in SMA Negeri 1 Amlapura. Based on preliminary observation, the problem found is in the field of vocabulary mastery in tenth grade. The existing problem would be solved by developing game-based digital supplementary material using Educandy by applying Design and Development (DnD) proposed by Richey and Klein, (2005). The development of the game used to help students to improve their vocabulary through a game activity that can be accessed from a smartphone (through an app that can be downloaded from the Play store or websites). The material selected are vocabularies in the topics Personality description, nature description, things in town, village, mountain, sea, suburb, food and drink hobby, and leisure activity. The product validated through adapted content and media expert judgment proposed by Findawati and Suprianto, (2014) and the User Experience Questionnaire (UEQ) adopted from Hinderks et al., (2019).

The Origin of Instrument

Original Content and Expert Judgement

3. Media Expert Judgement

No	Pernyataan	Sangat Bagus	Bagus	Kurang	Sangat Kurang
1	Kejelasan petunjuk penggunaan program				
2	Keterbacaan teks/tulisan				
3	Kualitas tampilan gambar				

4	Sajian animasi				
5	Komposisi warna				
6	Keterjelasan suara				
7	Daya dukung musik				

4. Content Expert Judgement

No	Pernyataan	Sangat Bagus	Bagus	Kurang	Sangat Kurang
1	Kejelasan tujuan pembelajaran				
2	Relevansi tujuan pembelajaran dengan SK/KD/Kurikulum				
3	Cakupan dan kedalaman tujuan pembelajaran				
4	Ketepatan penggunaan strategi pembelajaran				
5	Interaktivitas				
6	Pemberian motivasi belajar				
7	Kontekstualitas dan aktualitas				
8	Kelengkapan dan kualitas bahan bantuan belajar.				
9	Kesesuaian materi dengan tujuan pembelajaran				
10	Kedalaman materi				
11	Kemudahan untuk dipahami				

12	Sistematis, runut, dan alur logika jelas.				
13	Kejelasan uraian, pembahasan, contoh, simulasi dan 105atihan.				
14	Konsistensi evaluasi dengan tujuan pembelajaran.				
15	Ketepatan dan ketetapan alat evaluasi				
16	Pemberian umpan balik terhadap hasil evaluasi				

The Dimension of Each Item Statement

According to (Findawati & Suprianto, 2014) there are two dimensions of evaluating learning media including Software engineering aspects and Learning Design aspect. The software engineering aspect measures the effectiveness and efficiency of the development of learning media that includes several dimensions such as reliability, maintainability, usability, appropriateness, compatibility. Meanwhile, learning design aspect measure the clarity and relevancy of the between learning objective and content of the media. The aspect includes the dimension of clarity, relevancy, depth, appropriateness, interactivity, motivation.

NO	DIMENSION	DEFINITION
1	Software Engineering Aspects (Media Expert Judgements)	Software engineering aspects are defined as the degree of the suitability of chosen platform to the development of the product.
2	Learning Design Aspects (Content Expert Judgements)	Learning design aspects are defined as the degree of correct use of learning strategies

NO	DIMENSION	SUB DIMENSION	DEFINITION
1	Software Engineering	Reliability	The degree of how reliable is the games

		Interactivity	The degree of how good and interactive the games' display.
		Compatibility	The degree of how compatible the game can be played.
		Appropriateness	The degree of how the games are appropriate with the content.
2	Learning Design	Clarity	The degree of how clear is the learning objectives.
		Interactivity	The degree of how the games interact with the users.
		Contextuality	The degree of how good the game represents the learning material.
		Usability	The degree of how convenient the game is to be accessed.

Blueprint of Media and Expert Judgements

2. Content Expert Evaluation Sheet

The content expert evaluation sheet is filled by expert judges. Give a checklist mark in the scoring column and if there are comments, please fill the comment column. The content expert evaluation sheet is adapted from Findawati and Suprianto, (2014)

No	Instrument's Name	Indicators	Item Statements
3.	Content Expert	Clarity	10. The objective is clear and simple
		Interactivity	11. Interactivity in design

evaluation sheet.	Contextuality	12. Learning Objectives are in accordance with the ATP (<i>Alur Tujuan Pembelajaran</i>) Learning Objectives Flow or syllabus 13. The learning material in accordance with the Basic Competence (KD)
	Usability	14. Compatibility of the learning strategies 15. Ease to understanding learning
	Consistency	16. Suitability of the games with the learning materials. 17. Suitability of the game with the topic of material. 18. The accuracy and consistency of the games.

4. Media Expert Evaluation Sheet

The media expert evaluation sheet is filled by expert judges. Give a checklist mark in the scoring column and if there are comments, please fill the comment column. The media expert evaluation sheet is adapted from Findawati and Suprianto, (2014)

No	Instrument's Name	Indicators	Item Statements
1	Media Expert evaluation sheet	Reliability	10. Clarity Instructions use the program 11. Effectiveness of the game
		Compatibility	12. Compatible with smartphones and web 13. The ease of application management
		Interactivity	14. Readability of text/writing 15. The display's quality 16. The creativity of the design 17. Color composition
		Appropriateness	18. Appropriate selection of application or software or tool types for development

INSTRUMENT VALIDATION

The product evaluation was done by the experts to test the quality of digital vocabulary supplementary materials as a teaching medium. In the same line, this evaluation also used as guidance for the research development. The expert judgment sheet contains several aspects that represent the materials namely; content evaluation and media evaluation. The content evaluation sheet is used to assess the product that is used to teach vocabulary meanwhile the media evaluation sheet used to assess the guidance on how to use the product. Both product evaluation sheets are adapted from Findawati and Suprianto (2014). which already represents the key elements of required data to show whether a product of learning materials is appropriate or not. The following tables are the content expert evaluation sheet and media expert evaluation sheet.

Content Expert Evaluation

This evaluation sheet is filled by expert judges. Give a checklist mark (√) in the scoring column and if there are comments, they can be filled in the comment column.

The Content Expert Evaluation was adapted from Findawati and Suprianto,(2014).

No	Instrument's Name	Item Statements	Relevant	Irrelevant	Comments
1	Content Expert evaluation sheet.	u. The learning objective stated clearly.	√		
		v. Interactivity in design	√		
		w. Learning Objectives are in accordance with the ATP (<i>Alur Tujuan Pembelajaran</i>) Learning Objectives Flow or syllabus	√		
		x. The scope and depth of learning objectives	√		
		y. Contextuality between learning objectives and games	√		

		z. Boost motivation	√		
		aa. Compatibility of learning strategies.	√		
		bb. Ease to understanding.	√		
		cc. The accuracy and consistency of the games.	√		
		dd. Consistency of the games with learning objectives.			

Media Expert Evaluation Sheet

The media expert evaluation sheet is filled by expert judges. Give a checklist mark in the scoring column and if there are comments, please fill the comment column. The media expert evaluation sheet is adapted from Findawati & Suprianto, (2014)

No	Instrument's Name	Item Statements	Relevant	Irrelevant	Comment
1	Media Expert evaluation sheet	y. Clarity of the program instruction.	√		
		z. Effectiveness of the learning media.	√		
		aa. Compatibility in smartphones and web	√		
		bb. The ease of application management	√		
		cc. Utilization of interactive design	√		
		dd. Sound clarity	√		

		ee. Creativity of design	√		
		ff. Appropriate selection of application or software or tool types for development	√		

Singaraja, 18 October 2022



Kadek Sintya Dwi, S.Pd., M. Pd.
NIP. 19880323015042004

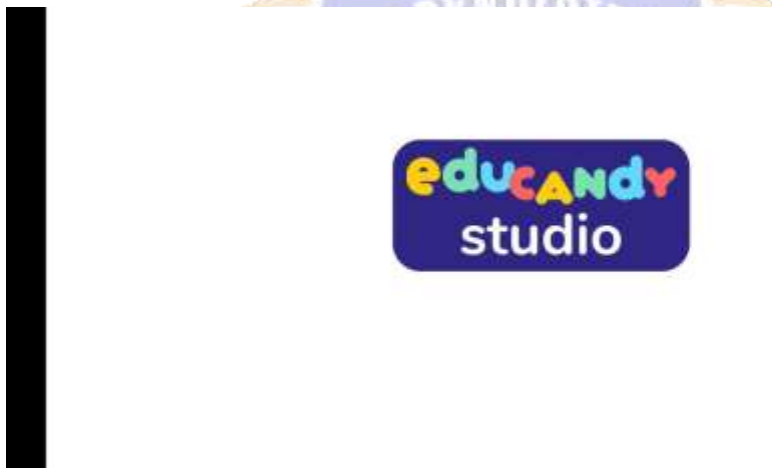


Appendix 7 Vocabulary Supplementary Material Game-based Using Educandy

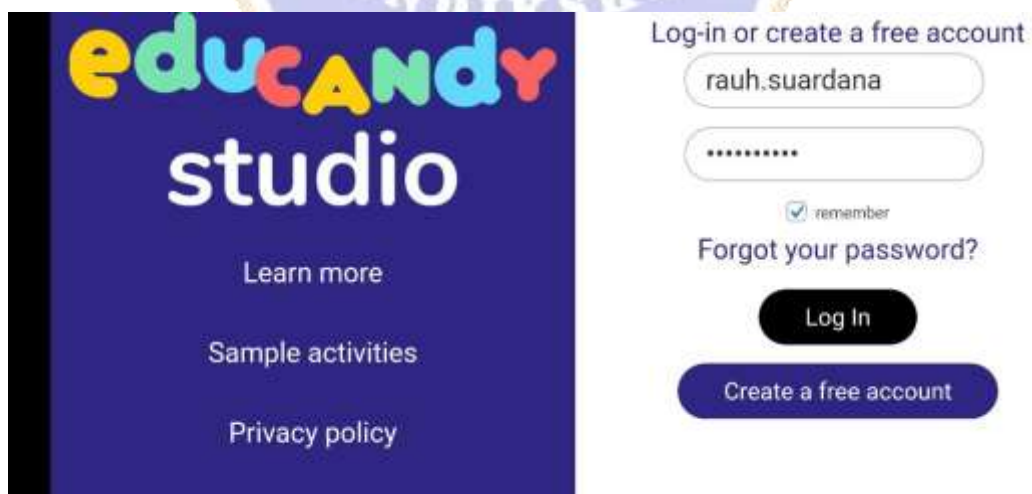
Vocabulary Supplementary Material Game-based Using Educandy for Tenth Grade SMA Negeri 1 Amlapura

There are five topics of Vocabulary supplementary material developed using Educandy. The topics are personality description in the field of descriptive text, nature description in the field of descriptive text, Things in town, village, mountain, sea, suburb in the field of narrative text, foods and drinks in the field of procedure text, hobbies and leisure activities in the field of recount text. The material developed in the form of games to help students to learn vocabulary. since there are five topics, there were be five separated games using Educandy. There were 110 new vocabularies in total that could be learned from the games. the following information is how to use the games developed using Educandy.

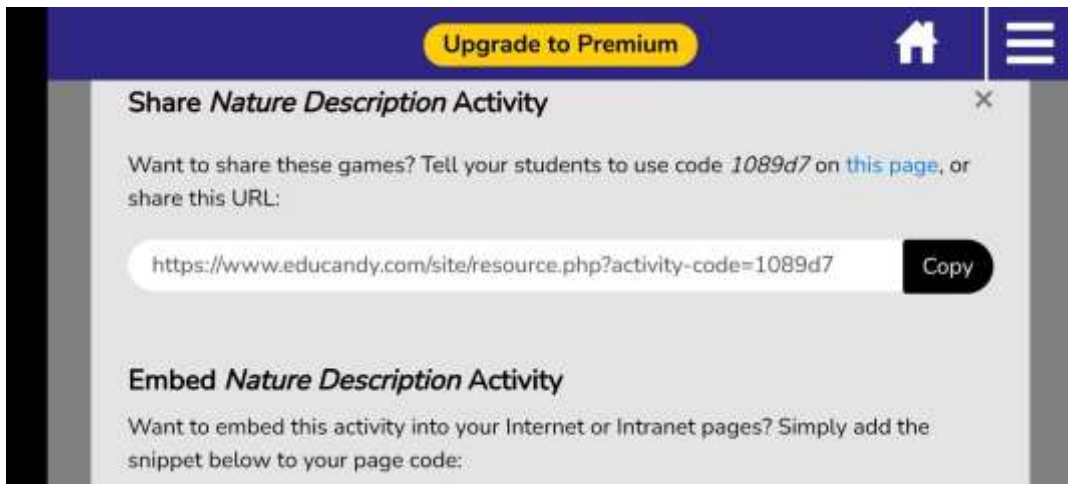
1. Open Educandy Studio



2. Log in into Educandy Studio



3. Click Share link of the game to the students



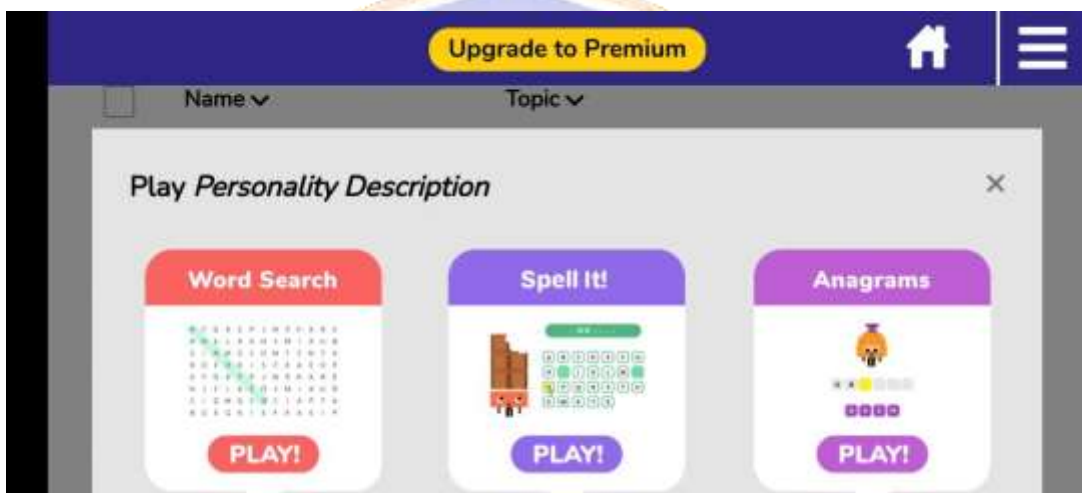
4. Students click link given by the teacher of links or QR code



5. Vocabulary game; Nature Description



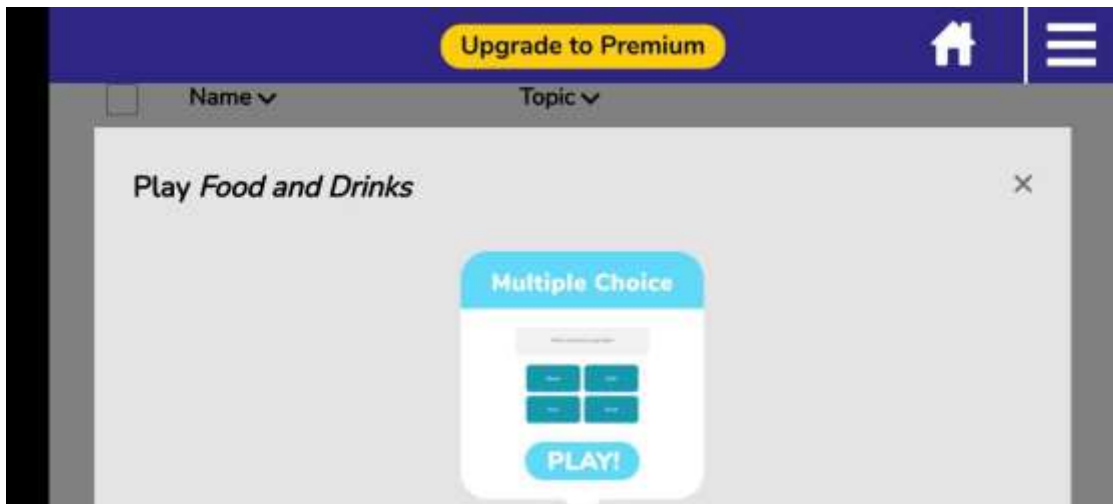
6. Vocabulary game; Personality Description



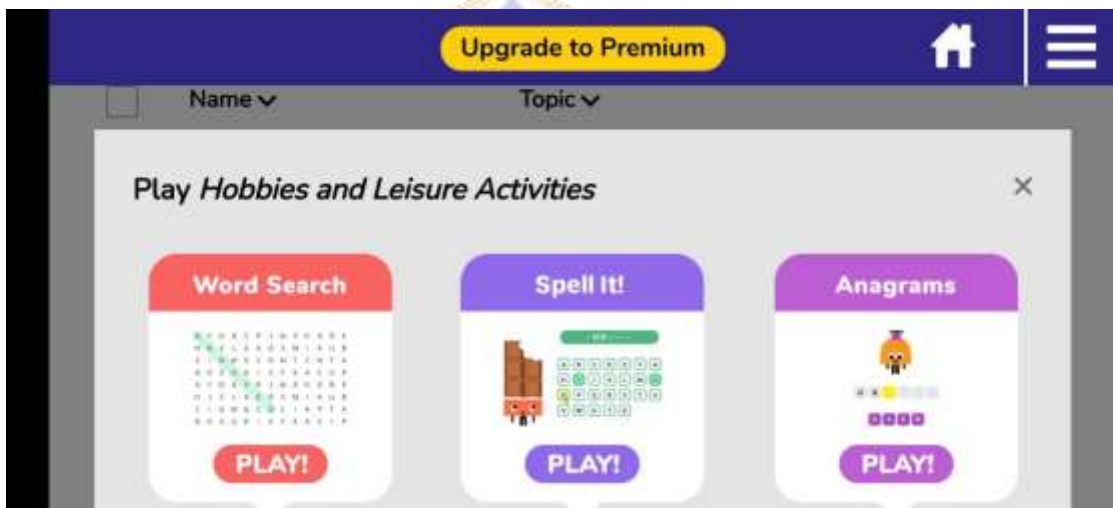
7. Vocabulary Game; Things in town, village, mountain, sea and suburb



8. Vocabulary Game; Foods and Drinks





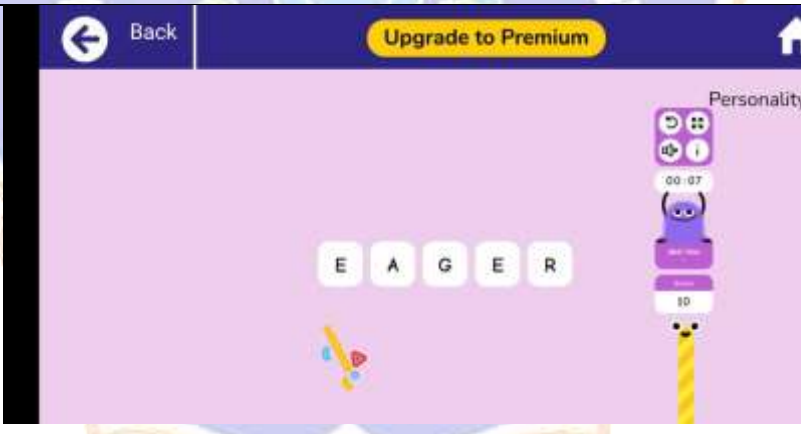
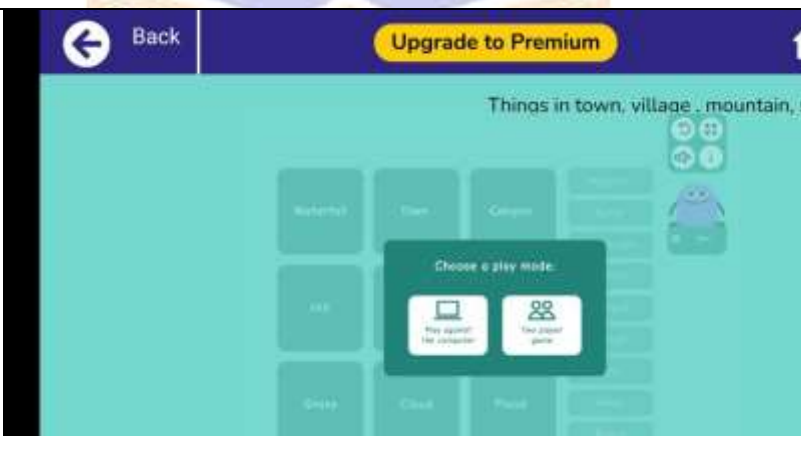
9. Vocabulary Game; hobbies and leisure activities



The following information are the design of the games

No	Topic	Game	Types of Game1
1	Nature Description		Nought and Crosses

		Crosswords
		Match-up
		Memory
		Multiple Choice

2	Personality Description		Word search
			Spell it
			Anagrams
3	Things in town, village, mountain, sea, suburb		Nought and crosses



Crosswords



Match-up



Memory



Multiple Choice

4	Foods and Drinks		Multiple Choice
5	Hobbies and Leisure Activities		Word search
			Spell it
			Anagrams

Appendix 8 Raw data of UEQ

Cap waktu	Nama	NIP/ No Absen	Email	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
2022/11/07 8:54:20 AM GMT+8	I Made Reeyza	18	madereeyza@gmail.com	6	7	5	2	1	5	6	7	4	6	6	2	4	6	1	4	1	4	4	5	1	7	1	3	1	5
2022/11/07 8:56:36 AM GMT+8	Ni Luh Putu Ningsih	35	niputu936@gmail.com	7	6	2	1	1	6	7	6	2	2	6	1	6	7	6	6	2	2	2	6	2	7	3	2	2	6
2022/11/07 8:56:50 AM GMT+8	Ida Ayu Made Winda Dewi Pradnyani	22	winzgalery@gmail.com	7	6	1	1	2	6	6	5	1	2	6	1	7	7	6	7	1	1	1	6	1	7	2	1	1	7
2022/11/07 8:56:55 AM GMT+8	I Gede Suta Kumara	7	gedesutakumara@gmail.com	7	7	2	3	3	7	7	7	1	7	7	1	7	7	7	7	1	1	1	7	1	7	1	1	1	7
2022/11/07 8:57:19 AM GMT+8	I Komang Priyanka Supanji	15	priankasupanji@gmail.com	7	7	1	2	1	6	7	6	2	2	7	2	7	6	7	6	2	1	1	6	1	5	3	1	1	7
2022/11/07 8:57:31 AM GMT+8	Fayme Suteja	1	faymesuteja12@gmail.com	6	6	3	2	3	5	6	4	5	3	6	3	5	6	6	6	2	3	3	5	1	7	2	3	2	6
2022/11/07 8:57:46 AM GMT+8	I Gusti Ayu Wulan Prabandari	9	ulanprabandari05@gmail.com	7	6	2	1	3	6	6	4	3	4	6	2	7	6	5	6	2	1	2	5	3	6	3	2	1	6
2022/11/07 8:57:47 AM GMT+8	I Gusti Ayu Shinta Oktaviani	8	shintaokta2020@gmail.com	7	6	2	1	3	6	6	5	4	4	6	2	6	6	3	6	2	2	3	6	2	6	2	2	2	6
2022/11/07 8:57:51 AM GMT+8	Ni Kadek Ratih Senja Pratiwi	29	ratihpratiwi4568@gmail.com	7	6	3	3	2	7	7	6	3	2	6	1	4	6	2	6	2	2	2	6	1	5	3	1	2	6

2022/11/07 8:58:29 AM GMT+8	Kanaya Maharane Wijaya	24	naya15806@gmail.com	5	6	2	1	1	5	6	6	2	4	6	2	6	6	5	6	3	2	2	6	2	6	2	2	2	6
2022/11/07 8:58:37 AM GMT+8	I Komang Kevin Aditya Sariana	14	kevinaditya179007@gmail.com	7	6	1	2	1	5	7	7	2	3	4	1	7	6	6	7	1	4	2	7	3	7	3	1	2	7
2022/11/07 8:58:41 AM GMT+8	Ni Wayan fitri pedianti	39	wayanfitri42@gmail.com	7	6	5	1	1	7	6	7	2	6	6	1	5	6	6	6	2	1	2	6	2	6	2	1	1	6
2022/11/07 8:59:09 AM GMT+8	I Kadek Soma Malvino	10	malvinomalvino81@gmail.com	1	1	7	7	1	7	7	1	7	1	7	7	7	1	7	1	1	1	7	1	7	1	1	1	1	5
2022/11/07 8:59:19 AM GMT+8	Ni Komang Tri Cahaya Dewi	32	cahyaaatri@gmail.com	6	7	1	1	2	6	7	2	1	1	7	2	7	6	1	6	1	1	2	6	2	6	1	1	2	6
2022/11/07 8:59:22 AM GMT+8	Ni kadek jenyanti putri	27	jenyputri70@gmail.com	7	7	2	1	1	7	7	7	3	5	6	1	7	7	2	7	1	1	2	6	1	7	7	1	1	6
2022/11/07 8:59:25 AM GMT+8	Ni Luh Andini	8.57E+10	niluhandininni@gmail.com	7	7	1	1	2	7	7	6	1	1	7	2	7	7	7	6	1	2	2	7	1	7	1	1	2	1
2022/11/07 8:59:31 AM GMT+8	NI NYOMAN IRMA ARIANI	37	niirmaariani@gmail.com	7	7	5	1	1	5	5	7	4	4	6	3	7	6	4	7	1	3	2	4	1	5	2	3	2	6
2022/11/07 8:59:38 AM GMT+8	I Made Arya Bablu Pranata	16	skyb74310@gmail.com	7	4	7	1	3	6	5	7	4	2	6	1	7	5	7	6	2	1	2	7	1	6	3	1	1	7
2022/11/07 8:59:47 AM GMT+8	Ni Kadek Mia Ulandari	28	ulandarimia780@gmail.com	7	6	4	2	1	6	7	5	5	3	7	1	6	6	5	7	1	2	3	5	2	4	3	2	2	6
2022/11/07 8:59:47 AM GMT+8	Ni Kadek Celsi Aldirta	26	adexecy24@gmail.com	7	7	2	1	1	7	7	7	2	3	7	2	6	7	6	7	2	1	2	7	2	6	3	2	1	6

2022/11/07 9:00:34 AM GMT+8	Ni Ketut Setiawati	30	setiawatii0912@gmail.com	2	6	6	2	2	7	6	6	2	6	6	2	6	7	2	6	1	2	2	6	7	7	1	2	1	1
2022/11/07 9:00:43 AM GMT+8	Ni Komang Sriasih	31	sriasihkomang771@gmail.com	5	6	1	1	1	7	5	6	2	6	7	2	6	6	6	6	2	2	1	6	1	6	2	3	1	6
2022/11/07 9:00:44 AM GMT+8	IKOMANG AGUS WISNU SAPUTRA	13	komangaguswisnusaputra@gmail.com	1	1	3	5	2	1	2	6	4	7	1	4	5	2	1	2	5	4	6	1	7	2	5	3	4	5
2022/11/07 9:00:54 AM GMT+8	I Made Dwiyantara	17	dwikdwiyantara@gmail.com	1	2	6	2	7	1	1	1	3	6	2	1	6	6	3	6	1	1	1	7	1	7	1	1	1	7
2022/11/07 9:01:48 AM GMT+8	Ni Luh Meitha Sugiantari	34	meitasugiantari@gmail.com	7	5	1	2	1	7	7	7	1	5	7	1	7	6	7	7	1	1	2	7	1	7	6	1	1	1
2022/11/07 9:01:56 AM GMT+8	Komang Ayu Wulandari	25	Komangayux992@gmail.com	6	7	1	2	3	5	7	3	4	5	6	7	7	7	4	7	1	1	1	2	1	5	3	4	1	2
2022/11/07 9:03:19 AM GMT+8	Pande komang Rama yasa	40	Panderama703@gmail.com	2	2	7	6	6	1	4	7	4	7	5	5	7	4	4	7	7	1	7	5	7	6	7	6	5	3
2022/11/07 9:04:50 AM GMT+8	I Gede Agus Widnyana	3	dde851017@gmail.com	1	7	1	1	1	7	7	7	4	4	2	3	5	3	5	3	3	3	4	4	3	6	3	2	1	2
2022/11/07 9:06:29 AM GMT+8	I gede abie jupan putra darmadi	2	gedeabi3@gmail.com	6	6	1	3	1	7	7	5	2	2	7	1	6	7	7	7	1	3	1	5	1	6	1	2	1	6
2022/11/07 9:09:21 AM GMT+8	Ni Nengah Aprillia	36	iketutastika5@gmail.com	5	4	5	4	7	6	5	7	6	5	7	6	5	7	5	4	6	7	6	6	2	7	2	4	3	5
2022/11/07 11:54:43 AM GMT+8	Ni Made Arini Dwijayanti	1.98E +17	nimadearinidwijayanti@gmail.com	7	7	7	1	1	7	7	6	1	1	7	1	7	7	7	7	1	1	1	7	1	7	1	1	1	7

				1	1	9	6	6	1	1	1	9	1	1	7	1	1	1	1	6	6	7	1	6	1	8	6	5	1
				7	7	7	4	6	7	8	7	1	1	8	1	9	8	5	8	0	2	9	7	9	8	0	1	0	6
				2	4			8	7	3		9	2		2	2	0	2				0		4				3	



Appendix 9 Result of UEQ

Item	Mean	Variance	Std. Dev.	No.	Left	Right	Scale	
1	1.5	4.9	2.2	31	annoying	enjoyable	Attractiveness	
2	1.6	3.2	1.8	31	not understandable	understandable	Perspicuity	
3	0.9	4.8	2.2	31	creative	dull	Novelty	
4	1.9	2.4	1.5	31	easy to learn	difficult to learn	Perspicuity	
5	1.9	2.9	1.7	31	valuable	inferior	Stimulation	
6	1.7	3.1	1.8	31	boring	exciting	Stimulation	
7	2.0	2.2	1.5	31	not interesting	interesting	Stimulation	
8	1.6	3.1	1.8	31	unpredictable	predictable	Dependability	
9	1.1	2.5	1.6	31	fast	slow	Efficiency	
10	0.2	3.8	2.0	31	inventive	conventional	Novelty	
11	1.9	2.4	1.6	31	obstructive	supportive	Dependability	
12	1.7	3.1	1.8	31	good	bad	Attractiveness	
13	2.2	0.9	0.9	31	complicated	easy	Perspicuity	
14	1.9	2.2	1.5	31	unlikable	pleasing	Attractiveness	
15	0.8	4.1	2.0	31	usual	leading edge	Novelty	
16	1.9	2.3	1.5	31	unpleasant	pleasant	Attractiveness	
17	2.1	2.3	1.5	31	secure	not secure	Dependability	
18	2.0	1.9	1.4	31	motivating	demotivating	Stimulation	
19	1.5	3.1	1.7	31	meets expectations	does not meet expectations	Dependability	
20	1.5	2.7	1.6	31	inefficient	efficient	Efficiency	
21	1.8	3.9	2.0	31	clear	confusing	Perspicuity	
22	1.9	2.1	1.4	31	impractical	practical	Efficiency	
23	1.4	2.8	1.7	31	organized	cluttered	Efficiency	
24	2.0	1.4	1.2	31	attractive	unattractive	Attractiveness	
25	2.4	0.9	1.0	31	friendly	unfriendly	Attractiveness	
26	1.3	3.7	1.9	31	conservative	innovative	Novelty	