Survey on factors which determine game mechanics selection, design and presentation during the design of effective educational games.

This survey purpose is to investigate educational game expert's perspective on how game elements are selected and presented to ensure adequate learning during the design of educational games. The distinction between procedural processes and creative processes during design are also explored. This survey is reserved for educational game experts to share their practice or knowledge on how they design an effective educational game.

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Objectives of this Survey

- 1. To understand the state of the art in the design of effective educational games.
- 2. To study learning elements relevant to the game mechanics selection, design and presentation during design of effective educational games.
- 3. To identify which activities are procedural activities and which ones are subject to the creative power c the designer during the design of an effective educational game.

Participant Information

This section aims to capture the participant views based on their expertise in the subject and other valuable data for research purposes only. No personal data will be collected. Data such as contact information is only collected for follow up purposes and will not be disclosed or published along with the results of the study.

1.	Participant's understanding of digital educational games *
	Mark only one oval.
	Expert
	Knowledgeable
	Novice

2.	Primary role of the participant *	
	Mark only one oval.	
	Game designer	
	Game researcher	
	Game programmer	
	Instructional designer	
	Interaction designer	
3.	Experience *	
	Mark only one oval.	
	1-5 Years	
	6-10 Years	
	10+ Years	
4.	Country *	Dropdc
	Mark only one oval.	
	Afghanistan	
	Akrotiri	
	Albania	
	Algeria	
	American Samoa	
	Andorra	
	Angola	
	Anguilla	
	Antarctica	
	Antigua and Barbuda	
	Argentina	
	Armenia	
	Aruba	
	Ashmore and Cartier Islands	

Australia
Austria
Azerbaijan
Bahamas, The
Bahrain
Bangladesh
Barbados
Bassas da India
Belarus
Belgium
Belize
Benin
Bermuda
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Bouvet Island
Brazil
Brazil British Indian Ocean Territory
British Indian Ocean Territory
British Indian Ocean Territory British Virgin Islands
British Indian Ocean Territory British Virgin Islands Brunei
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso Burma
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso Burma Burundi
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso Burma Burundi Cambodia
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso Burma Burundi Cambodia Cameroon
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso Burma Burundi Cambodia Cameroon Canada
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso Burma Burundi Cambodia Cameroon Canada Cape Verde
British Indian Ocean Territory British Virgin Islands Brunei Bulgaria Burkina Faso Burma Burundi Cambodia Cameroon Canada Cape Verde Cayman Islands

China
Christmas Island
Clipperton Island
Cocos (Keeling) Islands
Colombia
Comoros
Congo, Democratic Republic of the
Congo, Republic of the
Cook Islands
Coral Sea Islands
Costa Rica
Cote d'Ivoire
Croatia
Cuba
Cyprus
Czech Republic
Denmark
Dhekelia
Djibouti
Dominica
Ominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Estonia
Ethiopia
Europa Island
Falkland Islands (Islas Malvinas)
Faroe Islands
Fiji
Finland
France

French Guiana
French Polynesia
French Southern and Antarctic Lands
Gabon
Gambia, The
Gaza Strip
Georgia
Germany
Ghana
Gibraltar
Glorioso Islands
Greece
Greenland
Grenada
Guadeloupe
Guam
Guatemala
Guernsey
Guinea
Guinea-Bissau
Guyana
Haiti
Heard Island and McDonald Islands
Holy See (Vatican City)
Honduras
Hong Kong
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Isle of Man

Israel
Italy
Jamaica
Jan Mayen
Japan
Jersey
Jordan
Juan de Nova Island
Kazakhstan
Kenya
Kiribati
Korea, North
Korea, South
Kuwait
Kyrgyzstan
Laos
Latvia
Lebanon
Lesotho
Liberia
Libya
Liechtenstein
Lithuania
Luxembourg
Macau
Macedonia
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Marshall Islands
Martinique

Mauritania
Mauritius
Mayotte
Mexico
Micronesia, Federated States of
Moldova
Monaco
Mongolia
Montenegro
Montserrat
Morocco
Mozambique
Namibia
Nauru
Navassa Island
Nepal
Netherlands
Netherlands Antilles
New Caledonia
New Zealand
Nicaragua
Niger
Nigeria
Niue
Norfolk Island
Northern Mariana Islands
Norway
Oman
Pakistan
Palau
Panama
Papua New Guinea
Paracel Islands
Paraguay

Peru
Philippines
Pitcairn Islands
Poland
Portugal
Puerto Rico
Qatar
Reunion
Romania
Russia
Rwanda
Saint Helena
Saint Kitts and Nevis
Saint Lucia
Saint Pierre and Miquelon
Saint Vincent and the Grenadines
Samoa
San Marino
Sao Tome and Principe
Saudi Arabia
Senegal
Serbia
Seychelles
Sierra Leone
Singapore
Slovakia
Slovenia
Solomon Islands
Somalia
South Africa
South Georgia and the South Sandwich Islands
Spain
Spratly Islands
Sri Lanka

Sudan
Suriname
Svalbard
Swaziland
Sweden
Switzerland
Syria
Taiwan
Tajikistan
Tanzania
Thailand
Timor-Leste
Togo
Tokelau
Tonga
Trinidad and Tobago
Tromelin Island
Tunisia
Turkey
Turkmenistan
Turks and Caicos Islands
Tuvalu
Uganda
Ukraine
United Arab Emirates
United Kingdom
United States
Uruguay
Uzbekistan
Vanuatu
Venezuela
Vietnam
Virgin Islands
Wake Island

Wallis and Futuna
West Bank
Western Sahara
Yemen
Zambia
Zimbabwe
Mechanics Selection
This section focuses on elements which define how learning mechanics match with some game mechanics. Each attribute can be matched based on your expertise and opinion on which mechanics are best suited for the corresponding learning element.
Learner and Mechanics Selection Hypothesis: Learner attributes such as their personality, learning style, and preferences influence which game mechanics should be adopted to favour effective learning.
5. During educational game design, learner attributes such as the learner personality, learner's dominant learning style, and their game genre preferences influence the game mechanics to be adopted.
Mark only one oval.
Strongly disagree
Disagree
Neutral
Agree
Strongly agree

	Unimportant	Slightly Important	Moderately Important	Important	Very Import
Learner's personality					
Learner's game genre preferences					
Learner's dominant learning style					
Language description (1997)					
Learner's demographic data (age, gender, culture, etc.) Match the following learner attreffective educational games. Mark only one oval per row.	Mechanics Selection	where they are Mechan Presenta	ics Both	Selection and esentation	
(age, gender, culture, etc.) Match the following learner attention of the following l	Mechanics	Mechan	ics Both	Selection and	
(age, gender, culture, etc.) Match the following learner attreeffective educational games. Mark only one oval per row.	Mechanics	Mechan	ics Both	Selection and	
(age, gender, culture, etc.) Match the following learner attreffective educational games. Mark only one oval per row. Learner's personality Learner's game genre	Mechanics	Mechan	ics Both	Selection and	

How important are the following learner attributes to mechanics selection during the design of an

	Never	Rarel	y Sometime	s Often	Alway
Learner's personality					
Learner's game genre preferences					
Learner's dominant learning style					
Learner's demography (age, gender, culture, etc)					
How frequently do the following learners' attri	ibutes influ	ience the {	game rewards de	esign? *	
	Never	Rarely	Sometimes	Often	Always
Learner's personality					
Learner's game genre preferences					
Learner's dominant learning style					
Learner's demography (age, gender, etc.)					
How frequently do the following learners' att Mark only one oval per row.	ributes inf	luence the	e level progressio	on design?	*
	Never	Rarely	Sometimes	Often	Always
Learner's personality					
Learner's personality Learner's game genre preferences					

How frequently do the following learners' attributes influence the gameplay design? *

Mark only one aval nor row					
Mark only one oval per row.					
	Never	Rarely	Sometimes	Often	Al
Learner's personality					(
Learner's game genre preferences					(
Learner's dominant learning style					(
Learner's demography (age, gender, etc.)					(
How frequently do the following learners' at theme/type/genre selection? Mark only one oval per row.	tributes in	fluence the	game environn	nent and g	game
	Never	Rarely	Sometimes	Often	Alw
Learner's personality					
Leaner's game genre preferences					
Leaner's dominant learning style					
Leaner's dominant learning style Leaner's demography (age, gender, etc)					
Leaner's demography (age, gender, etc) How frequently do the following learners' at	tributes in	fluence the	game story/nar	Often	
Leaner's demography (age, gender, etc) How frequently do the following learners' at					
Leaner's demography (age, gender, etc) How frequently do the following learners' at Mark only one oval per row.					
Leaner's demography (age, gender, etc) How frequently do the following learners' at Mark only one oval per row. Learner's personality					sign?

How frequently do the following learners' attributes influence the game environment and game asset

14.	Other comments on how player characteristics influence the game mechanics selection.
Ме	echanics Selection II
	ning design and game mechanics design othesis: An Instructional strategy is best implemented using some game mechanics.
15.	During the design of effective educational games, learning elements such as learning theory and Bloom learning outcomes influence the selection of game mechanics.
	Mark only one oval.
	Strongly Disagree
	Disagree
	Neutral
	Agree
	Strongly Agree

	Unimportant	Slightly Important	Moderately Important	Important	Very Importa
Learning theories					
Learning environment					
Learning outcomes					
Learning objects					
Match the following effective educational	games.	based on where they	are most applica	able during the	design of
_	games. er row. Mechanics	Mechanics	Both S	Selection and	design of None
effective educational	games. er row.		Both S		
effective educational	games. er row. Mechanics	Mechanics	Both S	Selection and	
effective educational Mark only one oval poly Learning	games. er row. Mechanics	Mechanics	Both S	Selection and	
effective educational Mark only one oval per Learning theories Learning	games. er row. Mechanics	Mechanics	Both S	Selection and	

Indicate how important the following learning design elements are in the selection and design of

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1

effective educational game mechanics.

Mark only one oval per row.

	Never	Rarely	Sometimes	Often	Always
Gameplay (action and rules)					
Game rewards					
Level progression					
Game levels					
Game environment					
Game theme/type/genre					
Game assets					
Game story/narratives					
mechanics?	ning outco	mes taxono	omy influence th	ne design (of the follow
mechanics?	ning outco	mes taxono Rarely	omy influence the	ne design o Often	of the follow Always
How frequently do Bloom's learn mechanics? Mark only one oval per row. Gameplay (action and rules)					
mechanics? Mark only one oval per row.					
mechanics? Mark only one oval per row. Gameplay (action and rules)					
mechanics? Mark only one oval per row. Gameplay (action and rules) Game rewards					
Mark only one oval per row. Gameplay (action and rules) Game rewards Level progression					
Mark only one oval per row. Gameplay (action and rules) Game rewards Level progression Game levels					
Mark only one oval per row. Gameplay (action and rules) Game rewards Level progression Game levels Game environment					

How frequently do learning theories influence the design of the following game mechanics? *

	Never	Rarely	Sometimes	Often	Always
Gameplay (action and rules)					
Game rewards					
Level progression					
Game levels					
Game environment					
Game theme/type/genre					
Game assets					
Game story/narratives					
the design of effective educations		uence the	design of the fo	llowing ga	me mechani
the design of effective educations	al games?				
he design of effective educations		Rarely	design of the fo	Often	me mechani
the design of effective educational	al games?				
the design of effective educations Mark only one oval per row. Gameplay (actions and rules)	al games?				
Game rewards	al games?				
che design of effective educations Mark only one oval per row. Garneplay (actions and rules) Garne rewards Level progression	al games?				
Che design of effective educations Mark only one oval per row. Gameplay (actions and rules) Game rewards Level progression Game levels	al games?				
he design of effective educations Mark only one oval per row. Gameplay (actions and rules) Game rewards Level progression Game levels Game environment	al games?				

How frequently do the learning objectives influence the design of the following game mechanics durin

20.

the design of effective educational games?

	Mechanic: Selection		Mecha Present		Both Sele Preser	ction and ntation	No
Constructivism)			
Behaviourism)		\supset	
Cognitivism)		\supset	
Humanism)			
Connectionism)			
How frequently does co design of effective educa Mark only one oval per r	ational gar		ct the desig	n of the follow	ing game n	nechanics dur	ring th
design of effective educa	ational gar row.	nes?					ing th
design of effective educa	ational gar row.	nes?					ing th
design of effective education Mark only one oval per r Gameplay (action and	ational gar row.	nes?					ing th
design of effective education Mark only one oval per r Gameplay (action and Game rewards	ational gar	nes?					ing th
design of effective education Mark only one oval per r Gameplay (action and Game rewards Game levels	ational gar	nes?					ing th
design of effective education Mark only one oval per r Gameplay (action and Game rewards Game levels Environment and setti	ational gar	nes?					ing th

Match the following learning theories based on where they are most applicable during the design of

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effective educational games.

	Never	Rarely	Sometimes	Often	Always
Gameplay (action and rules)					
Game rewards					
Game levels					
Environment and Setting					
Game theme/type/genre					
Game assets					
How frequently does cognitivis f effective educational games?	m affect tl	ne design o	f the following	game mec	hanics duri
Game story/narratives How frequently does cognitivis of effective educational games? Mark only one oval per row.	m affect the	ne design o	f the following	game mec	hanics duri
Iow frequently does cognitivis f effective educational games? Iark only one oval per row.					
How frequently does cognitivis f effective educational games? Hark only one oval per row. Gameplay (action and rules)					
How frequently does cognitivis of effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards					
How frequently does cognitivis of effective educational games?					
How frequently does cognitivis of effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels					
How frequently does cognitivis f effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels Environment and setting					

How frequently does **behaviourism** affect the design of the following game mechanics during the

	Never	Rarely	Sometimes	Often	Always
Gameplay (action and rules)					
Game rewards					
Game levels					
Environment and setting					
Game theme/type/genre					
Game assets					
Game story/narratives					
How frequently does connectio nechanics during the design of o				the design	of the follow
How frequently does connectio mechanics during the design of o		ducational		the design	
How frequently does connectio nechanics during the design of one oval per row.	effective ec		games?		of the follow
How frequently does connectio mechanics during the design of o	effective ed	ducational	games?		
How frequently does connection mechanics during the design of one oval per row. Gameplay (action and rules)	effective ed	ducational	games?		
How frequently does connection mechanics during the design of one oval per row. Gameplay (action and rules) Game rewards	effective ed	ducational	games?		
How frequently does connection mechanics during the design of a Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels	effective ed	ducational	games?		
How frequently does connection nechanics during the design of of Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels Environment and setting	effective ed	ducational	games?		

How frequently does humanism affect the design of the following game mechanics during the design

Iechanics Selection III						
om's learning outcomes						
om's learning outcomes pothesis: The Bloom's learning out	comes (re	memberin	g, understandir	ng, applyir	ng, analysin	ıg, eva
d creating) affect the mechanics de	esign of a	n effective	educational ga	ime.		
9. How frequently does remembe design of effective educational g		the desigr	of the followin	g game m	echanics du	ring t
1 3	ames?					ring t
design of effective educational g		Rarely	Sometimes	g game m	Always	ring t
design of effective educational g Mark only one oval per row.	ames?					ring t
design of effective educational g Mark only one oval per row. Gameplay (action and rules)	ames?					ring t
design of effective educational g Mark only one oval per row. Gameplay (action and rules) Game rewards	ames?					ring t
design of effective educational g Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels	ames?					ring t
design of effective educational g Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels Environment and setting	ames?					ring ti

	Never	Rarely	Sometimes	Often	Always
Gameplay (action and rules)					
Garne rewards					
Game levels					
Environment and setting					
Game theme/type/genre					
Game assets					
Game story/narratives How frequently does applying a effective educational games? Mark only one oval per row.	affect the d	lesign of th	ne following gan	ne mechan	ics during t
How frequently does applying a	affect the d	lesign of th	ne following gan	ne mechan	ics during t
How frequently does applying a					
How frequently does applying a ffective educational games? Mark only one oval per row. Gameplay (action and rules)					
How frequently does applying a ffective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards					
How frequently does applying a effective educational games? Mark only one oval per row.					
How frequently does applying a effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels					
How frequently does applying a ffective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels Environment and setting					

How frequently does **understanding** affect the design of the following game mechanics during the

	Never	Rarely	Sometimes	Often	Always
Gameplay (action and rules)					
Game rewards					
Game levels					
Environment and setting					
Game theme/type/genre					
Game assets					
Como eten/perretivos					
How frequently does evaluatin of effective educational games?	g affect the	e design of	the following g	ame mech	anics during
How frequently does evaluatin f effective educational games?	g affect the		the following g	ame mech	
Iow frequently does evaluatin f effective educational games? Iark only one oval per row.		e design of Rarely			anics during
How frequently does evaluating of effective educational games? Mark only one oval per row. Gameplay (action and rules)					
How frequently does evaluating of effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels					
How frequently does evaluating of effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards					
How frequently does evaluating of effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels					
How frequently does evaluating of effective educational games? Mark only one oval per row. Gameplay (action and rules) Game rewards Game levels Environment and setting					

How frequently does $\boldsymbol{analysing}$ affect the design of the following game mechanics during the design o

Game rewards Game levels Environment and setting Game theme/type/genre Game assets Game story/narratives Came story/narratives Came outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection, design and any other comments on Bloom's learning outcomes effect on mechanics selection.		Never	Rarely	Sometimes	Often	Always
Game levels Environment and setting Game theme/type/genre Game assets Game story/narratives Came story/narratives Came assets Came story/narratives Came assets Came story/narratives Came story/narratives Came story/narratives	Gameplay (action and rules)					
Environment and setting	Game rewards					
Game theme/type/genre	Game levels					
Game assets Game story/narratives On the comments on Bloom's learning outcomes effect on mechanics selection, design and the comments of the	Environment and setting					
Game story/narratives	Game theme/type/genre					
ny other comments on Bloom's learning outcomes effect on mechanics selection, design an	Game assets					
	Game story/narratives					
		learning o	outcomes e	ffect on mechar	ics selecti	on, design a
	any other comments on Bloom's resentation?	learning o	outcomes e	ffect on mechar	iics selecti	on, design a

Hypothesis: How mechanics are presented affect learning in games.

Some learning design characteristics are important in defining mechanics presentation.

How frequently does **creating** affect the design of the following game mechanics during the design of

36.	Which of the following mechanics presentation and organization attributes are relevant to effective learning in educational games.
	Check all that apply.
	Game progression
	Level complexity
	Rate at which mechanics are presented
	Time it takes to complete one level (1 Objective)
	Time it takes to start game
	Number of levels in the game
	Number of activities in 1 level
37.	How important is the role of linearity (ie. difficulty and game progression) in relation to effective learning during education game design?
	Mark only one oval.
	1 2 3 4 5
	Not Very important
38.	How important is the role of time to be spent on playing 1 level in relation to effective learning during education game design?
	Mark only one oval.
	1 2 3 4 5
	Not

39. How relevant is the mechanics' presentation in relation to effective learning? * *Mark only one oval per row.*

	Not Important	Slightly Important	Moderately Important	Important	Very Importar
Game progression					
Level complexity					
Rate of presenting and recombining mechanics					
Time it takes to complete 1 level					
Number of levels in a game					
Asset and environment design					
Game genre					
Game story or narrative					

	Never	Rarely	Sometimes	Often	Alway
Game progression					
Level complexity					
Rate of presenting and recombining mechanics					
Time it takes to complete 1 level					
Number of levels in a game					
Asset and environment design					
Game genre					
Game story or narrative					

How frequently does the target player's cognitive ability influence the design of the following game

40.

elements?

Mark only one oval per row.					
	Never	Rarely	Sometimes	Often	Α
Game progression					
Level complexity					
Rate of presenting and recombining mechanics					
Time it takes to complete 1 level					
Number of levels in a game					
Asset and environment design					
Game genre					
Come atons or porrative					
Game story or narrative How frequently do learning objectives influe Mark only one oval per row.	ence the desig	n of the fo	llowing game el	ements? *	
How frequently do learning objectives influe			llowing game el		
How frequently do learning objectives influe Mark only one oval per row.					
How frequently do learning objectives influe Mark only one oval per row. Game progression					
How frequently do learning objectives influence Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining					
How frequently do learning objectives influence Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining mechanics					
How frequently do learning objectives influence Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining mechanics Time it takes to complete 1 level					
How frequently do learning objectives influence Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining mechanics Time it takes to complete 1 level Number of levels in a game					

How frequently do the target player's learning styles influence the design of the following game

	Never	Rarely	Sometimes	Often
Game progression				
Level complexity				
Rate of presenting and recombining mechanics				
Time it takes to complete 1 level				
Number of levels in a game				
Asset and environment design				
Game genre				
Game story or narrative				
How frequently does learning assessment in Mark only one oval per row.	fluence the de	esign of the	e following game	e elements
How frequently does learning assessment in	fluence the de	esign of the Rarely	e following game	e elements Often
How frequently does learning assessment in				
How frequently does learning assessment in Mark only one oval per row.				
How frequently does learning assessment in Mark only one oval per row. Game progression				
How frequently does learning assessment in Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining				
How frequently does learning assessment in Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining mechanics				
How frequently does learning assessment in Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining mechanics Time it takes to complete 1 level				
How frequently does learning assessment in Mark only one oval per row. Game progression Level complexity Rate of presenting and recombining mechanics Time it takes to complete 1 level Number of levels in a game				

How frequently does learning outcomes influence the design of the following game elements? *

Mark only o								
	one oval.							
1	2 3	4	5					
Not			Very	important				
_				e at which mo		e presented t	o the player in r	elation to
Mark only	one oval.							
1	2 3	4	5					
Not			Very	important				
				n number of :	activities (a	ction, decisio	on or event) in c	one level of a
What is the game for ef	fective le				activities (a 9 10	ction, decisio	on or event) in o	one level of a
game for et	fective lea	arning	?			ction, decisio	on or event) in o	one level of a
game for ef	fective leader one oval. 2 3	4 ————————————————————————————————————	? 5 6 minimum	7 8	9 10	_	on or event) in o	
game for eff Mark only of 1 What is the	fective leader one oval. 2 3 • recomm fective leader	4 ————————————————————————————————————	? 5 6 minimum	7 8	9 10	_		
game for eff Mark only of 1 What is the game for eff	fective leader one oval. 2 3 • recomm fective leader	4 ————————————————————————————————————	? 5 6 minimum	7 8 0	9 10	_		

	Any other comments on factors affecting m educational games?	echanics presentation	during the desig	n of effectiv	ve .
Cr	eative activities and procedural activities duri	ng educational game (design		
	is section seeks to understand the practical sign choices are procedural as well as which				
- 0	r 1, 1 1 C 11 ,	1 1 .	- L		
50.	Indicate whether the following activities are	e procedural or creativ	⁄e. *		
50.	Indicate whether the following activities are Mark only one oval per row.	e procedural or creative Procedural activity	ce. * Creative activity	Both	Not sure
50.	Ç	Procedural	Creative	Both	
50.	Mark only one oval per row. Matching learner attributes to game	Procedural	Creative	Both	
50.	Mark only one oval per row. Matching learner attributes to game mechanics selection	Procedural	Creative	Both	
50.	Matching learner attributes to game mechanics selection Matching subject to game mechanics	Procedural	Creative	Both	
50.	Matching learner attributes to game mechanics selection Matching subject to game mechanics Decision on game genre Decision on game rules, interactions	Procedural	Creative	Both	
50.	Matching learner attributes to game mechanics selection Matching subject to game mechanics Decision on game genre Decision on game rules, interactions and Objects	Procedural	Creative	Both	

Any other comments on what aspects of educational game design are procedural and which ones are
driven by the creative power of their designers.

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