

# SGADM Game Analysis | Part I – Activities map

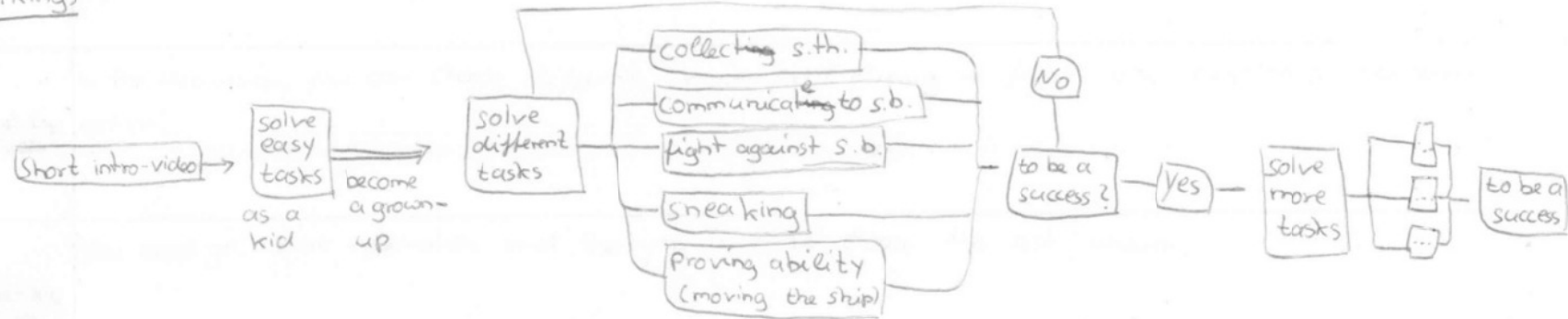
Game: Vikings

	Gaming activity	Learning activity	Internal teaching activity	External teaching activity (optional)
Activity	The player is running as an avatar through the game and has to do some <del>other</del> tasks.	The history of vikings is shown during the game	Use the game to show how vikings lived and give a short view of their history	Could support the schoolkids with the handling or give some tips for the questions in the game.
Subject	Player	Player	Serious Games Interactive	Teachers in school
Motives	The player learns something about the history of the vikings with some little tasks in the game. -Fun -Challenge	To learn something about the history of vikings and how they acted.	The producer <sup>wants to</sup> <del>will</del> offer a unique blend of competences within the field of educations and games	A teacher could use this game to support his normal teaching lesson. For example <del>as</del> it could be a good first step into the topic "vikings"
Tool	game	game	game	game

## SGADM Game Analysis | Part II – Game diagram and actions/ tools/ goals table

<Game diagram>

Vikings



<b>Game actions</b>	<p>The player collects coins, boxes, hammers and other items to solve a tasks. The player sees the results in the number of coins or in a power bar.</p> <p>The player is moving him-/herself <sup>avatar</sup> and sometimes a ship.</p> <p>The player needs to answer questions to pass where he/she learns something about history</p>
<b>Game tools</b>	<p>There are different game tools.</p> <p>At the beginning of the game you have a tutorial with easy tasks to warm <sup>up</sup> at become familiar with the game. The virtual money (which you collect) is shown in a progress bar.</p> <p>In the game are different challenges (sneaking, fighting) to pass/win.</p>
<b>Game goals</b>	<p>You can get some information what to do from a mouse which doesn't fit in the game.</p> <p>There is always a task list with your next task to do.</p> <p><del>Pass</del> Solve the task which <del>at</del> were given to you.</p>

Learning Actions	In the game you learn something about vikings' history during a discussion where you have to react on your discussion-partner or you have to answer questions about the history of the vikings. If you learn also something <del>else</del> if you solve the tasks.
Learning Tools	In the discussion you can choose different answers and during a fight you can choose different actions.
Learning Goals	You <del>need</del> get some information and then you have to choose the best answer.
Internal Teaching actions	Inform on outcome of answers.
Internal Teaching tools	The discussion-partner ask again if you gave <del>the</del> a wrong answer so you can try it again.
Internal Teaching goals	If you gave the correct answer you can pass the way (for example)

External Teaching actions	
External Teaching tools	
External Teaching goals	

Internal Teaching actions	
Internal Teaching tools	
Internal Teaching goals	

### SGADM Game Analysis | Part III - Abstractions table

Game actions	<ul style="list-style-type: none"> <li>- collecting coins</li> <li>- moving your avatar</li> <li>- Answering questions</li> </ul>
Game tools	<ul style="list-style-type: none"> <li>- Information</li> <li>- Roles</li> <li>- Progress bar (Thor hammer)</li> <li>- Challenges</li> <li>(- virtual money) → (not so important)</li> <li>- Tutorial</li> </ul>
Game goals	<ul style="list-style-type: none"> <li>- solve the tasks</li> </ul>
Learning Actions	<ul style="list-style-type: none"> <li>- Discussions</li> <li>- Performing actions/tasks</li> <li>- Listening</li> <li>- Reading</li> </ul>
Learning Tools	<ul style="list-style-type: none"> <li>- Challenge</li> <li>- Text</li> <li>- Task list</li> <li>- Tasks</li> </ul>
Learning Goals	<ul style="list-style-type: none"> <li>- Remembering</li> <li>- Understanding</li> </ul>
Internal Teaching actions	<ul style="list-style-type: none"> <li>- Presenting problems</li> <li>- Presenting quiz/answer the <del>disc</del> discussion</li> </ul>
Internal Teaching tools	<ul style="list-style-type: none"> <li>- <del>Help</del> Tips</li> <li>- Discussion</li> <li>- Questions/Answers</li> </ul>
Internal Teaching goals	<ul style="list-style-type: none"> <li>- Providing feedback</li> </ul>

External Teaching actions	
External Teaching tools	
External Teaching goals	

Unit	Topic	Sub-Topic	Learning Objectives	Assessment	Resources	Activities	Notes	References	Comments
Unit 1	Introduction	Overview	Understand the importance of the course	Quiz	Textbook	Lecture			
Unit 2	Mathematics	Calculus	Calculate derivatives and integrals	Assignment	Textbook	Lecture, Problem Solving			
Unit 3	Physics	Mechanics	Understand the laws of motion	Lab Report	Textbook	Lecture, Lab			
Unit 4	Chemistry	Atomic Structure	Explain the structure of atoms	Exam	Textbook	Lecture			
Unit 5	Biology	Cell Biology	Describe the structure and function of cells	Essay	Textbook	Lecture, Reading			
Unit 6	Earth Science	Geology	Understand the Earth's history and processes	Field Trip	Textbook	Lecture, Field Trip			
Unit 7	Environmental Science	Climate Change	Analyze the impact of climate change	Project	Textbook	Lecture, Research			
Unit 8	Humanities	History	Explore the evolution of human societies	Debate	Textbook	Lecture, Debate			
Unit 9	Arts	Visual Arts	Appreciate and create visual art	Portfolio	Textbook	Lecture, Studio			
Unit 10	Health Sciences	Public Health	Understand the importance of public health	Case Study	Textbook	Lecture, Case Study			



Learning actions	
Completing goal	Memorizing
Discovering	Model building
Discriminating	Objectifying
Discussion	Observing
Experimentating	Participating
Exploring	Participating in conversation
Forming hypothesis	Performing action/ task
Forming goal	Planning
Generalizing	Puzzlement
Identifying	Reading
Imitating	Repetition
Listening	Selecting/ Choosing
Locating	Verifying/ Reviewing

Learning tools
Animation
Challenge
Graphics
Information
Report
Simulator
Story
Student diary
Task list/ Checklist
Tasks
Tests
Text
Video

Learning goals				
Bloom's Taxonomy – Cognitive domain	Bloom's Taxonomy – Affective domain	Bloom's Taxonomy – Psychomotor domain	Kolb's experiential learning cycle	Fink's Taxonomy
Remembering	Receiving phenomena	Perception (awareness)	Concrete experience	Foundational Knowledge
Understanding	Responding to phenomena	Set	Active experimentation	Application
Analyzing	Valuing	Guided response	Reflective observation	Integration
Applying	Organization	Mechanism (basic proficiency)	Abstract conceptualization	Human dimension
Evaluating	Internalizing values	Complex Overt Response		Caring
Creating		Adaptation		Learning how to learn
		Origination		



Teaching actions
Demonstrating
Presenting material
Presenting problem
Presenting quiz
Qualitatively assessing performance
Quantitatively assessing performance
Reviewing lesson
Rewarding good performance
Sanctioning bad performance
Scaffolding
Showing similar problems
Stressing importance
Suggesting improvements
Telling story

Teaching tools
Checklists
Deadlines
Discussion
Help text
Limited set of choices
Penalties
Performance measures
Practice tests
Questions & Answers
Rewards
Simulators
Story
Tips / Assistance
Warning messages

Teaching goals	
Gagné's Nine Events of Instruction	ARCS Model of Motivational Design
Gaining attention	Attention
Informing learner of objective	Relevance
Stimulating recall of prior learning	Confidence
Presenting the stimulus	Satisfaction
Providing learning guidance	
Eliciting performance	
Providing feedback	
Assessing performance	
Enhancing retention and transfer	

### Shapes of an activity diagram

