Guidelines in using SCG in VET

Adaptation, preparation and transfer

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Glossary

SCOGATT	Serious Computer Games as a Teaching Tool
SCG	Serious Computer Games
VET	Vocational Education and Training
LdV	Leonardo da Vinci
LLP	LifeLong Learning Programme
TOI	Transfer of Innovation
GBL	Game Based Learning

INTRODUCTION

The aim of this document is to provide a tool-kit to support VET teachers in using Serious Computer Games as a Teaching Tool. Extended reading and other related materials to support this document and the modules can be found in English at www.scogatt.eu

MODULE FRAMEWORK

SCG in VET Guidelines

In order to prepare a course using SCG in VET the following criteria need to be met:

1. *Content to reflect evidence based on a range of theory & practice.*
2. *Content in 3 modules with 5 required tasks*
3. *Apply topic knowledge to develop understanding, critical reflection & practical skills*

MODULE 1 (CORE):

PREPARING TO DELIVER SCG IN A VET CONTEXT

TASK 1: Identifying the role of SCG within VET education

TASK 2: Identifying the specific conditions/problems of working in VET, including different target groups (male/female, different ethic groups, etc.)

TASK 3: Identifying the history of SCG in (VET) education

TASK 4: Identifying the impact of SCG in (VET) education

TASK 5: Identifying the skills capable to deliver SCG in VET, including with students with learning difficulties

CORE module breakdown

TASK 1: <u>Identifying the role of SCG within VET education</u>

- Identifying the role of a particular VET school – main aims and objectives
- Identifying the role of VET school concerning professional skills and social competences in specific subjects
- Identifying the relevance between VET school role and feasibility of GBL within the organisation
- Identifying needs and feasibility of GBL methods in a particular teaching subject

TASK 2: **Identifying the specific conditions/problems of working in VET, including different target groups (male/female, different ethnic groups, age, learning abilities etc.)**

- Identifying access to internet and PCs at VET premises
- Identifying obstacles in adaptation of games and arranging to overcome resistance in VET school
- Getting familiar with basic games for teaching different types of content and how to select games for a particular subject
- Getting familiar with available SCG resources (e.g. SCOGATT Compendium)
- Identifying the specific requirements of the target group (language, disabilities, male/female)

TASK 3: **SCG in VET**

- Introducing Game Based Learning (GBL) and the main principles suitable for VET
- Introducing SCG and the learning environments used for VET
- Introducing the elements that makes games and SCG engaging in VET
- Introducing SCG across the Curriculum (access to the games etc.)
- Introducing specific successful cases using SCG in VET (the EnerCities.eu case)

TASK 4: **Identifying the impact of SCG in education**

- Identifying the pedagogy which fits best for getting maximum impact teaching with SCG in specific subject (in VET)
- Identifying the assessment methods which fits best for the assessment of impact of SCG in specific teaching subject (in VET)
- Identifying the assessment tools suitable for assessment of impact using SCG in a particular teaching subject in VET
- Identifying the assessment tools suitable for the assessment of impact in a particular teaching subject and specific target group

TASK 5: **Identifying the skills need to deliver SCG in VET, including students with learning difficulties**

- Identifying the professional and/or social skills needed to deliver SCG in a specific teaching subject within the curriculum
- Identifying the professional and social skills needed to deliver SCG in a specific teaching subject considering students with learning difficulties
- Identifying the SCG which fits the required skills

MODULE 2 (CORE):

CRITICAL THINKING RELATED TO DELIVERING SCG IN VET

(Based on proposals by Hannah Hull)

TASK 1: SCG and critical thinking in VET

TASK 2: Identifying where & how these aims are best placed

TASK 3: Identifying the level of critical thinking to be expected in a VET environment: from the learner, the VET teachers, the other participants & what are the obstacles to critical thinking

TASK 4: Identifying what adopting a critical, reflective practice means to deliverers, teachers, trainers and mentors specifically within the context of VET

TASK 5: Identifying how critical reflective thinking is instilled in the participants, including beyond the students intervention

CORE module breakdown

CRITICAL THINKING AND SCG IN VET (teaching the monkey)

TASK 1: SCG and critical thinking in VET students

A. Defining learner's level of critical thinking skills in VET
   Comfort zone, developing zone, learning circle, Critical thinking
B. Defining the value of critical thinking in SCG
   E.g. with EnerCities
C. Setting the goals for particular SCG

TASK 2: How to reach those aims and goals

A. How computer game fits into a class, unit, or lesson plan (template)
B. Designing a lesson plan using learner-centered principles (template)
C. Examples of the lesson plans within the other SCG games

TASK 3: Outcomes and obstacles - the level of critical thinking to be expected in a VET: from the learner, the VET teachers, the mentors & what obstacles to

critical thinking are to be faced

- Identifying the critical thinking to be expected from the learner in a particular teaching subject
- Identifying the critical thinking to be expected from the teacher, mentors in a particular teaching subject, inspectors, administration (games as a tool or game as a method)
- Identifying what obstacles to critical thinking are to be faced in the process
  Computer game playing addiction
  Computer ethics

TASK 4: **Transferring and adopting what critical and reflective daily practice means to deliverers, teachers, trainers, mentors specifically within the context of a VET**

- Used lessons learned and used to adapt for new content (teachers)
- Identify student's critical thinking skills applied to other subjects at VET

TASK 5: **Incorporating critical thinking instilled in the participants, including beyond the students intervention**

- Identifying the measure/situation where obtained critical thinking skills can be observed
  (*Studies from Enercities Game)*
  (Articles about the EnerCities student's behaviour changes)
  (Cognitive, practical or emotional)

MODULE 3 (ELECTIVE):

DELIVERING SCG IN A VET CONTEXT

TASK 1: Identifying the rationale for delivering SCG in VET *(linked to 1.4, 2.1)*

TASK 2: Organising SCG interventions in VET *(linked to 1.2, 1.4, 1.5, 2.2)*

TASK 3: Developing SCG related skills *(linked to 1.5)*

TASK 4: Creating & presenting SCG related outcomes *(linked to 1.5)*

TASK 5: Evaluating impact of SCG intervention in VET *(linked to 2.3, 2.5)*

ELECTIVE module breakdown

DELIVERING SCG IN A VET CONTEXT

TASK 1: Identifying the rationale for delivering SCG in VET

- International background to the Game Based Learning – GBL and SCG *(linked to Core 1)*
- Local/national background to GBL and SCG *(linked to Core 1)*
- Impact of SCG in a VET context *(linked to Core 1)*
- Specific context within which SCG would be delivered, e.g. VET school location & subject
- Rationale for delivering SCG in specific situation *(linked to Core 2)*

TASK 2: Implementing SCG in VET

- Arranging to work with SCG in VET, e.g. Finding SCG, getting permission for internet access, computer lab etc.
- Identifying specific conditions for delivering SCG in VET, e.g. space available, time, computer lab, time allocation, number of participants, context (i.e. part of education programme) (linked to Core 1)
- Identifying specific target group: male, juvenile, women, foreign nationals, students with special needs, etc. (linked to Core 1)
- Coping with regulations, e.g. material & equipment needed, kind of activities allowed, eg. internet access *(linked to Core 1)*
- Working with VET staff: administration, educational staff, therapists, psychiatric staff, etc.

TASK 3: **Developing SCG related skills**

A. Preparing/ planning programme/ individual sessions (linked to Core 2.3)
B. Identifying student's capabilities & skills needs (linked to Core 2.3)
C. Identifying delivery strategies (linked to Core 1)
D. Identifying equipment & material requirements (linked to Core 1)
E. Identifying VET staff support needs

TASK 4: **Creating & presenting SCG related outcomes**

A. Benefits of achieving SCG related outcomes
B. Organising facilities for practicing SCG related outcomes
C. Organising internal/external events for recognition SCG outcomes to others, e.g. competition within classmates/schoolmates/among schools
D. Recognising SCG related outcomes

TASK 5: **Evaluating impact of SCG intervention in VET**

- Evaluating process of SCG intervention (linked to Core 2)
- Evaluating products of SCG intervention (linked to Core 2)
- Processing feedback from participants
- Processing feedback from intervention organisers (linked to Core 2)
- Processing impact from others/ outsiders, e.g. VET authorities, general public