Grant Agreement Number ECP-2006-EDU-410030

Deliverable number/name	*D4.4*
Dissemination level	*Public*
Delivery date	*27/02/09*
Status	*Draft/Final*
Author(s)	*eViP Project Team*

*e***Content***plus*

1. Introduction

Teachers and trainers wanting to take a virtual patient (VP) approach can learn from the past experience of those already working in this area. In particular, repurposing an existing VP from one context to another could save considerable time when compared to creating a new VP from scratch. In the eViP project we have compiled a series of good practice guidelines drawn from our considerable and varied experience of repurposing VPs from one context to another.

We have already prepared a good practice guide to address the more technical aspects of VP repurposing. Please see eViP deliverable D2.3b Best Practice Guidelines for the eViP application profile and associated conformance metrics. This new set of guidelines will focus on the educational aspects of repurposing

2. Definition of repurposing

Within the project we have defined repurposing as taking existing content in the form of a VP and then modifying this on the basis of:

Educational level

For example, repurposing from an undergraduate medical education context to postgraduate training or continuing professional development (CPD) context. In this context the core material may be common and relevant to all audiences, but the learning outcomes expected to be attained would be different. The repurposing intent might therefore include changing any learner activities prompted by the VP.

Discipline area

For example, repurposing a VP from a medical context into a VP relevant for dental or nursing education. A good example of repurposing in this context might be in basic sciences teaching. The basic anatomy of the head and neck is of course the same for all audiences, but a trainee doctor would need to have a different level of understanding to that of a nurse, and a dentist will need specialist knowledge of structures in the mouth. So underlying content in a VP intended for one audience may be relevant for another, but the level of knowledge required and therefore self assessment for example will be different.

VP structure

Some VP systems in use in eViP partner sites use branched VPs, that is to say the learner is free to pursue different aspects of a VP according to his/her own choices made while working through the VP. The user selects a response to a question such as, 'which investigations would you like to perform?' and depending upon which option is chosen, then that particular VP session will take a different track compared to another session where a different option was chosen. In a branched VP a learner can potentially follow non-conventional track through a VP, or there may be one best track through a case, with more than one route learning to a satisfactory conclusion of a VP session.

In contrast, a more linear system would require the learner to step through a sequence of screens as they progress through a VP. Although the learner may be making some choices along the way, overall, the teacher predefines the learner's progression through a VP.

Some semi-linear systems also exist. These follow a linear track through a case but at certain points have in-built functionality that allows students to test their investigative skills (MCQ and free-text style). However, this is mainly used for self-assessment and upon completion of this task, the user continues along the linear path.

Culture and language

Although self explanatory on one level, for example repurposing from English to German language, other aspects of cultural repurposing might not be quite so obvious. For example, differences in the way medical conditions are treated in primary or secondary care would require a teacher to repurpose an otherwise perfectly good VP from one context to another. If a condition such as chronic hypertension is more usually managed in the general practitioner's surgery rather than an out-patient clinical in a treatment centre, then an aspect of repurposing might be required to make the case authentic for the learner's context.

Curriculum approach

One of the ways in which most universities differentiate themselves is in their style and approach to delivering the curriculum. One institution might be principally problem-based, while another might take a more traditional lecture-based approach. No one approach is 'right', so each institution will need to modify learning resources including VPs for their curriculum context. A VP created to support a problem-based learning session might not sufficiently support a learner experiencing a lecture-based curriculum. Different levels of support material including study guides might be needed for example.

3. Structure of guidelines

This good practice pack contains 10 guidelines covering the most common repurposing scenarios. Guidelines have been consistently formatted to make it easier for teachers to use them. The structure of each guideline is:

- Description of the original VP and educational setting (according to eViP definitions)

- Brief description of VP format including structure, VP authoring/player system used, resource media types included etc

- Selection criteria for repurposing, that is, why was this particular VP chosen to repurpose? was it needed to fill a gap in curricula, was it needed to satisfy specific learning outcomes etc

- What type of repurposing was done

- Steps involved in repurposing, including how this was organized, on paper, on electronic, storyboarding etc

- How was the work planned? Was a project plan used and how was progress monitored, etc

- Brief outline of skill set required and when where they used during repurposing

- Was the underlying content enriched in any way, for example by including further resources

- How long did it take per step and overall to accomplish the repurposing

- A repurposing workflow has often been included as an illustration

- How the repurposing was evaluated, for example with students or creators/teachers too

- Any concluding remarks and final advice to others attempting this

4. Guidelines included in this pack

The following guidelines are included in this pack.

Guideline	Guideline title	Lead partner
01	Guidelines for VP repurposing to a different educational level and discipline	Heidelberg University
02	Guidelines for VP repurposing to different structure	Heidelberg University
03	Guidelines for VP repurposing to different educational scenarios	Heidelberg University
04	Guidelines for VP repurposing to different educational levels and scenarios	Munich/ Witten-Herdecke University
05	Guidelines for VP repurposing to different culture, language and structure	St George's, University of London
06	Guidelines for VP repurposing to different disciplines	Karolinska Institute
07	Guidelines for VP repurposing to a different educational level	Jagiellonian University
08	Guidelines for VP repurposing to different	Jagiellonian University

	culture and language	
09	Guidelines for VP repurposing to different language and discipline	Jagiellonian University
10	Guidelines for VP repurposing to different culture, language and scenario	Maastricht University

5. Conclusion

These guidelines are the culmination of 18 months work by partners in the eViP project. We have found that with some time and a little effort it is possible to take almost any VP from one context and repurpose it to another. This should come as some reassurance to those wishing to embark upon a VP approach in their curriculum, but do not have the time and resources to create VP content from scratch. We hope that the experience reported in these guidelines encourages others to work with VPs.