



Chapter V

Reaching Students of Many Languages and Cultures: Strategies for Developing Computer-Based Learning Units

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Abstract

To address the global problems of learning, we must make our development strategies ready to support the many different languages and cultures in the world. This chapter discusses how the Irvine-Geneva development strategy supports, and can be made to support further, development of global materials. We will first discuss essential characteristics of the kind of learning software that will successfully address global education. We will then discuss our design and translation strategies for current software with

those characteristics, the tools we have developed for facilitating them, and our implementation strategies. We will end our discussion with linguistics issues related to globalization in general.

Introduction

As the education community begins to address the global problems of learning, we must make our development strategies ready to support the many different languages and cultures in the world. While more computer-based materials become available via the Internet, the majority is still written for English speakers, making the materials virtually inaccessible to many students, or forcing them to learn in English in styles inappropriate for many cultures (Yoshii, Katada, Alsadeqi, & Zhang, 2003).

This chapter discusses how the Irvine-Geneva development strategy supports, and can be made to support further, development of global materials. The Irvine–Geneva development strategy brings together a *philosophy of tutoring design* with a *system of learning software development* oriented toward embodying that philosophy in pedagogically strong designs. These designs are given to software development teams to implement them in well-engineered units, using software tools oriented to that philosophy.

We will first discuss what we submit are essential characteristics of the kind of learning software that will successfully address global education. We will then discuss our design and translation strategies for current software with those characteristics, the tools we have developed for facilitating them, and our implementation strategies. We hope the readers will expand on our strategies and use and even possibly enhance our tools in developing their materials. We will end our discussion with linguistics issues related to globalization in general.

Background: Learning Material for Global Education

What the characteristics will be of the learning software that will successfully address global education is clearly subject to much debate; however, we present the following characteristics as essential. We note that some of these characteristics require, or at least benefit by, distance learning.

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