

## Chapter XIII

# Using IMS Learning Design in Educational Situations

**Paul Hazlewood**

*Liverpool Hope University, UK*

**Amanda Oddie**

*Liverpool Hope University, UK*

**Mark Barrett-Baxendale**

*Liverpool Hope University, UK*

### **ABSTRACT**

*IMS Learning Design (IMS LD) is a specification for describing a range of pedagogic approaches. It allows the linking of pedagogical structure, content, and services, whilst keeping the three separate, thus providing the potential for reuse as well as forming the basis for interoperability between learning activities and services. As such, this specification promises unprecedented opportunities to build effective tutor support and presence into e-learning systems. The tools that implement the specification have primarily been used for research purposes and have not been targeted at teaching practitioners or learners working in teaching and learning situations. There is a perception amongst practitioners and tool developers that the specification and tools are too technical or difficult for practitioner use. This chapter examines practitioner use of current tools for creating IMS LD and the use of IMS LD units of learning (UoLs) with learners through projects being undertaken at Liverpool Hope University (LHU). It presents some of the experiences and findings gained from these projects. The chapter also examines current technologies and tools for creating and running IMS LD UoLs, and finally discusses the potential and future for IMS LD.*

## **INTRODUCTION**

The IMS Learning Design (IMSLD) specification (IMS, 2003) is an evolution of the Educational Modeling Language (EML) developed by the Open University of the Netherlands (OUNL). EML was designed for online distance learning but was not considered a standard. The IMS LD specification was developed as a standard to encompass a wider range of teaching and learning situations. The specification claims to capture a wide range of pedagogies in electronic form, and as such, promises unprecedented opportunities to build effective tutor support and presence into e-learning systems.

IMS LD is a specification that can:

1. Describe learning situations which use a wide range of pedagogic approaches; the learning situations can be at any level of granularity, for example, activity, lesson, themed block, module, or course.
2. Link the learning with a range of content and services, potentially allowing for the reuse of learning designs.

IMSLD is well suited to offer the flexibility of implementing any pedagogical approach, allowing students to collaborate or progress through units of learning entirely at their own pace. It offers adaptability for students' abilities by allowing a practitioner to set up a unit of learning (UoL) that allows students to take different paths through it or through different UoLs based on their experience or learning styles.

Although the IMS LD specification has been available for around four years and much research and development has built up around it, for example, the UNFOLD project (UNFOLD, 2004) and TENCompetence (TENCompetence, 2005) project, few practitioners have had practical experience of it. Currently, the understanding of the utility of the specification and its uptake is low. Factors contributing to this include lack

of “practitioner friendly” tools and the inaccessibility of the specification to people who do not have a technical background.

The aim of this chapter is to discuss the current status of IMS LD and, in particular, its uptake by teaching practitioners. This will be achieved through a discussion of findings and experiences from Joint Information Systems Committee (JISC) and Higher Education Academy (HEA) funded research projects carried out at LHM that are based on the use of IMS LD by teaching practitioners and learners.

The core objectives of the chapter are to discuss:

- The current technologies,
- The production of IMS LD UoLs,
- The experiences of practitioners and students,
- The potential for reuse.

The chapter will appeal both to practitioners wishing to use IMS LD in teaching and learning situations (for example, supporting the delivery of blended learning or fully online courses) and researchers interested in the technologies and current research surrounding IMS LD.

## **BACKGROUND**

IMS LD was released in 2003 and is based on the Educational Modeling Language which was created by the OUNL. The OUNL no longer supports EML; instead it contributes to the ongoing development of IMS LD (Jeffery & Currier, 2003). IMS LD does not define a development methodology (Koper, 2005); rather it allows learning scenarios to be described and presented to learners online as well as enabling them to be shared between systems. It can describe a wide variety of pedagogical models, or approaches to learning, including group work and collaborative learning. It does not define individual

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/using-ims-learning-design-educational/20887](http://www.igi-global.com/chapter/using-ims-learning-design-educational/20887)

## Related Content

---

### A Comparison of Guided Notes and Video Modules in an Online Course

Gabrielle Tsai Lee (2019). *International Journal of Online Pedagogy and Course Design* (pp. 48-60).

[www.irma-international.org/article/a-comparison-of-guided-notes-and-video-modules-in-an-online-course/228972](http://www.irma-international.org/article/a-comparison-of-guided-notes-and-video-modules-in-an-online-course/228972)

### Tackling the Challenges of Acquiring Web Videos for STEM Hands-On Learning: Example of a Fake Hologram and a Proposed Learning Model

Yu-Liang Ting, Shin-Ping Tsai, Yaming Tai and Teng-Hui Tseng (2022). *International Journal of Online Pedagogy and Course Design* (pp. 1-16).

[www.irma-international.org/article/tackling-the-challenges-of-acquiring-web-videos-for-stem-hands-on-learning/304084](http://www.irma-international.org/article/tackling-the-challenges-of-acquiring-web-videos-for-stem-hands-on-learning/304084)

### Genesis, Development, and Future of Two Exemplary Podcast Courses in a Higher Educational Institution: How MALL Can Assist ELLs

Jaime Selwood (2019). *Technology-Assisted ESL Acquisition and Development for Nontraditional Learners* (pp. 162-186).

[www.irma-international.org/chapter/genesis-development-and-future-of-two-exemplary-podcast-courses-in-a-higher-educational-institution/210756](http://www.irma-international.org/chapter/genesis-development-and-future-of-two-exemplary-podcast-courses-in-a-higher-educational-institution/210756)

### Seeking Justice in Your Own Backyard: Creating PSAs for Social Change

Lauren G. McClanahan (2022). *Creativity as Progressive Pedagogy: Examinations Into Culture, Performance, and Challenges* (pp. 40-63).

[www.irma-international.org/chapter/seeking-justice-in-your-own-backyard/291833](http://www.irma-international.org/chapter/seeking-justice-in-your-own-backyard/291833)

### Establishing a Student-Centered Environment to Support All Learners

James D. Basham, Skip Stahl, Tracey Halland Richard Allen Carter Jr. (2017). *Handbook of Research on Classroom Diversity and Inclusive Education Practice* (pp. 155-182).

[www.irma-international.org/chapter/establishing-a-student-centered-environment-to-support-all-learners/182384](http://www.irma-international.org/chapter/establishing-a-student-centered-environment-to-support-all-learners/182384)