

RESEARCHING REQUIREMENTS, PRACTICE, AND PROSPECTS FOR LEARNING DESIGN: SOME RESULTS AND CONCLUSIONS

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Abstract

In this paper we describe how a perceived shortfall in training and professional development opportunities for learning designers in the United Kingdom motivated us to investigate: 1) what the requirements are for good learning design practice, i.e., what are the knowledge and skills that a learning design practitioner should possess; 2) what the current practice is with respect to the education, training and deployment of professional learning designers; and 3) what the prospects are for seeing an increased professionalisation of learning designers. Presented in the paper are summaries of key results and conclusions from the project.

Introduction

We use the term “learning design” with theoretical justification (MacLean & Scott, 2007) to refer to the process of designing effective learning experiences for a variety of contexts: in the classroom or laboratory, in the field, online and via standalone packages using a range of media. Learning design practice involves a wide set of knowledge, skills and competencies, including learning theory and its applications, course design principles and procedures, use of media, use of different technologies, relevant business processes and so on. Our particular interest is in how the use of the term learning design and associated practices have evolved in the context of e-learning.

Our research was motivated by a perceived shortfall in training and professional development opportunities for learning designers in the United Kingdom (UK) compared to those available in other parts of the world, especially the USA.¹ To validate and elaborate on this perception, three research questions were formulated:

- Is learning design more established as a profession in the USA than in the UK?
- Are there more opportunities for the education and training of learning designers in the USA than in the UK?

¹ It should be noted that the aim of this paper is primarily to discuss the research carried out with respect to the situation in the UK.

- Are there aspirations amongst learning designers within the UK for the field to become more professionalised and for there to be greater opportunities for education and training?

The research took the form of: 1) a review of the literature about learning design to identify and compare extant models of best practice, as found, for example, in Gagne, Wager, Golas, and Keller (2005) and Reigeluth (1983, 1987, 1999) and competency frameworks (DfEE, 2000; Richey, Fields, & Foxon, 2001); 2) a survey by interview and questionnaire of how UK learning designers have been educated and trained and what, typically, they regard as good working practices; and 3) a comparative survey of education and training opportunities for learning designers available principally in the UK and North America although other countries were included for further comparison.

First, we establish what we understand by e-learning before discussing the concept of learning design and its origins. We then go on to describe the research project and present some summary findings. Finally, we outline some conclusions emerging from the project.

E-learning

E-learning is found in a variety of contexts: corporate training, military training, primary schools, further and higher education. The ‘e’ of e-learning refers to the technologies, the computers and other electronic devices that are used to facilitate the delivery of training, educational or learning materials. Frequently, it is used to refer to the use of Internet and Web technologies. Some terms synonymous with e-learning are Computer-Based Training (CBT), Technology-Based Training (TBT) Computer Assisted Language Learning (CALL) and Technology-Enhanced Learning (TEL).

Origins of Learning Design

Currently, in the world of e-learning the terms “instructional design” and “learning design” are both used to refer to the application of theories of learning and instruction to the creation of e-learning material and online learning experiences. Here we examine the roots of the two terms and discuss similarities and differences in usage. As explained with theoretical justification, we propose that learning design should be adopted as the preferred generic term.

The origins of instructional design can be traced back to the USA during World War II. In order to achieve military success the USA required a rapid and effective means of preparing its armed forces personnel for their combat roles. Among the people recruited by the US Department of Defense to assist in the task were well-established research psychologists with an interest in learning theory. Building on the work of early twentieth century educational thinkers such as John Dewey and Robert Thorndike (Reigeluth, 1983) the psychologists investigated how systems engineering principles could be

combined with learning theory to develop effective training and instruction on a large scale. Their research resulted in a systems approach (Dijkstra, Seel, & Tennyson, 1997) to the design of instructional materials which focused on defining the training requirement at an early stage of a development lifecycle borrowed from the systems engineering model of *analyse, document, design, and develop*. Intended learning goals, expressed in terms of expected performance of a specified task, were analysed and broken down into component tasks. These tasks became learning goals for which learning experiences were designed and developed. Delivery methods were decided upon during the development cycle and media and communications technologies were frequently selected to deliver the results of these design processes.

Due to its success in wartime training, the instructional systems approach was widely adopted in North America and Europe during the 1950s and 1960s. At the same time, technology took on a new importance in education and much emphasis was placed on the potential use of teaching machines in the classroom and programmed learning, a highly structured and sequenced teaching method based on behaviourist theory, was introduced into schools. It was largely due to the work of the psychologists B. F. Skinner, Jerome Bruner, and David Ausubel that programmed learning and the systems approach evolved into the discipline of instructional design (Reigeluth, 1983). At first, the new discipline continued to be oriented towards the behaviourist theories of Thorndike (1911) and, later, Skinner (1954). However, research into how humans organise knowledge and learn continued and inspired the development of new theories. The most significant of these for instructional design were the cognitive theories of Ausubel and Bruner which led to a steady drift away from behaviourism. Among those drawn to a cognitivist orientation were many individuals who had played leading roles in the development of instructional design theory including Robert Gagné, Robert Glaser, and Gordon Pask (Dijkstra et al., 1997).²

Learning design's origins as a term associated with e-learning are obscure and its use confusing. It first appears in the literature of psychology and education in North America during the 1960s and 1970s (e.g., Moment & Zaleznik, 1963, and Schmuck & Schmuck, 1974) where 'a' learning design is occasionally used to describe a method of instruction for a learning session. Later, it is expressed as "a format that structures the process of learning by providing a framework of orderly steps for acquiring knowledge, attitudes, or skills" (Mouton & Blake, 1984, p. 60) and it is in the context of designing conventional learning that it continues to be used until the late 1990s.

In the mid-1990s learning design started to become associated with the design of learning that would harness the promise of the Internet and "the several attributes of the Superhighway and PCs that can be utilised to facilitate learning" (Riding & Rayner, 1995, p. 366). Only after Jay Cross coined the expression "e-learning" in 1998 does

² Although a full review of learning theories is beyond the scope of this paper, it is perhaps worth noting that Pask's (1975) "conversation theory" goes beyond the narrow cognitivist approach to include wider aspects of human interaction and "social semiosis."

learning design appear to be closely associated with the creation of e-learning material and online learning experiences. From this time, it starts to be used, often interchangeably, with instructional design in commercial and educational contexts relating to e-learning and loses its association with traditional approaches to learning and teaching whereby teachers and trainers employ their professional skills to design and deliver classroom based, teacher/trainer-centric learning experiences. Britain (2004) redresses the imbalance to point out that ‘designing for learning’ is not a new concept and learning design is, in fact, part of everyday teaching practice (p. 2).

A major driver for the increased use of learning design in an e-learning context was the development of the Instructional Management Systems Learning Design (IMS LD) specification released in 2003.³ IMS LD aims to expand upon and remedy perceived shortfalls in earlier e-learning specifications, such as ADL SCORM⁴ with its roots in instructional design practice. The IMS LD specification sets out to represent the learning design of traditional teaching sessions — units of learning — “in a semantic, formal and machine interpretable way” (Koper, 2006, p.13) whereas content presented using SCORM has a very linear appearance.

Koper unambiguously states that the key principle in learning design is “that it represents the learning activities and the support activities that are performed by different persons (learners, teachers) in the context of a unit of learning” (2006, p. 13). This concept effectively extends the scope of the teacher — the designer of learning to take advantage of technology-based environments as another area where learning can occur and produce learning designs. IMS LD can record the underpinning design and make it available for reuse.

As a specification, SCORM works and is implemented with relative ease. But it is relatively static and restricted to a limited range of pedagogic strategies potentially leaving the online learner doing nothing more than ‘turning pages’ as they wade through content. Nevertheless, it is a useable specification that is particularly useful in the design of learning where the target audience might consist of individuals studying alone rather than within group learning activities.

Koper and Tattersall choose to use learning design and instructional design or instructional systems design synonymously while recognising that some may argue that the use of the phrase instructional design “has a slightly different accent” (2005, p. x). They explain that learning design is the application of knowledge of learning theory, instructional design theory, best practice and practical experience to create opportunities for learning.

³ The Instructional Management Systems Global Learning Consortium (IMS GLC) aims to develop and promote the adoption of open technical specifications for interoperable learning technology. More frequently, it is referred to simply as IMS. See <http://www.imsglobal.org/> for more information.

⁴ Shareable Content Object Reference Model (SCORM). For further information, see <http://www.adlnet.gov/scorm/>.

Our view is that instructional design is a highly didactic and prescriptive subset of learning design/designing for learning. As we have proposed elsewhere (MacLean & Scott, 2007), we believe that learning design is the more generic term and that, in the diverse world of e-learning, instructional designers should more aptly refer to themselves as learning designers.

Research Activities

The literature review, the essence of which is given above, drew upon a wide range of sources from the fields of instructional systems design, online learning and teaching and related competency frameworks. Sources were selected which were relevant to the development of instructional systems design as a discipline, current practice and professional development within instructional design and learning design, and teaching practice.⁵ From the review a theoretical and conceptual framework for the research emerged. Although the review offered much about the theory of instructional design and learning design, very little was revealed about learning designers. On the basis that little was known about the field's population an early decision was taken to adopt a flexible, emergent design using focus groups and interviews, questionnaire and survey data.

In order to reduce threats to reliability and validity in flexible research designs, as suggested by Robson (2002), certain strategies were incorporated into the overall design. These were data triangulation using multiple data collection methods; methodological triangulation by combining qualitative and quantitative approaches; and reflexivity in the researcher to reduce bias, with constant checking of assumptions and beliefs that might influence design decisions or interpretation of data.

Focus Group

A focus group of over 20 members was formed under the aegis of the British Learning Association (BLA, now the British Institute for Learning and Development, BILD) from learning design professionals working in the United Kingdom's corporate, public, and higher education sectors. Over the duration of the project, the focus group met regularly at various locations.

The focus group meetings generated approximately 15 hours of recordings. This collection was fully transcribed and to date has been used to produce summary reports in the form of articles for the BLA's quarterly *Connect* publication. Included in over 80,000 words of transcribed material is a collection of case studies derived from presentations and discussions led by focus group participants. The data is providing valuable insights into current practice within the profession.

With a focus group such as this, it was considered important that the membership should decide the direction the group should take. The following objectives were put forward to

⁵ Fifty of the most relevant books and articles are listed in MacLean (2007).

provide a level of facilitation for the initial meeting that would lead to discussion of a nature likely to help in answering the research questions:

- to promote the importance and quality of learning design and authoring of learning materials in all types of media;
- to further the continuing professional development of learning designers and authors of learning materials; and
- to facilitate the cross-fertilisation of ideas and techniques in learning design and authoring activities.

Discussion in an online forum set up for the group saw a fourth objective emerge prior to the second meeting:

- to influence and enhance standards of learning design/authoring across diverse professional sectors.

During its meetings, the focus group discussed several topics. Of particular interest in the first meeting were questions concerning the importance of pedagogy and quality. A series of case studies around what is considered to be best practice in learning design were presented and discussed during the second meeting. The third meeting was used to explore online assessment and hold an open forum discussion.

The data gathered from the focus group meetings has been very useful in corroborating the findings from other parts of the research.

Online Survey

Observations of the focus group activities and elements of the literature review were used to design an online questionnaire thus enabling us to reach a much larger number of learning designers both in the UK and abroad. But who would participate? Without a recognisable population, a convenience sampling strategy was selected. Madge (2006) supports the use of online questionnaires in situations such as this ‘where a particular group is targeted through non-probability sampling or self-selection’.

Invitations to participate were posted to online forums and mailing lists with a professional focus on learning design. Professional organisations and higher education discussion groups on the World Wide Web were also targeted. These targets were mainly in the UK, USA, Canada, and Australia. We also sought participation from learning designers in other regions around the world. The only constraint in this was a tacit one, i.e., that they could read and understand the language of the invitation and survey, English.

We wanted to sample as widely as possible from a relatively unknown population of learning designers. Therefore, as individuals responded we asked them to identify other possible participants and pass them a link to the survey using what Robson describes as “snowball sampling” (2002, p. 265).

Other tactics included personally approaching individuals and inviting them to participate. Over 160 UK-based and international learning design companies listed on a UK website were contacted by telephone and e-mail and asked to take part. E-mailed invitations and telephone calls inviting participation included a description of our conception of learning design. It was made clear that we wanted participants involved in instructional design and learning design activities.

In addition to question types, consideration was given to analysis issues and presentation, the importance of time taken to complete, and the number of questions suitable for online surveys. The ideal that we designed for was that it would take no longer than 15 minutes to complete and have less than 20 questions.

The questions were designed to elicit information about the respondents' location, general education, professional training background, awareness of training and development opportunities, and their personal views on the profession. The 18 questionnaire items were organised such that related questions were grouped by topic. The topics were presented to the respondents in the following order:

- location
- training and education
- work background
- membership of professional organisations
- training and professional development opportunities
- contact details for further research

A small group of volunteers was used to pilot the questions prior to their full-scale use.

Frequently, free-text boxes were used to capture responses in the category "other." They were also employed to gather details of courses and, importantly, to give respondents the opportunity to provide text that expressed their feelings or views about certain topics. In the final section of the questionnaire respondents were invited to enter their contact details if they wished to participate in further research. A larger than expected number (41%) of respondents did volunteer to take part in the next stage of the research: an interview.

Interviews

Semi-structured interviews were employed with relative proportions of respondents from Canada, the USA, the UK, Australia, and a grouping of "other" countries. Interviewees were selected from questionnaire respondents who had indicated that they were willing to participate in further research. From these respondents, a number from each region were contacted by e-mail and scheduled for interview on the basis of their availability during the timeframe for the interviews.

A schedule of questions was prepared and arranged by topic to facilitate analysis and identification of common themes. The topics themselves were based on the research questions and covered the requirements, practice and prospects of learning design. Simpler opening questions were used to 'warm up' the interviewees and put them at their

ease and closing mechanisms were included to bring the interviews to a conclusion. Between these, the questions were designed to provide a framework for the interview and keep the general conversation focused on the intended topics.

Potential interviewees were sent an e-mail explaining the procedures for interview, consent issues, and requesting times that they might be available to be contacted by telephone.

PC technology played an important role in the process. Interviews were conducted by using voice over Internet protocol (VoIP) calls to landline nodes in the vicinity of the interviewee. The calls were, with the interviewee's permission, recorded and stored on the PC for transcription. A secondary benefit of this method was the cost of over 17 hours of interviews around the world was greatly reduced. In all, 15 interviews were conducted. The 17 hours of recording produced transcripts totaling over 50,000 words. These have now been analysed and interpreted. As with the focus groups, they provide a rich set of data which corroborates the questionnaire data.

Survey of Education and Training Opportunities for Learning Designers

To establish the number, type and availability of existing learning design courses in the United Kingdom, a survey of courses offered in the further and higher education sectors (FE/HE) and in the commercial sector was carried out. A survey of courses available in North America was also conducted to collect indicative data with which to compare the more comprehensive UK search.

The first part of the survey comprised a search of FE/HE courses offered on the websites of the 338 UK FE/HE institutions listed by the Universities and Colleges Admissions Services (UCAS) (www.ucas.ac.uk) and Higher Education and Research Opportunities (HERO) (www.hero.ac.uk).

The facilities for searching courses on the UCAS and HERO sites returned results which were found to be too broad for this survey. Consequently, an early decision was made to examine each site individually thus allowing for a more thorough process. In every case, course details were searched using one or more of the following keywords and terms:

- computer based learning
- computer based training (CBT)
- education
- educational technology
- e-learning
- information and learning technologies
- instructional design
- instructional systems
- instructional systems design (ISD)
- instructional technology
- learning
- learning design
- learning technology

- new media and online learning
- online education and training
- online learning
- open and distance education
- technology based learning
- technology based training (TBT)

The above list was evolving from the literature and initial data emerging from the focus group and early returns from the online questionnaire.

Research Findings

Presented below is a selection from the key findings to emerge from analysis of the data collected during the research activities.

Focus Group

Pedagogy and quality appear to be inextricably linked to the processes involved in the creation of learning materials. Learning designers need a thorough understanding of and the ability to apply theories of learning and teaching. They should do this as part of an iterative development cycle that must start with an extensive analysis of the requirements and the audience. As a result of this analysis it should be possible to draw up an explicit description of the intended outcomes of the whole development process. This description or thorough specification needs to be understood by all parties on the development and the client side. In an integrated project team where production team members and client representatives work in close conjunction this understanding is likely to be improved.

Quality is an awkward term to define and means different things to different people. In the context of designing learning materials, quality can be expressed by how well the final product fits the specification. Any changes in the specification should have been managed within the development cycle and the product adjusted accordingly.

Cost is important and the product should have been designed from the outset to match the client's budget and requirements. The design should be optimised for efficiency with both the learner's experience and the client's expectations in mind.

Given all the processes involved, the design of quality learning materials relies heavily on the quality of the knowledge and skills of instructional designers. Therefore, their own professional training needs to be of a high standard. They need to be able to liaise with clients and other individuals such as subject matter experts, developers, and project managers and talk to them in clear terms. Quality can be adversely affected by misunderstanding. The application of sound pedagogic principles is vital but instructional designers should not confuse issues by using the language of that specialist domain.

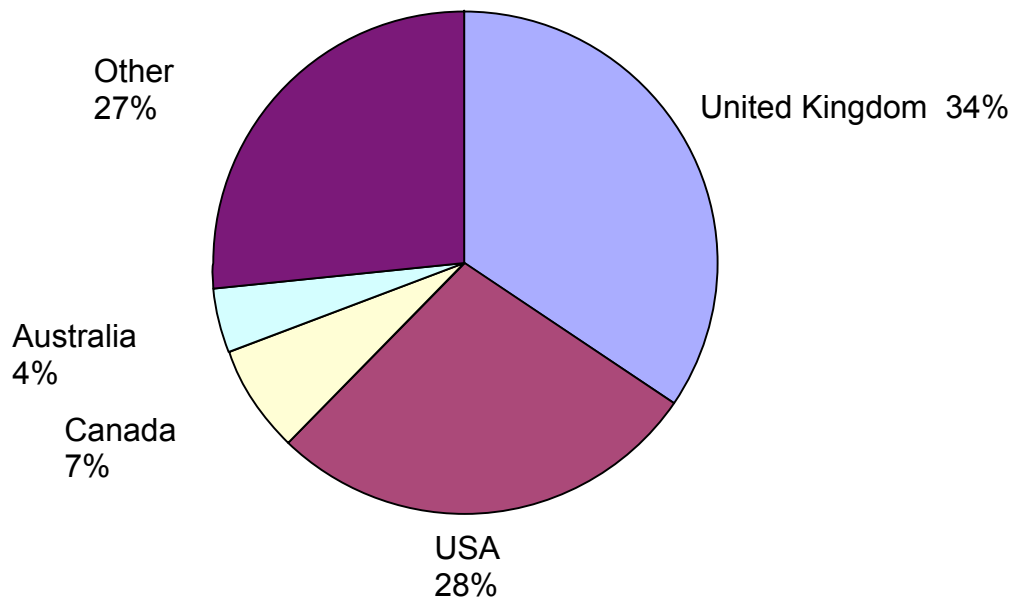
Members recognised that best practice is not limited to process. Successful implementation of processes largely depends upon the individuals who have to work within those processes and providing them with the right training and development.

Online Survey

Organised by topic, a selection of the main results and findings from the online survey is presented below, including, respondents' location, training and education, work background and training and professional development opportunities.

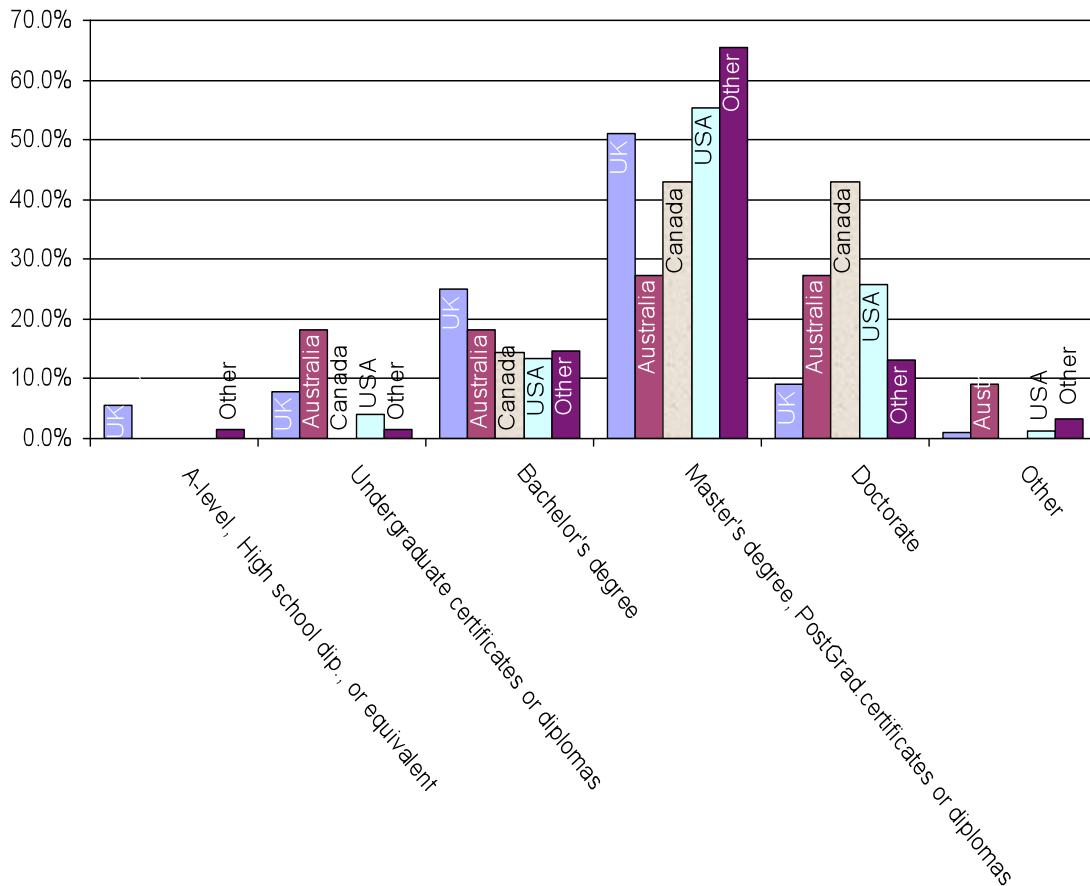
Location of respondents. In total, 307 individuals responded to the online questionnaire. Responses were grouped by category to reflect the four major regions that were targeted: the UK, Australia, Canada, and the USA. The category "Other" was used for respondents from the rest of the world. Because a convenience sampling strategy was used it is not possible to establish a response rate. The numbers of respondents, by region, were as follows: UK 106, Australia, 13, Canada 21, USA 85 and 82 from other countries. Respondent percentages are shown in Figure 1.

Figure 1: Respondents by Region



Training and education. Respondents from all regions indicated their highest level of general education. Most had attained a master’s degree or other postgraduate certificates and diplomas. Over 25% of respondents from Australia, USA and other regions held a doctorate. The highest percentage of respondents with a doctorate was from Canada (43%) and the lowest (9%) from the UK. As can be seen from the data represented in Figure 2, 6% of UK respondents attained a highest general education qualification equivalent to A-level or high school diploma. Respondents from the UK had the largest proportion of lower-level general education qualifications from any region.

Figure 2: Highest General Educational Qualifications of Learning Designers All Regions



With respect to qualifications that respondents considered relevant to their practice as learning designers, Figure 3 shows the distribution of what respondents from all regions considered to be their highest relevant qualification ranging from no specific training up to doctorate level. However, closer examination of the titles of the various kinds of qualification revealed that, although many of them indeed are relevant to some extent to the practice of learning design as we understand it, only a small subset are specifically designed to provide education and training for learning design practitioners.

Figure 3: Highest Relevant Qualifications for All Respondents

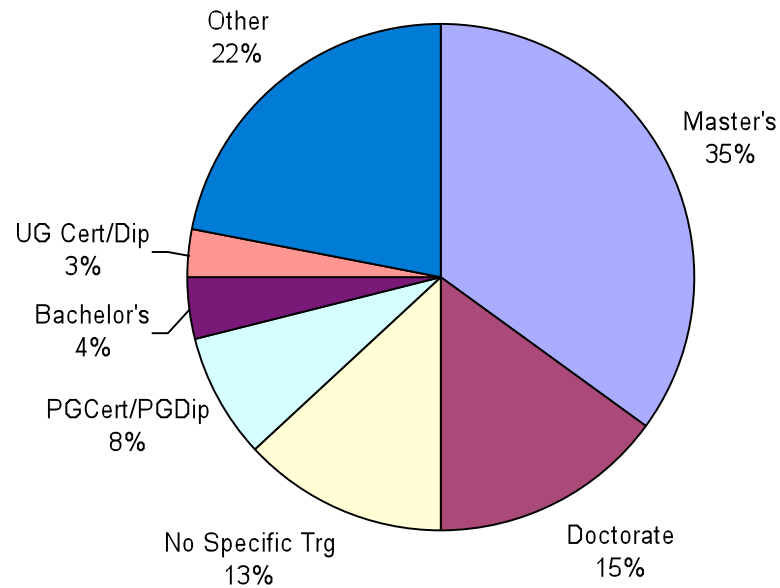


Figure 4 shows in more detail the distribution of highest relevant qualifications by region. Bearing in mind the nature of the qualifications held by UK respondents and the fact that many of them are more relevant to education than learning design, it becomes clearer that in the UK learning designers are less qualified than respondents from elsewhere. Indeed, 23.5% of them have training in the “other” category and 20%, more than any other region, have no specific learning design training.

Nearly 85% of respondents either agree or agree strongly that, overall, their training and education has prepared them for their current roles. Only 10% of the total shown in Figure 5 disagree or disagree strongly and 17% remain neutral. In all, it appears that there are high levels of satisfaction with training and education. However, Figure 6 reveals a completely different story with respect to the UK and USA.

Figure 4: Highest Relevant Qualification by Region

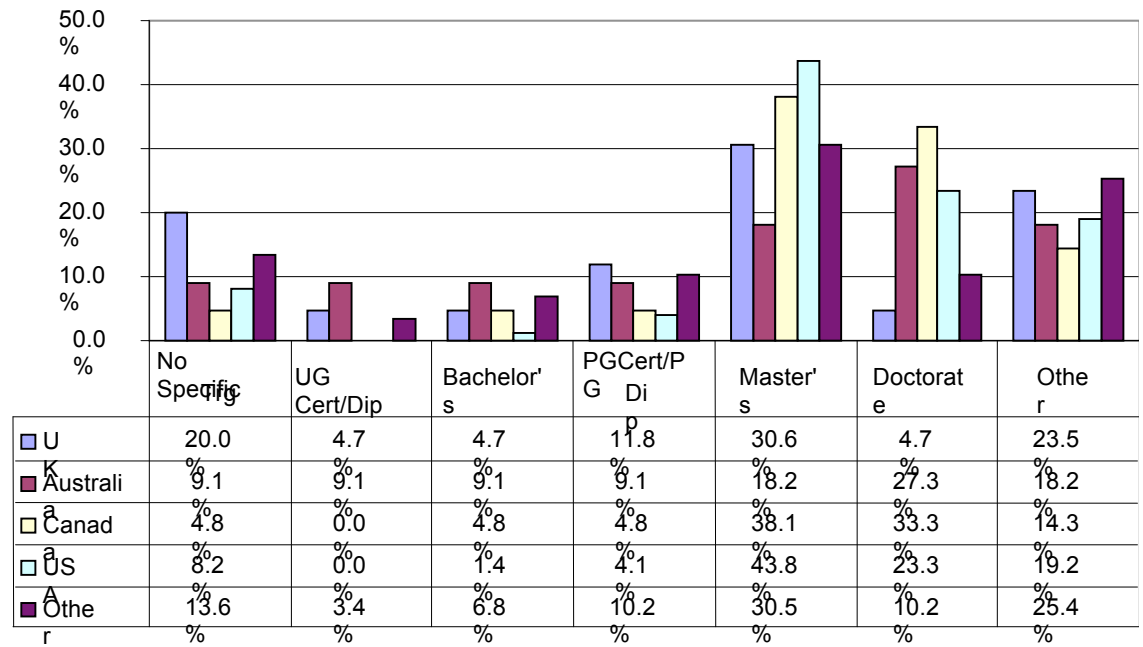


Figure 5: Levels of Respondents' Agreement that their Training and Education has Prepared Them Well for their Roles

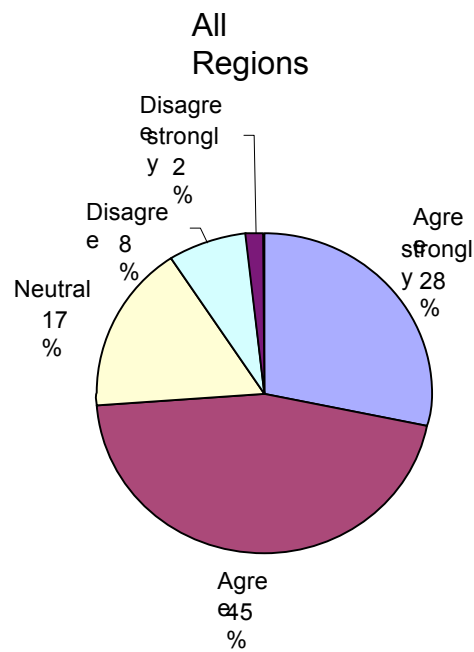
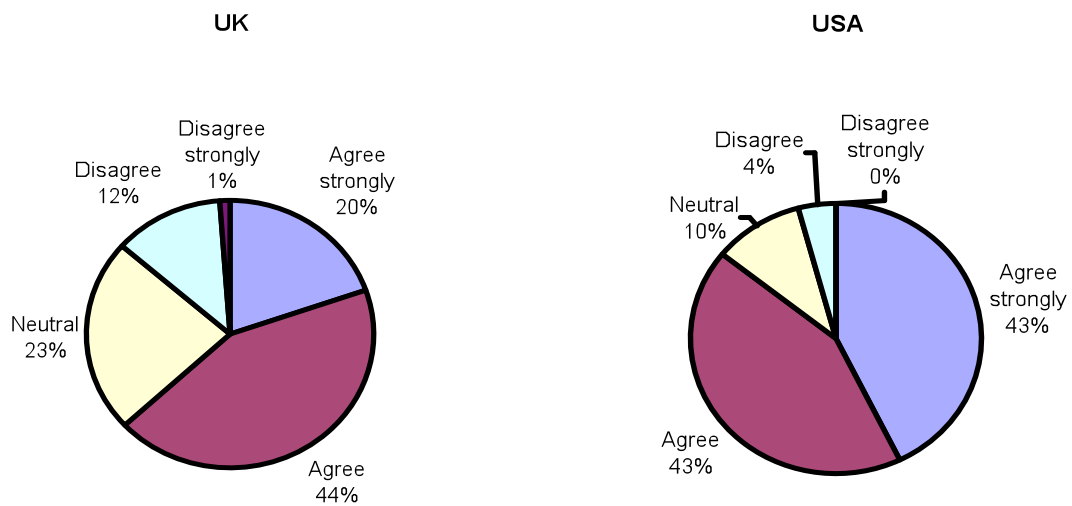


Figure 6: Comparison of Satisfaction with the Quality of Training and Education in the UK and USA



Work background. As can be seen from Figure 7, 50% or more of respondents working in the UK, Australia, Canada and the USA have spent at least 10 years in their current role. Respondents' job titles vary greatly which reflects their different working situations. Many of the job titles given such as CEO (chief executive officer) and Lead Game/Simulation Designer or eLearning Consultant and Director of Distance Education indicate either a commercial or academic post with approximately equal proportions of each type. Several, mainly in the USA, are simply working in roles with the title of instructional designer or instructional systems designer. The choices of terms offered and proportions of the total number of respondents are shown in Figure 8.

Figure 7: Number of Years Spent Working in Role as Learning Designer

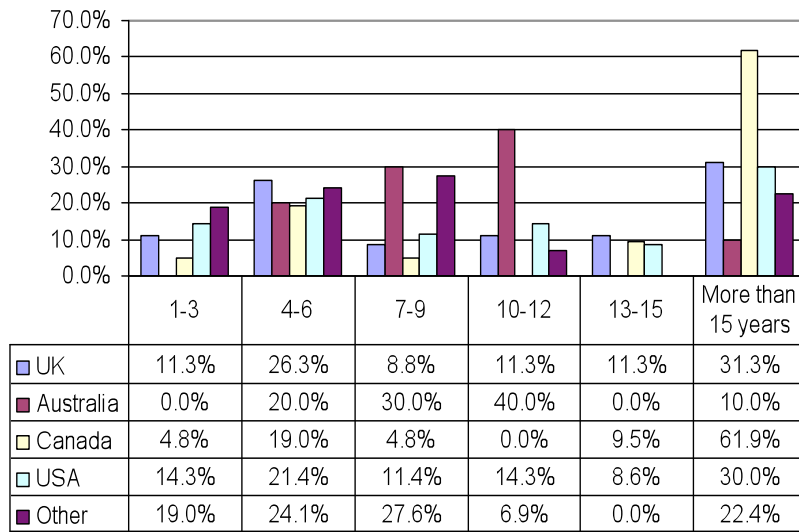
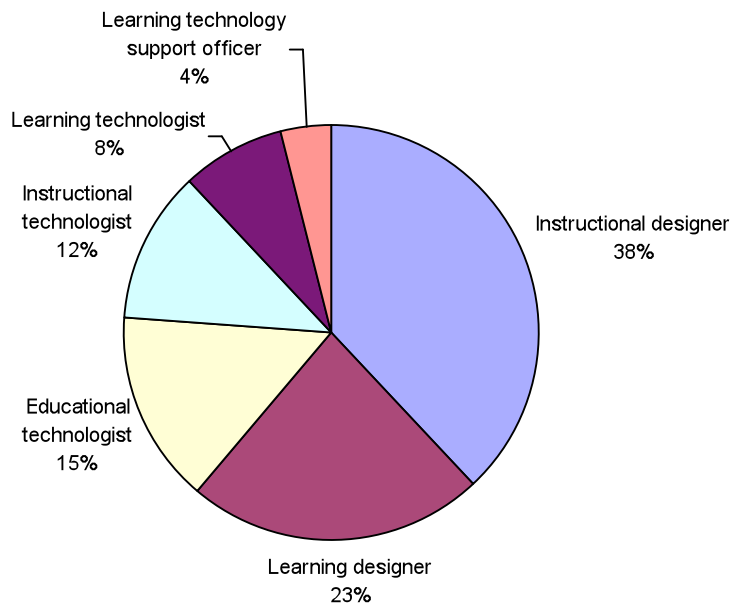
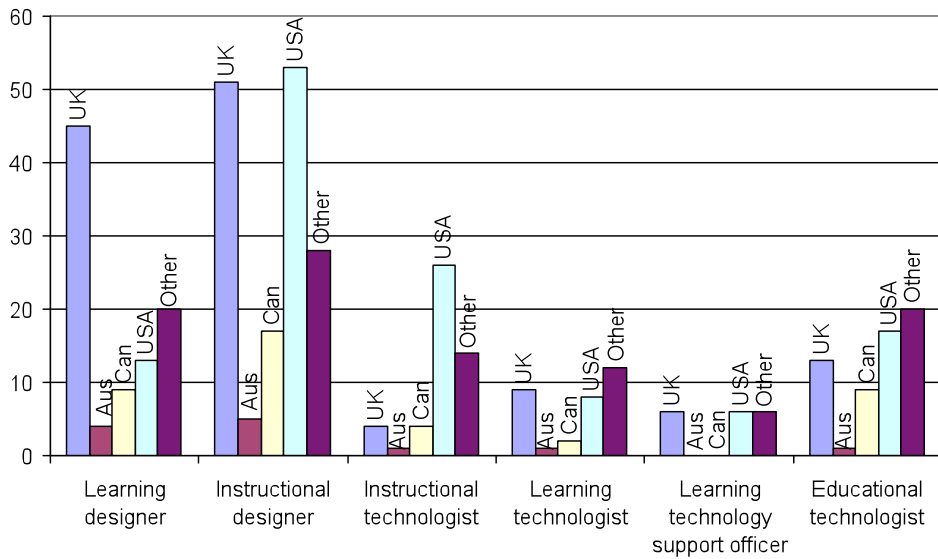


Figure 8: Other Terms Used to Describe Learning Designer Roles



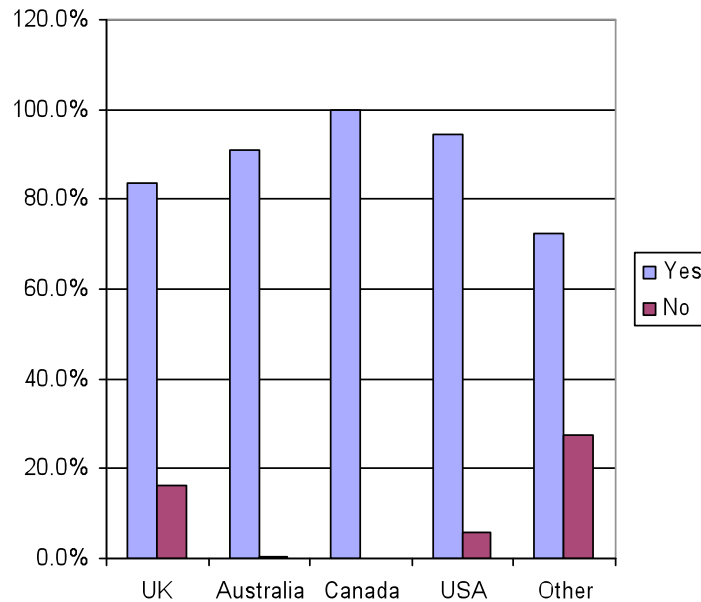
The term learning designer is used in the UK more than any other region to describe respondents (45%), nearly as much as instructional designer (51%). In the USA, Australia, and Canada there is a clearer distinction between the uses of the two terms with instructional designer a much more common role description. It is interesting to note that terms beginning with ‘instructional’ such as instructional designer and instructional technologist are generally more popular in the USA than those beginning with ‘educational’ or ‘learning’. This might be a reflection of differences in the way that learning design and instructional design are viewed and support the reasons for the use of the term learning design as discussed above. Figure 9 indicates the use of the various terms by region as reported by the respondents.

Figure 9: Other Terms Used to Describe Learning Designer Roles by Region



Training and professional development opportunities. Of all respondents 86% indicated that they were aware of training and professional development opportunities available to them. When the total response is presented by region, as in Figure 10, it becomes obvious that respondents from regions in the Other category (27.6%) and the UK (16.3%) are less aware of training and development opportunities being available to them. The Canadian and Australian elements of the sample seem to have knowledge of more opportunities but these are derived from relatively small samples; 5.6% of USA respondents are not aware of these opportunities.

Figure 10: Awareness of Available Training and Development Opportunities by Region



Contact details for further research. In the final section of the questionnaire respondents were asked if they would like to become involved in further research. By providing their contact details, they were told, they would be able to do so. Table 1 shows the number and percentage, by region, of respondents who submitted their contact details for further participation in the research.

Table 1: Numbers of Respondents Who Agreed to Participate in Further Research by Region

Region	Total responses	Contact details	Percentage
UK	106	52	49.1%
Australia	13	6	46.2%
Canada	21	11	52.4%
USA	85	31	36.5%
Other	82	28	34.1%

Interviews

In all, 15 interviews were conducted with learning designers from the regions targeted by the research: UK (5), USA (5), Canada (2), Australia (2), and New Zealand (1). Despite the willingness of respondents from other regions such as India and South Africa to participate in further research, it was only possible to arrange one interview, in this case with a participant from New Zealand.

Much of what interviewees said about the fundamental skills required by learning designers can be summed up by one who said that “at the very core [of learning design] are analytical skills and the creativity and knowing all the fundamentals of adult learning and of performance improvement.” With respect to theories of learning and teaching many of the interviewees seemed to echo the thoughts of a UK learning designer who remained “unconvinced that anybody has yet taken current theories of learning and made something practical from them in terms of guidance for people who are developing learning materials that are going to be used in a workplace environment.” Although almost all said that training should have a very strong practical element — perhaps involving placements and internships — there is an undercurrent of agreement that theory does have a role to play so long as it can be clearly related to practice.

Among the skills that learning designers must also acquire are those of being able to work both independently and as a member of a team on project-based tasks. Frequently they will find themselves working directly with a wide range of people. These could be internal or external clients, developers or subject matter experts. To work with these people they need to develop strong interpersonal skills and learn how to negotiate, interview and question effectively. Often, they will need to have conversations with people in business and will therefore need an understanding of the business environment and be able to talk to them in, as it was put by one interviewee, “a language that they can understand.” The interviewee emphasised that this ability is essential in order to “glean that information out about those realistic scenarios and tasks” upon which they will be basing their designs.

The provision of training and education opportunities for learning designers in the UK at any level appears to be worse than in other regions. This situation is reflected in the comment of an interviewee who said “Somebody really does need to be commissioned to produce an e-learning course on e-learning design, you know, because that’s the medium one is using. We just have not got anything adequate in this country and the state of affairs has been like it for nearly the last 20 years.”

While the support for professionalisation is very strong, some voice concerns that any attempts to form a professional body could be seen as a money making exercise. Worse, others see that professionalisation could lead to elitism and the exclusion of individuals with precisely the skills, knowledge and experience that should be recognised after many years of working in the field. UK-based learning designers taking part might have a stronger desire for professionalisation through standardisation and qualifications because they are currently not very well served by any professional body.

Survey of Education and Training Opportunities for Learning Designers

From the survey of further and higher education courses and those that are offered commercially 26 courses were identified as having relevance to the field of learning design. Nine of these came close to fitting the requirements for training learning designers, as evidenced by our literature review of learning design competencies.

With over 4000 accredited degree awarding institutions in the USA and nearly 100 in Canada, a full search comparable with that carried out in the UK was considered to be impractical and beyond the scope of this research project. However, simple Web searches and searches of databases in both regions readily produce numerous results — far more so than by conducting similar searches in the UK. These results are sufficient to indicate that, given the number of institutions, it can safely be predicted that, relative to population size, many more courses exist in North America than can be accessed in the UK.

Current Practice

The data is providing a picture that indicates that in the UK there is a need for more practice-based training and education for learning designers. Of the nine opportunities identified in the UK, six are either higher education programmes or certification programmes offered by organisations associated with a higher education institution. The two most relevant are a postgraduate certificate in e-learning design offered by the University of Sussex and University of Brighton and the Trainer Assessment Programme developed by the Training Foundation which includes a certificate in e-learning development skills.

Concluding Comments

The main research activities were carried out to establish the state of the learning design profession in the UK and to examine the differences between the UK and other regions, primarily North America, in order to inform UK practice and make recommendations. Although the analysis of all the data collected is as yet incomplete, the data analysed thus far makes clear that there is a broad consensus amongst practitioners across the world about what constitutes the relevant knowledge and skills for good learning design practice. As noted in the introduction, our research was guided by three research questions:

- Is learning design more established as a profession in the USA than in the UK?
- Are there more opportunities for the education and training of learning designers in the USA than in the UK?
- Are there aspirations amongst learning designers within the UK for the field to become more professionalized and for there to be greater opportunities for education and training?

Here is a brief summary of what the findings have to say in respect of the questions:

- Relative to the USA, there is a paucity of relevant learning design courses in the UK.
- The focus group activities, online questionnaire data and interviews all indicate professionals in the UK perceive a lack of education and training opportunities and a general lack of professionalisation of the field in the UK.
- They clearly show that practitioners in the field have aspirations for the field to become more professionalised, with greater opportunities for education and training.

It is hoped that in due course the publication of our full research results will prove useful to those trying to remedy shortcomings in the UK.

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