1994

Instructional design: how do we know our learners?

Chris Morgan
Southern Cross University

Sophie DiCorpo
Southern Cross University

Meg O'Reilly
Southern Cross University

Instructional Design - How do we know our learners?

CHRIS MORGAN, SOPHIE di CORPO & MEG O'REILLY
Centre for Professional Development in Health Sciences
Faculty of Health Sciences
Southern Cross University
P.O. Box 5005, East Lismore NSW 2480 Australia
cmorgan@scu.edu.au

Abstract: This paper provides some background discussion to a workshop in which we will seek discussion on issues of evaluation and research of instructional design activity in distance and open learning. We question the theoretical underpinnings of instructional design and its appropriateness in open learning contexts. In particular, we question the usefulness of research containing limiting assumptions about how learners should appropriately use study materials. The workshop aims to raise these issues as a starting point for input to the development of an instructional design research and evaluation project which is currently being devised at Southern Cross.

Background discussion

Very few people here today would argue against the need for instructional designers in higher education. As practitioners we all understand how we are often engaged in propping up the development of distance and open learning programs which are characterised by poor planning, lack of funding and often staffed by teachers who are underskilled or overworked. We find ourselves occasionally wondering how a program could have ever got out on time or to a survivable standard or in a presentable, readable format without our input.

Yet despite our shared belief that we are irreplaceable, there are of course others who would beg to differ. Instructional design is viewed with suspicion in some quarters. Many others are either unaware of our existence or are unsure of our roles or expertise. We number probably no more than a couple of hundred people and we remain more or less on the margins of higher education in Australia

Its probably fair to say that instructional design as a profession is still in its infancy in Australia. The very term itself is subject to considerable debate as an appropriate descriptor for the work we do. Other important questions surround our practice: Are we academics or higher education workers? Are we integral to the large picture of program development or do our activities represent one discrete step in an industrialised production line. Are we project managers or course team participants? Do we practice flexibly and creatively, or are we wedded to systems which inform and guide our practice within set parameters? The answers to these questions will vary widely between institutions, because, of course, there is no one way in which instructional designers are employed or utilised in higher education, and nor is there one accepted way in which we as practitioners view our work.

If this is not enough to create confusion in the minds of our colleagues in higher education, consider also the division within the ranks of instructional designers ourselves regarding the body or bodies of knowledge which underpin our practice. There are the behaviourists, the cognitivists, the social constructivists and any number of variations and permutations in between. If there is confusion about who we are and what we do, perhaps it is our inability as a profession to explain ourselves - to articulate a shared philosophy and series of approaches that represent contemporary practice.

For those who are sufficiently confident of the theoretical foundations of their work, this may not present as too much of a problem. While we all need the confidence to

carry out our tasks, the danger with this stance is a complacency about our practice and a prescriptiveness about our work which only adds to our marginalised status. We should not be afraid, at this infancy stage in our profession, to return and question even some of the very basic assumptions in our practice. For ourselves, we can't say that we are sufficiently confident about any component of our professional practice that we can say we have things right. Moreover, we are regularly humbled when scanning the bibliographies of published works and realise how much more there is to read at any given point. And perhaps we're all guilty, to some degree or another, of selective blindness when it comes to assimilating the research findings in the field which don't accord with our world view of instructional design.

Given the range of differences, both structurally and philosophically which characterise our profession, the questions looms: What do we have in common, and how can we dialogue?

Finding common ground

One of the most visible areas of common ground in instructional design is the series of instructional devices and strategies we incorporate daily into those reams of materials which we produce - objectives, icons, access devices, concept maps, headings, margin notes, graphics and tables, advance organisers, activities, feedback, summaries, and so forth. This list may vary between institutions and also between designers, but this is certainly the kind of stamp we leave that says: Instructional designer was here!

At Southern Cross we use a range of these strategies and devices in our materials to varying degrees. We use them selectively, based upon our understanding of who our learners are in any particular program, their needs and vocational aspirations, as well as other considerations such as the nature of the subject matter, the goals of the program, the level and nature of dialogue and support learners receive, and so forth.

Yet our practices rely on an ever increasing range of assumptions. Why, for example, do we use objectives? Who are they for? How do learners use them and in what way are they of value to learners? Do learners really find self-assessment activities useful? What kind and when? There are a whole host of questions like these which are frequently posed to instructional designers and for which we have ready answers - often the same sort of answers which are frequently found in the proliferation of the 'do-it-yourself' instructional design manuals and guides available to paraprofessionals in the field. The question remains in our mind whether these 'answers' are based on appropriate research, or received wisdom or simply anecdote. In a profession which is seeking credibility and contains a high level of accountability for decision making, we cannot afford to be complacent about these issues. What do we know about our learners and the way in which they use the materials we develop?

Recent Australian research

The research study by Marland, Patching & Putt (1990, 1992) of James Cook University indeed throws into question the usefulness of a range of textual teaching strategies commonly, and often unthinkingly used by instructional designers, such as objectives, advance organisers, self-assessment questions, and so forth. By observation and interview, the researchers analysed how tertiary level distance students used and learned from textual materials in 'real life' study contexts, in an effort to test the validity of earlier findings in experimental prose learning research. The textual design features upon which they focused in their study included objectives, tables of contents, headings and underlining of text, in-text activities, non-verbal devices such as tables, graphs, and diagrams. This research will no doubt be disturbing for any designer who is deeply committed to these features as it was found that they were largely ignored by students, and if used at all, they were not used in a way that is commonly intended. The findings of this study, however, are quite at odds with those of Parer (1988) who, using

a similar methodology, found in his Gippsland study that students valued and were aided by similar access structures and features. He concluded that the importance of textual design for study guides should be recognised by providers of distance education and their use encouraged and developed.

Whilst there are interesting discussions to be drawn from the markedly different findings of these two studies, what is of particular significance to us is that both studies were operating within a very traditional distance education paradigm. Both studies assumed that distance learners studied in isolation, tracking through their study guides in a linear fashion with learning occurring by the act of 'processing text'. Inherent in their research design were implications that there are proper and improper ways of using the study materials, and that distance learners' right of veto' of institutionally led discourses is undesirable. We wondered whether the researchers themselves had ever studied by distance and enjoyed that unique freedom of organising one's learning in the way that you choose - perhaps skimming the materials and focusing on sections relating to assessment, or engaging in a fertile conversation with a colleague which triggers more learning than all the study materials put together.

Participants in these studies were classified as 'deep' or 'surface' learners, yet there is little qualification, discussion or problematising of these concepts, particularly in the context of study by distance education. Marland et al (1990) are particularly punitive in their assessment of learners' use of study materials:

> Looked at together, these slices of study behaviour create a none-to-impressive overall picture.....Their processing of text was very rapid and characteristic of a surface approach to study, In practice, they all appeared, to a greater or lesser extent, to be satisficers, doing what was necessary but little or nothing else. (p.27)

We wonder whether these learners engagement with study materials formed only a minor part of their own unique learning curves. While there is much of interest in these research findings, future research undertakings need to reconceptualise the parameters of enquiry and evaluation of our efforts in the light of our shared aspirations in open learning. Is 'text processing' an adequate measure of learning? Are we recognising the diversity of backgrounds of our learners and promoting flexibility in study and use of learning resources? Are we encouraging, by our instructional design efforts, to enable learners to develop independent and critical thought? Do we equip them to become lifelong learners? How do we know what *they* want from the resources we develop?

Devising new research

With these questions in mind, we are seeking to conceptualise a research and evaluation project with the aim of better understanding what our learners really want or need from our materials and at which stages in their study pathways. We'd like to get a better understanding of how our materials meet their expectations and learning goals, as well as suiting their preferred study habits as open and distance learners. To achieve this, we need to set aside preconceptions or value judgements about what are 'legitimate' methods of learning or appropriate forms of instructional design. We are particularly interested in collaboration with other institutions to widen the scope of the research and to provide a network of shared information on research and evaluation efforts. To answer the question we posed earlier, we would like to suggest today that the most fruitful common ground for dialogue in instructional design is through collaboration and the sharing of our efforts in evaluating and reflection upon our practice.

References

Marland, P., Patching, W.G.,Putt, I. & Putt, R. (1990) 'Distance learners' interactions with text while studying' *Distance Education* Vol 11 No 1

Marland, P. Patching, W.G. & Putt, I (1992) *Learning from text: Glimpses inside the minds of distance learners* Townsville: James Cook University of North Queensland

Parer, M S. (1988) *Textual Design and Student Learning* Gippsland: Centre for Distance Learning, Gippsland Institute of Advanced Education.