LIMMD Author Guide

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Table of contents

Document overview

This author guide is written for authors and reviewers of online learning materials that are intended to be used in a flexible context by students and tutors. It contains recommendations on the underlying pedagogy, structure, style and design of distance learning materials produced for the Linking Macro and Micro Data Project (LIMMD).

It is the intention of this guide to draw together good practice to ensure consistent high standards for the future development of distance learning materials by MIMAS at the University of Manchester.

This document is split into sections as follows:

- **Project overview** – A brief overview of the project's history and an outline of its aims and objectives.

- **Deliverables –** this section details the scope of what MIMAS expects from each LIMMD project author in terms of completed material.

- **Pedagogic principles** – this section draws on feedback from existing users of the Economic and Social Data Service (ESDS). The framework outlines the practical requirements of the project stakeholders and the pedagogic needs of the learners and suggests some ways in which these needs may be met.

- **Learning elements** – this section contains advice on how to structure distance learning materials and describes the essential components of a unit including guidance on providing an effective mix of web based and self study activities.

- **Style guide –** this section contains guidance on the preferred writing style for producing effective distance learning material, and writing materials that cater for the specific needs of the isolated learner.

- **Formatting guide** – this section of the guide covers design and technical issues, such as formatting and layout points. It also contains information on the style and submission of learning and teaching materials for this project.

- **Appendices** – Including author checklist document, guidance on the ESDS data services.

1 Project overview

The Linking International Macro and Micro Data (LIMMD) project is funded as part of the ESRC Researcher Development Initiative (RDI) (http://www.rdi.ac.uk/) to raise awareness and provide training and support for researchers in the use of the inter-related survey and aggregate data resources that can be accessed through the Economic and Social Data Service International (ESDS) (http://www.esds.ac.uk/international).

The project will achieve its aims by developing a course on linking macro and micro datasets which will be delivered to students in an online learning format. The course will comprise six units designed to cater for the needs of researchers with a broad range of experience in statistical analysis and the use of international data sources. The content and any associated datasets will be commissioned from key experts in the field.

Audience

The course is targeted specifically at post graduates and researchers but may also be of interest to undergraduates. Currently postgraduates and undergraduates account for almost 75% of the registered users of ESDS International.

Presentation

The learning materials will be developed *primarily for use over the web*, but offered initially as a one day face-to-face course in order to gain feedback from students and presenters about approaches that work well. Content will then be edited and expanded based on the comments received. Another iteration of the face-to-face course will be run towards the end of the project, once again monitoring reaction from those who take part and adapting the material accordingly. After this process is complete, the material will be made available via the ESDS International website and deposited in the *Jorum*[1] learning object repository.

Additional face-to-face events may be organised through MIMAS according to demand.

[1] Jorum is a **free** online repository service for teaching and support staff in UK Further and Higher Education Institutions, helping to build a community for the sharing, reuse and repurposing of learning and teaching materials.

Objectives

- Promote increased and more effective use of both aggregate and survey data in international comparative research across a range of topics.
- Develop improved linkages between ESRC funded training activities and ESRC funded key data resources
- Promote increased awareness of the methodological, statistical and technical issues associated with linking aggregate and survey data.
- Enhance the range of training activities offered by ESDS International.

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2 Deliverables

As a content author, you will work with a Learning Technologist and a Content Reviewer from the University of Manchester to create learning materials in line with the project's guidelines and standards.

The following are the key deliverables:

- List of learning objectives for unit
- Unit structure
- Photo and biography of the author
- Learning materials (draft)
- Any assets – images, additional documents
- Learning materials (final)
- PowerPoint outline
- Tutor guide
- Metadata description of learning resource
- Contributors licence agreement

Learning objectives

Before starting to write your chosen unit you will produce a set of between three and five achievable student learning objectives as bullet points and send them to the project team for comment. A detailed look at writing learning objectives for this project can be found in the *Learning elements* section of this document.

Unit structure

As above, prior to writing any content, you should create a structure (table of contents) for your unit that outlines the topics that you want to cover and a notion of any activities that you want to include. Notes on structuring learning materials can be found in the *Learning elements* section of this document.

Photo and bio of the author

Each author is encouraged to contribute a short biography and head and shoulders style photograph to be included in the course introduction. The purpose of the bio is to remind users of the course of your credentials in the subject area. Keep this short, 150 words or less is fine focusing on professional achievements and research interests.

Learning materials

You should prepare all parts of your finished learning materials document (intro, body text, any acknowledgements, reading lists, references etc) using Microsoft Word (Word 2003 is the current version). Your completed material should be sent to MIMAS in electronic format accompanied by a single paper copy printed on one side only. Please leave this proof copy unbound.

Do not attempt to 'design' the completed layout of your material, try and keep this as simple as possible, the Learning Technologist at MIMAS will work with you to

ensure the consistency of finished materials and that they meet the project's 'house style' and the university's quality control procedures.

All of the material (for instance, if you have artwork that you wish to include) must be delivered to MIMAS at the same time, along with the necessary copyright clearance[2].

Length
The core content of each unit will provide approximately one hour's worth of study. As a general guide, about half of this time will be taken up by reflective or practical activities, written by the author, *based around use of the ESDS International resources* with the remainder of the unit containing explanatory text and illustration. You are encouraged to link to existing materials where appropriate rather than duplicate or paraphrase content already in the public domain. In addition to the core material, you should include a number of other exercises, activities and resources that students can explore in their own time.

As a *rough guide* you should provide about twenty pages of 1.5 line spaced text for a one-hour unit (including references but not including digitised texts or hyperlinks) where each page contains approximately 150 words i.e. about 3000 words in total. You should not feel constrained by this guide and provide the material necessary to fully examine key concepts; authors should indicate material that is additional (further reading) to the core content.

Assets

You can include datasets for teaching, photographs, illustrations, diagrams, interactive elements or additional text materials that explain or enhance student understanding of your material. Each figure should be accompanied by a caption and a description; textual equivalents must be created for all figures containing information not contained in the body text.

Please note that illustrations and interactive elements can be created for your unit by the project's Learning Technologist. These should be discussed with the LIMMD project team as early as possible to allow for production.

PowerPoint slides

You will provide a basic PowerPoint presentation to compliment the online learning materials this may be used at any face-to-face teaching sessions. The presentation should contain the key-points of the learning materials and any notes that are appropriate. Please keep these slides as simple as possible and avoid designing in elaborate transformations. All presentations will be given a uniform look and feel by the project's Learning Technologist.

[2] See forthcoming documentation on contributors licence

Tutor guide

All material created for this course is to be designed with re-use and re-purposing in mind. This may mean a range of differing uses for the learning materials will arise in the future. For instance, tutors may wish to integrate parts of material into their own lesson plans.

A concise tutor guide of no more than a single side of A4 should be prepared explaining *why* certain topics have been included and suggesting *how* potential students could use the materials, what they should be learning, and especially, when and with what parts of the subject they are likely to need assistance.

Metadata description of learning resource

The completed materials will be held in a learning object repository (LOR) such as the *JISC*[3] funded *Jorum* resource where the course materials will be freely available for download, re-use and re-purposing by the wider academic community. In order to maximise this re-use, all materials *must* be accompanied by a short metadata description sheet which is to be filled in by the content author. This sheet will be sent out in due course.

Note that the actual depositing of material in the LOR will be carried out by the Learning Technologist at MIMAS.

Contributors licence agreement

Content will be supplied by the respective authors under a contributor licence for publication and distribution via the web. A copy of the content contributor's licence agreement is included in will be sent out to each author once it is available, it explains the copyright implications of working on the LIMMD project.

Note that by agreeing to the conditions in the contributors licence agreement you are not giving away rights but simply allowing your work to be used in specified ways.

[3] JISC works with further and higher education by providing strategic guidance, advice and opportunities to use ICT to support teaching, learning, research and administration.

Pedagogic principles

The pedagogic framework for this course is based around supporting flexible independent learners working individually to acquire practical data manipulation skills that are transferable to a range of research settings. The nature of the course material and the probable backgrounds of the prospective students lends itself to an activity-based online learning methodology.

The learning materials will be designed around a transparent and recognisable course structure that enables learners to be quickly aware of what is expected of them, plan their study time effectively, and move seamlessly from one unit to another. The proposed structure for your material is discussed in *Section 3: Learning Elements*.

Flexibility

Flexibility is important to the learners on this course. Students will be able to dip into the course, study at their own pace and build study times around work and family commitments.

Independent Learning

Students using the LIMMD learning material will be, for the most part, experienced learners who will have already developed successful study patterns and learning strategies, and as such, are able to work independently given the appropriate tools and feedback. The online learning material for this course will be designed for use *without* the additional tutor support and communication tools such as discussion fora, chat, email that one may expect to be associated with this type of learning (although there may also be the opportunity for some collaborative activities during the two timetabled face-to-face sessions). Therefore students on this course will place far more reliance on the material for guidance than their classroom counterparts.

As an author of online learning materials you must be aware that is part of your remit to write material that offers appropriate student support. There are a number of techniques they can use to support independent learning including:

Supporting various levels and approaches to study

Your material will be consistently structured and allow students to work through it in a sequential manner to cover all areas of the course. However, students will also be able to select at a glance areas of particular interest by highlighting facts and summaries. Unit overviews will be provided to enable students to acquire an holistic view of the materials to be studied.

You will provide guidance on alternative ways of using the material and completing activities. Material should contain suggestions/opportunities for users to work through resources more quickly by skipping over certain materials/activities (this should be possible where certain material is of secondary

importance) and for study over a greater time scale by including additional practical, research and reflective activities.

Testing understanding
Although the materials are not formally assessed, students must be able to judge their progress and understanding of the materials. The material that you write will include the tools to allow students to do this, and may contain self tests, opportunities for the student to compare their thoughts with the author's and reflective activities that specifically challenge common areas of misconception. Testing should be aligned closely to the unit's learning outcomes.

Provision of Feedback
Students using the LIMMD project material will, for the most part, not have the benefit of specific contact with you or other students using the material. It is therefore vital that you give ample and appropriate feedback so that students do not become confused about key concepts.

Consolidation
You should build in additional activities and resources that can be used by students to consolidate their learning out with the core study sessions. These additional exercises will enable students to develop deeper understandings and connections with the concepts to which they have been introduced, and will provide an opportunity for them to practice the skills they have acquired.

Information about the material
Wherever possible you should explain to students *why* they are being asked to undertake a specific task and provide as much feedback about the material as possible this may include:

- How long a specific task or activity is likely to take
- The relative importance of specific material or activities (whether they are core or additional)
- Difficulty level and whether prerequisite knowledge is needed (elementary skills or techniques that should be mastered before attempting certain activities).

Activity-based learning

Activity-based learning actively engages learners in authentic learning activities and to puts learners in the kinds of situations in which they need to use those skills.

Why take this approach?
Learning purely from trying to remember content by listening to lectures, viewing presentations or reading documents, will hardly ever assist learners learn much more than a shallow impression of the material. To help students reach deeper levels of learning, they need to have learning experiences that will allow them to learn by *practicing the application of principles and concepts in real-world*

contexts. Students who achieve these deeper levels of understanding are more able to transfer the learning to new environments.

Authenticity
The learning material will focus on examples adapted from authentic research questions. *It will explicitly relate these examples to 'live' data currently held within the range of macro and micro datasets by ESDS International*[4]. It is important to relate examples back to data held within ESDS International rather than from other sources. MIMAS can assist you to develop specific data sets as required.

Emphasis will be placed on producing examples that highlight the benefits of combining macro and micro datasets. Using this example-based approach will allow students to develop their own transferable and adaptable research skills.

Activities will be built into the material to encourage personal reflection on how ESDS resources could be used within students' own research activities and promote greater knowledge of the research tools and methods available.

Students may be better motivated to learn if the learning activity is meaningful and if the knowledge is useful and provides a means of achieving a desired goal. Activities may include case studies and other student centred activities based on topics that demonstrate theoretical concepts in an applied setting. Case studies are a good medium for encouraging students to carry out independent research outside of the lecture/tutorial environment.

Specifically challenging misunderstanding
Feedback from ESDS International macro data courses revealed a lack of understanding among students of how best to create links between international macro and micro data, with particularly poor use among researchers of the available survey microdata resources. This problem may be caused by a number of factors that the learning material will aim to address including:

- Problems in interpreting microdata
- Presentation of the data itself
- The perceived usefulness of survey data
- Data complexity

By concentrating on examples of successful macro and micro data linking, the learning materials will focus on the advantages of linking data types and equip students with the skills required to overcome some of the challenges.

[4] Please refer to the appendix "Use of databanks in teaching and learning: terms and conditions of use in a teaching context" to find out which datasets are available.

Example

Ronald Ingleheart linked micro data from the World Values Survey with aggregate data fro the World Bank to demonstrate the relationship between GDP and levels of personal wellbeing.

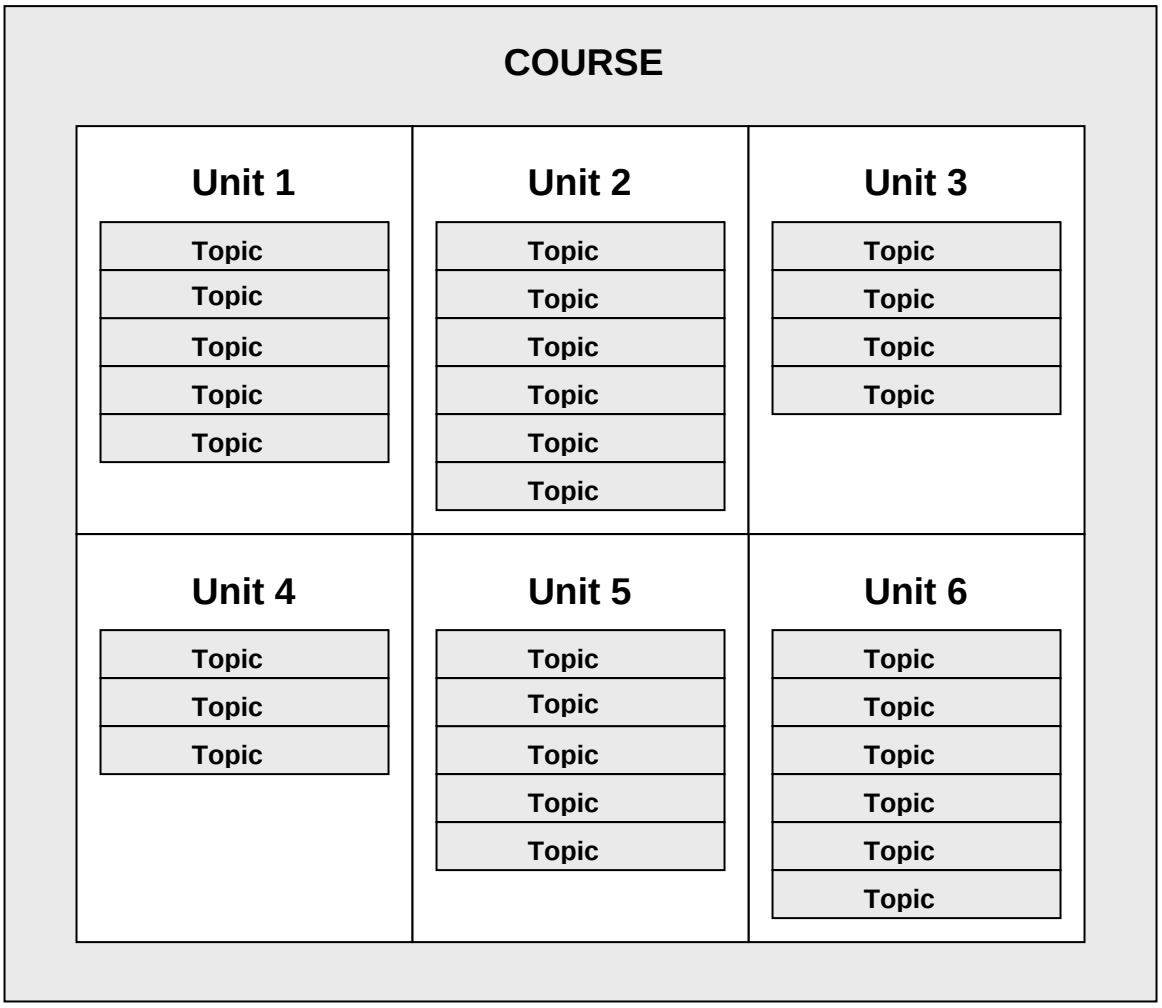
When creating materials for the LIMMD project, authors should have in mind the initial drivers behind the venture and try to focus their writing back to the project's aims and objectives see section one of this document *Project Overview*.

3 Learning elements

This section describes the components to be included in the LIMMD course materials.

Course Structure

The Linking International Macro and Micro Data (LIMDD) *course* will comprise of six 'stand alone' *units* each fulfilling a set of learning objectives, each unit will in turn discuss a number of *topics* (2-6 in each), with each comprising one or more web pages.



The units proposed for this course are:

- Unit 1: The basics
- Unit 2: Content and research applications
- Unit 3: Making cross-national comparisons using macro data
- Unit 4: Making cross-national comparisons using micro data
- Unit 5: Combining macro and micro data
- Unit 6: Multilevel modelling using macro and micro data

Required components of a unit

Note that all units *must* contain the following components:

- Title
- Unit structure / content list
- Introduction
- Learning objectives
- Content presentation
- Conclusion or summary
- Glossary of any technical terms and abbreviations

Title

Each unit, topic and individual page will have a clear and concise *title* that accurately describes its content or purpose.

Unit structure/content list

To facilitate 'mix-and-match' use of the material, *units* will be divided into between two and six *topics*. These will be made up of a number of web pages and are the building blocks of your unit structure. Units should be free-standing and not explicitly refer to one another, remember that the material that you write may be used in a different context in the future. The end of a unit should be marked by a very brief paragraph summarising what it covered. Each unit should contain core and non-core activities, explorations and content.

Before writing learning materials each author should create a structure for the unit they are working on. The following structure is shown as a *guide only* to illustrate the format that should be adopted. Notice that the structure never goes further than four levels deep (i.e. 1.2.2.1).

Unit 1: The basics

Introduction

An introduction should provide an overview of the material, setting the unit in context, and to describe what is expected of the student in terms of effort and the importance of the particular piece of material. The Introduction to a unit is your chance to get the student interested in the material and motivated for what is to come, so make sure it is stimulating as well as informative.

An introduction should also serve as an advanced organiser for the student – particularly those who may chose to study the materials in a non-linear manner; this applies to introductions to sections and activities too.

Learning objectives

Each unit must be clear in its aims and have a clear set of educational objectives. These objectives should be specific, explicit and measurable; they should be expressed using a verb that describes an action that can be observed in the

student (see the examples below). Learning objectives will define the scope of the unit – after reading them, students should know exactly what they will achieve by completing the unit.

Learning objectives should be described in full at the start of the unit and are highlighted at the specific areas in the text where the objective is met. Learning objectives are used by students taking a unit to focus on the key elements their work and to evaluate their progress.

Learning Objectives
May take the format:

*"…by the end of this unit you should be able to **recognise** the difference between X and Y…"*

*"…by the end of this unit you should be able to **demonstrate** the importance of…"*

*"…by the end of this unit you should be able to **determine** how issue X might affect your own research…"*

The following is a **list of suggested learning objectives** for the six units; these have been given *as a guideline only*. It is expected that Individual authors will want to redraft these for their own particular unit and may want to specify learning objectives for each specific learning experience provided within that unit, these should be kept achievable and measurable.

Unit 1: The basics
This unit should cover the basics of using aggregated macro data and survey data. It would provide an overview of the range of international aggregate and survey data sets available, the range of topics covered and the different ways in which data is collected and standardised. Using a series of examples, it would also cover the respective strengths and weaknesses of using aggregate and survey data, i.e. when should an aggregate dataset be used and when can a survey data set be used. Key concepts such as 'ecological' and 'atomistic' fallacies will be introduced.

By the end of this students will be able to:

1. Discuss the basic principles involved in using macro data and survey micro data.
2. Evaluate the range of aggregate and survey datasets available.
3. Recognise the strengths and weaknesses of using aggregate and survey data
4. Summarise the strengths and weaknesses of various data collection techniques
5. Search for specific data using the ESDS resources

Unit 2: Content and research applications
This unit will examine information available in selected macro and micro international datasets, and identify some of the research questions that can be addressed by combining these data. For example, does the country in which you live influence your behaviour? Or, how do overall levels of employment change the way people spend their money? Or, does government spending on health have an impact on individual health? For specific research questions this unit will explore the variable that are available in macro and micro datasets and how they relate to each other (i.e. matrix showing a particular research question/topic which macro and micro datasets can be used, where to get them).

By the end of this students will be able to:

1. Identify the type of research questions that can be addressed using macro-micro data linking.
2. Examine the range of information available in selected macro and micro international datasets.
3. Recognise the variables available in macro and micro datasets and how they relate to each other.

Unit 3: Making cross-national comparisons using macro data
Using a series of examples, this unit will illustrate the forms of cross-national comparisons that can be undertaken using international macro data. Common methodological problems such as differences in data quality and measurement issues will be addressed. It will also highlight which databases are designed for cross country comparative research and also cover existing standards and harmonisation strategies. It will also identify some of the problems that might be encountered when using aggregate data in cross national research.

By the end of this students will be able to:

1. Use international macro data to undertake cross-national comparisons
2. Recognise some of the common methodological problems involved i.e. data quality and measurement issues.
3. Identify which of the available databases are designed for cross-country comparative research.

Unit 4: Making cross-national comparisons using micro data
Using a series of examples, this unit will cover how to undertake cross-national comparisons using international micro data. It will examine some of the methodological issues relating to using data from different surveys, including problems of harmonisation and the role of national context in shaping differential responses across countries. This will draw on examples of good practice such as the European Social Survey (ESS).

By the end of this students will be able to:

1. Use international micro data to undertake cross-national comparisons.

2. Recognise some of the methodological issues involved in using data from different surveys i.e. harmonisation and the role of national context in shaping responses across countries.

Unit 5: Combining macro and micro data

This unit will demonstrate the potential for combining macro and micro data for a specific research question, such as a comparative study of attitudes to voting combined with country or city level turnout data in a cross country analysis. For example ESS consists of samples of individuals in 22 European Countries. The survey asks about media usage; political interests; party attachments; voting behaviour; knowledge of the outcomes of European elections and participants' views on such issues as immigration, policy efficacy, the economy and the environment. These data can be combined with the aggregate voting pattern data available in Eurostat New Cronos, such as the proportion of eligible electorate registered to vote in European elections or the number of male and female representatives elected. This will allow researchers to examine country level influences on voting e.g. institutional factors. Both these databases are available from ESDS International, see http://www.esds.ac.uk/international/access/access.asp. The unit will also cover when a certain type of data should be used and how aggregate data can be used to verify and /or calibrate survey data. For example, in a study on electoral behaviour survey results suggest an 80% turn out in a particular country whereas micro data for that country from official sources puts the turnout at 65%.

By the end of this students will be able to:

1. Recognise the potential for combining macro and micro data to solve specific research questions.
2. Describe when to use certain types of data
3. Demonstrate how to use aggregate data to verify/calibrate survey data

Unit 6: Multilevel modelling using macro and micro data

This unit will demonstrate the application of multilevel modelling techniques using international macro and micro data. It will cover when and how individual and aggregate level data can be combined within a multilevel model, including simultaneous modelling of individual and country level variables. Using a worked example it will cover advantages and disadvantages of a multilevel approach together with a basic introduction to the statistical method. Commonly used multilevel models and practical guides to the multi-level tools available in desktop packages will be provided.

By the end of this students will be able to:

1. Demonstrate the application of multilevel modelling techniques using macro and micro data.
2. Discuss the advantages and disadvantages of a multilevel approach
3. Evaluate and experience a multilevel modelling software package

Content presentation

The learning materials will consist of an appropriate mixture of written material describing (or explaining) facts, concepts, analysis, methods and approaches relevant to use of the ESDS International datasets as well as instructions for undertaking tasks involving analysis/use of the data. The materials will also contain an *abundance* of authentic examples and case studies involving the use of macro and micro data and practical and reflective activity.

Activities

Reflective activities

These are designed to allow students to consider aspects of a case study or example research question and think about how the methodology could be applied to their own research interests. Reflective activities may take the form:

> *"…after completing the previous practical exercise, consider how you could adapt this technique to your own research setting …"*
>
> *"What do you think you could have done to avoid situation x?"*
>
> *"Do you notice anything unusual about this set of results?"*
>
> *"Think about some of the factors that may influence this set of results?"*

Practical activities

The course materials will include a number of activities that involve the manipulation and interpretation of data held in ESDS resources. These will be designed to give students the practical experience in using the data retrieval, analysis and presentation tools available.

> *"Use the ESDS International dataset user guide for the Direction of Trade to help you answer the following questions…"*
>
> *"In this task you will access air pollutant figures for the UK, France and EU from 1990 to 2001using the Eurostat New Cronos data"*

Research activities

You should encourage students to explore key concepts and ideas in greater detail by providing activities that support further study. As an example:

If you would like to know more about data collection techniques you may want to explore the following resources:

- *Selecting a Data Collection Technique – University of Florida*
- *Part III Real World Research- Colin Robson pages 223-375*

Case studies

You may use case studies to present students with a scenario close to one he or she may come across in subsequent work, in order that students are able to work through the problem and develop reasonable and practical solutions.

Case studies can help the student build up the following skills:

- identifying problems
- understanding and interpreting data
- understanding and recognising assumptions and inferences, as opposed to concrete facts
- thinking analytically and critically

Case studies should be as realistic as possible and are often based on actual situations, which may be fictionalised to protect confidentiality.

Examples

In order to effectively promote the use of the ESDS data resources the learning material will focus on appropriate examples demonstrating the effective use of and linked data and the sort of research questions that may be answered using this approach. Some examples are given below:

Does the country that you live in influence your behaviour?

How do overall levels of employment change the way people spend their money?

Does government spending on health have an impact on individual health?

Key learning points

Key *learning points*, to be used for reinforcement and in revision, at relevant points throughout the section. These are used to identify key pieces of learning that a student would be expected to gain from an activity of piece of reading and can be used as the basis for revision. *They are not just a summary of information already presented*.

Making important information stand out – as the student moves through the materials

Learning Point

The general principle is that the research strategy or strategies, and the methods or techniques employed, must be appropriate for the questions you want to answer.

Summary

Each unit will contain a summary that draws together the key learning points and reiterates to the student what they should have learned by completing the unit. The summary will restate the learning unit objectives.

In this Unit you have accessed international micro data and used it to undertake cross-national comparisons… You should now be able to recognise some of the methodological issues involved in using data from different surveys…

Conclusion

A good conclusion should do more than just summarise the unit content. It can emphasize or reinforce your main ideas in a fresh way, try to avoid using the same language again.

Now that you have completed Unit 1: The Basics you will be some way closer to answering the question posed at the beginning of the unit... In addition, you should be able to successfully access the ESDS International data resources you may want to extend your skills further by accessing some of the other units in this series…

Glossary

Words and phrases (especially acronyms) of a technical nature can be hyper-linked from the content page to a *glossary* list which details the full meaning of the entry. Authors should remember to provide a full contextually relevant explanation of any glossary items.

Glossary

Access Grid
A collection of resources and technologies that enable audio and video based collaboration between people in different locations

ADL
Advanced Distributed Learning - Initiative, through collaborative efforts, develops standards for industry to create software tools which deploy Web based e-training materials in a reusable and interoperable manor.

AFPD
All Fields Postcode Directory - a lookup from every UK Postcode to numerous other geographies

4 Style guide

Writing Style

Your writing style should be clear and concise with the materials capable of interesting, stimulating and motivating students; you may want to begin your unit by outlining a specific research problem in order to grab the attention of the student.

The material will be written in such way that lengthy passages of content are kept to a minimum. You should avoid long, complex sentences and look for places where they can be split up into shorter ones. Each sentence should express one main idea. It is much harder for learners to grasp new content when they also have to negotiate a tangle of phrases and clauses.

Tone

Write in a friendly, direct style, addressing the student as 'you'. This is much more involving and readable than an impersonal, wordier approach. Do not be afraid of writing in a more terse style than you would if you were presenting the materials verbally. With textual materials, learners always have the option to double-back, ponder and re-read if they do not understand.

Writing for re-use

Authors are reminded that their materials will be converted into *learning objects* and eventually be stored in a *learning object repository* (LOR) for potential reuse and modification by others. Each unit should therefore be a self contained learning experience that does not explicitly refer to the material in other units (see below).

"…If you are having problems with the material in this section you may want to refer to the material in the unit entitled 'Research applications'…"

Rather than

"…Click here to go to Unit 2, Section1 on research applications …"

5 Formatting Guide

This part of the document contains information on the MIMAS preferred format for receiving your completed material. Your also want to refer to the handy checklist in the Appendixes section of the document to make sure that they have included everything necessary in their material.

Headings

For headings, please *do not* use capital letters (except for the initial letter). Headings and sub-headings should be numerically referenced to a maximum of four levels of hierarchy (e.g. 2, 2.1, 2.1.1, 2.1.1.2).

Headers and footers

Avoid using elaborate document headers and footers in your work with name date etc. Simple page numbering is fine.

Tables and figures

All figures and tables should be captioned and referenced in the text. This maintains a professional look and feel to the materials, and helps students quickly identify the context and significance of the diagram.

Simple tables and figures can be pasted into the Word document. Larger and more complicated figures should be provided as separate files in JPG, GIF or TIF formats, together with paper copies (as proofs).

Images

Large files should be sent as zip files. Images should be in (GIF, JPG or TIFF format). Always send images at the best quality (highest resolution) possible.

Datasets

The Beyond 20/20 Web Data Server application gives users the option to download dataset results in *.ivt, *.csv or *.xls format. There is a download limit of 15000 data cells. Registered users can log in to their account and order their chosen micro international data in a number of formats, including SPSS.

As with all other third party content, the ESDS international data that you use within your learning materials must be correctly cited . Detailed information about the correct acknowledgement of these resources can be found at:

http://www.esds.ac.uk/international/access/citing.asp

6 Appendixes

Use of databanks in teaching and learning: terms and conditions of use in teaching context

Databank	Terms and conditions
OECD	Not specified
IMF	You can use parts of the IMF material for educational purposes provided that each item has an appropriate acknowledgement of the source, listing title and author of the extract, title and author of the work, and the publisher.
World Bank	Authors who wish to incorporate portions of World Bank data greater than ten indicators in material for educational purposes need to obtain written permission from the World Bank by sending an e-mail to pubrights@worldbank.org
UN Common Database	Authors who wish to use portions of the UN Common Database for educational purposes must include an acknowledgment of the source and a reference to UN copyright.
Eurostat	Freely available
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Author Checklist

There are three sections to this checklist. The first section provides a checklist on aspects of the planning process that will help you to prepare and write efficiently. When this checklist is complete you are ready to start considering your unit in more detail and writing the material.

Before you start anything

Phase 1: Planning

Check Item		Check when YES
1	Do you have a unit title?	
2	Do you have a proposed time scale for the delivery of the course and a project plan that details the key deliverables? i.e. start date and end date of project	
3	Have you prepared an outline plan (structure) for this unit that details how the sections, topics and sub-topics interrelate?	
4	Do you have a copy of the aims of each unit and the topics that are contained in it?	
5	Have you prepared the learning objectives for each unit?	
6	Have you written instructions for the student about how to proceed through the course?	
7	Are you clear on how you will ensure through formative assessment that the student understands this course?	
10	Course requirements: a description of the number and type of assignments	
11	Have you a clear idea of any prerequisites for this course?	
12	Have you thought about what aspects need to be included in the tutor notes?	
13	Have passed on the learning objectives and unit structure to the Learning Technologist at MIMAS?	
17	Have you discussed any special features and requirements for your unit with the Learning Technologist at MIMAS?	

The second section concerns itself with the authoring/writing phase of the project; each of these points should be addressed by the individual unit/topic author/s, the checklist provides an overall reminder of the most important features that should be considered during this process. This list will also help you to identify any unintended omissions.

Phase 2: Production

Check Item		Check when YES
1	Have you prepared an outline plan (structure) for this unit that details how the topics and sub-topics interrelate?	
2	Are any prerequisites made clear at the start of the materials?	
3	Are the learning outcomes/objectives for this topic clear to the student?	
4	Do the materials address all of the specified learning outcomes for this topic?	
5	Have you provided ample opportunity for students to test their progress through the material?	
6	Have you identified additional support items such as books, references and external links?	
7	Have you resolved all copyright issues for content and other items supplied by you?	
8	Have you provided tutor notes? Note: you may want to include these as a guide to course tutors delivering the course remotely	
9	Do the tutor notes include model answers to the coursework where appropriate?	
11	Is there a helpful summary of the key points at the end of each unit (chunk of material)?	
10	Have you included appropriate learner centered activity?	
11	Have worked examples been included where appropriate?	
12	Are examples generic enough to be understood by a multi-cultural audience?	
13	Have you included end of topic tests?	
15	Are all references correctly cited and attributed?	
16	Do all figures and tables have a reference caption?	
17	Do the formative assessments give appropriate feedback?	
18	Are all the required elements (topics, activities) of the course clearly marked for the student?	

The third section concerns itself with the review phase of the project; each of these points should be addressed by the content prior to submission of your manuscript to MIMAS.

Phase 3: Review

	Check Item	Check when YES
1	Have you checked all the appropriate boxes in phases 1 and 2?	
2	Are references to other parts of the material correct?	
3	Are links to external sources of information (web links) accurate?	
4	Is the level of the language used appropriate for the intended audience?	
5	Is the writing style clear and direct?	
6	Are clear directions given to the student?	
7	Are familiar or common words are used throughout? Note: if technical words are used they can be explained and added to the glossary	
8	Have you used a conversational tone employing the second person: you, not the learner throughout?	
9	Are paragraphs brief and well structured?	
10	Are sentences short and well structured?	
11	Are Numbered (ordered) lists used to identify sequential steps in a task or process?	
12	Are Bullets (unordered) lists used to list items that are not prioritized or sequential?	
13	Is the tone of the writing supportive and encouraging?	
14	Are terms used consistently?	
15	Are abbreviations and symbols defined in the body text or glossary?	
16	Are bullets, dashes, and numbers used consistently?	
17	Are Instructions stated simply and are easy to understand?	
18	Is spelling and grammar consistent and accurate?	
19	Has the course material been edited for grammar and language, and content verification?	

Wright, Clayton R. *"Criteria for Evaluating the Quality of Online Courses"*. Instructional Media and Design, Grant MacEwan College, Edmonton, Alberta http://www.imd.macewan.ca/imd/content.php?contentid=36