

Paper presented at “Bridging the digital divide: libraries providing access for all?” - BOBCATSSS 2010, 25th - 27th January, 2010, Parma, Italy

A Tiresome Exercise, or a First Step in Library Leadership?

Ian M. Johnson

Professor, Department of Information Management, Aberdeen Business School, The Robert Gordon University, Garthdee Road, Aberdeen AB10 7QE, Great Britain (i.m.johnson@rgu.ac.uk)

Abstract

*This paper reviews the challenges facing librarians and other information specialists in terms of employers’ expectations, and how the necessary skills could be developed in professional education. It focuses on the role of writing in professional education and in library leadership. The paper emphasises how written work submitted during professional education not only enriches subject knowledge, but also enhances time-management skills and could embed a reflective, evidenced-based approach to professional practice, develop advocacy skills, and underpin efforts to enhance personal professional standing. The papers submitted for the competition organised annually since 1996 by the journal *Libri* for the best paper recently completed by a student are considered, and the subsequent careers of some of the early winners are discussed on the basis of information available on the web.*

Introduction

Written assignments and formal written examinations are the most common means of assessing students. They are probably an experience that few students enjoy, as they have little control over the topic, except perhaps in those few assignments in which they are permitted to choose the subject (and some students may not even enjoy that experience!). Is this perhaps one explanation for why few graduate practitioners appear to write and publish accounts of their work? Could that provide part of the explanation why, despite the general recognition that we now live in the ‘Information Society’, librarians have not always been able to present an effective case for their role in contemporary society, and why libraries are often seen as a low priority for funding? The aim of this short paper is to begin to explore the possible roots of these problems, to raise the visibility of the importance to employers of enabling students to develop their writing skills, and to promote a discussion about some of the values that are applied by teachers in Schools of Librarianship and Information Studies in assessing students’ written work. The paper also considers some examples of ways in which writing is encouraged by some Schools and other agencies, and identifies some of the more explicit incentives and benefits, taking the annual *Libri* “Best Student Paper” competition as a particular case.

Professional goals

Why should we want to encourage students and practitioners to improve their writing skills and contribute to our professional literature?

Isn't one of the central beliefs of the Library and Information Science profession that sharing knowledge enhances the life of individuals and the success of organisations? There is sound research behind that belief. Social scientists have pointed to the importance of communication media in transferring awareness and understanding of innovations (Rogers, 1995). Writing about developments that you have initiated or in which you have taken part could enable others to recognise the potential for improvements in what they do, and the options for change.

Above all, isn't this a way of demonstrating your professionalism? Professionalism is an attitude of mind. It means having the sense of curiosity and responsibility to be asking continually:

- *What is the situation here?*
- *Why is it what it is?*
- *What should it ideally be?*
- *How might it reasonably be improved?*
- *What, realistically, could I personally do to improve it?*

In practical terms, doesn't being better informed as a result of asking these questions should help you make sensible decisions about what you can do, and give you the motivation to do it? So why not share your thoughts and experiences, and perhaps inspire others, by writing about it?

From a personal perspective, there are clear advantages. Writing for the professional literature provides evidence of your continuing professional development, and studies of information professionals have confirmed that continuing your professional development influences career progression (Farmer & Campbell 1998).

Employers' expectations

It is interesting to reflect on this last point, and to ask what employers look for in their staff. The curriculum for courses in librarianship and information science has been the subject of countless analyses and debates by academics (e.g. Bronstein 2009), almost all focused on the content of courses, and when they survey employers about the development of their courses the teachers have tended to maintain that focus on the subject content. But what do employers really value? For many years, more broadly based surveys of employers in Britain, and those conducted every two years by the Robert Gordon University seeking the opinion of current and prospective employers of the university's graduates, have consistently tended to show that subject knowledge is not employers' first priority. They are more concerned about their employees':

- *communication skills, including presenting a case, persuading, influencing;*
- *task management skills, including planning, organising, decision making, evaluation*
- *creative thinking and problem solving skills;*
- *self-appraisal skills; and their ability to*
- *combine all these attributes in action-centred leadership skills* (Johnson and Williams 1990).

Assessing students' work

So perhaps we should pay more attention to how teaching could help to develop these skills? How then should we set out to achieve these aims? As you will have understood from the introduction to this paper, I am going to focus particularly on students' written work.

What an employer wants to be sure of when a member of their staff makes a report, in writing or orally, is that:

- *their investigation of the subject, whether it was a professional technique or staff behaviour, has been based on a thorough gathering of the evidence;*
- *their analysis and findings are credible;*
- *they communicate the results of their investigation in a way that is easily understandable and will give others confidence in their work; and that*
- *they have considered any practical implications for actions that may be necessary.*

How well do written assignments contribute to the development of all of these skills? It is perhaps understandable that teachers, and students, see written assignments as expecting an indication of the understanding of the subject, but should that be the major element in the marks assigned for a piece of work? How much credit should be given for the depth of investigation, for the coherence of the analysis, and for clarity in the presentation of the paper? Some early drafts of guidelines are attached, which may provide a basis for your own (See Appendices A & B).

Employers also expect their staff to carry out correctly any instructions they have been given, and to meet deadlines. How much credit is given for observing guidelines on the assignment, and for completing work on time, or how clearly is failure to do so penalised? In my University, the grade awarded to a student who fails to submit on time is reduced, and in some cases the work may be failed, unless there is a satisfactory explanation – and a formal, necessarily bureaucratic procedure has been put in place to ensure that minor problems are not excused and that decisions are consistently applied.

How many opportunities are provided for students to investigate a topic of their own choice? How much credit is given for originality in the concept, or the approach taken to the topic?

Expecting students to appraise the quality of their own work is perhaps impractical, but self-appraisal can take other forms. How much, for example, are the presence of typographical errors and incorrect citations taken into account in assessing the end result?

Student Paper competitions

If the development of these skills is valued by employers and are the foundation for a successful career, are they being encouraged by teachers and employers?

Recently the IFLA Section on Education and Training has been successful in finding sponsorship for a new award for students, with the successful student being assisted to participate in the annual IFLA Conference to receive the award there. The winner of the IFLA LIS Student Paper Award in 2010 will receive the registration fee for the conference, plus a grant of up to €2600 for the airfare and lodging in Gothenburg in Sweden in August, 1 year's free IFLA membership, and the paper will be published in the IFLA Journal.¹ The organisers of LILAC, the annual Information Literacy Conference, also offer several

¹ IFLA LIS Student Paper Award 2010 – URL <http://www.ifla.org/en/set/student-paper-award-2010>

sponsored places for students. The bursaries for 2010 cover the conference fee and about €440 per student for travel to Limerick in Ireland, where the conference is being held this year, and accommodation there in March.² There are also national competitions for students organised, for example, by ALISE – the Association for Library and Information Science Education – whose members support attendance at the annual ALISE Conference by selected doctoral students attending a School in the USA, and by the Library and Information Research Group (LIRG) which makes a cash award for the best Postgraduate dissertation or a final year Undergraduate project in the UK each year. Both awards can also lead to publication of relevant papers.

Since 1996, the editors of *Libri* have also tried to encourage students to recognise that they could raise their profile internationally. The winner of the annual call for the “Best Student Paper of the Year” and a few other papers that come close to winning are published in *Libri*. There is another incentive to apply for the award – a cash prize, currently €500, as well as a year’s subscription to *Libri* and, from this year, the winning paper will be freely available on Open Access through the publisher’s web site. The authors of papers that come close to winning receive a year’s subscription.

An award has been made every year except 1997, and the 13 winners have come from Austria, Canada, China (a student in the USA), Germany (twice, including one winner who was a student in the UK), the UK, and the USA. The requirement that the papers are written in English does limit the range of people who can apply. However, it is made clear that any papers submitted by authors whose first language is not English may be subject to any minor grammatical and linguistic corrections that are necessary. This is an integral part of the editorial process that is applied to all papers that are published by *Libri*. Every effort is therefore made to publicise the award globally, through a mailing by the publisher to every School of Librarianship listed in the latest IFLA World Guide, through email discussion lists, and the journal’s Web pages.³ Entries have come from every continent. This year, for the first time so far as anyone can recall, the competition received its first entries from Chinese students attending a School of Librarianship in the People’s Republic of China. One of them came close to winning the award, and the content of that paper is currently undergoing some minor revision to make it ready for publication.

The winning paper is selected by an independent panel consisting of selected members of the Editorial Board, the Advisory Board, and other international experts, who are accustomed to assessing whether papers meet the journal’s readers’ usual expectations, but pay particular attention to:

- *originality of thought and observation*
- *depth of research and scholarship*
- *topicality of problems addressed.*

When students are allowed to choose their own topic, they often focus on those no one has previously considered, or approach them from a totally new perspective. The range of topics addressed by *Libri*’s competition winners has been wide, and the innovative topics have generally proved to be the winners.

² LILAC (Librarians’ Information Literacy Annual Conference) – URL http://www.lilconference.com/dw/awards/student_award.html

³ *Libri* – URL: <http://www.librijournal.org/> OR <http://www.reference-global.com/>

There have been comparative studies such as:

- *The impact of national policy on developing information infrastructure nationwide issues in P.R. China and the U.S.*
- *A comparison of the Internet presences of German libraries and companies.*

User studies have examined particular groups in society:

- *The older adult and public library computer technology: a pilot study in a Canadian setting.*
- *Information behaviors in an online smoking cessation forum.*
- *Information flow and peripherality in remote island areas of Scotland.*
- *The death of the scholarly monograph in the humanities? Citation patterns in literary scholarship.*

While some have looked at our fundamental approach to supporting users' needs, challenging:

- *The methods by which we acquire information, and the effectiveness of libraries in supporting these behaviors.*

Inevitably, new technologies have been the focus of some papers, with groundbreaking studies such as:

- *The First Monday Metadata Project.*
- *Combining quantitative methods and grounded theory for researching e-reverse auctions.*
- *Developing evaluation criteria for podcasts.*
- *A critical review of user acceptance research in the area of mobile services.*

A philosophical paper has looked at our profession:

- *Defining the object of study: actants in Library and Information Science.*

Our winning authors have not been afraid to address controversial issues in an objective way, with one describing and seeking to explain the underlying causes of:

- *Irreparable damage: violence, ownership and voice in an Indian archive.*

The *Libri* Best Student Paper competition and the others mentioned here are not the only incentives for individuals to reveal their abilities to a wider audience. Other organisations offer prizes and sponsorships for graduate professionals. Several other Sections within IFLA offer sponsorships from time to time. The Special Libraries Association and the Special Interest Group for International Information Issues of the American Society for Information Society and Technology regularly sponsor the winners of competitions for professionals from other countries to attend their annual conferences in the USA. LIRG also has two awards for practitioner research in the UK.

No doubt there are many more than these few examples.⁴ Perhaps one thing that the overseers of BOBCATSSS, EUCLID: the European Association for Library and Information Education and Research, might do is to gather the information about the prizes and awards that are available in Europe and publish the information on its web site, as is done in India.⁵

Library leaders?

⁴ See, for example those listed in: *The Library and Book Trade Almanac (formerly 'The Bowker Annual')*, 54th ed., 2009, Medford, NJ, USA: Information Today, Inc.

⁵ Awards, Prizes, Scholarships or Fellowships in LIS (India) – URL <http://lisscholarship.blogspot.com/>

Attracting good papers from the next generation of library and information science professionals is a way of trying to ensure that the professional leaders of the future engage with the organisation making the award.

For the individual, they may represent an excellent way to gain some extra money, or an opportunity to travel somewhere interesting. Above all, the effort of writing something good enough to submit for one of these awards helps to develop skills that employers value, and even the unsuccessful papers may get published somewhere and raise the writer's visibility and reputation.

But they also offer something distinctive to add to a job application – something that may make the difference between whether an employer considers an application or not. Of course, it is too soon to view the whole career of each of the *Libri* award winners, but if we try to follow them up, as well as is possible through Web searches, what do we find? Can we see in the early careers of these *Libri* award winners some evidence of continuing development?

The first winner (a student in 1996) is now a Professor in a School of Librarianship in the USA, writing a regular column for one journal, and acting as an advisory member of the editorial boards of two others. At least two others have returned to School to work towards further degrees: one to provide background knowledge in the specialist field in which he has become a librarian; the other winning a scholarship to support her doctoral degree studies in librarianship and information science. However, the winners have not only gone on to academic careers. Two previous winners are pursuing their original interests, working on a variety of projects to improve professional practice. One was last known to be working in a German web development company. Another is a librarian in a University, whose work has been so successful that his post has recently been sponsored by a major gift to the university.

Interestingly, one student subsequently received a further award, one made annually by her School to a student who demonstrates leadership qualities. Another is now already playing a leading part in local community organisations.

So perhaps there is some evidence that the skills that begin to be nurtured in writing essays as a student can be a first step towards becoming a leader in the profession? The passage of time will enable more informed judgements to be made.

New opportunities?

In this multimedia age, why should we concentrate so much on skills in using the written word?

As we come to recognise that librarians, particularly in academic institutions, are involved in promoting and improving literacy, especially information literacy, or are playing a significant part in creating new information sources by developing web pages, a new emphasis on librarians' communication skills may be required. Understanding the technology may be necessary, but it is the words that are on the screen that are important.

A number of Schools of Librarianship and Information Studies do now offer elective courses in writing for the profession, which in part try to teach students to recognise the different writing styles that are expected by scholarly journals, professional magazines, and the mass media. There are already many guides to how to do this (e.g. Johnson 2004). At least one

School publishes a guide to journals that its students might wish to write for.⁶ Others have gone further and recognised the need to teach aspects of technical communication, which can be broadly defined as writing to achieve understanding by linguistically, culturally, or technologically diverse audiences. More recently, the University of Kentucky's College of Communications and Information Studies has announced its intention to create and teach courses combining oral, written, visual, and digital communication skills with media and information literacy.

New career opportunities for librarians who can demonstrate their skills in writing seem to be perceived by individuals and institutions. Perhaps the time has come for all Schools of Librarianship to review the value of investing time and effort in developing and assessing these skills?

© The author 2010

REFERENCES

- Bronstein, J. (2009) Current trends in Library and Information Studies curricula. *Libri*, 59 (2), June, 69-133
- Farmer, J., & F. Campbell. (1998) *Continuing Professional Development and Career Success: is there a causal relationship?* Aberdeen, U.K.: The Robert Gordon University. [British Library Research and Innovation Centre, report 112]
- Johnson, I.M. (2004) Writing for the profession: an editor's perspective *IFLA Journal*, 30 (4), 319-322.
- Johnson, I.M., & D.A. Williams. The "enterprise culture" and curriculum development for librarianship and information studies. *Personnel, training and education*, 7 (2), 1990, 31-36
- Rogers, E.M. (1995) *Diffusion of innovation*. 4th ed. New York, U.S.A.: Free Press.

AUTHOR

Ian Johnson held several senior positions at the Robert Gordon University, Aberdeen, Scotland from 1989 to 2007, initially as Head of the School of Librarianship and Information Studies and finally as Associate Dean responsible, inter alia, for the development of teaching and learning in the Aberdeen Business School. He was Chairman of the International Federation of Library Associations and Institutions (IFLA) Section on Education and Training, founded the Section on Information Literacy, and was Chairman of the IFLA Professional Board. He has also been Chairman of British and European professional associations concerned with education and training for Librarianship and Information Studies, and currently chairs the relevant committee of the British government agency tasked with developing teaching in the field. He led or participated in several international development projects, and writes a regular column on education for librarianship in developing countries in *Information Development*. He is currently Joint Editor of *Libri: international journal of libraries and information services*, a long-established peer-reviewed journal whose contents are monitored by the ISI Citation indexes.

⁶ Library and Information Science (LIS) Publications wiki (San Jose State University SLIS) URL - http://slisapps.sjsu.edu/wikis/faculty/putnam/index.php/LIS_Publications_Wiki

Appendix A - GUIDELINES FOR ASSESSMENT

GRADE	RESEARCH PROBLEM - AIMS AND OBJECTIVES	LITERATURE SEARCH AND REVIEW	RESEARCH METHODOLOGY AND DATA COLLECTION TECHNIQUES	DATA ANALYSIS, REPORTING, AND DISCUSSION	CRITICAL DISCUSSION AND CONCLUSIONS	CREATIVITY AND ORIGINALITY	ORGANISATION AND PRESENTATION
<p>Excellent – outstanding performance</p> <p>Grade 6</p> <p>(70% or more)</p>	<p>The research problem is clearly stated, and the aim is extremely well focused and clearly attainable. The objectives are specific, and identified precisely how the aim was to be achieved.</p>	<p>The literature search has been comprehensive, and identified secondary sources as well as textbooks and web pages. Key sources have all been consulted and the relevant key issues have all been identified through critical analysis of the literature. An excellent review of information sources, directly relevant to the research aim, assumptions, nuances and implications of the study.</p>	<p>Evidence of a clear understanding of different research methodologies is demonstrated. Information and data gathering techniques, and the methods for analysis and interpretation of data are fully described. A strong theoretical rationale and critique of the proposed method is presented.</p>	<p>The results are presented clearly. Excellent analysis of the evidence, data set and coherent and logically structured argument, resulting in clear and illuminating conclusions. Clear demonstration of a variety of analytical techniques.</p>	<p>The results and significance of the research are critically discussed, and the conclusions drawn are soundly underpinned. Attention is drawn to comparable and contrasting opinion and research results found in the literature.</p>	<p>Distinctive work showing independent and outstanding thought and critical engagement with alternative and cogent views. Consistently makes significantly creative use of appropriate arguments and/or theoretical model(s)</p>	<p>Well organised, professional presentation and structure. Excellently written work with a high level of competence in the use of language and terminology, and completely free from spelling, grammatical and typographical errors. Referencing and citations are completely correct.</p>
<p>Commendable: very good performance</p> <p>Grade 5</p> <p>(60-69%)</p>	<p>The research problem is clearly stated, but the aim is indicative rather than specific. The objectives provide some indication of how the aim was to be achieved.</p>	<p>A search for secondary sources has been undertaken but perhaps not comprehensively. Some have been consulted, and most key issues relevant to the topic have been identified through critical analysis of</p>	<p>The proposal shows some understanding of different research methods, and includes an adequate rationale for the chosen method. Information and data gathering techniques, and the methods for analysis and</p>	<p>The results are presented clearly. Coherent and logically structured, using appropriate modes of argument and/or theoretical model(s). Very good analysis using a variety of approaches on the data set and</p>	<p>The results of the research are used to underpin the conclusions drawn. Some attention is drawn to comparable and contrasting opinion and research results found in the literature.</p>	<p>Contains distinctive/ independent thinking: attempts to formulate an independent position.</p>	<p>Good presentation and structure. Very Well-written, with competent use of language and standard terminology, and generally free from spelling, grammatical and typographical errors. Referencing and</p>

		this literature. The review is directly relevant to the title, and addresses the research aim, assumptions, nuances and implications of the study.	interpretation of data are fully described.	demonstrating some very good criticality.			citations are completely correct.
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------	-------------------------------------------	--	--	-----------------------------------

Good: competent performance Grade 4 (50-59%)	A research problem is identified, but the aim is indicative rather than specific. The objectives tend to focus on the process rather than the specific attainment of the aim.	The literature search has identified some of the secondary sources, but the emphasis is on textbooks and web pages. The critical evaluation of the literature and the focus on relevant issues is limited. The review attempts to address the research aim, with little drifting away from the question or theme of the research.	The proposal shows some understanding of different research methods. Information and data gathering techniques, and the methods for analysis and interpretation of data are generally described, but the chapter does not provide a theoretical rationale or critique of the method adopted.	The results are presented clearly. Good analytical treatment of the data set, and showing adequate criticality. Adequate evidence of coherent argument and/or issue analysis and/or structure.	The results of the research are discussed, and conclusions drawn with limited attention is to comparable and contrasting opinion and research results found in the literature.	Sound work, which expresses a personal but objective position in broad terms and shows a degree of criticality.	Satisfactory structure. Competently written, with acceptable format, use of language and standard terminology, but some spelling, grammatical and typographical errors. Referencing and citations are generally correct.
Satisfactory performance Grade 3 (40-49%)	A research problem is identified, but there is a lack of focus and far too broad an aim. The objectives demonstrate only a marginal link to achievement of the aim indicated.	The literature search has been limited to textbooks and web pages and, whilst some of the issues have been identified, there is still some confusion about the relevant issues. The review attempts to address the research	A limited understanding of research methods is indicated. Some attempt is made to describe information and data gathering techniques, and the methods for analysis and interpretation of data, but there is no	The results are generally clear. Occasionally descriptive or narrative, but demonstrates a reasonable analytical treatment of the data set. Some attempt to construct coherent argument(s), but	The results of the research are discussed, with little attention drawn to significant literature. Conclusions drawn are limited and insecure.	Largely derivative, although some personal view is appropriately formulated.	Acceptable format, but with some problems in structure and layout. Written with only minor lapses from standard syntax, terminology and some spelling, grammatical and typographical errors. Referencing and

		aim, with some less focused parts drifting away from the question or theme of the research.	argument supporting the choice of method adopted.	issues at stake stated only vaguely, or couched in simplistic terms			citations are generally correct.
<p>Borderline fail - Grade 2 (35-39%)</p> <p>Unsatisfactory fail - Grade 1 (0-34%)</p>	No research problem is identified. There are multiple aims and many spurious objectives. The research was not realistic and do-able.	The literature search has identified only textbooks or web pages. There are some problems concerning relevance of material to the chosen topic, and only a notional attempt to identify the relevant issues.	The proposal demonstrates an inadequate understanding of research methodology. No attempt is made to describe techniques for information and data gathering, and the choice of methods is basically flawed.	The results are ambiguous. Largely descriptive and/or inaccurate and/or narrative, with little evidence of analytical ability or criticality. Basic ideas evident but supported by assertion only.	The results of the research are described, but there is no critical evaluation or reference to significant literature to underpin the conclusions drawn.	Little evidence of personal thought; cursory paraphrase or quotation of others and lacks synthesis.	Serious problems in structure and/or format, with some deficiencies in expression, or use of terminology that may pose obstacles for the reader, and many spelling, grammatical and typographical errors. Referencing is incomplete and citations incorrect.

APPENDIX B - GRADE DEFINITIONS AND DESCRIPTORS

Grade	Definition Of Grade	Description of Grade The characteristics of performance at each Grade are given below. It is not expected that all items will be assessed in each individual assessment task but some exposure to each is expected at each level of the course/programme as stated in the level learning outcomes contained in the Definitive Course Document.
6	Excellent: Outstanding Performance	Outstanding performance and achievement overall. The work of the candidate has much exceeded the threshold standard. The characteristics of work at this standard are* a thorough grasp of the subject matter a very high ability and originality in applying key process skills a very high ability in analysis, synthesis, evaluation and problem solving (higher cognitive skills) very high order ability over the specified range of subject specific/professional practice skills
5	Commendable/ Very Good: Meritorious Performance	A very high standard performance and achievement overall. The work of the candidate is well above the threshold standard. The characteristics of work at this standard are* a very good grasp of the subject matter a high ability and originality in applying key process skills a high ability in analysis, synthesis, evaluation and problem solving (higher cognitive skills) high order ability over the specified range of subject specific/professional practice skills
4	Good: Highly Competent Performance	A highly competent performance and achievement overall. The work of the candidate has exceeded the threshold standard. The characteristics of work at this standard are* a good level of knowledge and understanding of the subject matter highly competent and displaying some originality in applying key process skills highly competent in analysis, synthesis, evaluation and problem solving (higher cognitive skills) a highly competent performance over the specified range of subject specific/professional practice skills
3	Satisfactory: Competent Performance	A satisfactory performance overall (as specified in the detailed marking/grading schemes for each assessment). The work of the candidate overall is at the threshold standard. The characteristics of work at this standard are* a satisfactory knowledge and understanding of the subject matter competence in applying key process skills adequacy in analysis, synthesis, evaluation and problem solving (higher cognitive skills) competence over the specified range of subject specific/professional practice skills
2	Borderline Fail: Failure Open to Compensation	A standard of performance overall which marginally fails to achieve competence The work of the candidate overall is just below the threshold standard. Work just below the threshold standard is characterised by the candidate demonstrating marginally unsatisfactory knowledge and understanding of the subject matter near competence in applying key process skills some evidence of ability in analysis, synthesis, evaluation and problem solving (higher cognitive skills) competence over most of the specified range of subject specific/professional practice skills N.B. Safe working practice as appropriate to the discipline must be demonstrated for a student to be awarded this Grade or higher Grades
1	Unsatisfactory, Fail	The standard of performance demonstrated by the candidate overall is well below the threshold standard. Work in this Grade is characterised by achievement of some of :

		very limited knowledge and/or understanding of the subject matter , exhibited in a very patchy manner limited/ occasional success in the application of key process skills occasional evidence of some of analysis, synthesis, evaluation and problem solving (higher cognitive skills) limited competence over the specified range of subject specific/professional practice skills
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Subject matter: assessed under headings knowledge, understanding (comprehension), application, content

Key process skills: assessed under headings communication and presentation skills, numeracy, IT and computing skills, interactive and group skills, research skills.

Higher cognitive skills: assessed under headings analysis, synthesis, evaluation, problem solving.

Subject specific/professional practice skills: assessed under headings appropriate to the discipline.

