WHAT KIND OF ECONOMICS GRADUATES DO WE WANT?

A CONSTRUCTIVE CRITIQUE OF HANSEN’S PROFICIENCIES APPROACH

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ABSTRACT

In answer to the long-standing question, what kinds of knowledge and skills should economics majors master, Lee Hansen has advocated a proficiencies approach. According to this approach, the teaching and learning of economics undergraduates should be based on the attainment of (six) specified proficiencies. He has also proposed ways in which these competencies can be demonstrated. This paper outlines Hansen’s proficiency approach and subjects it to critical evaluation. It finds that much of his scheme is highly admirable and worthy of support, even if difficult to implement in resource-starved educational systems such as Australia’s. However, other parts of his scheme are found to be disturbingly narrow, simplistic and dangerous. These deficiencies stem primarily from highly inadequate assumptions about the nature of economics as a discipline. The challenge in making the proficiencies approach more acceptable is to retain the valuable elements while discarding the objectionable. To this end, an amended list of (nine) expected proficiencies is proposed.

Keywords: proficiencies, skills, economics education, knowledge, learning, teaching.

JEL Classification: A2, A20, A22.

1. INTRODUCTION

We all have an interest in the kinds of economics graduates our universities produce, not just from a narrow institutional perspective but also from a

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1 An earlier version of this paper was presented at the Ninth Australian Teaching Economics Conference, University of Queensland, July 2002.
broader social perspective. How do we want them to be as graduates, economists and citizens, as well as future leaders, experts and policy-makers? More specifically, what is it that we want our students, at the end of their studies, to know and to be able to do? What sort of competencies or proficiencies should they have?

Lee Hansen (1986, 2001) has raised these questions in modern times and has provided an answer in the form of a relatively brief list of (six) proficiencies that economics majors should be expected to have upon graduation. The list is accompanied by suggestions as to how possession of these proficiencies might be demonstrated. His proposal, however, has attracted relatively little attention in the literature. As a result, there has been no discussion or debate, and it appears as if those aware of his proficiencies approach are satisfied with it in its current form. I shall argue, however, that it needs more consideration.

A little reflection reveals that the task of specifying proficiencies rapidly transports us into deeper waters. Hansen does not venture into these waters at all, but any consideration of the issues brings us face to face with challenging questions concerning the fundamental nature of the discipline. What can economics do, and what can it not do? Is it necessarily based on a single conceptual framework or on multiple frameworks which generate deep-seated controversy? Is it essentially a social science, a natural science, or closer to the humanities? What relationships exist, or should exist, between economics and other branches of knowledge? Despite Hansen’s silence on these matters, views on these questions turn out to be strong determinants of views on graduate proficiencies. The proficiencies one acquires in a discipline, in the sense of mastering its theoretical and practical knowledge, are critically shaped by the nature and character of the discipline itself.

My object in this paper is to examine Hansen’s proposed proficiencies in the light of these wider and deeper questions, and to propose improvements to his list by way of additions and modifications. While claiming these changes to be improving, I do not claim that they are incapable of further improvement or that they are necessarily complete.

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2. HANSEN’S EXPECTED PROFICIENCIES APPROACH

Hansen (1986) gently chides (US) economics departments for failing to specify what it is that they expect economics majors to know and to be able to do, and for failing to institute procedures to test for the acquisition of any useful proficiencies. Whatever they might profess, all that they can confidently claim for their majors is an ability to pass examinations and coursework; nothing else needs to be explicitly demonstrated to obtain a degree. This is viewed as unsatisfactory, and his proficiencies approach seeks to provide a better and more transparent response. Its aim is to outline proficiencies for the vast majority of majors ‘who go out into the world and become the next generation of leaders’, rather than the select few who proceed to postgraduate study. Its goals are described as ‘readying young people for a fuller and more productive life’ and as ‘improved citizenship and job preparation’ (Hansen 1986 p.149).

Subsequently, Hansen (2001) stressed the practical orientation of his proposals. Economics departments were again criticised, this time for failing to teach students not only to ‘think like economists’ but also to ‘do like economists’. The proficiencies approach, he observed, ‘focuses on what graduating majors can do with the knowledge and skills they acquire in the major. Its goal is enabling students to demonstrate their learning in practical ways’ (Hansen 2001 p.232). An important component of this practical orientation is a worthy commitment to student writing. Written assignments are to be integrated into course requirements because they improve writing skills, enhance content learning, and promote the acquisition of proficiencies.3

When he first proposed his approach in 1986, Hansen advanced a list of five proficiencies. In 2001 he revisited his original list, expanding it to six proficiencies and modifying the ways in which others were to be demonstrated. For comparative purposes, the two lists are presented side by side in Table 1. The additional proficiency is number 4 in the right hand column.

Apart from the new item 4, the items in the 1986 list are very similar to their equivalents in the 2001 list. Most of the changes are relatively minor, consisting mainly of alterations of emphasis or wording. Two other changes are more notable, however. In item 3, there is a shift away from academic, technical and mathematical literature to general purpose, non-technical and media articles, some of the excluded quantitative/mathematical content re-appearing in the new item 4. And

3 See also Hansen (1993).
the later item 5 has a slightly greater policy focus than its predecessor (the earlier item 4).

**TABLE 1**

HANSEN’S PROPOSED PROFICIENCIES, 1986 AND 2001

<table>
<thead>
<tr>
<th>1986</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Gaining Access to Existing Knowledge</em>: Locate published research</td>
<td>1. <em>Access Existing Knowledge</em>: Retrieve information on particular</td>
</tr>
<tr>
<td>in economics and related fields; locate information on particular</td>
<td>topics and issues in economics. Locate published research in</td>
</tr>
<tr>
<td>topics and issues in economics; search out economic data as well as</td>
<td>economics and related fields. Track down economic data and data</td>
</tr>
<tr>
<td>information about the meaning of the data and how they are derived.</td>
<td>sources. Find information about the generation, construction, and</td>
</tr>
<tr>
<td></td>
<td>meaning of economic data.</td>
</tr>
<tr>
<td>2. <em>Displaying Command of Existing Knowledge</em>: Summarize (in a 2-minute</td>
<td>2. <em>Display Command of Existing Knowledge</em>: Explain key economic</td>
</tr>
<tr>
<td>monologue or a 300-word written statement) what is known about the</td>
<td>concepts and describe how these concepts can be used. Write a</td>
</tr>
<tr>
<td>current condition of the economy; summarize the principal ideas of</td>
<td>precis of a published journal article. Summarize in a two-minute</td>
</tr>
<tr>
<td>an eminent living economist; summarize a current controversy in the</td>
<td>monologue or in a 500-word written statement what is known about</td>
</tr>
<tr>
<td>economics literature; state succinctly the dimensions of a current</td>
<td>the current condition of the economy and its outlook. Summarize the</td>
</tr>
<tr>
<td>economic policy issue; explain key economic concepts and describe</td>
<td>principal ideas of an eminent economist. Elaborate a recent</td>
</tr>
<tr>
<td>how they can be used.</td>
<td>controversy in the economics literature. State the dimensions of a</td>
</tr>
<tr>
<td></td>
<td>current economic policy issue.</td>
</tr>
<tr>
<td>3. <em>Displaying Ability to Draw Out Existing Knowledge</em>: Write a</td>
<td>3. <em>Interpret Existing Knowledge</em>: Explain and evaluate what</td>
</tr>
<tr>
<td>precis of a published journal article; read and interpret a</td>
<td>economic concepts and principles are used in economic analyses</td>
</tr>
<tr>
<td>theoretical analysis, including simple mathematical derivations,</td>
<td>published in daily newspapers and weekly news magazines. Describe</td>
</tr>
<tr>
<td>reported in an economics journal article; read and interpret a</td>
<td>how these concepts aid in understanding these analyses. Do the</td>
</tr>
<tr>
<td>quantitative analysis, including regression results, reported in an</td>
<td>same for non-technical analyses written by economists for general</td>
</tr>
<tr>
<td>economics journal article; show what economic concepts and</td>
<td>purpose publications (e.g., <em>Challenge</em>, <em>Brookings Review</em>,</td>
</tr>
<tr>
<td>principles are used in economic analyses published in articles</td>
<td><em>The Public Interest</em>).</td>
</tr>
<tr>
<td>from daily newspapers and weekly news magazines.</td>
<td></td>
</tr>
</tbody>
</table>
4. Interpret and Manipulate Economic Data: Explain how to understand and interpret numerical data found in published tables such as those in the annual Economic Report of the President. Be able to identify patterns and trends in published data such as those found in the Statistical Abstract of the United States. Construct tables from already available data to illustrate an economic issue. Describe the relationship among three different variables (e.g., unemployment, prices, and GDP). Explain how to perform and interpret a regression analysis that uses economic data.

4. Utilizing Existing Knowledge to Explore Issues: Prepare a written analysis (of say, 5 pages) of a current economic problem; prepare a decision memorandum (of say, 2 pages) for a superior that recommends some action on an economic decision faced by the organisation.

5. Creating New Knowledge: Identify and formulate a question or series of questions about some economic issue that will facilitate investigation of the issue; prepare a 5-page proposal for a research project; complete a research study whose results are contained in a polished 20-page paper.


6. Create New Knowledge: Formulate questions that illuminate a new economic issue that needs to be researched. Prepare a five-page proposal for a research project. Conduct a research study, presenting the results in a polished 20-page paper. Conduct a group research project that prepares a detailed research proposal and/or a finished research paper.

Each list of proficiencies is structured so as to reflect increasing levels of cognitive ability. In the 2001 list, the first two items (locating and presenting existing knowledge) correspond to relatively low levels of cognitive ability, while the next two items (interpreting and evaluating existing knowledge) involve intermediate levels. The fifth item (applying existing knowledge) and the sixth item (creating new knowledge) place successively greater demands on students. In terms of degree structures, 1, 2 and 3 are to be emphasised in first year (with some possible attention to 4 and 5), 4 and 5 come to the fore in the second and third years, and 6 would be relevant to an honours year.
3. THE CRITIQUE

Prima facie, Hansen’s proficiencies appear to be sensible, admirable and worth endorsing. Broadly speaking, they form part of the ‘toolkit’ that all economics majors should possess on graduation. There might be differences of opinion on relatively minor matters, but why should anyone have reason to quarrel with the list as a whole?

My response to Hansen’s list may be characterised as ‘yes, but’. The ‘yes’ comes from my strong support for the proficiencies approach, and my broad support for the content and ordering of Hansen’s items as far as they go. The ‘but’ comes from equally strong dissent from some of the assumptions and preconceptions behind the existing list which prevent it from going far enough. This dissatisfaction prompts me to propose certain further additions to the list, as well as some revisions to the original wording. My critique, in other words, is intended as a constructive one.

In the 1986 article, Hansen proposed that we ‘think about whether the list of proficiencies presented above is reflective of the proficiencies we would like to see in our graduating majors’. Unfortunately, no such thinking on this vital issue follows this remark. He simply moves on to other issues, on ‘the assumption that these proficiencies are viewed as important’. The other issues which displace consideration of the list relate to ‘implementation’ which is regarded as the most difficult task of all (Hansen 1986 pp.151-2). The same silence pervades the 2001 article. In revisiting his original list, he saw no need for ‘dramatic revision’ and made only the changes noted previously. Despite the assertion that ‘we must ask ourselves what learning outcomes we seek to cultivate among our undergraduate economics majors’, there is no discussion of the adequacy of the list and commentary only on other matters (Hansen 2001 p. 240). Thus, on the crucial issue of specifying which proficiencies are important, there is simply no discussion in either 1986 or 2001.

Hansen makes only three brief remarks in support of his list – he believes it would strike most economists as quite reasonable, it is based on his own thinking and teaching experience over several years, and it has been endorsed in conversations with employers, students and colleagues. There is no reason to doubt this, but unfortunately it grounds the approach on the thoughts and conversations of only one individual. We need wider discussion and debate and, as a step in this direction, I advance the following criticisms of Hansen’s approach.

Firstly, there is no discussion of the adequacy of the listed proficiencies, that is, of their necessity or sufficiency. They are presented
as if they are, or would be, acceptable to everyone. However, they don’t strike me as adequate in their present form, and I don’t think the proficiencies which lie at the very heart of the program should be treated as if they are self-evidently acceptable or beyond further investigation. I agree that implementation will be difficult, but that does not mean we should gloss over the prior task of determining proficiencies.

Secondly, there is hardly any recognition of a plurality of schools of economic thought, the existence of different conceptual frameworks, and the pervasiveness of controversy. The fact is, however, that controversies and competing conceptual frameworks have been, remain, and are likely to continue to be, permanent features of economics as a discipline. ‘Reasonable people’, as Solow (1983 p. 67) has noted, ‘may…have different theories of the way the economy works – different pictures in their heads of what connects one thing with another in the economic system’. Though Solow spoke mainly about macroeconomics, the remark is equally applicable to microeconomics. Apart from being an essential characteristic of our subject, these disagreements constitute some of the important ways that economics makes progress.

Mention of controversy is not entirely absent from Hansen’s list but it occurs only once, this being in proficiency 2, one of the introductory lower-level proficiencies. It is also ambiguous – it could be read as referring either to controversy within a single conceptual framework, or to controversy between different frameworks. The absence of commentary on differing schools of thought in his discussion, however, strongly suggests the former. What is completely missing is the notion of controversy as a key characteristic of economics, a characteristic which engages a range of cognitive levels and contributes to the formation of several important skills and competencies. This absence, however, is in keeping with the dominant neoclassical school which, while readily acknowledging its own internal debates, cannot embrace a pluralism of conceptual frameworks as scientifically legitimate because of its presumption that it possesses the only correct scientific framework for economics.

4 Pluralism, however, is intellectually more rewarding to students, teachers and the discipline than fundamentalism, because pluralism tolerates different perspectives and heterodoxy while fundamentalism promotes only one perspective. The valuable aspects of introducing controversy, pluralism and contending perspectives into all stages of the curriculum have been well outlined by Barone (1991) and Moseley et al (1991). Pluralism allows more to be seen and understood than fundamentalism, and hence allows all students, of whatever persuasion, to obtain better understandings of both neoclassicism and non-neoclassicism.
Thirdly, there is no recognition of links between economics and other disciplines, whether in the social sciences, the humanities or the natural sciences. The underlying view appears to be that economics is an independent, self-sufficient subject which has little or nothing to learn from other disciplines, such a view being characteristic of neoclassical economics rather than other schools of economic thought. The notion that economics is a self-sufficient discipline, however, is false and dangerous. It is historically false because economics has grown out of constant dialogue and association with other disciplines, and it remains false because such dialogue and associations continue, even if downplayed or ignored by neoclassicism. Economics is concerned with key aspects of social and individual behaviour and its propositions therefore possess relationships with propositions arising in other disciplines dealing with other key aspects of social and individual behaviour. It is important to work towards making these relationships consistent with each other, rather than ignoring the inconsistencies or treating them as inadequacies in the other disciplines. And the notion of self-sufficiency is dangerous, because it cuts economics off from potentially fruitful avenues of progress and development that arise when other disciplines are taken seriously, and because it encourages retreat into isolationism and irrelevance. Narrowness, insularity and arrogance are not attributes to be encouraged in our students.

Fourthly, little or no emphasis is placed on the limitations and weaknesses of economics, and on its spheres of applicability and non-applicability. Whatever the implicit presumptions of some economists, economics is not a theory applicable to everything, only a theory applicable to certain aspects of society and behaviour. As such, it is relevant only to those aspects belonging to its domain, and even here its applicability is influenced by the assumptions necessary to theorising. Dealing with the significant and unavoidable gap between theory and reality is extremely important in interpreting reality and formulating policy. Graduates without an awareness of the limitations of the tools they are using are likely to produce misleading analyses and flawed policies.

Finally, in stressing the need to teach undergraduates how ‘to do economics’, Hansen’s approach is tilted towards practical skills and technical proficiency. This creates a tendency to view a conceptual awareness of the nature of what one is doing as of little or no importance. It is not enough, however, to analyse a problem with a standard set of tools. One should also be aware of the nature of the tools being used, how they influence what is produced, and what they can and cannot do.
One might be tempted to view these criticisms in terms of an opposition between a vocational orientation and liberal arts orientation towards education. In the case of economics, this is a false opposition. Those graduates will be equipped best as economists who have practical and technical skills, and a broad awareness of the nature of the subject, including its various strengths and weaknesses.

From the above absences, it may be inferred, with high probability, that the presuppositions and conceptions underlying Hansen’s list are those of orthodox, neoclassical economics. That is, his specification of proficiencies is driven by a particular conception of the subject which is confined to one conceptual framework, rather than a broader approach which embraces a wider range of frameworks and possibilities. As we know, the neoclassical view contends that there is only one true conceptual framework (and hence only one proper way to do economics), that economics is self-sufficient and has nothing fundamental to learn from other disciplines, and that, for a variety of reasons (including the use of formal techniques), economics is superior to other social sciences. However, from a broad standpoint which views economics as a whole, competing conceptual frameworks, controversy, links to other disciplines, and the limitations of the subject constitute some of the essential characteristics of our discipline. It is only from the standpoint of a particular conceptual framework which denies or downplays their existence, and is primarily concerned with its own internal affairs, that they disappear from view.

Hansen contends that his list of proficiencies is ‘quite neutral with respect to the content of the economics major’ and does not intrude on the ‘intellectual focus of the major’ (1986 p.151). This, however, is ambiguous, and potentially claims too much. If it refers only to variations within the one conceptual framework, such as the neoclassical one, the claim is defensible for it would not matter whether the intellectual focus of the neoclassical major was on micro, macro, international trade or development, for example. But it becomes virtually impossible to uphold if it is intended to apply to majors which stress a pluralism of perspectives. In that case, a list of proficiencies which does not explicitly recognize pluralism, controversies, and alternative conceptual frameworks is certainly not neutral, and does intrude on intellectual content. If the proficiencies approach is to seek genuine intellectual neutrality with respect to all majors, the list of proficiencies needs significant alteration so as to encompass diversity.5

5 The program, advocated by Hansen et al (2002), of promoting economic literacy by changing Economics Principles courses so that they are based on 20 Content
From an even broader perspective, decisions about which proficiencies are desirable are based, not only on value judgments about knowledge and skills, but also on more general values operating at a meta-level. Such meta-values, which we need to uncover for our own awareness, significantly influence students’ own values. Examples of these sorts of values are set out in Table 2, which contrasts some of the attributes which (in my view) should be promoted, with those which should be discouraged, by any list of proficiencies.

**TABLE 2**

**DESIRABLE AND UNDESIRABLE META-VALUES**

<table>
<thead>
<tr>
<th>Desirable</th>
<th>Undesirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-mindedness</td>
<td>Closed-mindedness</td>
</tr>
<tr>
<td>Breadth</td>
<td>Narrowness</td>
</tr>
<tr>
<td>Humility</td>
<td>Hubris</td>
</tr>
<tr>
<td>Transparency</td>
<td>Opaqueness</td>
</tr>
<tr>
<td>Economics is one among many</td>
<td>Economics is superior to many</td>
</tr>
<tr>
<td>disciplines</td>
<td>disciplines</td>
</tr>
</tbody>
</table>

That the values and attitudes of students can be influenced by the subjects they take has been argued by Frank et al (1993) who contend that exposure to the self-interest model of orthodox economics encourages selfishness and inhibits cooperation in economic students and teachers as compared to non-economics students and teachers. Is this really an influence we want to exert on our future leaders, policy-makers and citizens when, in our increasingly interdependent world, social cooperation is more and more a necessity rather than a discardable option?

**4. THE AMENDED PROFICIENCIES**

Based on the above considerations, I propose the following additions to, and modifications of, Hansen’s 2001 list of proficiencies and their means of demonstration. Although the modifications receive first mention, the Standards neatly engages with Hansen’s list of proficiencies. However, the Standards approach can be criticised along the same lines as his proficiencies approach, namely, that it is essentially neoclassical in nature. The key question, which Hansen et al (2002 p.464) raise, but again do not discuss, is: ‘Whose Short List?’.

6 See also experiment 12 in Marwell and Ames (1981 pp.306-9) which indicated that economics students were much more likely to free ride than other students.
additions are far more important. Both sets of changes are outlined prior to their incorporation into the new list.

A. Modifications to the 2001 List

Here the numbering refers to the numbers in the 2001 list.

1. **Access Existing Knowledge**
   (i) insert ‘limitations’ into the final sentence so that it reads ‘construction, meaning and limitations of economic data’.

2. **Display Command of Existing Knowledge**
   (i) include book chapters as well as journal articles.

3. **Interpret Existing Knowledge**
   (i) restore the 1986 content to this item so that it includes academic, as well as non-academic, analyses,
   (ii) include book chapters as well as journal articles,
   (iii) internationalise by omitting reference to US publications,
   reword the passage more succinctly.

4. **Interpret and Manipulate Economic Data**
   (i) insert a sentence referring to the limitations of numerical economic data,
   (ii) change ‘relationship’ to ‘relationships’ in the second last sentence,
   (iii) internationalise by removing reference to US publications.

5. **Create New Knowledge**
   (i) change title to *Towards Creating New Knowledge*,
   (ii) include theses or dissertations required for honours degrees,
   (iii) maintain last position in the amended list of proficiencies.

B. Three Additions to the 2001 List

Here the numbering refers to the position of the items in the amended list.

6. **Display Awareness of the Nature of Economics**
7. **Display Awareness of Controversy in Economics**
8. **Display Awareness of Links Between Economics and Other Disciplines**

The extended and amended list of nine proficiencies is presented in full below.

1. **Access Existing Knowledge**: Retrieve information on particular topics and issues in economics. Locate published research in economics and
related fields. Track down economic data and data sources. Find information about the generation, construction, meaning, and limitations of economic data.

2. **Display Command of Existing Knowledge**: Explain key economic concepts and describe how these concepts can be used. Write a precis of a published journal article or book chapter. Summarize in a two-minute monologue or in a 500-word written statement what is known about the current condition of the economy and its outlook. Summarize the principal ideas of an eminent economist. Elaborate a recent controversy in the economics literature. State the dimensions of a current economic policy issue.

3. **Interpret Existing Knowledge**: For academic contributions published in journal articles or book chapters: write a precis of the contribution; read and interpret a theoretical analysis; read and interpret a quantitative analysis, including regression results; show which economic concepts and principles are used in the analysis, including any underlying school of thought. Do the same for economic analyses presented in daily newspapers and weekly magazines, and for non-technical analyses written by economists for general purpose publications.

4. **Interpret and Manipulate Economic Data**: Explain how to understand and interpret numerical data found in tables published by government statisticians and other bodies. Explain the limitations of such data. Be able to identify patterns and trends in published data. Construct tables from already available data to illustrate an economic issue. Describe the relationship(s) among three different variables (e.g., unemployment, prices, and GDP). Explain how to perform and interpret a regression analysis that uses economic data.

5. **Apply Existing Knowledge**: Prepare an organized, clearly written five-page analysis of a current economic problem. Assess in a four-page paper the costs and benefits of an economic policy issue. Prepare a two-page memorandum that recommends action on an economic policy issue.

6. **Display Awareness of the Nature of Economics**: Write a paper on: definitions of economics; the nature of economic reasoning(s) in either theoretical or policy matters; whether economics is a science or not; if a science, whether it belongs to the social sciences or natural
sciences; the capacities and limitations of economics in analysing social and individual phenomena; whether assumptions constrain the applicability of theories; whether the gap between theory and reality matters and how to deal with it if it does; whether institutions are central or peripheral to economic analysis; the methods available for testing the implications of economic theories and whether such tests are ever conclusive; the relations between micro and macro.

7. *Display Awareness of Controversy in Economics*: Write a paper on: a controversy in economics concerning content or methodology, or micro or macro; whether controversies are ever resolved in economics and, if so, how; whether there is only one true conceptual framework for economics or whether economics is essentially heterodox with multiple conceptual frameworks; whether faith, dogmatism and ideology are significant factors in economic controversies.

8. *Display Awareness of Links Between Economics and Other Disciplines*: Write a paper on: the links between economics and at least one other (non-commerce) related discipline such as psychology, history, sociology, politics, anthropology or philosophy; what economics can learn from other disciplines; whether, in discourse with other disciplines, economics has preferred the role of teacher to that of learner.

9. *Towards Creating New Knowledge*: Formulate questions that illuminate a new economic issue that needs to be researched. Prepare a five-page proposal for a research project. Conduct a research study, presenting the results in a polished 20-page paper or in a longer honours dissertation. Conduct a group research project that prepares a detailed research proposal and/or a finished research paper.

5. **COMMENTS ON THE AMENDED LIST**

It is important that any list of expected proficiencies be restricted to a small and manageable number. Extending the list from six to nine would seem to fit this requirement.

All proficiencies need to be demonstrated, but that does not mean that each requires separate pieces of work. Two proficiencies could be assessed by one exercise, for example, a procedure which reduces the demonstration/testing burden.

The notion of a rough order of cognitive levels has been respected by placing the three additional proficiencies later in the list, at the level of
interpreting, evaluating and applying existing knowledge. This does not prevent them from being introduced earlier, but they are more effectively demonstrated the more students know about economics. The particular order in which they are presented is arbitrary, as all three appear to be similar in terms of cognitive level.

A. Modifications to the 2001 List

The word ‘knowledge’ has been retained throughout, but the sense in which it is used needs clarification. Given that there are several competing conceptual frameworks in economics, the word is used broadly as an umbrella term embracing all the knowledges generated by different conceptual frameworks.

Controversy is retained in 2 to serve as an introduction to 7. And regression, even though it occurs in 4, is restored to 3 because of its central role in various publications.

Reference to the limitations of economic data occurs in both 1 (the construction of data) and 4 (the use of data) because it is crucial that students appreciate that the strength of many arguments depends on the accuracy and nature of the data used, and that data is quite frequently flimsy or restrictive by nature. ‘Relationship(s)’ is preferred because there may be more than one relationship between variables (such as unemployment, prices and GDP).

I see no good reason why 3 should be restricted to ‘non-academic’ analysis, so Hansen’s 1986 and 2001 versions have been combined to embrace both academic and non-academic publications. I also see no good reason to restrict 2 and 3 to journal articles, since academic book chapters can contain material of at least equal quality.

To internationalise the appeal of the approach, reference to the specific publications of a particular country have been removed. The publications of the domestic economy will often be more appropriate and of at least an equal standard.

The heading of the last item (item 9) has been softened to provide a more accurate reflection of the content of the item and of students’ abilities. Formulating questions or proposals and undertaking research projects or dissertations is one thing, but describing what we expect students to do as creating new knowledge seems to me to set the bar at too high a level. Some students may create new knowledge, but most will only achieve movements in this direction.
B. Additions to the 2001 List

The additional proficiencies are not aimed at producing more technically proficient graduates for that is part of the task of the original proficiencies. They are instead aimed at producing better-educated economists, citizens, executives, leaders, policy makers, civil servants and politicians. They are concerned with broadening rather than narrowing the horizons of our graduates, and with deepening their knowledge of economics in areas other than technical mastery so that they can provide better analysis, advice and leadership. These qualities, which come from awareness of the nature of the discipline, its strengths and weaknesses, the role of controversy and debate, and the non-economic dimensions and values of individuals and societies, are just as important as the technical skills. They reflect aspects of an economics education that the technically minded often dismiss as irrelevant, such aspects including methodology, history of economic thought, philosophy and psychology. As Hayek has noted

“the physicist who is only a physicist can still be a first class physicist and a most valuable member of society. But nobody can be a great economist who is only an economist - and I am even tempted to add that the economist who is only an economist is likely to become a nuisance if not a positive danger”.

Some thought was given to a fourth additional proficiency called Display Awareness of the Capacities and Limitations of Economics but, in the interests of minimisation, I have folded this in with proficiency 6 dealing with the nature of economics.

The additional proficiencies will also help produce better academic and research economists, partly by providing more inputs for proficiency 9. All of them (especially 8, perhaps) will foster and encourage the creation of new knowledge.

It is interesting that the amended proficiencies approach is closer in spirit to the views of the younger Hansen. In a short piece written in the politically more turbulent 1970s, Hansen not only gave indications of his later concern with proficiencies but also recognised the claims of pluralism and diversity. Following the decline of consensus in the profession as to the subject matter of economics, he welcomed ‘the heavy involvement of individual faculty members in developing new approaches [including those of radical economics] that most closely fit their conception of what economics is all about.’ He also observed that ‘there is no best way to
teach economics, however we define it. And there is no single definition of economics that will satisfy all of us. This argues for diversity…’ (Hansen 1975 pp.435-6).

6. HERBERT SPENCER

When introducing the proficiencies approach in 1986, Hansen resurrected, in the context of modern economics majors, Herbert Spencer’s 1861 question, ‘What Knowledge is of Most Worth?’. It is interesting to reflect on their respective answers to this question, the comparison revealing a strong contrast between the breadth and roundedness of Spencer’s answer, and, despite his proclaimed interest in preparing young people for a fuller life and improved citizenship, the narrowness of Hansen’s.

In his polemical essay, Spencer attacked the then current views of what constituted the most valuable knowledge that education should impart. Instead of seeking accomplishments in areas which were important for their value in ornament and display or which, according to social convention, attracted most applause, respect and honour from others, he argued that a rational education system should prepare all individuals for ‘complete living’; that is, it should enable individuals to flourish in all the important aspects of life.

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7 The amended approach is also consistent with the brief sketch, presented 80 years ago, by Heaton (1924 p.220) in the Economic Journal which Leanne Smith (Massey University) brought to my attention: ‘we can at least enumerate the qualities we wish to find in an educated man. Well-informed, certainly, but more than that. Thoughtful, critical in outlook, capable of investigating problems for himself, knowing how to search for evidence and how to sift it, tolerant, socially-minded, able to work with and for others, and so forth.’
How to live? – that is the essential question for us. Not how to live in the mere material sense only, but in the widest sense. The general problem which comprehends every special problem is – the right ruling of conduct in all directions under all circumstances. In what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring up a family; in what way to behave as a citizen; in what way to utilize those sources of happiness which nature supplies – how to use all our faculties to the greatest advantage of ourselves and others – how to live completely? … To prepare us for complete living is the function which education has to discharge; and the only rational mode of judging of an educational course is, to judge in what degree it discharges such function. This test…has to be applied consciously, methodically, and throughout all cases. It behoves us to set before ourselves, and ever to keep clearly in view, complete living as the end to be achieved; so that in bringing up our children we may choose subjects and methods of instruction, with deliberate reference to this end. (Spencer 1861, p.8)

For Spencer, human life was marked by the five leading activities listed below, with the ‘ideal of education’ being ‘complete preparation’ in all these divisions of life. Failing that, the practical aim was to maintain a due proportion between the degrees of preparation in each. The catch cry was ‘attention to all’, with ‘exhaustive cultivation’ in any one division, or ‘exclusive attention’ to two, three or even four divisions rejected. Education was to provide, for each leading activity, knowledge of the relevant subjects, these subjects being listed below after each activity as follows:

1. Direct self-preservation (personal safety): physical activities and physiology (to promote health and longevity).
2. Indirect self-preservation (acquiring a means of living): logic, mathematics, physics, chemistry, astronomy, geology, biology, and ‘the science of society’ (on which see 4 below).
4. Citizenship (social and political relations): the ‘science of society’, including politics, history, sociology, economics, morality, law etc.
5. Leisure (enjoyment of nature and the arts): literature, music, painting, sculpture, appreciation of nature etc. Such knowledge provided the
foundation for complete living, and represented what one might call Spencer’s ‘long answer’ to his question.

However, he also advanced a ‘short answer’. He argued that all knowledge relevant to the five activities either was science, or was founded on science. This applied even to artistic pursuits for, in his view, ‘the highest Art of every kind is based on Science’. The details of his arguments need not detain us here, save to say that they draw heavily on individualism and determinism. His short answer was thus that ‘science is of chiepest value’, science being understood broadly as the rational investigation and analysis of phenomena in any field.

Thus to the question we set out with – What knowledge is of most worth? – the uniform reply is – Science. This is the verdict on all the counts. …[W]e find that the study of Science, in its most comprehensive meaning, is the best preparation for all these orders of activity. … Necessary and eternal as are its truths, all Science concerns all mankind for all time. Equally at present and in the remotest future, must it be of incalculable importance for the regulation of their conduct, that men should understand the science of life, physical, mental, and social; and that they should understand all other science as a key to the science of life. (Spencer 1861 pp. 53-4).

Some general observations about Spencer’s analysis are pertinent in the present context:

(i) The emphasis is on ‘complete living’ and *all* the knowledge necessary to facilitate this end.

(ii) There is a rejection of narrow specialisation, or exhaustive attention to one or two subjects. Anyone well-equipped for life, and hence for citizenship and policy-making, has sufficient grounding in all areas and not just exclusive training in one or two areas such as, say, economics and mathematics.

(iii) Apart from the attribution of a descending hierarchy of importance from 1 to 5 in the divisions of life, there is no suggestion of a hierarchy between any of the sciences of society. All the social sciences are of equal importance, with none being regarded as ‘emperor’ or ‘queen’.

(iv) There is a pervasive belief in the unity and harmony of science, with different sciences expected to be consistent with each other. Social sciences, for example, do not ignore each other, or exhibit disdain for conclusions reached in other fields.
Whatever one’s view of other areas of Spencer’s thought, these aspects of his views on education are commendable. Any approach which treats his answer with as much respect as his question requires a broader range of proficiencies than those proposed by Hansen.

7. CONCLUSION

I have suggested that it is dangerous to turn out technically proficient economics graduates with narrow horizons, an imperious attitude, and a poor understanding of the nature of their subject. We should aim to produce economists, policy-makers and leaders with broad conceptual horizons, a good knowledge of the strengths and weaknesses of the tools provided by their subject, and an appreciation of the links between economics and other disciplines. To that end, Hansen’s list of six proficiencies needs to be extended and revised along the lines proposed.

REFERENCES


