Professional Competence:
Its Nature, Development, and Assessment
Present Perspectives and Future Issues

John Raven
30 Great King St.,
Edinburgh EH3 6QH
Scotland
Phone: ++ 44 131 556 2912
Fax: ++ 44 131 556 3754
E-mail: jraven@ednet.co.uk

Version Date: 18 March 1998

This paper is based on 50 years of intermittently sustained research. Yet, while that research has led to a position which is as scientifically and practically re-orientating as the theory of evolution was when it was first published, and while that position has similar social and political implications, it must not – any more than the theory of evolution – be viewed *as* a political position. The research supporting most of what is said here is summarised in *Managing Education for Effective Schooling*[1], which is itself based on some 20 earlier research reports.

The paper will illustrate what we have learned about the nature, development, assessment, and release of professional competence – and the problems posed by our findings – by reviewing what we have learned about *teacher* competence.

Numerous government reports[2], and opinion surveys among parents, teachers, pupils, adults, and employers[3], show that it is widely agreed that the main goals of education are to nurture competencies like problem-solving ability, the ability to work with others, initiative, and the ability to understand and influence the workings of organisations and society. These views are correct: Studies of the qualities required for effective performance in a wide range of occupational roles from street-sweeper to managing director of an international companies[4] and in a wide range of citizenship and family activities[5] demonstrate that these *are* the most important qualities to be nurtured. Their importance is further underlined by reflecting on the qualities required to transform our society in such a way that our species will *have* a future - *any* future[6]. Yet schools – teachers – do hardly anything to nurture these competencies[7].

It follows that, *from the point of view of achieving the very objectives that it is most widely – and correctly – agreed that the educational system should achieve most teachers are incompetent*[8].

There are many reasons for this state of affairs[9]. No one knows much about the psychological nature of qualities like those that have been mentioned, how to nurture them, or how to assess them. The latter is particularly important because what happens in the educational system is chiefly determined by what is assessed in the certification and placement process and not by the wishes of parents, teachers, educational philosophers, or ministers of education[10]. The most important point to note is, however, that teachers are professionally incompetent *because they have failed to band together to bring about the wider societal developments that are necessary if they are to behave competently within their classrooms*. In this they are no different from other professionals: the more effective members of all occupational groups who have been appropriately studied tend to get together with others to find ways of influencing the wider social and political constraints on what they *can* do *in their jobs*[11]. Note the irony and the catch. It is vitally important for teachers themselves to develop the "confidence and initiative to introduce change" that pupils said it was so important for the educational system to help them develop.

To bring about social change, it is necessary to have a wide range of different people who are strongly motivated to contribute in very different ways to the process[12]. One needs someone who can study the hidden sociological systems processes which perpetuate our dysfunctional society and invent ways of intervening in them. One needs someone who can translate those ideas into practical intervention strategies. One needs someone to invent ways of monitoring the effects of those interventions in order to learn more about the nature of the process and the effectiveness of the chosen strategy. One needs publicists. One needs people who can intervene in the political system. One needs people who can get other people to work together effectively. And so on[13].

Two very important observations follow from this: First: teachers' main task is to nurture diverse motivational dispositions (competencies) not to convey uniform, out of date, knowledge of content. It is to facilitate growth. Pupils are to learn to lead, to invent, to find ways of influencing things etc. etc. *not* to master (learn) technico-rational knowledge. Note the re-definition of effective teaching implied in this observation alone. Second: the teaching profession itself requires a huge range of very different people who can contribute in different ways to the evolution of an effective educational system. It needs: some systems interveners; some who work with parents; some who develop new educational processes; some who work on new assessment systems; and so on.

How is one to nurture such a diverse range of competencies? How is one to conceptualise them? How is one going to give pupils and teachers credit for such a huge range of talents and contributions? (We may note in passing that it follows from what has been said that one cannot deal with *in*competence – that *bête noire* that has done so much to fuel the huge, international, multi-billion dollar competency-specification-and testing movement – by laying down domains of technico-rational knowledge to be mastered.)

While we would not claim that we have anything approaching *the* answers to the questions raised in the last paragraph, we believe we have advanced some steps along the way.

The competencies we have been discussing are to be conceptualised as *motivational dispositions.* We have seen that society needs a wide range of people who are strongly motivated to do very different things. The task facing us as educational and psychological researchers is, therefore, to develop an agreed list of descriptors - similar to the elements of atomic theory - to summarise and describe this variance. Moves toward such a framework are to be found in Spencer & Spencer[14] and Raven[15].

But the self-motivated competence to undertake each and every one of these activities effectively seems to depend on a common set of cognitive, affective, and conative components of competence.

The cognitive components include such things as the ability to develop better ways of thinking about the activity – such as putting someone at ease. But they also include some perhaps more surprising things – because another way of summarising some of the things we have just said about teacher incompetence is that *competence is overwhelmingly determined by people's beliefs about their society and organisations, how they work, and their own role in them.*

The affective components of competence include the use of feelings to initiate action which cannot be rationally explained and to monitor and learn more about the problem[16].

The conative components include such things as persistence.

These observations about the nature of competence are summarised in Grid 1. This model of competence and its assessment was embedded in McClelland's 1958 scoring system for responses to his Test of Imagination[17], but has been lost in his more recent work[18].

It follows from what has been said that, although a common set of components of competence is required to carry out each of the self-motivated activities listed across the top of the Grid, these components of competence can only be nurtured and observed ("assessed") when people – whether children or adults – are working at tasks they are spontaneously strongly motivated to undertake.

To nurture these components of competence effectively – as studies of effective teachers[19], parents[20], and managers[21] have shown – it is necessary to create *developmental environments* in which people are, among other things, able to undertake activities they care about, get feedback from seeing the effects of their actions, and are exposed to appropriate role models[22]. By and large, this is best done in homes and workplaces. If it is to be done in educational institutions it is necessary to make use of interdisciplinary, enquiry-based, *competency-oriented* project work in which different pupils contribute in different ways to the achievement of a real task. Such project work is *not* an alternative way of teaching the 3Rs and to be evaluated using conventional achievement tests[23]. *It is a highly structured approach to achieving the main goals of education.* The problem is that there are currently no tools to help teachers undertake this difficult, demanding, and frustrating task; there are no ways of giving students credit for having developed one or other of the huge range of vitally important motivational dispositions (competencies) which it would be possible and desirable for them to develop; and there are no ways of giving teachers credit for having nurtured these qualities or contributed to the evolution of an educational system in which they can be nurtured it in teacher appraisal and policy evaluation systems.

As far as the professional development of teachers is concerned, the implications are quite clear. As no less than six committees of enquiry in Scotland have shown[24], off-the-job teacher education and training is, by and large, a waste of time. Teachers learn to teach on the job. Outstanding teachers not only painstakingly evolve personal strategies for doing what they need to do, they undertake self-motivated programmes of personal development -- among other things going to work with other outstanding teachers they have heard about[25].

What is needed is a re-structuring of the educational system to create developmental environments for teachers and student teachers as well as pupils. It will be necessary to evolve a new *learning and management system* within the educational system. This learning and management system *must be one which experiments and learns without anyone within it having to know anything very much.* That is, what is needed is non-hierarchical and organic, with many feedback loops and tolerance of mistakes. It is precisely the opposite of that which lies behind philosophies of "improvement" associated with such things as National Curricula and central direction. We have used such work as we have been able to find[26] to set down the specifications for such a system[27]. Crucially important is the development of new ways of ensuring that *public servants act on information in an innovative way in the long term public interest.* That is, finding a way forward depends on the evolution of new expectations of, and ways of supervising, public servants – ie on the evolution of new forms of bureaucracy and democracy.

I have been asked to say something about what I see as the limitations of the framework we have developed. That's difficult when my claim is only that, by chipping away over the years, we have identified what appear to be a few patches of (somewhat disturbing) firmer ground in a swamp. What I want to close by saying is that this is a field of immense educational and social significance that has been grossly and unethically neglected by most educational researchers. It is time for us, as professionals, to find ways of orchestrating a swathe of major programmes of innovative, adventurous, research and development in the area, grounding that work in a more appropriate concept of science and framework for advancing scientific understanding[28].

Notes

1 Raven, 1994

2 eg The TVEI *Review* (MSC, 1984); SCANS (1991).

3 eg Raven, Hannon et al, 1975a&b; Flanagan, 1978; Goodlad, 1983

4 See eg the summaries in Spencer and Spencer, 1993; Raven, 1984/97; Schon, 1983

5 See eg Flanagan and Russ-Eft, 1975; Raven and Dolphin, 1978; Schon, 1973.

6 See eg Raven, 1995; Emery, 1974.

7 See eg Galton and Simon, 1980: Galton, Simon and Croll, 1980; HMI, 1978; Raven, Johnstone and Varley, 1985; Goodlad, 1983; Flanagan, 1978.

8 It is actually worse than this: By failing to attend to these wider goals, teachers not only fail to identify and nurture the talents of most of the young people in their care and thus damage the future lives and careers of those children, they also – as I have shown in *Managing Education* and *The New Wealth of Nations* both fail to nurture the talents which

we, as a society, most urgently need in order to radically change our way of life so that we have a chance of surviving as a species and contribute directly and indirectly to the perpetuation of our non-sustainable way of life. In other words, the behaviour of most teachers runs counter to the long term public interest - ie it is *unethical.*

9 See eg Raven, 1994 for a summary.

10 See eg Raven, 1990

11 Raven, 1984/1997; Spencer and Spencer, 1993; Schon, 1983

12 See eg Kanter, 1985.

13 See Kanter, 1985; Jaques, 1976, 1989; Schon, 1973

14 Spencer and Spencer, 1993

15 Raven, 1984/1997

16 Schon (1983) terms these "experimental interactions with the environment".

17 McClelland, Atkinson, Clark and Lowell, 1958

18 Hay-McBer, 1996

19 Raven, Johnstone and Varley, 1985; Jackson, 1986

20 Raven, 1980; McClelland, 1982

21 Raven, 1984/1997; Spencer and Spencer, 1993

22 McClelland, 1965; Winter, McClelland and Stewart, 1981; Jackson, 1986

23 See Raven (1991) for a critique of most current tests and techniques for evaluating educational programes.

24 eg Sneddon, 1978

25 Raven, Johnstone and Varley, 1985

26 eg Kanter, 1985; Adam Smith, 1776/81; Hayek, 1948

27 Raven, 1995

28 A fuller discussion of these issues will be found in Raven, 1994, 1995

References

Emery, F.E. et al. (1974). *Futures We're In.* Australian National University: Centre for Continuing Education.

Flanagan, J.C. (1978). *Perspectives on Improving Education from a Study of 10,000 30-Year-Olds.* New York: Praeger Publishers.

Flanagan, J.C. and Russ-Eft, D. (1975). *An Empirical Study to Aid in Formulating Educational Goals.* Palo Alto, CA: American Institute for Research.

Galton, M. and Simon, B. (1980). *Progress and Performance in the Primary Classroom.* London: Routledge and Kegan Paul.

Galton, M., Simon, B. and Croll, P. (1980). *Inside the Primary Classroom.* London: Routledge and Kegan Paul.

Goodlad, J. (1983). *A Place Called School.* New York: McGraw Hill.

Hayek, F.A. (1948). *Individualism and Economic Order.* Chicago: University of Chicago Press.

Hay-McBer. (1996). *Scaled Competency Dictionary.* Boston: Hay/McBer.

HMI (1978). *Primary Education in England: A Survey by H.M. Inspectors of Schools.* London: Department of Education and Science, HMSO.

Jackson, P.W. (1986). The *Practice of Teaching.* New York: Teachers College Press.

Jaques, E. (1989). *Requisite Organization.* Arlington, VA: Cason Hall and Co.

Kanter, R.M. (1985). *The Change Masters: Corporate Entrepreneurs at Work.* Hemel Hempstead: Unwin Paperbacks.

McClelland, D.C. (1965). Toward a theory of motive acquisition. *American Psychologist, 20,* 321–333.

McClelland, D.C, Atkinson, J.W., Clark, R.A. and Lowell, E.L. (1958). Appendix. In J.W. Atkinson (Ed.), *Motives in Fantasy, Action and Society.* New York: Van Nostrand.

McClelland, D.C., Constantinian, C.A., Regalado, D. and Stone, C. (1982). The effects of child rearing practices on adult maturity. In D.C. McClelland (Ed.), *The Development of Social Maturity.* New York: Irvington.

MSC (1984). *TVEI Review, 1984.* London: MSC.

Raven, J. (1980). *Parents, Teachers and Children: An Evaluation of an Educational Home Visiting Programme.* Edinburgh: Scottish Council for Research in Education. Distributed in North America by the Ontario Institute for Studies in Education, Toronto.

Raven, J. (1984/1997). *Competence in Modern Society: Its Identification, Development and Release.* Unionville, New York: Royal Fireworks Press (1997); Oxford, England: Oxford Psychologists Press (1984).

Raven, J. (1990). The barriers to achieving the wider goals of general education. *British Educational Research Journal, 16(3),* 273–296.

Raven, J. (1991). *The Tragic Illusion: Educational Testing.* New York: Trillium Press; Oxford, England: Oxford Psychologists Press.

Raven, J. (1994). *Managing Education for Effective Schooling: The Most Important Problem is to Come to Terms with Values.* New York: Trillium Press; Oxford, England: Oxford Psychologists Press.

Raven, J. (1995). *The New Wealth of Nations: A New Enquiry into the Nature and Origins of the Wealth of Nations and the Societal Learning Arrangements Needed for a Sustainable Society.* Unionville, New York: Royal Fireworks Press; Sudbury, Suffolk: Bloomfield Books.

Raven, J. and Dolphin, T. (1978). *The Consequences of Behaving: The Ability of Irish Organisations to Tap Know-How, Initiative, Leadership and Goodwill*. Edinburgh: Competency Motivation Project.

Raven, J., Hannon, B., Handy, R., Benson, C. and Henry, E.A. (1975a). *A Survey of Attitudes of Post Primary Teachers and Pupils, Volume 1: Teachers' Perceptions of Educational Objectives and Examinations*. Dublin: Irish Association for Curriculum Development.

Raven, J., Hannon, B., Handy, R., Benson, C. and Henry, E.A. (1975b). *A Survey of Attitudes of Post Primary Teachers and Pupils, Volume 2: Pupils' Perceptions of Educational Objectives and their Reactions to School and School Subjects*. Dublin: Irish Association for Curriculum Development.

Raven, J., Johnstone, J. and Varley, T. (1985). Opening the Primary Classroom. Edinburgh: Scottish Council for Research in Education.

Secretary's Commission on Achieving Necessary Skills (SCANS). (1991). *Skills and Tasks for Jobs: A SCANS Report for America 2000*. Washington, DC: US Department of Labor.

Schon, D. (1973). *Beyond the Stable State*. London: Penguin.

Schon, D. (1983). *The Reflective Practitioner*. New York: Basic Books.

Smith, A. (1776/1981). *The New Wealth of Nations*. Penguin Books: Harmondsworth, Mddx.

"Sneddon" Report (1978). *Learning to Teach*. Edinburgh: HMSO, Scottish Education Department.

Spencer, L.M. and Spencer, S.M. (1993). *Competence at Work*. New York: Wiley.

Winter, D.G., McClelland, D.C. and Stewart, A.J. (1981). *A New Case for the Liberal Arts*. San Francisco: Jossey Bass.

"6-Word" "Raven-Locator pic"

John Raven

Perceptions of Educational Objectives; Occupational and Social Competence (especially teacher competence); Competencies as motivational Dispositions; Interdisciplinary Project-Based Education.

GRID 2
A MODEL OF COMPETENCE

Examples of Potentially Valued Styles of Behaviour.

Examples of components of effective behaviour.	Achievement					Affiliation					Power		
	Doing things which have not been done before.	Inventing things.	Doing things more efficiently than they have been done before.	Developing new formal scientific theories.	Providing support and facilitation for someone concerned with achievement.	Establishing warm, convivial relationships with others.	Ensuring that a group works together without conflict.	Establishing effective group discussion procedures.	Ensuring that group members share their knowledge so that good decisions can be taken.	Articulating group goals and releasing the energies of others in pursuit of them.	Setting up domino-like chains of influence to get people to do as one wishes without having to contact them directly.		
Cognitive Thinking (by opening one's mind to experience, dreaming and using other sub-conscious process) about what is to be achieved and how it is to be achieved.													
Anticipating obstacles to achievement and taking steps to avoid them.													
Analysing the effects of one's actions to discover what they have to tell one about the nature of the situation one is dealing with.													
Making one's value conflicts explicit and trying to resolve them.													
Consequence anticipated: *Personal:* e.g. "I know there will be difficulties, but I know from my previous experience that I can find ways round them."													
Personal normative beliefs: e.g. "I would have to be more devious and manipulative than I would like to be to do that."													
Social normative beliefs: e.g. "My friends would approve if I did that": "It would not be appropriate for someone in my position to do that."													
Affective Turning one's emotions into the task: admitting and harnessing feelings of delight and frustration: using the unpleasantness of tasks one needs to complete as an incentive to get on with them rather than as an excuse to avoid them.													
Anticipating the delights of success and the misery of failure.													
Using one's feelings to initiate action, monitor its effects, and change one's behaviour.													
Conative Putting in extra effort to reduce the likelihood of failure.													
Persisting over a long period, alternatively striving and relaxing.													
Habits and experience Confidence, based on experience, that one can adventure into the unknown and overcome difficulties. (This involves knowledge that one will be able to do it plus a stockpile of relevant habits).													
A range of appropriate routineised, but flexibly contingent behaviours, each triggered by cues which one may not be able to articulate and which may be imperceptible to others.													
Experience of the satisfactions which have come from having accomplished similar tasks in the past.													

Modified from: Raven, J. Competence in Modern Society: Oxford Psychologists Press
or Raven, J. The Tragic Illusion: Educational Testing: Oxford Psychologists Press
US: both Royal Fireworks Press, Unionville, New York.