This paper challenges traditional views about learning which stress individual cognitive development and argues for an approach which take into account the learner's experiences and focus on the emotional state of the learner, social group membership and social context.

Susan Askew

Learning Promotes Health

It is argued that an approach to learning - where learners construct meaning and understanding from reflecting on their experiences and dialogue with others - is intrinsically health promoting.

Susan Askew is Course Leader: MA in Health Education and Health Promotion in the Department of Curriculum, Pedagogy and Assessment at the Institute of Education, University of London.

This paper presents an argument for an approach to learning within formal education, which promotes social capital,[1] and is, intrinsically health promoting. The paper begins with a brief review of research exploring the relationship between education and health, defines the concept of social capital, and continues by outlining aspects of effective learning which promote both social capital and health.

The effective learning literature emphasises the following:

- ▷ A shift from an emphasis on teaching and the teacher, to learning and the learner (Carnell and Lodge, 2002)
- ▷ Emotional and social, as well as cognitive dimensions of intelligence (Askew and Carnell, 1998)
- ▷ Metalearning, and reflexivity (Watkins, 2001, Carnell and Lodge, 2002)
- ▷ Developing communities of learners through dialogue (Watkins et al 2002, Askew et al, *Dialogue for Learning*. to be published)

Effective learning has much in common with approaches to promoting positive health and well-being, which recognise the importance of bottom-up approaches, community, empowerment, self-esteem, emotional health and well-being, sense of purpose and motivation. In this paper it is suggested that health promotion could benefit from adopting some of the insights from the effective learning literature. The implications for promoting health of individuals and organisations would be a shift in emphasis from content, topics, targets and behaviour change to processes that promote effective learning, and learning communities. 'Learning' and 'Healthy' are seen as synonymous in this argument.

...it is suggested that health promotion could benefit from adopting some of the insights from the effective learning literature.

Education and Health

The paper starts with a brief review of the research literature, which finds a correlation between educational achievement and better 'health'. In this literature, 'education' is generally measured through years of schooling, or level of attainment and achievement. 'Better health' is a negative concept and measured in terms of absence of disease and illness.

How do we explain the correlation between educational achievement and better health? Hammond (2002) suggests several explanations for this correlation:-

- ▷ Better health leads to increases in learning and educational attainment
- ▷ The correlation between educational attainment (qualifications and years of study) is explained by other factors, e.g. wealth, income, parents level of education, good housing, social capital
- ▷ Education lead to increased health and decreased mortality and morbidity

In the first explanation, 'Better health leads to increases in learning and education achievement', research evidence shows that better health status enable us to achieve a higher level of educational qualification (Gilleskie and Harrison,1998; Wittchen et al. 1998). Poor physical and emotional health constitute barriers to successful learning and education.

In the second explanation, 'Some factors affect both learning and health' it has been suggested that one or more factors determine both educational engagement and success, and health (e.g. Fuchs 1982). Factors such as housing and income level will affect educational achievement and health. Wilkinson (1996) suggests that growing financial inequalities in the latter 1980's resulted in deteriorations in education and health at national level. For example, children who experience distress and loss will have more difficulties in school and are likely to have emotional health problems.

1. Social capital - the ability to draw on our social networks.

In the third explanation, 'Educational attainment has positive effects on health' it has been established that the 'well' educated experience better health than do the poorly educated, as indicated by high levels of perceived health and physical functioning and lower levels of morbidity, mortality and disability (Ross and Mirowsky, 1999). A number of studies in the United States suggest that years of formal schooling completed is the most important correlate of good health (Grossman and Kaestner, 1997, p. 73). The correlation between years of formal education/highest qualification attained and better health as measured by morbidity and mortality statistics, as well as self-reported health, has been found world wide and amongst individuals of different ethnic groups, ages and incomes. The correlation exists *even when* other factors are controlled for.[1]

Hammond (2002) suggests that the outcomes of education:

- ▷ Are important in generating behaviours, skills and personal attributes that have lasting effects on emotional, physical and social health
- ▷ Vary, depending on characteristics of the learner, the learning context and learning experience

In this paper it is accepted that all three explanations are likely to interact to produce the correlation between education and health, however, as educationalists we are concerned with those factors which are within our remit and which we can affect.

Inequality and social capital

It is suggested that reducing inequalities in education may be more effective in improving health at national levels than providing more education for all (Hammond, 2002).

Researchers in the 'rich', 'developed' countries have noted that the association between inequality and societal mortality rates in these countries, cannot be explained in terms of absolute material circumstances. Instead they have been explained in terms of relative standards or social position (Wilkinson, 1998). This explanation puts more emphasis on the importance of psychosocial influences on health. For example, it is argued that differences in social status lead to chronic stress in those countries where there is wide income difference (as compared to absolute poverty). Chronic stress affects health in a number of ways, including reproduction, growth, thyroid and metabolic functions as well as the gastrointestinal and immune systems (Martin, 1997; Lovallo, 1997). Wilkinson (1998) suggests that while some forms of chronic stress, for example, job insecurity, overcrowding, debt have a culturally contingent relation to low social status, other forms of stress are linked almost inherently to low social status, for example, respect, humiliation, self-esteem, pride, prestige and shame.

Much work has been done on the evolution of co-operative behaviour beyond the bounds of kinship networks, on social reciprocity and on alliances based on it. It is likely that a sense of security is associated with belonging to a co-operative group and that by contributing to the welfare of others through relations of reciprocity, we gain a sense of self-worth and of being valued members of a group (Putnam, 2000). Our social capital - the ability to draw on our social networks is now being viewed as a key factor in health. For example, Young, (1996), shows how the key factor for women who experience severe constraints on time and income that affect their ability to access health care or act on health promotion messages is the existence of social networks of support from family, friends, neighbours and community groups. In this analysis, the most damaging aspects of inequality are those which deny people a contributory role in society, which deny them self-respect and dignity, which appear exploitative and deny trust, freedom and prevent a sense of human reciprocity and belonging to develop (Wilkinson 1998).

Our social capital - the ability to draw on our social networks is now being viewed as a key factor in health.

It is argued here that social inclusion and social capital which impact on the health of young people, can best be developed in school through the development of effective learning approaches in the classroom and of learning communities in and outside school. Reducing inequalities in education and promoting social inclusion relates to the development of a school community which brings a sense of belonging, self esteem and self-efficacy. Such a community is also a 'learning' community. This raises the question of 'what kind of approach to learning in education would develop social capital, including social cohesion, participation, collaboration, connectedness, internal locus of control, resilience, inter-personal trust and problem solving skills?' These are also the qualities, skills and values which have been linked to positive health, or well-being (for example, in the work of Antonovsky, 1984), as well as to the reduction in morbidity and mortality linked to increased social capital

Learning and health

This concern here is with learning, rather than teaching or attainment, because learning is the key to impacting on health. Learning and education are not the same thing as Hammond (2002, p. 3) describes:

> "Learning is a psychological process that can take place in any context. In contrast, education is more socially and culturally bound, usually taking place in institutions."

This paper challenges traditional views about learning which stress individual cognitive development and argues for an approach which take into account the learner's experiences and focus on the emotional state of the learner, social group membership and social context. These factors are vital discourses, as is the learning process itself. It is also argued that we need to focus on developing *learners*, (which is not necessarily the same as arguing that we need to produce *learned* people).

Learning - the traditional view

Effective learning require a shift from a

1. For a full review of research relating to the correlation between education and better health, see Hammond (2002).

focus on teaching and teachers to a focus on learners and learning. Effective learning moves from a *receptive-transmission model* in which the teacher is an expert in a particular field and gives information to a *passive recipient* (Askew and Lodge, 2000), to a *constructivist* and *co-constructivist approach*.

Receptive-transmission model

The reception-transmission approach stresses content and views the primary task of education as delivering concepts and facts (Cheney, 1987; Hirch, 1987). The model is based on the belief that the teacher is an expert in a particular field of knowledge. Teachers give information by using didactic pedagogic strategies - lectures, talks by other 'experts'; and the student is seen as a passive recipient of knowledge. Stanton (1986) criticizes this approach:

> "The task of education is the distribution of knowledge, or the "banking" method of education. Random experience is inadequate as a means of knowledge. We are taught to distrust personal experience as a guide, to identify universal truths from logical, preorganised, abstractions."

The receptive-transmission model stresses behaviourist aspects of learning, based on mechanistic worldviews, in which movement and change in one part of the 'machine' causes a chain-like reaction in the others. Essentially this view represents people as reactive, passive, robot-like and as empty organisms which are inherently at rest. Activity is viewed as a result of external forces (Askew and Carnell, 1998, p. 12).

Constructivist model

In the constructivist model knowledge is constructed by the learner, including through activities such as participatory learning, open-ended questioning, discussion and investigation. In this approach learners are facilitated in constructing their own schema for internalising information and organising it so that it becomes their own (Costa, 1991). Constructivist theories are based on cognitive aspects of development (rather than social or emotional) and are based on the work of psychologists such as Piaget (1978). Piaget's thesis is that children construct their view of the world by acting on it, internalising what is learned from experience and thus developing new mental concepts which enable them to adapt intelligently to reality. Constructivists are likely to argue that teaching facts to people is ineffective unless they are taught how to construct their own schema for internalising the information and organising it so that it becomes their own. (Costa, 1991; Day, 1981).

Jones, (1989, p. 97) writes that the main criticism of cognitive theorists is that they are unbalanced in their over-emphasis on cognitive skills at the expense of emotional development; that they are preoccupied with:

> "the aggressive, agentic and autonomous motives to the exclusion of the homonymous, libidinal, and communal motives and that they concern themselves with concept attainment to the exclusion of concept formation or invention."

This raises interesting issues because it suggests that a focus on the cognitive places too much importance on individual agency rather than on the complex social and group inter-relationships.

Co-constructivist model

In a co-constructivist model there is a recognition of the importance of emotional, social and group inter-relationships. As Askew and Lodge (2000, p. 11) state, in a co-constructivist model there is:

> "a shift from a stress on individual responsibility for learning to a more collaborative view, allowing learners to identify issues in their organisation and society which affect their learning and well-being and then to act to bring about changes."

Co-constructivist approaches to learning are based on the theories of psychologists including Kurt Lewin (filed theory), and Vygotsky who emphasised the social construction of knowledge; and humanist psychologists who emphasised the human ability to be reflexive. In this process, dialogue is fundamental as 'the responsibility for learning shifts from individuals to emphasise collaboration in the construction of knowledge' (Carnell and Lodge, 2002, p. 14).

Watkin's (2003) research with children in primary school shows their understanding of the importance of working with others:-

- You learn more because if you explain to people what to do you say things that you wouldn't say to yourself, really. So you learn things that you wouldn't know if you were just doing it by yourself (Annie)
- I learn best working with a friend, they can explain it to me without me even asking. We can work together whilst combining answers (Sarah - Jane)

In a co-constructivist approach learners construct meaning and understanding from reflecting on their experiences and dialogue with others. Young people produce work which has meaning in their real worlds, so that their study is intrinsically significant and not just evidence that they can do well in school or college. This model is based on subjective reflection and action for change and incorporates the stages of the action-learning cycle (Watkins et al, 2002 and 2003) and metalearning dialogue (Watkins, 2001 and 2003, Carnell and Lodge, 2002, p. 131-132) which focuses on learning about *learning*.

Constructivist approaches to some extent, and co-constructivist approaches to an even greater extent, require participants to perceive themselves *as* learners.

This view stresses the role of experience rather than training in bringing about change. It does not measure change, but emphasises the *quality* and *process* of change as described by Reese and Overton, (1970, p. 134):

> "The individual who accepts this model will tend to emphasise the significance of processes over products and qualitative change over quantitative change...in addition he (sic) will tend to emphasise the significance of the role of experience in facilitating or inhibiting the course of development, rather than the effect of training as the source of development."

This latter point is crucial for promoting health because we so often focus on behaviour change as our goal, rather than the process of learning about self and others which might motivate change.

Metalearning

In the co-constructivist approach to learning one assumption which is highlighted as an essential part of the learning process relates to learning about learning. The model provides strategies for using metalearning techniques.

The approach also draws on Dennison and Kirk's cycle of learning (1990) through a process of reflecting, analysing, evaluating, making connections and planning action for change that can be adopted by the individual, the group and the school community. Abbott, (1994) highlights reflective activity drawing on previous experience to understand and evaluate the present and to shape

future action. The teacher's role within this includes making explicit the learning intentions and facilitating metalearning through asking appropriate questions; the learning role includes articulating what has been learned.

The co-constructivist approach recognises that effective learning takes place in dialogue with other people and suggests that collaboration and learning with other people enhances learning.

Within an organisation, learning is enhanced if there is congruence at different levels. In other words, the principles and processes of co-constructivism need to be applied at the different levels of group, classroom, whole-school and community. If the principles are applied at these different levels the organisation becomes a learning community adaptive to, and promoting change (Carnell and Lodge, 2002). It is at the organisational and institutional level that the social context of learning needs to be addressed.

It is argued here that the co-constructivist approach to learning builds social capital. Trust, reciprocity, and co-operation are explicit goals within the co-constructivist approach to learning. High social capital, including a sense of security, safety, trust, social regard, respect, reciprocal sharing and co-operation are essential to our not adopting health-damaging behaviours in the first place.

A focus on health-damaging behaviours in school is a 'problem solving' approach, and as such is negative, not least because the problems are generally defined by the 'experts'. It is argued here that, rather than focusing on 'surface' health problems, we need to go 'deeper' and address affective, group and social issues in school - issues relating to social inclusion and social capital. It is argued that these issues impinge on both effective learning and on health in school and need to be addressed at both classroom and whole school levels.[1] A co-constructivist approach to learning in the classroom and in the school as a whole is necessary for such a focus.

Conclusion

This paper has argued that a sense of security, belonging, membership of a group, reciprocity, co-operation and sharing are vital to a sense of health and well-being. They are also vital to our ability to learn effectively.

It is suggested that a co-constructivist approach to learning in school develops such values. It is also argued here that this approach builds social capital and in turn promotes health in its more holistic sense of physical, emotional, social and spiritual well being. This approach challenges traditional views about learning and health which stress behaviourist notions of behaviour change or individual cognitive development. The co-constructivist approach takes into account the learner's experiences and focus on the emotional state of the learner, social group membership and social context. These factors are vital discourses, as is the learning process itself. A co-constructivist approach, which stresses dialogue, metalearning, reflexivity and group processes is the way forward. It is argued here that such an approach to learning in *any subject* in the school or college curriculum, is intrinsically health promoting, and does not require a *focus* on health to have a health promoting effect.

References

Abbott, J. (1994). *Learning Makes Sense: recreating education for a changing future.* Letchworth: Education 2000.

Antonovsky, A. (1984). The sense of coherence as a determinant of health. In: Matarazzo, J. P. (eds). *Behavioural Health.* New York: Wiley.

Askew, S. and Carnell, E. (1998). *Transforming Learning: Individual and Global Change.* London: Cassell.

Askew, S and Lodge, C. (2000). Gifts, Ping-pong and Loops. In: Askew, S. (ed). *Feedback for London.* London: Routledge-Falmer.

Carnell, E. and Lodge, C. (2002). *Supporting Effective Learning.* London: Paul Chapman.

Cheney, L. V. (1987). *American Memory.* Washington, DC: National Endowment for the Humanities.

Costa, A. L. (1991). *Developing Minds: A Resource Book for Teaching Thinking.* Revised edition. Vol. 1. Alexandria, VA: Association of Supervision and Curriculum Development.

Day, M. C. (1981). Thinking at Piaget's stage of formal operations. *Educational Leadership.* (Oct.), 44-47.

Dennison, B. and Kirk, R. (1990). *Do, Review, Learn, Apply: a simple guide to experiential learning.* Oxford: Blackwell.

Fuchs, V. R. (1982). Time preference and health: an exploratory study. In: Fuchs, V. R. (ed). *Economic Aspects of Health.* Chicago:Unversity of Chicago Press.

Gilleskie, D. B. And Harrison, A. L. (1998). The effect of endogenous health inputs on the relationship between health and education. *Economics of Education Review,* 17,3:279-296.

Grossman, M. and Kaestner, R. (1997). Effects of education on health. In: Behrman, J R. And Stacey, N. (eds). *The Social Benefits of Education.* Ann Arbour:University of Michigan Press.

Hammond, C. (2002). *Learning to be healthy. The Wider Benefits of Learning.* Papers: No.3, London: Institute of Education.

Hirch, E. D. (1987). The essential elements of literacy. *Education Week.* 6 April. p. 27.

Jones, K. (1989). *Right Turn: The Conservative Revolution in Education.* London: Hutchinson Radius.

Lovallo, W. (1997). *Stress and Health: Biological and Psychological Interations.* London: Sage.

Martin, P. (1997). *The Sickening Mind.* London: Harper Collins.

Nisbet, J. and Shucksmith, J. (1984). *The Seventh Sense: reflections on learning to learn.* Edinbugh: Scottish Counsil for Research in Education.

Novak, J. D. and Gowin, D. B. (1984). *Learning How to Learn.* Cambridge: Cambridge University Press.

Piaget, J. (1978).(Translated by Rosin, A.) *The development of thought : equilibration of cognitive structures.* Oxford: Blackwell.

Putnam, R. D. (2000). *Bowling Alone: the collapse and revival of American community.* New York: Simon and Schuster.

Reese, H. W. and Overton, W. F. (1970). Models of Development and Theories of Development. In: Goulet, L. R. and Baltes, P. B. (eds). *Life-Span Developmental Psychology.* New York: Academic Press.

Ross, C. E. and Mirowsky, J. (1999). Refining the association between education and health: The effects of quantity, credential and selectivity. *Demography,* 36, 4:445-460.

Stanton, T. (1986). cited in Criticos, C. (1993). Experiential learning and social transformation, page 159. In: Boud, D., Cohen, R. and Walker, D. (eds) *Using Experience for Learning.* The Society for Research into Higher Education and Open University Press.

Watkins, C. (2001). *Learning about Learning Enhances performance.* London: Institute of Education School Improvement Network (Research Matters Services No 13).

Watkins, C. (2003). *Learning: a sense-maker's guide.* London: Association of Teachers and Lecturers.

Watkins, C., Carnell, E., Lodge, C., Wagner, P., and Whalley, C. (2002). *Effective Learning.* London: Institute of Education School Improvement Network (Research Matters series No 17).

Wilkinson, R. G. (1998). Health, inequality and respect. In: *The Health Debate: commitment, participation and communication.* Report of the HEA/RSA Seminars. London: Royal Society of Arts.

Wilkinson, R. G. (1996). *Unhealthy societies: the afflictions of inequality.* London:Routledge.

Wittchen H.U., Nelson, C. B., and Lachner, G. (1998). Prevalence of mental disorders and psychosocial impairments in adolescents and young adults. *Psychological Medicine,* 28, 1: 109-126.

Young, I. (1996). In: Hammond, C. (2002). *Learning to be healthy. The Wider Benefits of Learning.* Papers: No.3, London: Institute of Education.

1. For suggestions about how to support effective learning in the classroom, and learning communities in school, see Carnell and Lodge (2002).