
Why Teach Cooperative Problem-Solving in Adult Education?

ANN WALKER

ABSTRACT This article explores aspects of the theory and practice of cooperative problem solving in education from the perspective of community-based adult learning. It describes how society can benefit from using collaborative and questioning approaches as a positive alternative to more confrontational methods of resolving differences and how collective inquiry is recognised as having sound educational value. Illustrative examples from the Workers' Educational Association show how cooperative problem solving can make a difference to students and their communities.

The background to this article's development is set out in Henry Tam's essay, 'Cooperative Problem-Solving: the key to a reciprocal society'. It has been prompted by collaboration with a group of academics, students and practitioners from the cooperative, community and education sectors, and further informed by the article written by Henry Tam, 'Cooperative Problem-Solving and Education'.^[1]

Why Do We Need Cooperative Problem-solving?

Cooperative problem-solving gives students opportunities to identify and deal with complex, multi-dimensional challenges through group learning. In this approach, which can be seen as both a curriculum and a process, teachers act as 'facilitators' who guide the learning process by giving students as much responsibility as possible for their learning and for reaching agreed outcomes.

Cooperation with others is part of human experience, as is dealing with problems, so it is logical that we should use cooperative problem-solving in educational settings to encourage learning about, and resolving, difficult issues through interaction and discovery. Learning involves the calibration of opinions and perceptions through the lens of our own experiences and through insights into other people's circumstances and knowledge. Cooperative inquiry provides

a greater range of feedback about other people's experiences in society and about varied contributions to areas of academic study. Openness to diverse viewpoints provides a richer basis for emotional, social and intellectual development and for a more tolerant society. To quote the Czech novelist and essayist Milan Kundera: 'It does take great maturity to understand that the opinion we are arguing for is merely the hypothesis we favour, necessarily imperfect, probably transitory, which only very limited minds can declare to be a certainty or a truth'.[2]

Cooperative problem-solving prepares students to live in respectful, reciprocal relationships, non-threatening communities and in team-based workplaces. Without collaboration and inquiry, prejudices can remain unchallenged and different viewpoints unexplored, leading to difficulties that have consequent impacts on individual, social, political and economic health and wellbeing.

There are significant risks in non-cooperation as society can become easily fragmented on the basis of social class, ethnicity, age, economic circumstances, political allegiances, faith and other characteristics. Negative words are common currency and shape public perceptions almost subliminally. 'NEETs' (Not in Employment, Education or Training), 'Troubled Families', 'skivers' and 'shirkers' are regular players in the daily cast of media caricatures. The thoughtlessness of persistently using terms like these can breed perceptions of some groups of people as 'other' and further disadvantage those who are becoming systematically marginalised because of their circumstances. Inclusion and dialogue is better for everyone and means that no one should be segregated because of society's collectively limited thinking or prejudice.

'Fight' or 'flight' are the main alternatives to cooperative problem-solving in responding to potentially divisive issues. Neither is the most productive way to resolve a disagreement. News bulletins give us daily evidence of power struggles between factions who have opposing points of view. International wars, local disputes and even family arguments are prolonged as people take conflicting 'sides' and defend their polarised positions more and more robustly. In educational terms, rigid acceptance of particular interpretations can lead to fixed mindsets and restricted possibilities of applying complementary insights to intellectual challenges.

Why Do We Adopt Oppositional Positions in Public Decision-making and in Some Academic Debates?

The House of Commons' design and the adversarial nature of political debate in the Westminster Parliament might affect our collective psyche, influencing public discourse and decision-making processes. It is symbolic that the Commons' layout was planned to keep MPs from government and opposition parties two sword lengths' apart and interesting to note Winston Churchill's observation that, 'we shape our buildings and afterwards our buildings shape us'.[3] Notably, the layout for the debating chamber in the Scottish Parliament

building is based on an elliptical horseshoe shape, designed to encourage more consensual discussion and to blur party divisions. Could this explain why Scottish education policy incorporates cooperative problem-solving principles [4] unlike the Department for Education's policies for English schools?

If a confrontational approach to addressing issues affects public policy-making and reinforces entrenched opinions on academic matters, then cooperative problem-solving offers a tested alternative which is gathering increasing support. Adult and community education is well placed to promote its benefits and to apply the process in learning activities. This complements the incorporation of such principles into the practice within a rapidly growing network of Cooperative Schools in England.

Adult education's purpose is sometimes defined narrowly as providing instrumental knowledge to improve individual people's skills for employment. Important as this is, some organisations such as the Workers' Educational Association (WEA) see a wider and more collective social purpose in adult education which is consistent with the principles of transformative education incorporating collaborative enquiry. The WEA's practice is based on a vision of, 'A better world, equal, democratic and just; through adult education the WEA challenges and inspires individuals, communities and society'. [5] Collaborative learning and active enquiry to improve communities are important aspects of an approach to adult education that is wider than a prescriptive skills-for-work agenda.

Cooperative problem-solving in adult education finds connections between people and shows that resolving difficulties and conflicts is usually in the interests of everyone affected by the issues. It recognises that, 'You don't have to move out of your neighborhood to live in a better one'. [6]

Missing out on potentially transformative education restricts people's chances of improving their lives and magnifies the inequality in income, housing conditions, health and wellbeing. It increases the burdens on individuals, families, communities and the state. The statistical evidence in Kate Pickett and Richard Wilkinson's book, *The Spirit Level*, shows eloquently how and why this matters to society and why equality is better for everyone. [7]

Society needs cooperative problem-solving to create greater understanding, tolerance, equality and social cohesion. Workplaces need people who are adaptable, creative, intellectually curious and able to work in teams. Adult education provides a vehicle for teaching and facilitating collaborative enquiry in practice to meet these needs.

Cooperative Problem-solving and Educational Theory

Cooperative problem-solving is rooted in best practice derived from a tradition of pedagogical theory in adult education. It combines the core values and principles of active, student-centred learning in adult education for social purpose with methods and formats of teaching that include collaborative, experiential and problem-based learning. It has practical application in bringing

people together in an educational context to resolve difficult situations for mutual benefit.

We can see the influence of great educational thinkers including Socrates, Benjamin Bloom, John Dewey, Jane Addams, Paolo Freire, Malcolm Knowles and others in the approach. The WEA's former President, Richard H. Tawney [8] was also promoting collaborative enquiry for democratic, active citizenship 'for a more tolerable society' from early in the twentieth century.

Learning through sequential questioning can trace its roots back to Socrates in ancient Greece and cooperative problem-solving embeds active learning as described at the highest levels of Bloom's Taxonomy of Learning.[9] Bloom defined the lowest level of learning as simply the absorption of facts – including learning 'by heart' or 'by rote' without necessarily understanding the 'knowledge' being taken in. This might equate with people being at the receiving end of policy decisions and having to abide by them without contributing to them through meaningful public debate and active participation in political processes.

Higher levels of learning are increasingly multifaceted with much more active student participation and originality. Active learning challenges fixed ideas, doggedness and prejudice about issues. The greater empathy that comes from consideration and analysis of different points of view can be a catalyst for increased openness and creativity in problem-solving. 'Prejudice distorts what it sees, deceives when it talks, and destroys when it acts'.[10]

Paulo Freire's work can be seen as an influence.[11] He argued that oppressed people could become involved in democracy even if they had not known about the concept before and could have a say in the day-to-day decision-making that affected their lives. Freire showed how educational practice can have an impact on the vibrancy and relevance of democracy. His use of 'see-judge-act' student-centred methods could raise critical consciousness and create change by inspiring students to:

- see the systems that preserved injustice;
- judge the assumptions that maintained those social systems; and
- act to achieve equality and democracy.

John Dewey, Jane Addams and others also highlighted the importance of collaborative education that acknowledges the impact of individual students' prior experience and how it shapes their personal approaches to decision-making for collective benefit.

Malcolm Knowles distinguished adult learning from children's education, coining the term 'andragogy' to describe specific features of adult education. Significantly, he wrote that:

The major problems of our age deal with human relations; the solutions can be found only in education. Skill in human relations is a skill that must be learned; it is learned in the home, in the school, in the church, on the job, and wherever people gather together in small groups ... This fact makes the task of every leader of adult

groups real, specific, and clear: Every adult group, of whatever nature, must become a laboratory of democracy, a place where people may have the experience of learning to live co-operatively. Attitudes and opinions are formed primarily in the study groups, work groups, and play groups with which adults affiliate voluntarily. These groups are the foundation stones of our democracy. Their goals largely determine the goals of our society.[12]

In line with cooperative problem-solving, Knowles advocated that adults should:

- acquire a mature understanding of themselves;
- develop an attitude of acceptance, love, and respect toward others;
- develop a dynamic attitude toward life;
- learn to react to the causes, not the symptoms, of behaviour;
- acquire the skills necessary to achieve the potentials of their personalities;
- understand the essential values in the capital of human experience; and
- understand their society and be skilful in directing social change.

Lev Vygotsky [13] reported that students are able to perform at higher intellectual levels when asked to work in collaborative situations than when asked to work individually, concluding that group diversity in terms of knowledge and experience contributes positively to the learning process. Jerome Bruner [14] further asserted that cooperative learning methods improve problem-solving strategies as students are faced with different interpretations of a given situation. The peer support system enables them to internalise both external knowledge and critical thinking skills and to use them as tools for intellectual functioning.

Jack Mezirow's more recent writing on transformative learning theory reinforces the theoretical underpinning for the approach. According to transformative learning theory, adult learners improve their understanding of the world by adjusting their 'frames of reference'. These include their established ways of thinking and their points of view.[15]

Cultural influences such as family and peers shape initial frames of references but these can be modified through 'instrumental learning' such as problem-solving and communicative learning through discussion.

Mezirow proposed that students can learn in four different ways:

- They can elaborate on existing frames of reference;
- They can learn new frames of reference;
- They can transform habits of mind;
- They can transform points of view.

These four concepts are embedded in cooperative problem-solving, which fits the transformative learning model.

Educational Benefits of Cooperative Problem-Solving

Working collaboratively on thought-provoking problems can lead to meaningful engagement and a sense of agency as students achieve demonstrable outcomes. Requiring students to make sense of a problem together means that they have to establish common frames of reference, resolve differences in perceptions, negotiate individual and collective responses, and come to shared understandings.[16] According to Johnson and Johnson [17] there is compelling evidence that cooperative teams achieve at higher levels of thought and retain information longer than students who work individually. Shared learning gives students opportunities to engage in discussion, take responsibility for their own learning, and through this, to become critical thinkers.[18]

Removing the concept of winners and losers in decision-making means that those involved are more likely to experience a process that seems to be fair. There is increased commitment to implementing agreements because participants understand how outcomes were decided and there is increased empathy and mutual respect. Ultimately, a cooperative approach is usually quicker and requires less resource than adversarial methods.

Assessments of the benefits of collaborative enquiry should consider the value of the process as well as decision-making outcomes. When the learning environment becomes more equitable, students are better able to take part on the basis of their real, rather than their perceived knowledge and abilities. Students working in cooperative groups that are 'all for one, one for all' benefit from emotional and academic support that promotes resilience and perseverance as they deal with problems. Once collaborative habits are established, students are positively linked to others who will both help them and depend upon them for finishing shared tasks. Establishing more equal-status relationships with their peers creates a trusting atmosphere for students' learning and development.

Cooperative Problem-Solving in Practice in Adult Education

The WEA has many examples of cooperative problem-solving at various scales; as part of our own democratic processes and in management practice, as well as in teaching and learning. The approach can range from group roundtable activities, where students formulate ideas and discuss different ways of dealing with an issue, to audit-to-action activities based on real-life problems in students' communities.

A WEA Politics and Public Life project in South Yorkshire provides a representative case study. It was an interaction between politicians, students and a tutor, where everyone learned from each other from a standpoint of equal status within the project. Former Yorkshire miners, who had been made redundant when pits closed and who saw little point in voting, got to know asylum seekers who had fled from totalitarian regimes where they were persecuted because they wanted the right to vote. There had been local tension and the two groups were suspicious of each other until they worked together as students in the project and began to understand the basis for their different

perspectives. Both groups eventually spoke about the issues in Westminster Hall at an event attended by several MPs.

Another group has used art creatively and collaboratively to explore causes of friction within their neighbourhood. Students from a small community each drew imaginary houses on a similar scale as part of a community project. It was agreed that some drawings would show neat, tidy and well-tended houses. Others would be squalid with dirty curtains and rubbish piled outside. Putting the pictures of houses together to form a virtual street prompted lively debate about not wanting to mix the well cared-for with the down-at-heel. This raised issues that were important to local residents without criticising people's real homes and gave opportunities to develop more community pride and joint neighbourhood action.

In a further example, unemployed young people and local politicians explored barriers to work. The young people, who were perceived as being lazy and work-shy, challenged the councillors to overcome the basic logistics of travelling from their homes to work placements on time and within a limited budget. One local councillor shadowed a young man, waiting at a bus stop to accompany him on his journey. The scheduled bus never arrived and levels of understanding improved considerably as real blocks became apparent and could be addressed.

Conclusion

The WEA is currently undergoing a period of positive change with a revised vision and mission and a renewed focus on critical pedagogy. We are reasserting the notion that methods of teaching, learning and assessment (the 'how') are at least as important as the curriculum (the 'what') of education. The pedagogical principles underpinning cooperative problem-solving are informing reviews of our educational practice, whether we examine education policy for community or personal development or through the lens of 'skills for employment' or apprenticeship education.

Critical action learning as used in cooperative problem-solving can have transferrable effects that align with characteristics acknowledged in the Organisation for Economic Cooperation and Development (OECD) Skills Strategy.[19] The Strategy recognises the importance of:

- higher order skills, such as creativity, critical thinking, communication and collaboration as essential for absorbing knowledge;
- moral characteristics (integrity, justice, empathy and ethics) and reference to encouraging individuals to be active and responsible citizens, as is the case in the well-regarded Swiss apprenticeship system; and
- meta-layer skills, such as learning to learn, building expertise, fostering creativity and making connections across disciplines.

Spokespeople for some United Kingdom employers also recognise that times are changing and that education needs to adapt. Some of them are stating publicly

that learning to learn is more useful than learning to pass tests. Debating the GCSE curriculum in 2012, John Cridland, Director General of the Confederation of British Industries, is on record as saying:

What is clear to the business family is that what was right for the 20th century, may not be right for the 21st century. There is something about this GCSE funnel that produces a prescribed form of learning which seems to be teaching for the test, which frustrates teachers because it stops them delivering that inspirational classroom experience and you see young people being switched off.[20]

Whether we are considering education for social purpose, personal fulfilment, participation in public life, building intellectual capacity or preparing people for work-related activities, cooperative problem-solving has a vital contribution to make to adult education and should be promoted widely.

Notes

- [1] H. Tam (2012) Cooperative Problem-Solving: the key to a reciprocal society. <http://henry-tam.blogspot.co.uk/2012/10/cooperative-problem-solving-key-to.html>; H. Tam (2013) Cooperative Problem-Solving and Education, *FORUM*, 55(2), 185-201.
- [2] Milan Kundera (2009) *Encounter: essays*, originally published in French as *Une Rencontre* (Paris: Gallimard).
- [3] UK Parliament. Churchill and the Commons Chamber. <http://www.parliament.uk/about/living-heritage/building/palace/architecture/palacestructure/churchill/>
- [4] Education Scotland. Co-operative and Collaborative Learning. Education Scotland. <http://www.educationscotland.gov.uk/learningteachingandassessment/approaches/collaboration/index.asp>
- [5] See <http://www.wea.org.uk/> for information on the WEA.
- [6] Majora Carter (2011) You Don't Have to Move Out of Your Neighborhood to Live in a Better One. Momentum. http://environment.umn.edu/momentum/eventseries/speakers/majora_carter.html
- [7] Richard Wilkinson & Kate Pickett (2009) *The Spirit Level: why more equal societies almost always do better* (London: Allen Lane).
- [8] See <http://www.infed.org/thinkers/index.htm> for more information on educational thinkers.
- [9] See http://projects.coe.uga.edu/epltt/index.php?title=Bloom%27s_Taxonomy for an explanation of Bloom's Taxonomy.
- [10] Source unknown.
- [11] See <http://www.freire.org/> for more information on Freire.

- [12] M.K. Smith (2002) Malcolm Knowles, Informal Adult Education, Self-direction and Andragogy. The Encyclopedia of Informal Education.
<http://www.infed.org/thinkers/et-knowl.htm>
- [13] L. Vygotsky (1978) *Mind in Society: the development of higher psychological processes*. Cambridge: Harvard University Press.
- [14] J. Bruner (1985) Vygotsky: a historical and conceptual perspective, in J. Wertsch (Ed.) *Culture, Communication, and Cognition: Vygotskian perspectives*, pp. 21-34. Cambridge: Cambridge University Press.
- [15] Jack Mezirow & Edward W. Taylor (Eds) (2009) *Transformative Learning in Practice: insights from community, workplace, and higher education* (San Francisco: Jossey Bass).
- [16] J. Roschelle (1992) Learning by Collaborating: convergent conceptual change, *Journal of the Learning Sciences*, 2(3), 235-276.
- [17] R.T. Johnson & D.W. Johnson (1986) Action Research: cooperative learning in the science classroom, *Science and Children*, 24, 31-32.
- [18] S. Totten, T. Sills, A. Digby & P. Russ (1991) *Cooperative Learning: a guide to research*. New York: Garland.
- [19] Organisation for Economic Cooperation and Development (OECD) (2012) Skills Strategy, Better Skills, Better Jobs, Better Lives: a strategic approach to skills policies. Paris: OECD.
<http://skills.oecd.org/documents/oecdskillsstrategy.html>
- [20] Greg Hurst. GCSEs are Not Up to the Job, Bosses Say. CBI.
<http://www.cbi.org.uk/media-centre/news-articles/2012/05/gcse-not-up-to-the-job-bosses-say/>

ANN WALKER is Director for Education at the Workers' Educational Association. *Correspondence:* awalker@wea.org.uk

