

3. Teaching critical thinking in social work education: a literature review

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ABSTRACT

While there has been considerable discussion about reflective practice and evidence-based practice in social work education over the last decade, less specific attention has been paid to critical thinking. There are generic critical thinking skills and attitudes, however the research suggests critical thinking should be taught in both explicit and disciplinary-specific ways. This article reviews the literature on teaching critical thinking in social work and human services education. In doing so, it outlines educational strategies that have been used to promote critical thinking in social work, and argues that understanding the client or consumer perspective is a vital part of the critical thinking process.

INTRODUCTION

Critical thinking is on the agenda for professionals and higher education institutions as a means to equip students and practitioners to grapple

is foundational to a university education, and is a prerequisite for both reflective and evidence-based practice. While critical thinking is seen as a valuable generic skill in higher education, with an expectation that it is transferable between disciplines and beyond university into the workforce, it has been argued that elements of critical thinking should be taught in a disciplinary-specific way (Moore 2004).

This article reviews the literature on critical thinking in social work education and aims to assist social work and human services educators with curriculum planning and review. It was undertaken as the first phase of an ongoing project to examine two inter-related areas of policy and pedagogical concern in social work education: the application of critical thinking skills and the incorporation of client or consumer perspectives in the generation and utilisation of knowledge. It was motivated by the desire to improve our own curricula and teaching practice, particularly in enhancing the capacity of students to critically analyse and use different forms of knowledge. The present paper defines critical thinking and examines models and strategies for promoting critical thinking in social work education. It reviews how critical thinking is taught generically and in other professional disciplines and considers how this might be useful in social work and human services. Particular attention is given to the importance of recognising and valuing the client perspective when thinking through issues and making decisions. The challenges of measuring the critical thinking capacities of students are also examined.

SEARCH STRATEGY FOR LITERATURE REVIEW

The first step in undertaking the literature review was to locate relevant articles from computerised databases relevant to social work, education, nursing and social sciences, including ProQuest, Informit, Sage Journals Online, ERIC, Wiley Interscience and OVID. The search used the key words 'critical thinking' in combination with 'social work', 'teach*', 'skills' and 'curricul*'. Tables of contents and abstract searches for the key words 'critical thinking' were conducted in relevant journals such as *Social Work Education*, *Journal of Social Work Education*, *Journal of Teaching in Social Work*, *Learning in Health and Social Care*, *British Journal of Social Work*,

Australian Social Work, Advances in Social Work and Welfare Education and Higher Education Research and Development. Text books by key researchers were accessed. Internet sites, such as those linked to higher education (for example. www.swap.ac.uk and <http://rationale.austthink.com/>) were searched. We also accessed general critical thinking websites (for example, www.criticalthinking.org and www.insightassessment.com) that contain links to standardised tests intended to measure critical thinking.

WHAT IS CRITICAL THINKING?

Critical thinking has its roots in critical theory and the concept of scepticism - the questioning of the source of truthfulness and the reliability of knowledge (Brechin, Brown and Eby 2000). Although the focus on critical thinking has intensified in the past decade, researchers as far back as Dewey in 1933 (cited in Walker 2004) argued that possession of knowledge was no guarantee for the ability to think well. Open-mindedness, wholeheartedness and responsibility were seen as important traits for developing the habit of thinking critically. Critical theory 'looks beneath the surface of knowledge and reason ... in order to see how that knowledge and reason is distorted in an unequal and exploitative society, and in doing so, to point the way to less distorted forms of knowledge and reason' (Porter 1998 cited in Brechin et al. 2000, p.56). Drawing on critical theory for social work practice implies a focus on the structural causes of individual 'problems', promoting client rights, challenging inequality, and recognising patterned disadvantages related to, for example, gender, race, sexuality and class. As 'social problems' are conceptualised as socially constructed rather than as fixed realities, the capacity to interrogate underlying political ideologies and discourses is essential to the critical thinking endeavour for social work.

Critical thinking is thinking with a purpose (Facione 2006). Ennis (2002, no page number) defines it as 'reasonable, reflective thinking focused on deciding what to believe or do' (our emphasis). Gambrill (2006) describes it as thinking in a purposeful way using an array of standards such as clarity, fairness, precision, accuracy, logic and relevancy.

Some see critical thinking as a natural attribute, like intelligence, others see it as a set of skills that can be learned and followed. The more contemporary view is that critical thinking is a process that includes both cognitive and affective domains of reasoning (Facione 2006; McPeck 1981; Gambrell 2006; Ennis 1996). Accordingly, critical thinking is a combination of attributes and skills, which can be enhanced through an improved understanding of its centrality to ethically and intellectually rigorous practice, whether in medicine, nursing, social work, sports coaching or teaching history (Ennis 1996; Facione 2006). This adds a moral and ethical dimension to critical thinking; the purpose or reasoning behind critical thinking is seen as the development of a better world, one that is humane and just. Thus, critical thinking is not just an intellectual exercise in problem solving but has a value base that aims to improve human functioning, safety, health and emotional well-being (Gambrell 2005; Mason 2007). It is about sense-making as much as it is about problem-solving.

Conceptualising critical thinking as a composite of knowledge, skills and attitudes means that knowing our own limitations, the stereotypes we hold, our cultural biases and our own personal style of thinking is essential. Emotion - your own feelings, beliefs and values - is an important influence on the critical thinking process (Brookfield 1987; Gambrell 2005, 2006). For social workers, this means being aware of one's own values, beliefs and prejudices and also being able to empathise with, listen to, and incorporate the views and voices of the people with whom one works. According to Facione (2006), the personal dispositions or characteristics of open-mindedness, respect, tolerance and empathy are as important for critical thinking as the cognitive skills of intellectual curiosity, integrity and discipline. Critical thinking needs to include knowledge of oneself, as well as the ability to understand the bigger picture by learning from people from different cultures, backgrounds and worldviews (Mason 2007). Self-knowledge is positioned as one of the three forms of knowledge central to critical thinking, the others being content knowledge and performance knowledge (Nickerson 1986, cited in Gambrell 2006, p.105).

There is general agreement about a range of personal characteristics and skills that critical thinkers should have at their disposal. These include being guided by intellectual standards; supportive of intellectual integrity, perseverance, reason and self-discipline; and able to identify logical connections between elements of thought and the problem. Critical thinkers also need to be able to self-assess and self-improve, to accept multiple legitimate points of view and to seek weaknesses and limitations within their own position. They also need to be aware of how thinking can be distorted and prejudiced, which can lead to injustice and unfairness (Paul, cited in Gambrell 2006, p.102). These are skills that university students are expected to have gained through previous study, and to further develop in tertiary studies. They clearly have particular relevance for social work education, given the centrality of social justice values to the profession. There is also consensus about the higher-order cognitive skills required for critical thinking, such as:

- Interpretation: comprehending, expressing meaning and significance
- Analysis: identifying inferential relationships between concepts, examining ideas and detecting and analysing arguments
- Evaluation: assessing claims and arguments for credibility
- Inference: identifying and securing information needed to draw conclusions; querying evidence, imagining alternatives and drawing conclusions
- Explanation: stating and justifying the results of one's reasoning, including contextual considerations
- Self-regulation: monitoring and reflecting on one's reasoning and correcting one's reasoning when necessary

(Fonteyn, cited in Brechin et al. 2000, p.59)

From this literature, a definition of critical thinking relevant to social work has been developed (Table 1). This definition conceptualises critical thinking as a combination of skills and attitudes for social work practice.

Table 1: (below and opposite) Critical thinking skills and attitudes for social workers - a summary from the literature

Skills

Analyse

- Examine information in detail
- Prioritise important information
- Identify underpinning political ideologies, assumptions, values and biases (eg. role of state, position of client, professional authority, gender roles, cultural and racial stereotypes, tropes of deserving and undeserving)

Think Creatively

- Problematised 'taken for granted' issues
- Consider different, 'non-standard' possibilities and approaches

Problem Solve

- Dismantle problems and goals into constituent parts
- Formulate plausible hypotheses and predictions
- Articulate rationale for decisions (make defensible decisions)

Reason

- Reduce errors in thinking or logical flaws
- Make decisions precise, clear, balanced (not vague)
- Integrate information to identify necessary conclusions
- Make judgments deliberate and purposeful

Evaluate

- Recognise micro and macro contextual factors that impact upon issues – will it work in this situation? Will it work for this individual, family or community?
 - Assess whether information is relevant to purpose
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Attitudes

Open Minded

- Be willing to revise judgements
- Recognise multiple perspectives – all may be correct
- Recognise client or consumer perspectives

Flexible

- Accept provisional status of knowledge, tolerate ambiguity, value criticism, be non-defensive
- Make thinking sceptical (neither cynical or gullible) – exercise caution in accepting new truths or generalisations

Persistent

- Seek necessary information and try to be well-informed
- Actively seek evidence to support and negate your own view and explore alternatives

Interpersonal Sensitivity

- Respect opinions of others
- Respect inter-disciplinary knowledge
- Understand own biases

Cultural Sensitivity

- Be non-discriminatory
- Respect differences of class, culture, sexuality and gender

(Brechtin, Brown and Eby 2000; Ennis 1996; Facione 2006; Gambrill 2006)

TEACHING CRITICAL THINKING

In the past there have been two distinct approaches to teaching critical thinking: discipline-specific and generic. The generalist view is that critical thinking skills can be applied across subject domains and that such skills can be learned independently of a specific discipline. Paul (2004) argues that the skills approach to critical thinking will not lead to a deep understanding of critical thinking. Substantive learning means comprehension and insight, and encouraging students to discover as well as process information. In this approach, students should be asking questions like *'How do I know this? What is this based upon? What does this imply and presuppose? What explains this, connects to it, leads from it? How am I viewing it?'* (Paul 2004). Counter-posed with the generic skills approach is the position that critical thinking is not simply a matter of applying a set of skills, but requires a thorough knowledge and familiarity with the subject matter (Davies 2006; Moore 2004). Jones (2007) argues that evidence for the transferability of critical thinking capability appears limited and that conceptualising critical thinking as a set of practical cognitive skills fails to acknowledge the culturally-established structures of meaning that are discipline-specific. She examined the epistemic cultures of economics and history and found that the different perceptions of these disciplines influenced the way critical thinking was conceptualised. History as a discipline embraces debate and different views, whereas economics looks for stability and likens itself to a science. Critical thinking is embedded in the study of history, is modelled in lectures, practised in tutorials and assessed in essay tasks. However, in economics critical thinking is more an application of logic, and the teaching of critical thinking is based around understanding of economic theory, models and tools (Jones 2007, p.92). This subject-specific versus subject-neutral debate has lessened in recent years with an acceptance that it is a combination of both subject knowledge and thinking skills, which makes a critical thinker. Mason (2007, p.334) offers an integrated conception of critical thinking, listing five components as crucial: the skills of critical reasoning; a critical attitude; a moral orientation; knowledge of the concepts of critical reasoning; and knowledge of a particular discipline.

Strategies for teaching critical thinking have been classified as general, infusion, immersion and mixed (Abrami et al. 2008; Ennis 1989). The general approach is where critical thinking is taught in a specific educational unit, with the idea that the skills are transferable across field and contexts. In infusion and immersion approaches, disciplinary content is more important. The infusion approach is where critical thinking objectives are made specific and embedded in all teaching. The immersion approach encourages students to think critically but does not make the principles explicit. The mixed approach involves critical thinking taught as an independent track within a specific content unit. According to a meta-analysis of the efficacy of different methods of teaching critical thinking skills, mixed instructional approaches that combine both content knowledge and explicit critical thinking instruction significantly outperform all other types of instruction (Abrami et al. 2008). Immersion methods significantly underperform. Moderate effects were found for the general and infusion approaches. They also found that pedagogy matters and recommended that teachers receive training for teaching critical thinking skills. They conclude that critical thinking requirements should be a clear and important part of course design and that 'developing critical thinking skills separately and then applying them to course content explicitly work best' (Abrami et al. 2008, p.1121).

CLIENT PARTICIPATION IN PROFESSIONAL 'SENSE MAKING'

Applying professional social work knowledge is never simply technical: practitioners must engage with the viewpoint of the person or community they are working with and undertake purposeful analysis before taking action to effect positive change. Yet despite social work's social justice aspirations there is evidence of poor relationships between professionals and clients, with clients in many studies reporting negatively upon their contact with social workers (Beresford 2005). Social movements and client advocacy organisations have challenged social work and social welfare arrangements about narrow conceptions of need, fragmentation of services, and an emphasis on charity rather than rights to service provision. Following a major government review of social

work education in the UK, all university social work programs must now include mechanisms for client and consumer input in a range of areas including admission, curriculum and assessment. These initiatives have not yet been taken up in social work education in Australia. Nevertheless, access to tertiary education has widened and programs to promote equity in tertiary education have impacted upon the student population. Social work students come from diverse backgrounds, often with personal experiences of being a 'client' or consumer of welfare services. Teaching that includes client and carer perspectives helps to break down the construction of clients as 'other', and also assists students to be able to critically reflect upon their own situations, so they do not project their own experiences and feelings onto others in similar circumstances.

One aspect of critical thinking that is especially relevant to social work is the capacity to weigh up competing knowledge claims and predict likely effectiveness in the context of an individual's life circumstances. Practitioners must ask more than 'what works', the question is what will work for this particular client or community at this time. In doing so, social workers take into account client ideas or theories about the nature of their problem or situation. Therefore, an educational structure is required within the social work curriculum that facilitates and elaborates the client voice. As Gould (2006, p.112) argues, the 'expertise of those who have lived experience ... contributes a crucial dimension to the knowledge base'. It follows that efforts to improve the critical thinking skills of social work students need to be based on participatory practices that reflect the knowledge, values, beliefs and experiences of service consumers, as well as the formal knowledge base.

TEACHING CRITICAL THINKING IN SOCIAL WORK EDUCATION

The capacity to apply critical thinking skills would appear to be both essential and logical for social workers. Social work students are taught from their first year at university to look at the 'person in the environment' or the 'issue in context'; in other words to look at problems with a broad and open lens, one that is able to connect private problems to the wider social context. Additionally they are taught to examine their

own assumptions and prejudices, and begin to apply non-judgmental standards to their assessments and evaluations. This requires the 'higher order thinking' and 'deep learning' encouraged in university education. However, research suggests that when making decisions in the hurly-burly of practice, social workers have difficulty with critical thinking processes. Rosen et al. (1995), Osmond and O'Connor (2004) and Drury-Hudson (1999) found that social workers had difficulty articulating the basis of their practice and did not appear to be critically reflecting on practice. Kee and Bickle (2004, p. 609) argued, 'our thinking processes are often either: (i) hasty, with insufficient investment in deep processing or examination of alternatives; (ii) narrow, with a failure to challenge assumptions or consider other points of view; (iii) fuzzy or imprecise and prone to conflation; or (iv) sprawling or disorganized with a failure to conclude'. In examining child abuse enquiry reports, Munro (1996, p.793) found that social workers were slow to revise their judgments, needed more acceptance of their fallibility, and willingness to consider that their judgments and decisions may be wrong. These are problems common to all human reasoning and cannot be attributed solely to individual intellectual deficiencies: organisational factors such as workload, supervision and resourcing impact on the capacity to make good decisions (Munro 2002). Nevertheless, individuals can learn to think more critically and systematically, and this is imperative for social workers making decisions that profoundly affect the lives of others.

The capacity to clearly articulate the basis for decision-making is at the heart of critical thinking. In the social work literature, critical thinking is most often discussed as an element of evidence-based practice. Evidence-based practice is related critical thinking, but is distinct. Gambrill (2006, p.121) states 'critical thinking encourages us to reflect on how we think and why we hold certain beliefs', and may require us to accept conclusions that may not fit with our beliefs or preferences or usual practice methods. Whereas evidence-based practice tends to focus on deciding upon interventions, critical thinking is present at every stage of the social work process: assessment, planning, intervening and reflecting. Moreover, critical thinking is an essential ingredient of many

different social work practice frameworks, regardless of one's stance on evidence-based practice. Critical thinking, critical reflection and critical action have been conceptualised as distinct but inter-related components of a 'critical practice' model (Barnett 1997; Brechin et al. 2000). Critical thinking involves the evaluation and development of different types of knowledge. Critical reflection is the self awareness requirement, comprising the capacity to identify one's own values, effective use of self, and the ability to question personal assumptions and values. Critical action is the taking action part, including effective use of skills, working with difference, effectively negotiating institutional realities, and engaging with service users and others to provide access to resources (Brechin et al. 2000, Fook, 1996).

There would appear to be an expectation that when students reach tertiary level, they already have an understanding of what critical thinking entails. But students need to be exposed to a range of teaching methods in order to nurture the critical thinking process (Walker 2004). There are models and techniques for teaching social work students critical thinking skills described in the literature. For example, an intensive critical thinking unit introduced at the beginning of the final year of the social work undergraduate program was found to be effective at the University of Newcastle, Australia (Plath, English, Connors and Beveridge 1999). During the 32-hour (4 week) unit, students worked through a range of class exercises designed to enhance critical thinking, argument and debating skills. The evaluation of the unit concluded that explicit and concentrated instruction on critical thinking assisted students to improve their critical thinking abilities and to identify the principles of critical thinking. The authors stressed the importance of the timing of the critical thinking intensive, suggesting that the improvement in measured reasoning ability 'may have been built on the previous three years of 'immersion' in a curriculum which encouraged and valued critical reasoning without providing explicit instruction' (Plath et al. 1999, p.216).

Another example of explicit instruction for final year Australian social work students is given by Clare (2007) whose students were given two

clear assertions prior to undertaking a subject unit: first, that social workers need to be expert *learners*, able to respond to the immediacy of situations with which they deal; and secondly, that the capacity for reflective practice and critical thinking are central requirements for safe practice. Introducing dialogical components (as opposed to didactic teaching methods) such as small group exercises and seminars using case studies and the requirement to produce four written 'learning summaries', Clare (2007, p.439) found that students developed an improved capacity to go beyond description to 'deep learning', a more 'synthetic and creative level, continuously integrating ... new and old knowledge ... and sufficiently 'in control' of the material to merge their own sense-making with that of others, using texts as a basis for reviewing and expanding their 'owned' knowledge and understanding'. This is consistent with the finding that the instructional techniques of class discussions and certain types of writing assignments are associated with student gains in critical thinking skills (Tsui 2002).

Mumm and Kersting (1997) discuss methods for teaching critical thinking at both undergraduate and graduate level. At the undergraduate level they suggest introducing critical thinking as part of content on social work values. Providing examples of value dilemmas (for example, 'when is it acceptable to break client confidentiality?') exposes students to the idea that there is often no prescribed answer to a problem and that a critical process is necessary to develop a desirable course of action. The process requires students to articulate their rationale to their classmates for the decisions they choose. Munro (2002) argues that reasoning skills are on a continuum - from intuitive and empathetic to analytic and critical - and that both types of decision-making skills can be developed for effective social work practice. Gibbs and Gambrill (1996) provide a wide range of class exercises to promote critical thinking and evidence-based practice. These include exercises to identify 'common errors of reasoning' such as vagueness, reliance on testimonials or a few case examples, and recognising fads. Other strategies included role plays, video recordings, journalling while on practice placement, using case assessments to link theory with the rationale for decision-making

and the application of different theories to different client groups. Gambrell (2006) also points out how the social, economic, political and organisational context influences critical thinking. Consistent with this, understanding the politics of concepts such as ‘consumer’ and ‘case management’ and major theories (such as liberalism, feminism and post-modernism) is considered necessary for guiding students towards unpacking assumptions and asking pertinent questions (Jones-Devitt and Smith 2007). Brown and Rutter (2006) also provide a range of tools such as a checklist for appraising theories and a guide to developing a critical style of essay-writing, practical resources that would be useful across the curriculum.

OTHER DISCIPLINES

Critical thinking is also on the agenda in other disciplines. For example, in medicine, the term ‘critical thinking’ was first used in the General Medical Council’s 1993 edition of ‘Tomorrow’s Doctors’ (Kee and Bickle 2004). Since then, evidence-based practice, problem-based learning and critical thinking have featured in nursing and medical training, with evaluations of problem-based learning being generally positive in developing higher-order, independent thinking (Simpson and Courtney 2002). According to Kee and Bickle (2004, p.610) medical students and practitioners need to be guided to avoid perceptual biases, to reframe problems, to seek descriptions from multiple reference points, and to search for neglected information – particularly information that is contrary to the proposition. This negates ‘confirmation bias’ whereby people tend to seek information that confirms rather than refutes hypotheses or assessments.

Evidence points to the importance of teaching clinicians to ‘chunk’ knowledge into meaningful parts; thereby encouraging students to recognise that life is complex and non-linear, and that small changes in initial conditions may lead to large and unpredictable effects (Kee and Bickle 2004). Visual tools and diagrammatic techniques were found to be useful for teaching medical students critical thinking. Examples include tree diagrams, thinking maps, concept maps, casual flow diagrams and

using the 'theory of constraints' (distinguishing between necessary and sufficient) (Kee and Bickle 2004, p. 612). They argue that while check lists are helpful, they should not be used slavishly and that critical thinking involves asking questions, many that maybe unique to the particular situation.

Balen and White (2007) report on their success in teaching critical thinking skills to students in health and social care courses in the UK. They developed and piloted a range of teaching strategies and materials, aimed at developing the capacity to explore and question information, as well as one's own actions and preconceptions. They use a layering approach (or series of levels) that increases student skills over a period of years. First-year students start with workshops and activities such as lateral thinking puzzles and working with traditional narratives or stories. Level two involves dialogic engagement whereby students are encouraged to engage in more complex public policy debates which requires researching a topic, forming opinions, discussion in small groups and development of action plans. Level three workshops involve working on scenarios or discipline specific cases (problem-based learning). Through this process, the teaching team aims to achieve the 'critical' level, that is, where students incorporate ethical considerations into their practice (Balen and White 2007, p.204).

HOW IS CRITICAL THINKING MEASURED?

If we aim to graduate students with critical thinking skills, how do we know if students have them, and that they are improving? Over the years, standardised measures of critical thinking have been developed (Bernard et al. 2008). They have been used in a variety of settings, including nursing, educational programs, and teaching clinical skills. The most well-known and commonly used measures are the Watson-Glaser Critical Thinking Appraisal (1980), the California Critical Thinking Skills Tests (1990), and the Ennis-Weir Critical Thinking Essay Test (1985). These standardised tests, usually devised around a set of subscales or skills (such as the ability to recognise assumptions, make deductions, interpret and evaluate), generally aim to assess the cognitive dimensions

of critical thinking. The tests endeavour to cover the main components of critical thinking through the use of multi-choice questions on everyday situations and then offer a short answer or essay section of a more subject-specific nature through the reading of a selected piece of text. They all test generic critical thinking skills or dispositions. Bernard et al (2008, p.20) identifies some reliability problems with critical thinking skills testing, and posits that while it is desirable to teach students to think critically, because the dimensions of critical thinking overlap (for example, creativity, problem-solving, intelligence, meta-cognition and self-regulation), specificity in measurement is problematic.

It may also be difficult to sustain the interest of social work students in these reasonably lengthy tests that have little apparent relevance to the human services. In contrast, Gibbs and Gambrill (1996) provide a teaching evaluation form specifically for social work students to assess how well critical thinking is taught, but the validity and reliability of the instrument is untested. There is debate in relation to critical thinking testing about whether critical thinking should be measured by generic, de-contextualised tests or by having the test questions related to the subject matter of the course. This contextual viewpoint assumes that a person cannot 'think critically' about an issue without some relevant knowledge base. It seems that university students do improve their critical thinking skills over the duration of their studies. A review of studies of critical thinking gains by college students concluded that when controlling for incoming ability and maturational effect, most studies found a significant gain in critical thinking from first to final year (Renaud and Murray 2008). However, pinpointing exactly how this is achieved remains unclear. The majority of studies that report gains in students' critical thinking due to teaching and instructional variables measure their critical thinking with subject-specific questions rather than general or de-contextualised questions (Renaud and Murray 2008).

There is also debate regarding whether critical thinking is best measured in an open-ended essay format compared to a closed multiple choice answer format (Renaud and Murray 2008). The drawbacks to essay tests include the time it takes to score, and that the scoring is less reliable

compared to objective testing via multi-choice questions. This brings the discussion back to the challenge posed by the ‘generic skills’ versus ‘contextual knowledge’ debate mentioned earlier. The challenge for researchers and developers of critical thinking skills testing appears to be finding a way of testing that is not too complex or time consuming yet can measure both the cognitive skills and the attitudinal components of critical thinking.

CONCLUSION

Educators use a variety of techniques to promote critical thinking and problem solving, yet the capacity, disposition or interest to think critically is not developed in all students. This article aims to assist social work and human services educators to develop and evaluate strategies for teaching students to critically think and act. Improving critical thinking provides the foundation for improved processes of reflection and action. We suggest that social work students must have a clear understanding of what critical thinking means, the general skills of critical thinking, plus their centrality to the social work process. As indicated, mixed instructional approaches that combine specific instruction about critical thinking, with application to course or unit content, appear to be the most effective. Students need guidance to apply generic and transferable critical thinking skills to social work practice scenarios. Tasks that require students to ‘critically analyse’ or ‘critically discuss’ issues should be accompanied by explicit and detailed guidance about the meaning of these terms. Students can learn how to develop both organisational supports and individual cognitive routines to guard against making mistakes. They can be introduced to tools and techniques for logical decision-making in various fields of human service practice. Students should routinely be asked to consider alternative assessment and intervention decisions, and in particular to identify client theories, perspectives or expectations. Breaking down the elements of critical thinking challenges us to consider how we can teach critical thinking more plainly and precisely: how we can help students develop the full complement of skills and attitudes required.

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