

The 'Ethical Turn' in Educational Research in Mathematics Education

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'Social Turn' in Mathematics education* ...

- Equity, participation and social justice (Burton, 2003);
- political dimension of mathematics education (Mellon Olson, 1987)
- sociology and mathematics education (Dowling, 1998)
- cultural perspectives (Bishop, 1988)
- critical mathematics education (Frankenstein, 1983; Skovsmose, 1994;)
- ethnomathematics (D'Ambrosio, 1985; Powell & Frankenstein, 1997)
- philosophical analysis (Ernest, 1994);
- the history of mathematics movement (Furinghetti, Kaisjer, & Vretblad, 2004).

* Lerman (2000)

What do they have in common?

- mathematics is not a singular, objective and value free discipline that is isolated from human interest.
 - discuss the relationship of mathematics to the social and cultural context in which it arose and applied
 - they raise concerns about the privilege that certain groups and cultures have as they access this mathematics.
 - they challenge the dominance of the traditional mathematics curriculum and the traditional teaching practices in mainstream classes around the world.
 - they question the assumption that the teaching of mathematics should follow set procedures and pedagogies that are generalisable
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Absence of ethics ...

- With the rise of scientific rationality, ethics was associated with questions of morality, dogma, codes of behaviour and legal imperatives and seen as belonging to the domain of metaphysics rather than philosophy
 - The belief that mathematics deals with objective data and not values or questions of good.
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Winds of change ...

- As Critchley (2002) indicates, it was only in the 1980s that the word ethics came back to intellectual discourse after the “antihumanism of the 1970s” (p. 2)
 - The philosophical writings of Levinas (1969, 1997) has reintroduced ethics in philosophy as the “First Philosophy”
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Concept of Responsibility ...

- Key concept of ethics.

Different meanings:

- Responsibility is often presented as a requirement or duty that restricts (as in, it is the teachers responsibility to cover the curriculum)
 - It also enables (as in, evaluating students' learning is the teachers' responsibility)
 - But sometimes in the placement of blame (as in, who is responsible for the students' lack of achievement?).
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- Responsibility is before any law or codes
 - Levinas argues that to be human is to be in a relationship with the other, or better still, in a relation *for the other*.
 - Roth (2007) argues that this original relationship consists of an “unlimited, measureless responsibility toward each other that is in continuous excess over any formalization of responsibility in the law and stated ethical principles”.
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Ethics and research ...

- Many countries around the world with a well developed tradition of research have introduced strict and well defined processes to get ethical approval – for example
 - Confidentiality
 - Disclosure
 - Informed consent
 - Dealing with Indigenous people
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Relationship between ethics and research goes much further...

- Research benefits the researcher (money, status, reputation ...etc) and the university (reputation, attract staff and students...etc)
 - Research is a social activity supported by society and hence must contribute to society's benefit
 - Also research has responsibility to the subjects/praticipants of the research
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Implications in three area ...

- Research paradigms
 - Research questions
 - Research results
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Traditional paradigms

- Separation between knowledge generation – i.e. research - and knowledge application – i.e. teaching (gap between theory and practice) in
 - People , Time, Language used and concerns
 - Leads into lack of application of research knowledge and effectiveness of research
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Collaborative models of research

- Practitioners collaborate on choice of research questions, collection of data and analysis of data
 - Practitioners need support to participate – but such participation itself is a form of professional development
 - Research questions are constructed in terms how can I improve something not only to understand
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Reflection activity I

- What is the role of the subjects in my research? What benefit are they getting from this research? Am I exploiting them?
 - Who benefits directly from the research and who benefits indirectly?
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Research questions

- Research is done for many reasons
 - to know why and how
 - to solve problems and do things better

 - Who chooses the research questions?
 - Literature
 - Personal interests
 - Supervisors interest
 - Practical problems
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- Often users of research have no interest in the questions addressed in the research
 - Research the 'big problems' or classroom practice is difficult – so tendency to chose 'smaller problems' that may not be significant to teacher
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Reflective activity II

- Where did I get my research questions? Whose concerns am I investigating?
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Research results

- Often academic publications and professional publications are two different set of literature
 - Language of research publication is far removed from teacher talk
 - Whose owns the knowledge we generate?
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Reflection Activity III

- How can I tell my subjects about my research?
 - How can I tell teachers about my research
 - How can I tell school community about my research?
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Conclusions

- While there are not a single way to do 'ethical' research, Researchers need to address ethical questions in their research such as

Who am I responsible for in doing research and how can I maximise the benefits
