Educational Policy Reform Documents: ‘Oughtering’ the Designated Identities of Mathematics Teachers

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The Study

• **Aim:**
  – To examine the (re)construction of post-primary mathematics teachers’ identities in the NCCA’s (2005) document: *Review of Mathematics in Post-Primary Education: A discussion paper*

• **Identity definition employed:**
  – “we equate identities with stories about persons. No, no mistake here: We did not say that identities were finding their expression in stories—we said they were stories.”

    (Sfard and Prusak 2005, p.14)

• **Research questions:**
  – To what extent, if any, do the policy documents of Project Maths act as a significant narrator of the designated identities of post primary mathematics teachers in Ireland?
  – In what ways might the implementation of Project Maths have instigated change in the actual identities and designated identities of Irish post primary mathematics teachers?
Overview

LITERATURE REVIEW

- Identity
- Narrative Identity and Discourse
- Policy as Discourse

METHODOLOGY

- Identity Framework
- Document Selection
- Critical Discourse Analysis

FINDINGS

- Emergent Themes
- Actual Identity
- Designated Identity

DISCUSSION

- ‘Oughtering’ Designated Identities
- Strategic Essentialism
Identity

- The term identity is experiencing a renaissance.
  (Sfard and Prusak 2005)
- The concept seeks to understand people’s psychological experiences and social behaviour.
  (Côté 2006)
- “In many ways identity has become the bread and butter of our educational diet.”
  (Hoffman 1998, p. 324)
- Identity can be used as an analytic lens for educational research.
  (Gee 2001)
Narrative Identity and Discourse

• Humans constantly tell stories to form their life narrative.  
  (Connelly and Clandinin 1990)

• The use of narratives is a sound theoretical base for studying identity.  
  (Beijaard et al. 2004)

• Identity is produced by the diffusion of circulating discourses.
  — Significant Narrators  
  (Sfard and Prusak 2005)

• Identity as narrative  ↔  identity as a discursive construct.  
  (Beauchamp and Thomas 2009)
Discourse
(Gee 2000)

- Thinking
- Acting
- Language
- Believing
- Interacting

- Symbols
- Tools
- Objects

Discourse
Policy as Discourse
(Adams 2011)

- Material Embodiment
- Discursive Practices
- Wider Social Practices
- Production
- Distribution
- Consumption
‘Telling Identities’

- The analysis focuses on human action.  
  (Penuel and Wertsch 1995)

- Identity: stories of action states and properties of the actors.  
  (Sfard 2006)

- These stories are:  
  - reifying,  
  - significant,  
  - endorsable.

- The stories are told in triads:  
  - Post-primary mathematics teachers and pupils  
    NCCA Researcher.  
  (Sfard and Prusak 2005)
Identity Framework

Actual Identity
• Consists of stories about the current state of affairs.
• Uses present tense verbs.

Designated Identity
• Consists of narratives *expected* to be the state of affairs in the future.
• Uses future tense verbs.
• Uses modal verbs and adverbs.

NCCA Post-Primary Mathematics Education Curriculum Reform Genre Chain
Critical Discourse Analysis (CDA)

Social Theory of Discourse
(Fairclough 1992, p.73)

- Whole text organisation.
- Clause combination.
- Grammatical and semantic features.
- Vocabulary.
- Interpretations were discussed by researchers to gain consensus.

Aspects of Texts Examined
(Taylor 2004)
Emergent Themes

- Culture
  - Routine
  - Flexible
  - Status Quo
  - Philosophically challenged
  - Instrumental
  - Relational

- Pedagogy
  - Uptake
  - High stakes
  - Contextual
  - Problem solving
  - Comparison

- Policy
  - Knowledge
  - Beliefs
  - Attitudes
  - Syllabus
  - Teaching aids
  - Time

- Resources
  - Assessment
  - Policy
  - Emergent Themes
Collective Actual Identity

The findings of research (Lyons et al., 2003) into the teaching and learning of mathematics in second-level schools in Ireland suggest a high level of uniformity in terms of how mathematics lessons are organised and presented.

(NCCA 2005, p.17, emphasis added)

As evidenced by inspection visits, teaching is highly dependent on the class textbook (which tends to reinforce the ‘drill and practice’ style).

(NCCA 2005, p. 21, emphasis added)

Students who have suffered from a ‘tell and drill’ or ‘busywork’ approach (bereft of meaning) may already have learnt this helplessness before they enter second level school.

(NCCA 2005, p.18, emphasis added)
There is a need for teachers to recognise the emotional dimension to learning... The sense of failure (and, possibly, of frustration) that some students feel at an early stage in relation to mathematics must be acknowledged and addressed if these students are to engage successfully with later learning in the subject.

(NCCA 2005, p. 26, emphasis added)

In common with other teachers, mathematics teachers will need to be able to adapt their teaching methodology so that [special educational needs] students can develop their mathematical knowledge and skill appropriately... Teachers will need to be able to make the connections for ... students [from other countries], and this requires some degree of familiarity with alternative approaches and methodologies.

(NCCA 2005, p. 6, emphasis added)
‘Oughtering’ Designated Identities

• “Oughtering” – Stating what ought to be …
A teacher who believes that mathematics is a bag of useful but unconnected tricks is likely to emphasise different things than will a teacher who believes that mathematics is a body of knowledge as near to absolute truth as we can get, a web of beautiful relationships, or an activity involving the formulation and solution of problems.
• The more central a sub-identity is, the more costly it is to change or lose that identity.
• There is likely to be unhappiness when there is a perceived and consistent gap between actual and designated identities.

(Beijaard et al. 2004)

(NCCA 2005, p. 18, emphasis added)

(Ingram 2007)
Strategic Essentialism

• Attribution of certain characteristics to everyone in a particular category.
  – (All) teachers.
  – Probabilistic  Stronger claims.
  – Over- generalisation.

• Characteristics are attributed to the category itself.
  – Culture is the explanation.

• The presumption of a unified group.
  – Collectives seen as quasi-persons.

• Policing the collective category.
  – The existence of essential traits.

(Phillips 2010)
Recommendations

• This study serves to develop a framework for analysing educational policy documents in the context of mathematics education reform.

• This framework may be applicable for analysing educational policy documents in other disciplines.
Researcher Reflexivity

• The discussion narrates the story of post-primary mathematics education in the Republic of Ireland.

• We acknowledge that we - the researchers - are very much part of the story, but have intended to portray repeatable findings.
A man is always a teller of tales;
He lives surrounded by his stories and
The stories of others; he sees everything
That happens to him through them,
And he tries to live his life as
If he were recounting it.

John-Paul Satre
References


Ingram, N. (2007) 'A Story of a Student Fulfilling a Role in the Mathematics Classroom', in Mathematics Essential Research, Essential Practice, Tasmania, Australia, MERGA.


