

Reflections on curriculum authoring and enactment

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Guiding perspective: intertextuality

- *“Every text is an intertext ; other texts are present in it, at variable levels, in forms that are more or less recognisable : texts from earlier culture, those from the surrounding culture ; every text is a new tissue of previous quotations. Passing into the text, redistributed within it, are pieces of codes, formulas, regularities, fragments of social language, etc [...] The intertext is a general field of anonymous formulas, of which the origin can rarely be identified, of unconscious or automatic quotations, made without inverted commas.”*

(Théorie d'ensemble collective 1968)

The intertextual curriculum

- *'[T]he... focus of this presentation is the interpretive chain whereby the mandated national curriculum is iteratively reconstructed at state, regional, school and classroom level and the implications for its realization as classroom practice.'* (Clarke et al.)
- The interpretation of curriculum takes place within a web of meanings established through, including sometimes in reaction to, prior curriculum(s).
- In this view, then, the interpretative chain reaches back beyond the new curriculum, and so moves up the levels as well as down.

A dialectic curriculum

- *‘Ultimately, the implementation of any mathematics curriculum can be understood in terms of the alignment and inter-connection of... the written curriculum, the assessed curriculum and the performed curriculum.’* (Clarke et al.)
- Curriculum renewal is a dialectic process, involving competing and ideas and practices, often only partially understood.
- Consequently, the negotiation of a curriculum text results in silences and incompletenesses; and, equally, the production of parallel curriculum texts gives rise to ambiguities and inconsistencies.

Dynamics of curriculum renewal

- Curriculum renewal typically involves the foregrounding of (what is sometimes contentious) reform.
- *‘A special effort was made to elucidate the “new” approach to teaching geometry since the new curriculum differed significantly from the previous one particularly in this domain.’* (Clarke et al.)
- Conversely, this highlighting of change-features places other aspects of the curriculum in the background, where it suggests ‘business as usual’ (and legitimates continuing reference to prior curriculum texts and established curricular practices) .

‘Readerly’ and ‘writerly’ text and response

- A text can be formulated so as to accord the reader lesser or greater agency in its interpretation:
 - A ‘readerly’ text posits the reader as recipient of a definitive message;
 - A ‘writerly’ text posits the reader as interpreter of a message more reflexive in intent.
- Equally, readers can respond to any text with lesser or greater interpretative agency:
 - A ‘readerly’ response seeks a definitive message and refuses agency beyond this;
 - A ‘writerly’ response accepts agency to interpret what is taken as a message reflexive in intent.

‘Readerly’ and ‘writerly’ curriculum

- *‘[R]esponsibility to decide how to teach is common to teachers in all the school systems [studied]... [D]evolution to teachers of the responsibility for determining the substance, sequence and local connectedness of the... curriculum is not universal’* (Clarke et al.)
- *“The different and ‘dynamic’ nature of e-textbooks not only provides opportunities for teachers, but also requires [them] to take more agency in selecting, design-ing and re-designing... curriculum resources.”* (Pepin et al.)
- Design arcs and textbook prompts (Remillard et al.)

Readerly			Writerly
Implementation	Omission	Adaptation	Insertion

The expert (re)writer-enactor

- *‘Most critically, and often overlooked, curriculum materials “require craft in their use; they are inert objects that come alive only through interpretation and use by a practitioner”’* (Remillard et al., quoting Brown).
- *“[A] teacher gathers resources, works on them enriching them at each stage. The preparation of a lesson 'brings to life', and provides room, for a new resource; the implementation of this resource in the classroom; the adaptation of the resource "on the fly"; the reflection after the lesson; potential revision of the initial resource”* (Pepin et al.)

Printed and digital text-mediated techniques (Pepin, Gueudet & Trouche)

- Vera's printed textbook-mediated techniques
 - Draw on available textbooks to identify/formulate a suitable 'written trace' for the lesson topic
- Vera's digital *Sésamath*-mediated techniques
 - Identify suitable starter task for whole class through selecting/adapting task from e-text for earlier stage
 - Make up differentiated exercises with appropriately varied tasks selected/adapted from e-text for current stage
 - Make up individualised exercises through searching for tasks in Mathenpoche and managing selection in LaboMEP

Further linked issues to explore

- Models of teacher expertise used (Pepin et al.; Remillard et al.) appear subject-generic.
- Compare with construct of teacher *curriculum script*: flexible structure of goals, resources, actions and expectancies for teaching a specific topic, including likely difficulties and alternative paths (Leinhardt et al., 1992)
 - c.f. Extreme case of Ms. Frankl (Remillard et al.)
 - c.f. While Vera hadn't taught topic at level she brought sense of progression to her interrogation of resources (Pepin et al.)
- *Distribution* of topic expertise across teacher and resources and its *situational activation* (c.f. Remillard et al.)