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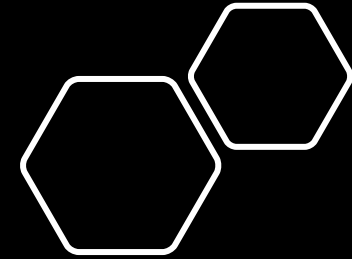
UNIVERSITY OF
BATH

**The ethics of navigating curriculum implementation
research in collaboration with edu-business**
Challenges to openness, transparency and trustworthiness

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The Study

- longitudinal ‘classroom-close’ study carried out 2016-23
 - 5 linked components: data from mathematics classrooms of 5-18 yos
 - How do teachers and learners implement a mathematics curriculum with a renewed focus on mathematical reasoning, problem-solving and communication?
 - How do they use curriculum and assessment materials produced by the market leader in such mathematics materials, an ‘edu-business’ (Ball & Junemann, 2012)?
 - Intensive and expansive drawing on the voices of learners (and teachers)
 - Findings have supported a range of developments in funder and national policy and practice, and have also led to theoretical developments in the field.
- Golding, J. (2024). Teachers, learners and edu-business co-constructing mathematics curriculum implementation: an insider’s lens in cross-phase longitudinal research. *Education Sciences* 14(12), 1322; <https://doi.org/10.3390/educsci14121322>



Collaboration UCL-edu-business: Roles

- **Funder: edu-business**
 - Jennie: “independent researcher”, leading on all aspects of the research
 - Team of 5 other subject- and phase-expert researchers, plus 5 edu-business internal ‘researchers’ (RAs) and edu-business Research Lead.
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- ***What were the challenges around research transparency, openness and trustworthiness both inherent in such arrangements, and emerging?***
 - ***Do these ethical tensions of the collaboration justify the classroom-close and policy impact achieved?***
 - ***(How do such tensions vary with the age/stage of the focus learners?)***

Study component, each with at least termly contacts over at least two years	Year Group / Age	Schools / colleges	Classes	Focus group Students	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21*	2021-22*	Teacher Interview transcripts n= Pre-/post-study	class progression data n=	Pre-/post-study student progression data	Focus group transcripts Spring terms n=	Seminar structured lesson observation notes n=	End of year student useable surveys n=	End of year teacher surveys n=
A Primary Cohort 1	Y1-2 (Age 5-7)	9	18	70	pilot							68	17	502	18	18	-	-
A Primary Cohort 2	Y5-6 (Age 9-11)	9	18	72	pilot							68	18	512	18	18	-	-
B Primary Cohort 3	Y1-2,3-4 (5-7,7-9)	24	48	216				pilot				96	54	1500	54	54	-	96
B Primary Cohort 4	Y5-6	21	42	168				pilot				84	42	1200	42	42	-	84
B Primary Cohort 5	Y2,4,6	9	18	86								19	-	-	18	18	-	18
C Secondary Cohort 1	Y7-9 (Age 11-14)	29	44	138	pilot							136	28	713	44	44	785	-
C Secondary Cohort 2	Y10-11 (Age 14-16)	31	48	164	pilot							144	34	803	48	48	845	-
D Secondary Cohort 3	Y11-12 (Age 15-17)	20	48	193								60	25	-	48	-	795	-
D Secondary Cohort 4	Y11-12 (Age 15-17)	21	45	192								61	23	-	45	-	807	-
E A-level Cohort 1	Y12-13 (Age 16-18)	11	22	156								50	50	732	22	22	432	50
E A-level Cohort 2	Y12-13 (Age 16-18)	12	24	144								54	54	750	24	24	420	51
E A-Level cohort 3	Y12-13 (Age 16-18)	12	26	71									22	235	26	14	640	65
E A-level cohort 4	Y12 (Age 16-17)	12	13	-									13	186	-		394	43
Total		220	414	1670								840	380	7133	407	302	5118	407

Benefits for the researcher

- Funding for large scale and **classroom-close** research into curriculum implementation, including in-kind funding of RAs, enabling voices of teachers and learners to be heard at some scale, and **making a direct and rapid difference** at a classroom level
- Access to insider understanding on affordances and constraints of edu-business curriculum and assessment materials
- Impact that builds on personal and edu-business contacts in policy and elsewhere
- Edu-business commitment to (particular types of) dissemination
- Personally, leads to other opportunities – expansion of original project, ‘new normal’ project, policy networking, TIMSS

Benefits for the edu-business

- Kudos of Russell Group researcher name, 'independent' label and subject/subject education expertise
- Research education for their staff
- Possibly less biased research findings with immediate and strategic business application
- Reputation within edu-business curriculum and assessment communities
- Pathways to respect and influence in education policy

Ethical tensions: *(I'll indicate in red if unresolved or outstanding)*

In education academia, such work is often attributed uncritical ethical assumptions, but

- Conflicts of interest, research bias, suppression of research, secrecy, and the threat to academic values, such as openness, objectivity, freedom of inquiry, and the pursuit of knowledge for its own sake (HEIs and external organisations often have different priorities, goals and timelines). Objectivity and trust can be compromised (Shamoo & Resnik, 2009).
- **Publication**, and authorship, is often a key tension (cf Lokhtina et al., 2020)
- But academia arguably overly values pure, rather than applied, research in education. External collaboration can 'dilute' some less productive academic practices (Hong & Yu, 2021).
- Need to move beyond 'does this have good purposes?' (teleological – at the service of the common good), and 'is this morally right? (deontological purposes and standards of excellence) to incorporate sapiential ethics – practical wisdom, prioritising between different goodness at different times. Ricoeur would argue for the centrality of relationships: **caring, openness and generosity are hallmarks of an ethical approach** (Toledano & González-Sanz, 2024). *(But that puts an onus on the individual judgment, with limited chance to call on the wisdom of others)*

Transparency

As above, but also

- Constraints on the RQs that can be asked
- **Data transparency** **incomplete**
- **Analytic transparency** OK
- **Production transparency** (how choices of evidence, theory, and method were made): achieved in part. **Constraints on what can be published, or shared publicly, from reports – or at least, its framing, e.g. anything that could be construed as critical of teachers, including of their subject knowledge.**

Openness

- Raw data sets and initial, detailed reports all confidential to edu-business: no option of open deposit.
- UCL IOE REC requires full methodological disclosure: research can only be ethical if it is robustly designed. Methods fully detailed to edu-business, including addressing issues related to Research Integrity, e.g. order of receipt of data. *Theoretically* open to pre-registration.
- Aspects of methods approved for conference dissemination, policy briefs, publication, with framing constrained, **very sensitive to framing** of e.g. agile response to rapidly-changing high-stakes assessments (even though the edu-business is only directly responsible for the summative assessments, not for the use made of those nor the related regulations, policy and media comms) – but those are constrained anyway if policy impact is sought. Complete methodological audit not open.
- **Open balanced publication of findings not possible; full reports not accessible beyond funder**

Trustworthiness

Amin et al., 2020, Lincoln & Guba various.

- **Reflexivity** ✓
- **Credibility** – **recruitment bias? External audit trail.** Prolonged engagement with data OK, and participant checking
 - Methodological, investigator, data and theoretical triangulation OK
 - Also peer debriefing – academic (limited disclosure) and edu-business
 - Negative case analysis reported overtly to edu-business (and used for product devt) but more implicitly in public
- Transferability ✓
- **Dependability:** independent subject- and phase-expert ‘consultant’ external researchers’ research skills limited but malleable.
 - Fair (trustworthy) analysis of all data: steps to that, including PI getting simultaneous view of all emerging data
 - Proportionate tokens of appreciation vs assurances we really want to know what you think

Authenticity

- Guba & Lincoln (1994): even 'trustworthiness' fails to meet concerns around many qualitative issues such as power, pluralism, multiple values, representation, empowerment, and accountability.
- **Fairness:** Privileges some voices over others. Specific procedures/techniques should be followed to present all possible constructions and the values that uphold them: specified in reports but external dissemination was less balanced. Continuous fully informed consent with respect to procedures and constant member-checking achieved (ethics as process, not procedure) but same was not always extended to me as a researcher.
- **Ontological authenticity:** all parties possess better constructions, all parties possess more information, become more sophisticated in its use, and get their consciousness raised
- **Educative authenticity:** all parties possess enhanced understanding of, appreciation for, and tolerance of the constructions of others outside their own stakeholding group
- **Catalytic authenticity:** research catalysed not only new knowledge, but a response to that knowledge
- **Tactical authenticity:** all participants are empowered to take the action(s) that the inquiry implies or proposes??? Constrained by interdependencies in the curriculum system

Reflections

- Transparent, open, and trustworthy/authentic QR is challenging to achieve – especially when collaborating externally, and working with business can exacerbate that.
- *Do these ethical tensions of the collaboration justify the classroom-close and policy impact achieved?*
- *Could a different contract have pre-empted some of the issues experienced?*



Thank you for listening. Do
please get in touch if you
would like to follow up:
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