	Examiner's Remarks	Candidate's Action	Page	Web
1	The regulation annex pages 11-12 clearly set out the guidelines on portfolios of evidence for a PhD by practice. In our view the thesis submitted focusses more on the practice itself than on articulating the unique contribution to knowledge and on making claims which then underpin that articulation with reference in depth to the items in the portfolio.	Articulate the theoretical stuff as my contribution, on the basis of the practices - see 2 below.		
2	We recommend first that Richard clarifies precisely and concisely his distinctive contribution to knowledge	Switch from a focus on practice to the analyses as my contribution - particularly A1-3 and drop 4 (which was work in progress and not learner centred anyway). So revise abstract, introduction, claim and conclusion chapters Claim chapter to explains my contribution to knowledge in terms of analyses 1-3 and refers to the portfolio as an evidential base.		
3	and this is then used to drive both the selection of items for the portfolio, the in-depth claims and the interweaving and braiding of the different strands which underpin the contribution.	Look at the practice and choose those that I can evidence actually helped formulate and test the three analyses (provide an empirical basis on my development through practice) - see 5 below		
	discursive book-type account of their career. Every diversification away from a core thesis weakens that core thesis.	although needs squaring with the auto-ethnography methodology - now seen as the source of an empirical basis for the analyses.		
Ū	to the contribution to knowledge.	Apply the above thinking, reduce to 12 items: C3, C4, C5, C7, C10, C13, C16, C17, C18, C20, C21 now relabelled P1 to P11		
6	The claim for each needs to be in significantly more depth and to be analytical and critical rather than descriptive.	Improve the claim chapter to be more analytical and critical, in part by citing references to evidence.	50	http://phd.richardmillwood.net/en/claim
7	A much stronger discussion of the criteria for selection of the 300 and then the 21 (or smaller number) is needed.	Improve section 'Methodology for this Dissertation'	24	http://phd.richardmillwood.net/en/methodology#section-21
	In relation to research literature, whilst the candidate argues in favour of not having a standalone literature review and the candidate argues there is no need for a separate chapter, it is still the case that with doctoral level work that reference is made to recent and relevant research literature and it is made in a way that is far more substantial and more developed than is currently the case in this thesis. So whilst page 13 states that the research is 'spread throughout the thesis', the research that is referred to is done in quite a scant way. References are made to a theorist or an idea/concept, which is then not defined, nor discussed in sufficient depth, nor critically evaluated. For an award to be made at level 8, it is essential that the candidate develops with clarity an argument which demonstrates an in-depth understanding of the research literature and how that relates specifically to the portfolio of the candidates work. As it stands, there are implied links, but these are too implicit and need to be made much more explicit. The criteria in the regulations governing the award of degrees for Ph.D. by practice, states that the work should demonstrate 'an understanding of a substantial body of knowledge'.	do I defend my choice. Then write that as an argument for my position. Many of the following issues address this in detail.		
9	The literature review needs to be current, and including seminal works even when the author disagrees with them.	Follow several leads mentioned in the more specific issues below, and think of others. Read and include discussion of Diana Laurillard's ideas in: 'Teaching as a design science: building pedagogical patterns for learning and technology' - see issues 55 and 57 below. So far 35 more references discussed and cited (from 79 to 114 in total).		
10	It also needs to include a section on collaboration as a research perspective.	Read explain and refer to Heron and Reason, 'Cooperative Inquiry' and cite Boylorn.	18	http://phd.richardmillwood.net/en/methodology#section-6

	Examiner's Remarks	Candidate's Action	Page	Web
11	In relation to methodology, instead of three separate chapters, the methodology should constitute one chapter.	Correct heading levels		
12	Also the methodology chapters should refer more substantially to the research literature on educational research methods. It would seem that too scant a consideration is given to research methods theorists	Improve methodology chapter - through issues 12a, 13, 14, 15, 16, 17, 27-51		
12a	in relation to what is required at level 8 for doctoral work. For example, no reference is made to those theorists who write on 'values driven research'.	Make reference, critique and connection with Friedman et al's work	16	http://phd.richardmillwood.net/en/methodology#section-4
	Also there is the need to develop far greater critical awareness of methodological issues concerning validity, reliability, generalisability. There is a section later on in the thesis with the heading of validity and reliability, but this is only a few lines. Validity is assumed and not critically defended. Similarly, the reference to reliability is very short. There is an omission with respect for the need for triangulation and no awareness of issues concerning bias. Although bias is mentioned on page 16, this is not discussed or critically defended.	Improve methodology chapter discussion of validity and reliability issues. Improve section Validity and reliability in Claim chapter	68	http://phd.richardmillwood.net/en/claim#section-27
	There is no discussion of ethics in the thesis and this is not discussed in the methodology chapters. This is an omission and needs to be taken account of, particularly in regards to the issue below regarding appendix 2.	Add Ethics section to methodology chapter	21	http://phd.richardmillwood.net/en/methodology#section-11
	1) Appendix 2 has a list of individual's names; is this ethical and has permission been given by each of these individuals to be named? If so, where is that evidence of permission that has been granted? If explicit permission has not been granted to be named then these individuals should be anonymised.	Write to people named in Appendix 2 and gain informed consent		
16	2) Also there is the ethical need to identify, with respect to collaborative project work, what is the percentage regarding the candidate's contribution to that group work? Given that this thesis draws extensively on collaborative group projects over the candidate's professional career, this issue needs to be addressed. The candidate does indicate a percentage of his contribution to each project, as all the evidence submitted in this Ph.D. by practice is collaborative group work. However, the candidates indication of their contribution is based on the candidate's own judgement and is uncorroborated by his collaborators. What is the evidence base that this personal judgement is accurate? Where is the corroborated evidence from collaborators that the percentage identified is correct?	See issues 50 and 51 below		
17	We proposed that the collaborator's letters could be revisited to enhance the assessment by co-workers.	See issue 16 above.		
18	Given the dearth of doctorates by practice in this area, this has the potential to be a groundbreaking and seminal work, and should attract a wider readership who will be particularly interested in the methodological approach from a lifetime portfolio. So clarifying this is not just a matter of meeting Bolton/QAA regulations, it is also assisting others who wish to take a non-traditional approach. Detailed comments on the thesis - The comments in this section refer to specific errors with respect to typos, grammar, referencing,	See issues 50 and 51 below		
19	and also issues concerning the content. Page 11 - the first sentence reads like notes and is not a full	Improve the Introduction description text.		
	explanatory sentence. Page 11 - section 1.1: grammatical error, with respect to single and plurals: is it 'aim' singular or 'aims' plural? (aim /have, should be	Edit the Aims description text, replacing 'have' with 'has'.		
21	either, aim/has, or aims/have). Page 12 - single sentences do not constitute a paragraph in their own right. Amend the single sentences so they are joined to form one paragraph.	Combine and link sentences into a paragraph.		

	Examiner's Remarks	Candidate's Action	Page	Web
22	Page 12 -the candidate states, quote: "I claim this work is state-of- the-art", how is this statement supported and corroborated? Where is the peer review that provides the evidence that this is the case? It is essential to substantiate all claims made in a thesis.	Change to "In this dissertation I claim". Support and corroborate in the Claim section itself.		
23	Page 13 -the following sentence seems to be a grand generalization, which is in need of amending; the candidate claims, 'my work led to ultimately the design of school and higher education itself. Again if this is the case, where is the substantiation and peer-reviewed evidence to support this claim?	Change the phrase to "the combination of disciplines necessary to carry out my work has shifted from instructional design, to multimedia creativity, to course design and ultimately the design of systems of schooling and higher education".		
		but I suggest this is an observation on the scope of my practice, not its success or quality and thus is not a claim. The fact of the matter is that the scope of some of my work was to help design school (Notschool) and higher education systems (Ultraversity, IDIBL).		
	Page 14 – with respect to 'criteria 2' on this page, which table supports this? It is necessary to add the page number of the table that is being referred to, along with the table number and table title.	Change text to say "To be found in the overall aim stated in the Introduction and in the aims for each item of practice in the Claim section."		
	Page 15 – grammatical error in section 2.1 and word 'discuss', which should be plural 'discusses'.			
26	like notes, rather than coherently written prose. This needs to be rewritten as a coherent narrative.	but This was intended as a description of the sub-section - rewrite to make that clearer.		
27	are the values referred to?	Make reference, critique and connection with Friedman et al's work	16	http://phd.richardmillwood.net/en/methodology#section-4
	Also there is an omission to the research methods literature on values-based research.	See issue 27 above		
28	Page 16 – the candidate raises 'double loop learning', this needs a reference.	Make reference to Argyris and Schön 1978		
29	Page 16 – section 2.3, has the heading, 'approach to thesis'; this is not an appropriate heading and the subsections are too short; two sentences is not sufficient for a subsection; they need to be longer.	Change heading to 'Research approach to this dissertation' and more widely use 'dissertation' for the written work and 'thesis' for the contribution to knowledge embodied in the three analyses.		
30	Headings and subheadings are not substantive enough; they need to be more illuminating and indicative of content. Often they are too short and at times, overly self referential.	Extend headings to be more descriptive.		
31	Page 16 – there are missing references to the 'reflective' methodological approach.	Add reference to Dewey 1933 and Schön 1985		
32	needs references.	See issue 27 above		
33	Page 16 – the candidate needs to consider and address: how do you overcome bias? And, what are the 'risks' that the candidate states in his sentence 'the approach has been to recognise these values, identify the risks'. What are the values? What are the risks? It is essential that the candidate substantiates what he claims.	List the values and add sentence to identify risks	25	http://phd.richardmillwood.net/en/methodology#section-24
34	the values, but there is no reference to the research literature and	Refer to authors on: Values - Friedman Collaboration in research & The role of students as co- researchers (see issue 10 above) -Heron and Reason, Boylorn Critical friendship in research - Costa and Kallick Social justice - Light and Luckin Delight - John Heron (see issue 35 below)	16	http://phd.richardmillwood.net/en/methodology#section-4

	Examiner's Remarks	Candidate's Action	Page	Web
	Page 18 – there is the need to use Harvard referencing and to provide more detail in relation to the research literature of Hargreaves (1975) and Heron (1992) and the concept of 'delight'. To refer to this, but not outline or discuss the concept, is to lack the necessary level of detail required in a doctoral level document.	, i i i i i i i i i i i i i i i i i i i	21	http://phd.richardmillwood.net/en/methodology#section-10
	The candidate claims that both Hargreaves (1975) and Heron (1992) have had 'influence' and have been 'central', but the candidate fails to outline how or in what ways this is the case.	See issue 35 above		
	Page 19 – heading is not appropriate, the heading 'methodology in my practice', is not appropriately academic. It is better with academic work to develop a more objective written style, such as, 'methodology developed in practice'.	Change heading to 'Methodology developed in practice'		
	Page 20 – section 3.2.2, the heading, 'analysis', needs substantiating: analysis of what?	Change heading to 'Analysis of software design'		
00	references.	Add reference to Marr 1982. Locate and reference Scrivener's presentation in early 80's on how visual stuff works delivered to a Computers in the Curriculum workshop on software design. Add reference to gregory.	23	http://phd.richardmillwood.net/en/methodology#section-17
	referencing throughout the thesis. Reference to the work of David Norman, is missing a date.	Add date, standardise on Chicago Manual referencing		
	Page 20 – section 3.2.3, the word 'survey' is insufficient as a subheading; survey of what? Also, there is the need to add references to research literature on the use of surveys as a research method in education.	Change title to 'Online and interactive survey'. Refer to Lodico et al.	23	http://phd.richardmillwood.net/en/methodology#section-18
	Page 21 – section 3.2.4, the same applies to the use of video and videography; there is the need to refer to and cite the research literature on the use of video in educational research, with an outline of its advantages and disadvantages, as specified in the research literature on this method. This would then indicate a higher level of criticality, which must be demonstrated for doctoral level work.	Refer to Jewitt and Shrum et al. Enhance discussion of advantages and disadvantages.	24	http://phd.richardmillwood.net/en/methodology#section-19
	Page 21 – section 3.2.5, the same applies to the use of interviews, as above. Where is the reference to the relevant literature on the use of this as a research method in education? Also, a more considered discussion of grounded theory is needed.		24	http://phd.richardmillwood.net/en/methodology#section-20
	what? Again, the headings are not adequate or sufficiently developed.	Change heading to 'Specific method used to develop the dissertation'		
	Page 23 – section 4.1, the 'pragmatism' of Pierce (1935) and James (1898) needs to be explained - not simply mentioned. This is an example of how the document does not demonstrate in sufficient depth the necessary level required for demonstrating understanding at doctoral level. Reference alone to a theorist or concept is not sufficient.	Explain pragmatism in more detail, referencing Mead and Griffin.	24	http://phd.richardmillwood.net/en/methodology#section-22
	in the production of the thesis', however it is necessary to specify how, not simply to state it.	Explain how pragmatism has guided the production of the thesis, softening 'employed' to 'guided'.	24	http://phd.richardmillwood.net/en/methodology#section-22
	Page 23 – section 4.2, omission: the quote from Ellis, is missing page numbers.	Put in page number xix		
	Page 23 – section 4.2, Richardson in the title of the table, needs to have the date adding. Again it is important to accurately employ Harvard referencing throughout the thesis.	Add proper reference. Standardise on Chicago Manual referencing.		
49	Page 24 – section 4.3, heading 'specific method', is not appropriate: specific method of what?	See issue 44 above		

		Candidate's Action	Page	vved
	work, as evidence for the thesis, how did the candidate assess the percentage contribution made by himself? Page 25 states, "I assessed the proportion of its in crude percentage terms", which begs the question, how? How was this judgment made? There is no account offered here. It is important to explicitly spell out the process that guided the judgments made about the percentage contribution.	Improve description of method of estimating and verification.	28	http://phd.richardmillwood.net/en/methodology#section-27
01	these judgments were made. The candidate goes on to say that 'these items have (typo in original, as says 'has', not have) been shared with original key collaborators' who have 'agreed to my judgment of contribution'.	The grammar is correct. The full quotation is "Each of these items has been". No action required.		
		committee that approved my registration, so the evidence was passed by them. To clarify, include the email and letter that the collaborators were asked to sign as an appendix.	131	http://phd.richardmillwood.net/en/methodology#section-28
	admits, it was 'my judgment of contribution'. Given that the whole thesis rests on collaborative projects this is essential.	that there is a risk of bias and of reluctance to challenge the estimate made by collaborators who are willing to please me, but that the Board of Studies for Research Degrees are already satisfied by the process followed.	28	http://phd.richardmillwood.net/en/methodology#section-27
	of a definition and references.	Quote definition from Schön.	31	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-0
00	There is the need to outline what are Argyris and Schon's terms?	Move discussion and reference from here to Claim section.	51	http://phd.richardmillwood.net/en/claim#section-5
• •	'theories in use and the articulation here espoused theory in Argyris and Schon's terms'.	See issue 53		
	given how integral this is to the thesis, needs more development and links to the research literature.	engaged in. Reference Koper and Britain.	32	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-2
	definition', but the definition is not provided. The candidate claims it is beyond the scope of the pragmatic view he has taken, but he doesn't state why. Why is this beyond the scope? If it is beyond the scope, why raise it? Either, it should be raised and a definition provided, or it should be deleted.	Change definition to discussion and add table from Ralph and Wand and position my practice in relation to a part of their analysis.	32	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-2
57	specifically Laurillard's conversational framework.	with my analysis and add references.	36	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-9
	development and the role of schemas and accommodation, which directly relate to the work on mental models.	Add reference to Piaget and Vygotsky and explain relationship with their theories.	35	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-9
	Page 29 –section 5.2.2, all references to Mor, should have a date, as in the Harvard referencing style. Also the Mor quote here, is a repeat of exactly the same quote earlier.	earlier quote and refer forwards.		
	Page 29 – section 5.2.3, omission: the Shavelson quote is missing the page numbers, and the quote is missing a full stop at the very end of the quote.	Add page 26 and full stop.		
		and clarify the source of the learning model proposed as the thesis and how it extends Piagetian and Vygotskyian views.	35	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-9
61	Page 31 – all references to the work of David Norman need to follow accurately the Harvard referencing system.	Standardise on Chicago Manual referencing.		

	Examiner's Remarks	Candidate's Action	Page	Web
62	Page 32 to 33 – Table 3, examples of mental models, box 1, the candidate needs to argue and make clear what is the relevance of this? It needs greater clarification and justification.	Clarify mental models as the most important aspect of learner's knowledge and my explanation of the conceptual and theoretical issues is a foundation for the Expressive Constructivism model part of my thesis in the claim. Refer to Dewey for the importance of this approach.	35	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-9
63	Page 34 – Table 3, the last box of this table, has a typo in the second to last line, as the word 'captures' has a zero at the front of it (0captures); need to delete the zero '0'.	Remove '0'		
64	Page 34 – section 5.3.8 subheading 'attitudes', is not appropriate; stands in need of greater specification, for example, 'attitudes to learning'.	Change subheading to 'Attitudes to learning'		
00	Page 34 – reference to Millwood's 'delight framework' needs to be substantiated and outlined.	Refer to the 'Values driving the research' section where this is substantiated and outlined.		
	Page 40 – this page would benefit from reference to Neil Mercer's work on pupils talking at the computer.	Refer to Wegerif and Mercer's work, and categorise the children's conversation using their terms.	60	http://phd.richardmillwood.net/en/claim#section-14
01	Page 43 – in Table 5 there is a typo in the middle box, where the third line reads, 'ann' rather than 'an'.	Change to 'an'		
	Page 44 – reference to Owers, needs a date, in the first line in accordance with Harvard referencing. Also the McDonald reference needs a date.	Standardise on Chicago Manual referencing.		
	The candidate may wish to consider reference to the work of J.J Gibson and his concept of affordance regarding the relationship between technology and humankind. This important concept is also discussed in the work of Hammond (2010), in the article entitled 'What is an affordance and can it help us understand the use of ICT in education?'	Explain, link and reference affordances.	64	http://phd.richardmillwood.net/en/claim#section-24
70	Page 46 – section 5.6.1, omissions: all the authors cited are missing dates.	Standardise on Chicago Manual referencing.		
71	Page 47 – table 7 needs a date for Hargreaves. Also the candidate may wish to consider how to avoid the critique of an overly essentialist model here of teacher types.	Add date. Critique and evaluate Hargreaves' work using his own words.	46	http://phd.richardmillwood.net/en/theoretical-and-conceptual-framework#section-23
72	Page 48-49 – omissions: Hargreaves references are missing the dates.	Add reference dates		
73	Page 48 – section 5.6.4, typo in the first line; should read educational, not 'ducational'.	add 'e'		
74	Page 50 – omissions: page numbers are missing from the long Millwood (2009) quote.	Add page 20 and modify reference date to 2009b		
10	Page 53 – the section on validity does not outline in sufficient detail the issues of validity and the section on reliability is very short.	See issue 13 above		
	Page 63 – the level of the claims made is both very general and grandiose. Where is the evidence that this is the case? What is the defense against the claim that this is just the candidate's opinion? The candidate claims, 'it's ethos was to directly change the world of education It's work influenced national policy in the UK and throughout the world.' How did it directly change the world of education? (the 'world' of education is a very large claim), the candidate needs to be more specific and to provide corroborated evidence for these grand claims. How did it influence national policy in the UK? Which policy? And in what ways specifically? It is essential that the candidate avoids such over generalisations in the claims made about their work.	Change language to "Its work influenced national policy in the UK through the Stevenson inquiry (1997) and beyond through membership of governmental advisory bodies and a series of high-level keynote presentations at conferences." Include a new evidence section referencing evidence for the claim for each item in the portfolio selection.	54	http://phd.richardmillwood.net/en/claim#section-8
77	Page 67 – as above, the candidate claims that, 'the project laid the foundations for the National colleges practice the years to come'; the candidate needs to be specific here, in what ways did it lay the foundations? And, where is the evidence that this laid the foundations?	Refer to Chapman et al on impact in schools and Melling and Patton on NCSL, although this is now not in the shortened portfolio, doh, :(

Issue	Examiner's Remarks	Candidate's Action	Page	Web
	Page 68 – as above, the candidate claims that, 'it's impact was on the BBC itself in determining its future policies', again this is a very grand claim, where is the evidence that this determined the BBC's future policies? What policies? And where is the evidence that it impacted on 'the BBC itself'?	Change 'determine' to 'inform' and explain evidence of this impact at the BBC, reference report.	56	http://phd.richardmillwood.net/en/claim#section-10
	The candidate needs to be wary of 'over claiming' for their work with such generalized claims for impact on the whole 'world of education', or the 'BBC itself' (page 68), or that 'my work led to ultimately the design of school and higher education itself' (page 13).	page 13 - see issue 23		
80	form of booklets or web publications, which is a form of self-	The Millwood publications cited and referenced are part of my practice. It was in most cases, but not all, produced in a context of local peer review (see below for a definition). It is unclear to me that a PhD by practice can also expect to be a PhD by Publication, which may be a confusion here. QAA (2011 Doctoral Characteristics,13): "Practical work, such as in the creative and performing arts, may well form part of a candidate's PhD output, or the output from professional and practice-based doctorates. Artefacts and outputs of a practical nature, sometimes involving multimedia, are related to the candidate's discipline rather than to a form of degree programme." I have understood peer-reviewed to include those reviewed by: formal academic journals; colleagues in the context of higher education research projects; book editors; television producers and conference paper committees. This does not include originally self-published material, although I have often subseqently self-published extracts from peer-reviewed work, in an attempt to meet another QAA (2011 UK Quality Code for Higher Education, Part A: Setting and maintaining threshold academic standards, 43): "holders of the qualification will be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences" After corrections, by my understanding, there are now 11 of 19 referenced Millwood publications that are peer- reviewed, not counting others in the full Portfolio.		
		I looked hard, but found no specific guidance in relation to a Phd by Practice on this matter in the QAA framework or any of its other documents.		
81	References The thesis should have a references section and not a bibliography.	Change to References		
82	The web version of the thesis has an annotated bibliography; however, this is not the same as an integrated literature review. The aim of a literature review is to integrate previous research with the thesis. An annotated bibliography does not provide such an integration of the ideas from previous research and how they link very specifically to the thesis. An annotated bibliography is a summary of a reference without linking it to the thesis.			
83	All references should be checked to ensure works are fully referenced.	Standardise on Chicago Manual referencing and add page numbers where appropriate		