A Critical Review of Swain and Hammond

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critical review, research process, paradigm stance, ethical transparency

Introduction
The motivations and outcomes of studying for part-time mature students in higher education (Swain and Hammond, 2011) is an interesting article because it lays out clearly and succinctly its background, aims, purposes and results in a clear and readable way. However, according to the judgement criteria contained in the Open University Course Educational Enquiry, it has failings both in laying out its stance toward the focus of its investigation and in the clarity of the way it treats the notion of ethical treatment of research participants. The purpose of this research is to give an example of how to critically appraise the quality of scholarly work in the field of educational enquiry with the further aim of giving the reader insight into the key terms of transparency, relevancy and validity. This research has two main parts. Part one contains a discussion of important terminology used in educational enquiry, while part two contains an appraisal of how well the research done by Swain and Hammond (2011) is transparent, relevant and valid.

1. Background
There follows a thematic analytical consideration of the educational enquiry carried out by Swain and Hammond (2011) through a re-examination of the literature presented in the study guide to Open University Course E891, in Hammersley (2007); and other scholarly research. Through this critique I attempt to apply my knowledge of educational enquiry by engaging in a reflective and transparent critical commentary while referring to core critical terminology.

This critical commentary has been carried out in order to judge the quality of the research by means of garnering a clear stance on:
i. The transparency of, what Floden (in Moss et al., 2009) terms, the ‘chain of reasoning’ during the research process.
ii. How relevant the enquiry is in terms of building up a scholarly knowledge-base through a convincing statement of any claims and/or references
How a piece of enquiry is conceived has a direct bearing on the validity of any findings, thus there needs to be a thorough consideration of the steps taken from its inception in order to better form a conceptualisation of its affinities and/or bias. Furthermore, a piece of educational enquiry may be critiqued in terms of transparency and relevancy through a consideration of its purpose and paradigm view; moreover, the elements of topic, paradigm stance, scale and scope and literature review.

Regarding topic, a research focus in educational enquiry springs from a general dilemma or uncertainty held by the researcher, this initial focus is then perceived by the researcher through a theoretical position that helps him/her ‘think about and study the social world’ (Thomas cited in E891, 2012).

1.2. Paradigms in Educational Enquiry

Although a position, or paradigm stance, is rarely explicitly stated, it is essential because it facilitates a refining of the initial focus through an outlining of a position regarding theories of knowledge (epistemology) and how learners may be understood and what should be studied in the process of learning (ontology). Two main paradigms describe the social world of educational enquiry; positive and interpretive (E891, 2012). Positivists usually decide the sample from which and how to gain data at the beginning of the study and claim evidence in educational enquiry is best gained through viewing the context of where learning takes place as being based on ‘fixed universal relationships’ (Hargreaves 2007, p.47). Such a view necessitates evidence gained through the careful measurement of phenomena and a reliance on quantifiable data in numeric form. Moss (in Moss et al., 2009, p. 501) states that data gained in this way will allow ‘generalizable explanations and predictions’.

The other main paradigm is an interpretive stance to enquiry. This theory is shaped by cultural contexts, the probing of the affairs in particular situations, and not having preconceptions about data that may emerge: In this way, the research process in a broadly interpretivist paradigm will be an intricate, iterative and reflective decision-making process and research questions asked here qualify the natural world with reflective interpretations (E891, 2012).

The scale and scope of a piece of enquiry will both differ according to the outline of a research rationale; and will motivate how data is later gathered, analysed and validated (E891, 2012). A critical engagement with a literature review in a piece of research not only enables a consideration of how a researcher positions him/herself in terms of past research, but it also enables a reflection on the framing of a design to carry out data collection (E891, 2012). This design also influences the views a researcher holds in
regards to the generalisability of any findings (Freeman et al., 2007).

At this point, there is a need to outline the debate about how to gain reliable data in educational enquiry. In 1989, Gage (2007) predicted one of three fictional scenarios to be true as of 2009. Taking each prediction in turn: firstly, there has been a resurgence of the positivist paradigm through the use of systematic reviews; secondly, it is clear that there is a continuing debate about the employment of both quantitative and qualitative approaches in order to understand teaching and learning contexts because it is common to find in the literature the ‘unhelpful’ claims that a piece of research is either, simply quantitative or qualitative; or ‘mixed’ in method (Floden, in Moss et al., 2009); thirdly, both Bassey (2007), and Ball (2007) write of the desire for a level of adaptability in educational research while Moss et al. (2009) write of the need for mutual engagement in the different positions held on world views in educational enquiry. Mutual engagement can be the starting point of a forum of an exchange of ideas, or ‘a sign of disciplinary health’ (Oakley, 2007, p. 89); and the impetus to find a best way forward (c.f. the debate on standards of evidence in educational enquiry in Hammersley, 2007).

1.3. Qualitative, Quantitative and ‘Mixed Methods’ of Enquiry

Regarding the relative incommensurability of standards of quantitative and qualitative data for good quality educational research, one is reminded that both qualitative data can be quantified and similarly quantitative data can be interpreted (Ercikan and Roth, 2006); indeed, it is thought to be necessary for qualitative data to have a numerical component (E891, 2012).

Thus, there has been acknowledgement by some researchers of the usefulness of using both quantitative and qualitative data capture methodologies in the same piece of enquiry; this is because researchers using this mix of procedures for data gathering consider that using:

- Quantitative methods alone will not enable a sufficient rendering of the elements of the complex social world in order to make the data sufficiently trustworthy (Ercikan and Roth, 2006, Bassey, Hodkinson and MacLeod, 2010).

- Qualitative methods alone will not enable an adequate inferring of data in a scientific sense because the data is not obtained in a standardised way (Oakley, 2007).

It is clear that small-scale educational enquiry aims to reflect the complexity of education as an area of research; such views share Bassey’s (2007), and Ball’s (2007)
hopes that educational enquiry will use evidence that is not only based upon researcher expertise but also the need to reflect both research findings and educator intuitions.

Bearing in mind the need for a shared knowledge-base to both reflect locally identified problems and the ‘messiness’ of the data gathering process that constitute educational research; Boote and Beile (2005) argue that it would be helpful to use a scoring rubric in order to provide researchers with a common set of meta-cognitive resources by which to numerically rate a literature review in terms of ‘validity, focus and contextualisation’ (E891, 2012). I use this notion in the following critique of the appropriateness of both pieces of research through a rating of the suitability of the research purpose, paradigm, and data capture methodology.

2. Swain and Hammond (2011)

I engage with Swain and Hammond (2011) through a reflection on the appropriateness of aims of the research regarding the way the research question is theorised (E891, 2012). This appropriateness is measured in terms of the refining of research questions through a consideration of how to view the research context and the methodology by which samples of data are generated.

2.1. Topic

Swain and Hammond’s (2011) research topic is part-time mature students in higher education; their research focus may be read as ‘the importance of understanding the motivations for study of part-time mature students in higher education’.

2.2. Paradigm

Regarding research paradigm, Swain and Hammond (2011) do not state any terms by which to label their stance on the research context but with reference to their use of certain statements and key terms (pp. 593-594); I infer that they are using the sociocultural orientation in constructionism. This paradigm stance is where the research participants are viewed as being agentive in their learning (E891, 2012). As a result of this ‘agency’, it is possible for one topic to be interpreted in a multitude of ways because the participants are at the same time both affected by national and institutional (macro-level) policies and affected by their own socially-constructed (micro-level) identities (E891, 2012). As these policies and identities are dynamic there is a need for research to reflect this in continuous iterations (E891, 2012).
Methodology

Regarding data capture methodology, Swain and Hammond (2011) purposively chose the respondents because they were deemed to represent a ‘typical’ group of learners for the research focus (p. 596). Although Swain and Hammond’s (2011) research is small-scale it is the second phase of a large-scale quantitative survey (p. 594), which has repercussions for a subsequent consideration of the generalisability of its findings. Next, there is a need to engage, scrutinise and reflect on the research production process of both articles regarding the theoretical position and research question in a critique of the design frame of the enquiry (E891, 2012).

2.3. Design Frame

Design frames are the modus operandi of data capture and are flexible enough to be combined and/or prioritise certain elements in an attempt to appreciate the complexity of the learning context. A design frame consists of a framing of how samples of data are collected through the use of certain data production instruments. The subsequent analysis of data allows for claims and/or inferences to be made (E891, 2012). The production of data is achieved through the use of certain methods and techniques collectively known as data production instruments. These instruments need to be critiqued in terms of both the author’s justification in relation to their theoretical position and research question and how they are generated in collaboration with research participants (E891, 2012).

2.4. Literature review

A literature review is part of the chain of reasoning of a piece of enquiry; it helps a reader identify the different methodological aspects of the research topics that are associated with a particular research context or that emerge during the enquiry process. Swain and Hammond’s (2011) literature review performs an in-depth, transparent literature review covering: the background to the reason why the topic was chosen; and the interdisciplinary notions of both motivation and ‘learning as capital’. As a result of being a follow-up study to an earlier large-scale quantitative survey, Swain and Hammond (2011) have a statistically reliable foundation, allowing a subsequent development of a deeper understanding of the subject matter. They also state eight separate limitations to the role of the researcher in the research process (E891, 2012).
Claims and Inferences

The three questions posed in Ercikan and Roth (2006) help to make clear how the research question has been ‘explored, operationalised and analysed’ through its data sample (E891, 2012). It appears that Swain and Hammond’s (2011) enquiry is a high inference type 3 question (Why or how is it happening?) as it has a research rationale that allows for generalisability due to its purposive sample and the stated aim to “understand [part-time mature students’] motivations and how they benefit from participation [in adult learning]” (p.592). Regarding how data production instruments are generated in collaboration with research participants, Swain and Hammond (2011) access data on the part-time mature students through open-ended narrative interviews.

I assume that Swain and Hammond (2011) generated a huge amount of emic data from the various contexts, of which it is necessary to broker to the reader. This brokering must be done in a transparent way by revealing the decisions made, in a chain of reasoning, in order to persuade the reader of the validity of the findings in absence of data gained through experimental procedures, for example using randomised control trials (Evans and Benefield, 2001). Therefore, I propose that Swain and Hammond (2011) did produce valid data even though their decision-making process could have been more transparent.

Swain and Hammond (2011) reflect on the data generation process through coding the interviews into cogent themes (p. 599), furthermore, they give a theoretical stance on how they view the learning context (p. 593). However, although Swain and Hammond (2011) explain where the narrative interviews took place, and the questions themselves, they are not transparent in terms of the interviews they undertake; they do not: present an interview schedule; indicate the length of the interviews; specify participant validation procedures; power imbalance issues; nor do they present the way that access to research participants was secured or how confidentiality was assured for them (Brockmann, 2011).

Both Pollard (cited E891, 2012), and James (cited in E891, 2012), state that analysis of any claims and/or findings has a great influence on how valuable an addition it is to the knowledge-base of educational research. Therefore there needs to be a consideration of each article’s relevancy – in terms of the ‘contribution to practice, policy or a body of knowledge’; and credibility – in terms of the validity and reliability of claims and any subsequent implications and/or generalisations (Cooper and Ellis cited in E891, 2012).
2.5. Relevancy

With reference to relevancy, Floden (in Moss et al., 2009) states that educational research should be judged on a sliding scale of macro-level research questions on one side and micro-level claims on the other. Floden (ibid.) continues; that a marrying of both terms would be best due to an improved likelihood of relevancy to many contexts.

2.6. Validity

Thus, with reference to Floden’s (in Moss et al., 2009) sliding scale, there follows a scrutiny of the soundness of the evidence presented. I argue that Swain and Hammond (2011) are using cultural historical activity theory to frame the discourse analysis they undertake. Swain and Hammond (2011) codify notions of motivations (p. 599) and ‘capital outcomes’ (p.602), through a refining of initial ideas with regards to the research questions (p. 597). There is a discussion of how the discourse was analysed in order to decide how to aggregate themes (p. 600). In their discussion of outcomes though, Swain and Hammond (2011) use vague quantifiers, such as ‘almost one quarter’ (p. 601), which does not help to persuade a reader of the veracity of evidence. In my view, Swain and Hammond’s (2011, p. 604) main claim that there is major benefit to studying in mature adulthood is supported in both the chain of reasoning of the decisions made during the research process and the reflective way the analysis of data took place.

2.7. Credibility

The following is a scrutiny of the credibility of generalisations made from these claims, which appear as conclusions and/or implications. Although Swain and Hammond’s (2011) research is small-scale, it is set up to gain sound evidence that has a high level of inference. Importantly, Swain and Hammond (2011) theorise their research focus, score highly on Floden’s (cited in Moss et al., 2009) criteria for relevant enquiry, and give reflective comments on the research process throughout, including limitations to the study. There are failings though. Swain and Hammond (2011) study are not adequately transparent in terms of the interview process or the ethical treatment of the respondents.

In terms of the soundness of its evidence, I deem Swain and Hammond’s (2011) to be of high quality; however, while the study is highly relevant, the major flaw is in the validity of its conclusions. If one accepts an implicit understanding that the respondents were treated ethically soundly then the study would be considered appropriately credible and worthy of generalisation to other contexts within its research focus.
However, although Swain and Hammond (2011) are ethically sound in honestly reporting limitations; as ethical treatment of respondents is of the utmost importance for a study to be considered valid, I deem Swain and Hammond’s (2011) study to be insufficiently credible as I am unable to make a judgement in terms of the five core principles of ethical treatment that educational enquiry should have (Hammersley and Traianou, 2012, pp. 2–3).

2.8. Presentation

Finally, although I turn to the area of overall presentation last, according to Teaching and Learning Research Briefing, No. 80 (2009), overall presentation is a criterion by which a journal article can be judged in terms of quality. I critique Swain and Hammond (2011) in terms of clarity and readability bearing in mind that these notions are strongly connected to the intended audience. Swain and Hammond’s (2011) study was on-the-whole, clear and easy-to-read. It is also probably user-friendly in terms of its intended audience. However, there are minor points of non-clarity/mistakes:

- Some named respondents are referred to as having poor health; there was then reference to their mental health problems ‘earlier mentioned’ (p. 607).

- The Kwong et al., 2007 (cited in Riddell et al., 2009) study is referred to have taken place in Japan (p. 595) when it was in fact, Hong Kong.

- The Feinstein and Hammond, 2004 citation (p. 596) does not appear in the reference list.

3. Conclusions

Swain and Hammond (2011) is a good example of researchers writing their study with reference to a community of practice, that is to say for a readership that are already familiar with the terminology that is required to be fully conversant with the process and outcomes of their enquiry. It can be argued that writing within a style in keeping with a community of practice is not of best practice because new researchers or those from other disciplines that are interested in the topic will find it less immediately relevant to the world of their workplaces.

A researcher needs to not only outline his or her stance to enquiry but also present a transparent rendering of the decision making process in a chain of reason which allows
the reader to make a decision on the quality of its validity, objectiveness and subsequent reliability of any claims and/or references. In this case, Swain and Hammond (2011) make a very good case for their claims but with regard to whether the research participants were adequately ethically treated; the reader cannot be convinced of the validity of the claims as a result of insufficient transparency in the research process. Thus it behoves the readership of scholarly articles in the field of education to have a good knowledge of the terminology used and a mind to interrogate the findings through engaging with the text on a level suitable by which to accurately critique it.

References


要旨

Swain and Hammond の批評的総説

ジェニングズ スティーブン

本研究は Swain and Hammond (2011) の批評的総説である。この論文の目的は Open University の教育課程において使用されている判断基準を Swain and Hammond (2011) の学術論文に対照することである。それを通じて、読者に transparency（透明性）、relevancy（関連性）、validity（妥当性）といった主要な用語の持つ概念に対する示唆を与えるものである。