



A contribution to the conceptualisation of quality in impact assessment



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ABSTRACT

Quality is much sought after in, and a basic foundation for, good impact assessment (IA). However, the term is rarely defined, has an uncertain relationship with IA effectiveness, and it means different things to different stakeholders, which can lead to debates over the legitimacy associated with an IA process. Thus, IA quality needs conceptualising to position research and practice within broader understandings. This paper contributes to this conceptualisation by identifying nine dimensions of quality through a process of literature review drawing on three fields of study in which quality and quality management have already been debated and conceptualised: education; health care; and business. This approach sidesteps the plural views on quality existing within the field of IA itself which might otherwise bias the identification of quality dimensions. We therefore propose that the dimensions of IA quality are: Efficiency; Optimacy; Conformance; Legitimacy; Equity; Capacity Maintenance; Transformative Capacity; and Quality Management. A literature review of IA research and practice confirms the relevance of the identified quality dimensions to IA. We identify, to an extent, the relationship between quality and effectiveness. Quality aligns with procedural and transactive effectiveness, partly aligns with normative effectiveness and is distinct from, but helps to deliver, substantive effectiveness.

1. Why conceptualise?

Impact Assessment (IA) is an umbrella term for a process (including, amongst others, Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Health Impact Assessment (HIA), Social Impact Assessment (SIA) and Sustainability Assessment (SA)) that is applied at all levels of decision making and across many sectors (Morrison-Saunders et al., 2014b). IA has been defined as both a technical tool for analysing the consequences of a planned intervention and a legal and institutional procedure linked to the decision-making process of a planned intervention (IAIA, 2010). The process and the outcomes of IA are thus concerned with scientific observation and analysis, with principles of design, with the application of regulations and law, and with the interpretation of local and contextual rights and understandings. IA thus requires a broad range of activities that cuts across sectors and involves multiple stakeholders, each of which has

different notions of what good ‘quality’ means. We seek to conceptualise these notions of quality in IA.

We start by introducing the concept of plurality. Leuschner (2012) analysed the role that pluralism and objectivity each has in scientific research and stated that in “socially, morally, economically or ecologically relevant sciences that have to deal with complex research objects, deliberative instances including a plurality of perspectives are helpful for both moral and epistemic reasons” (p.197). The act of deliberation allows competing perspectives to be assessed and a consensus to be reached. Leuschner (2012) summarised the Kellert et al. (2006) notion of pluralism as involving one or more of a plurality of views over the appropriate theoretical approach to a problem; over the method(s) to apply to examining a problem; there can also be a plurality of people with different perspectives on a problem; and a plurality of people with different value concepts which, in turn, can cause different theoretical or methodological approaches. This analysis can be applied to IA (see

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Section 2) in the way that IA involves the application of science to political decision-making and is thus relevant, ‘socially, morally, economically or ecologically’; in the way that IA deals with complex research objects, namely the potential effects of a policy, plan, programme or project; and to the way that there is a plurality of views about what IA is expected to deliver to different stakeholders (Glasson et al., 1997; Morrison-Saunders et al., 2001; Bond and Morrison-Saunders, 2011). Fuller (1999) highlighted the different expectations of proponents, the public and decision-makers in relation to the EIA process. This analysis can also be applied to the way that quality is understood in IA as whatever the desired decision outcome for a particular stakeholder, the IA is seen as being one of the determinants of that decision and therefore the quality expectations underpin what the various parties see as being a legitimate decision (Owens et al., 2004).

While there is a plurality of views concerning quality in IA the role that IA plays in underpinning policy decisions, not to mention commercial pressures, means there is a need to manage, and to control, quality in IA and to define and to measure it. Thus, understandings of quality matter as they dictate practice and the changes made to improve practice. This underpins the need for a conceptualisation of quality in IA, so that it is clear how quality can be interpreted, and which dimensions of quality are actually tested and the subject of quality improvement interventions, and which are not. We recognise that taking an approach to conceptualise quality in IA by drawing solely on IA literature has the potential to reproduce any existing biases (i.e. focussing on some understandings of quality at the expense of others), which would be an inappropriate way to frame quality. In this paper, we will therefore examine how quality is understood in other fields and explore the applicability of these dimensions to IA. Our first aim is therefore to contribute to a conceptualisation of quality in IA that transcends any potential narrowness in the impact assessment field.

We are sensitive to the tendency for the terms *quality* and *effectiveness* both to be used interchangeably in the IA field. Whilst some authors conflate the terms, many authors have dealt with quality and effectiveness as distinct and exclusive concepts, an understanding which has also provided the basis for criteria and empirical research (for example, Retief, 2007; Lyhne et al., 2015). Further weight is added to the view that quality and effectiveness are distinct concepts by various calls for research on the correlation between the two concepts (Sadler, 1996; Thissen, 2000; Owens et al., 2004; Retief, 2010). Our second aim is therefore to clarify the relationship between quality and effectiveness in IA.

We consider the plural nature of quality in Section 2 and present evidence for differing perspectives of quality in IA. In Section 3 we introduce the methodology through which we contribute both to conceptualising IA quality, and to examining the overlap with IA effectiveness. We unpick the meaning of quality in Section 4, whereby a series of dimensions of quality drawn from fields outside IA are identified (Section 4.1). A synthesis of these dimensions is undertaken to produce a single framing of quality based on three fields of research (Section 4.2). Section 4.3 examines the relationship between these dimensions of quality and some recognised understandings of effectiveness in IA. In Section 5 we examine the extent to which the dimensions are already considered in IA practice and reflected in IA literature. This examination identifies the extent to which the dimensions are already considered in IA practice. Finally, we conclude in Section 6 on what this contribution to a conceptualisation of quality in IA might mean for future research and practice and how it can be used to clarify the boundaries for research.

2. Quality and plurality in IA

In terms of relevant theory, pluralism is reflected in the diversity of interpretations of quality that exist in the IA literature, and it is acknowledged that the “*theoretical indeterminacy is likely to remain a key feature of IA for the foreseeable future*” (Cashmore and Kornov, 2013,

p.28). A number of authors have made significant contributions to IA theory (for example, Lawrence, 1997; Bartlett and Kurian, 1999; Cashmore, 2004; Richardson, 2005; Fischer, 2007; Weston, 2010; Lobos and Partidario, 2014) which together reflect the plurality of theories that exist in relation to forms of IA. We take, as an example, two models drawn from Bartlett and Kurian (1999), namely the information processing model and the institutionalist model. The information processing model reflects positivist theory, or rationalism, whereby better information leads to better decision-making. Positivist theory is regarded as underpinning the derivation of the world’s first EIA legislation – the US National Environmental Policy Act in 1969, albeit the limitations of that theory are increasingly recognised (Weston, 2000). The institutionalist model aims at explaining the difference between the formal process and its practical implementation within institutions (Larsen et al., 2012). In fields like HIA where legal mandates are rare, institutionalisation has been of particular interest as a means of facilitating practice (see, for example, Wismar et al., 2006; Morgan, 2008; Harris and Haigh, 2015). Nykvist and Nilsson (2009) argued that institutional strengthening was more important than process improvement if IA was to deliver the sustainable outcomes sought.

The fact that pluralism can be observed in the variety of methods to apply is reflected within theories. For example, in the context of positivist theory, the quality of the information underpinning and presented in the environmental impact report, has been assessed as the key quality measure in a number of studies using documentary review based on criteria (for example, Lee et al., 1999; Chadwick, 2002; Fischer, 2010; Lindblom, 2012). Practitioner perspectives can also be used as a determinant of quality (Glasson et al., 1997; Morrison-Saunders et al., 2001), as can levels of training and professional recognition (Fuller, 1999). More recently attempts have been made to develop approaches for measuring quality including documentary review and interviews to examine more process-related aspects (Bond et al., 2017). And a variety of indices have been developed to examine the quality of the assessment and reporting of environmental impacts (for example, Glasson and Heaney, 1993; Thompson et al., 1997; Chang et al., 2013).

A plurality of people with different perspectives on IA quality was amply illustrated by Fuller (1999) who highlighted three stakeholder groups and their differing expectations for what the EIA process should deliver (Table 1): proponents, public and decision-makers. Petts (1999b) adds local environment groups to her list setting out different stakeholder perspectives on public participation within EIA.

Evidence of plurality of values comes from research that examines the assessment of quality of environmental impact reports. As noted above this is one interpretation of quality. This research identified that individual reviewers produce statistically different quality ratings than do groups of reviewers (Peterson, 2010). Also, Robinson and Bond (2003) identified statistically different views on aspects of EIA quality between two different local resident communities, and between consultants with different levels of expertise.

Thus, without exploring in detail the different types of pluralism within IA and their relative prevalence, it is clear that all forms of

Table 1
Stakeholder expectations of the EIA process (after Fuller, 1999).

Stakeholder	Key expectations
Proponents	Certainty of outcomes Cost-effectiveness
Public	Minimisation of delays and adherence to timelines Right to know Right to be informed Right to be heard Right to object
Decision-makers	Minimisation of delays and adherence to timelines Provision of information appropriate for decision-making Avoidance of unnecessary information Succinct manageable information

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