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## Design Quality Indicator for Schools

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**Construction Industry Council**

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## The Value of the DQI for Schools

### 1. Introduction

The Design Quality Indicator (DQI) is a facilitated method of evaluating the design quality of new and refurbished buildings at every stage of the project, engaging stakeholders from both the supply and demand side. The method, which can be used in various types of building projects, was launched in 2002.

In parallel to the launch of the Building Schools for the Future (BSF) programme funded by the government, the Department for Children, Schools and Families (DCSF) and the Construction Industry Council (CIC) jointly developed a DQI version of the tool specifically for use on schools, which they launched in 2005. Even before the launch of the DQI for Schools, a large percentage of the original DQI use was for school buildings. This has continued and DQI for Schools is currently the most frequently used version of DQI.

The CIC manages the development of the tool, the training of facilitators and the maintenance of database of results. The method has been under continuous development. In the context of the current review of all capital investment in schools and the curtailment of the BfS programme, encouraging the use of a consultative process such as the DQI is a crucial aspect of ensuring that all investment in building projects provides maximum value for the user. The CIC acknowledges that facilitators and others have reported some lack of enthusiasm for the DQI for Schools, and they wish to collect information to help clients and building users understand the benefits and the best ways to achieve these when using the tool.

Towards this end, the CIC sought a piece of research “*to investigate how the Design Quality Indicator for Schools adds value to completed building projects through its use in the development of a brief, the design and the evaluation of building projects.*” The research would also provide recommendations to improve the feedback from use of the DQI process to help track value added in the future. AMA was commissioned carry out this work. The CIC simultaneously canvassed DQI facilitators for their opinions on the method.

#### 1.1 Objectives

The objectives identified for this project were to use the information gathered from case study interviews to:

- 1 identify how the effectiveness of the DQI contributes to better design outcomes than might otherwise have been achieved
- 2 identify key success factors in order to recommend changes that may facilitate further improvements in outcomes, addressing in particular:
  - empowerment of lay stakeholders
  - quality and relevance of the application of the DQI tool



- effectiveness and credibility of the output of the DQI tool
- 3 produce a narrative detailing the benefits of the DQI tool and process

## 1.2 Approach

AMA proposed to:

- examine the existing dataset, including more than 800 entries for schools, in order to select schools where the DQI had been used more than once – focussing on those where there appeared to be a marked change in engagement, which would suggest a positive or a negative feeling about the tool
- discuss some of each outcome type with a range of stakeholders for approximately 16 schools
- review the database with help from the database manager
- focus on a relatively recent period in order to be sure interviewees would be accessible and recollect events clearly

After considering the projects listed in the database, changes to the suggested approach were made as follows:

- 1 The period from June 2008 onwards was selected for the main focus as the format of the DQI method was altered at that date; however, stakeholders sometimes discussed earlier projects
- 2 The case study selection approach was adjusted.
  - Examples of projects that had used the DQI for each of the four stages of the whole process from briefing, through design, ready for occupation and on to post-occupancy were hard to find in the more recent projects
  - Many were too early in the process and others had started using the DQI at a midway stage in the project development
  - This meant that it was less suitable to use a series of assessments over time to provide data on attendance numbers or other aspects in order to gauge the success of the process
- 3 AMA, therefore, asked facilitators active in the selected period to suggest schools that they felt were suitable for review and to obtain permission to get reports. Members of the project advisory panel were also asked for contacts
- 4 A list of schools was generated using this approach and interviews were started. Some additional schools were followed up as a result of contacts suggested by people during interviews

A questionnaire template was drawn up in conjunction with CIC for each type of interviewee (Facilitator, Client and User). Whenever possible this format was followed, however some respondents preferred to narrate their story more freely and this was also allowed in order to gather as much information as possible. Generally even the freer interviews covered many of the important questionnaire points. When time was available these interviewees were then prompted on specific questionnaire issues that had not yet been addressed. On such occasions, interviewees' inputs were later matched to the relevant questionnaire section for the purpose of analysis. Some interviewees



were very keen to dedicate time to the interviews whilst others were less committed; this is reflected in the amount of information received from each interviewee and the variation in the number of respondents for each question. The most important topics, i.e. those addressed most frequently, most emphatically, or deemed particularly relevant, are reported in the main body of this document.

### **1.3 Summary of conclusions**

The conclusions, based on interviews, confirmed the potential value of the DQI process and pointed to some actions that could help create more incentive to use the tool. Many of the users and clients, as well as those facilitators directly employed by project management teams, said that even when they had used the DQI because they regarded it as a compulsory element of the procurement process, they would voluntarily use it again because of the value that they identified in creating user engagement and understanding, and in improving the overall process of developing schools projects. There were a number of instances when people had initially participated in the process reluctantly, but once an assessment had been completed they changed their views. The DQI is thus recognised by many as a very valuable tool.

At the same time there appear to be several ways in which the DQI process might be improved so that its benefits are clarified and more people make use of it. Potential changes relate to a variety of aspects: the tool itself, the way in which it is marketed, the accessibility and value of the database, and the way the DQI process is delivered. These points are described in the recommendations appearing throughout the report and are summarised at the end in section 4.



## 2. Findings

The findings are based on interviews and on reviewing assessment reports where these were made available. Interviews were conducted with 34 individuals, including 11 clients, 11 facilitators and 12 users. AMA received 32 reports for 21 schools and 12 feedback forms (see table 2.2 below). Yet, because many people, especially facilitators, spoke from the perspective of having worked with a number of schools, approximately 32 schools were considered in the discussions. The feedback forms have been treated as sources of quotes, as have the interviews.

**Table 2.1 Interviewees by role**

No.	Position	Category	No. of school projects	No. of projects since 2008	No. of assessm.	No. assessm. since 2008
1	Client design advisor	Client	1	1	3	3
2	Client design advisor	Client	2	2	2	2
3	Leader	Client	5	5	10	10
4	Leader	Client	2	2	2	2
5	Leader	Client	7	7	3	3
6	Leader	Client	5	5	7	7
7	Leader	Client	1	1	2	2
8	Leader	Client	2	2	1	1
9	Leader	Client	1	0	1	0
10	Leader	Client	6	5	3	1
11	Leader	Client	3	3	4	4
12	Facilitator	Facilitator	12	11	7	6
13	Facilitator	Facilitator	2	2	2	2
14	Facilitator	Facilitator	18	16	12	10
15	Facilitator	Facilitator	3	2	3	3
16	Facilitator	Facilitator	28	19	25	16
17	Facilitator	Facilitator	7	7	9	9
18	Facilitator	Facilitator	126	83	80	31
19	Facilitator	Facilitator	15	14	18	17
20	Facilitator	Facilitator	16	11	10	0
21	Facilitator	Facilitator	31	30	18	17
22	Facilitator	Facilitator	8	0	13	0
23	Governor	User	1	1	3	3
24	Head teacher	User	1	1	3	3
25	Teacher	User	1	1	2	2
26	Manager	User	1	1	1	1
27	Head teacher	User	1	1	2	2
28	Teacher	User	1	1	2	2
29	Governor	User	2	2	2	2
30	Teacher	User	3	1	7	1
31	Governor	User	1	1	2	2
32	Parent or carer	User	1	1	1	1
33	Parent or carer	User	1	1	1	1
34	Parent or carer	User	1	1	1	1



**Table 2.2 Number of interviews and reports by school**

School name	No. Report received	Feedback form received	No. of people interviewed
Bexhill HS	3	1	5
Birkenhead HS Academy	2		1
Cardinal Pole			2
Cardinal Wiseman RCC		1	1
Carlisle Schools			2
Deptford Green	1		1
Dormers Wells		1	
Draper's Academy			1
Eastbridge Water C. School		1	
Falmer Academy	3		
Fullwood Academy	2		2
Garibaldi Community School			1
Hameldon	2		
Hay Lane & Grove Park SEN			3
Haygrove & Penrose	1	1	
Hereford	2		
Holy Trinity CE	1		
Hollywood			1
Ian Mikardo HS	1		2
John Perryn PS			2
Leytonstone School		1	1
Litherland HS	1		2
May Park School		1	
Monson	1		
Mossbourne	2		
Neale Wade CC		1	
Oasis Academy Coulsdon	1		
Prendergast Hilly Fields	1		
Rhodes Avenue PS	1		3
Sanworth Academy	1		
St Barnabas		1	
St Mary & St Peter's CE Primar	1		
St Mary Magdalene JS	3		
Tauton Academy	1		
Thomas Clarkson		1	
Tong School			1
Whitefields		1	
Whitehall Primary School		1	
Willowfield	1		
Other schools			3
<b>TOTAL</b>	<b>32</b>	<b>12</b>	<b>34</b>

The questionnaire (see appendix A) addressed key aspects of the DQI process, including practical aspects (e.g. length of session), methods and tools used (e.g. graphic charts) and the benefits of following the DQI process. Some of these key issues are summarised individually below.

## 2.1 Benefits of DQI

The majority of people interviewed (22 out of 34) feel the DQI process has had benefits for stakeholders due to its intrinsic consultative nature, the sense of ownership it gives to participants and the fact that



it brings together a wide variety of stakeholders. As a school project must cater for particularly varied needs, a tool that can bring people together is particularly useful, and this aspect was highlighted and can form an important part of future promotion of the tool.

User, Sep 10	<i>'I was really glad to be included. It was good that people were listened to and were able to put forward their opinions and ideas.'</i>  <i>'People ... have greater ownership of the process, are more content that they contributed to the design.'</i>
Client, Aug 10	<i>'The DQI gives a framework for a broad consultation as well as formality... It allows teacher to put another hat on and review things in another way.'</i>
User, Jul 10	<i>'It was all brought down to what we wanted, our aspirations. It opens eyes on what happens within a building, how it is formed and progresses.'</i>
Client, Aug 10	<i>'The DQI helped to spread the load of decision-making and taking responsibility for briefing ideas across a wider group in the school than just a single main contact – allowing people to input was invaluable'</i>
User, Jul 10	<i>'It was good at showing where there was a disparity of ideas. ... We got to address issues that otherwise would have gone unnoticed'</i>

A major strength of the DQI is the sense of 'ownership' it creates through user involvement, which can form an important part of future promotion.

On the whole, interviewees thought that the users benefited most from the DQI. A few pointed out that sometimes clients or teachers did not understand its benefits. Seven interviewees said the process was particularly beneficial to pupils, in terms of learning about consultation and the design process as well as benefiting from the end results. Two interviewees explained further:

CDA, Jul 10	<i>'Students benefited – someone seriously asked for their views and opinions in a structured way – there is educational value in this. It gives indicators that there are forums and places where they can say what they think without fear of being laughed at or dismissed, and how to use forums'</i>
Facilitator, Jul 10	<i>'I think the pupils benefited most because of their involvement and the end results. It's educational and the pupils gauge education.'</i>

Ensuring that the consultation is meaningful depends on various factors but the quality of facilitation is a key issue. If facilitated inappropriately the process is unlikely to be very helpful. Good facilitation is particularly important at the beginning to ensure early buy-in.

CDA, Jul 10	<i>'If it is well facilitated, it is very powerful because it is an opportunity to bring a range of people, design team, users, together and the structure of the DQI enables you to do some stuff below the surface. If not well facilitated, it can be counter productive. It is very dependent on the quality of the facilitation.'</i>
Facilitator, Jul 10	<i>'You must have enthusiasm of the stakeholder group for it to be worthwhile, like any process it is only as good as the input people [provide]'</i>



For some stakeholders, recognition of the DQI value may occur only after going through the process. An experienced facilitator is aware of this and can assist by paying attention to participants' engagement levels.

Client, Sep 10	<i>'Some felt the DQI was a replication originally, but have since bought into it. It gave them ... the skill sets to help them choose'</i> (Client, Sep 10)
CDA, Jul 10	<i>'The school felt it was valuable, they were surprised that it was a useful exercise, everyone thought "oh god another day, what's this one about?"'</i> (CDA, Jul 10)

Continued training and support of facilitators will help to provide a basis for effective use of the DQI.

## 2.2 Impact on design

Many projects were not completed or had not even started at the time of interviews, so most users were not in a position to comment on the building post-occupancy DQI session. Facilitators do not tend to go back to see the building completed and could not make a judgement on the building in use. However, a few were able to pinpoint specific design changes as a result of the consultation, as highlighted below.

User, Jul 10	<i>'Observation panels were reduced. Doors were changed to make [the space] more buggy friendly. The external appearance of the building was changed to make it look better and to make the building more sustainable'</i> (User, Jul 10)
Facilitator, Jul 10	<i>'After the DQI results when people said they didn't like [the shape of the classrooms and toilets located inside] ...the designers redesigned the classrooms and the location of toilets was changed.'</i> (Facilitator, Jul 10)

### 2.2.1 Would you use it voluntarily or recommend to others?

With some provisos, most respondents (29 out of 34) said they would use DQI voluntarily again and/or recommend it to others, as long as the improvements suggested are made or they can continue to adapt it. Only two people expressly said they would not recommend it or use it again. These people say they would use alternative ways of consultation because *'there are better ways of getting the same information'*. There were a number of specific criticisms about the process, and as a result, several facilitators had adapted their sessions to better suit their own way of working and relating to the stakeholders. These points are discussed further below.



## 2.2.2 What is the most beneficial stage?

The majority of people who commented on this issue said they found 'Briefing' to be the most useful stage (9 out of 18, five of whom were users, leaders, or clients). Two of these found 'In use' equally beneficial – referring to use on an 'existing' building at the briefing stage as part of the initial process of introducing the tool – and another one found 'Mid Design' also as beneficial as 'Briefing'. Only one person considered the 'Mid Design', 'In Use' and 'Sketch' stages most beneficial. Another person, a user, found all stages useful.

Reasons provided for this preference include the fact that the 'Briefing' stage can involve stakeholders in the design from the beginning; it provides a *'very good structure of the DQI facilitation'*, is *'very useful to prioritise design issues'* and is *'very important to get stakeholders' opinions and aspirations for the new building'* which can then be revisited at mid-design stage.<sup>1</sup>

The timing of the briefing stage is key to its success. Several described experiences where stakeholders were frustrated and disengaged because the briefing stage was conducted so late in the design process. This resulted in people *'not seeing the point'* or viewing the session as a waste of time.

User, Jul 10

*'The briefing stage session felt like a waste of time to us at the time, ...we did switch off to a certain extent as a result. If we had done it a year previously it would have been useful because when we did it the design process was quite advanced.'*

One person commented that whilst she perceived briefing as the most beneficial stage, it was *'very rare to get a briefing before stage C [and] it's a bit too late even then'*.

Although other stages were noted as useful, briefing seems to be the most beneficial for future users. It gets people on board early in the process, encourages different viewpoints to be integrated and enables goals to be prioritised, providing its timing is adequate.

The briefing stage is the favoured stage and, if scheduled as the project starts, provides maximum benefit and success.

### Other stages

Facilitator,  
Jul 10

*'The Mid design stage does demonstrate to everyone that the project you set out to deliver and the brief you worked out has been translated into a real design.'*

One person questioned the value of 'Ready for Occupation' stage as *'at that stage not much can be done to put things right'* whilst the building has not been in use yet.

<sup>1</sup> Text in italic refers to quotes from AMA interviews, July to September 2010.



The same person pointed to the value of post-occupancy evaluation, as it enables the collection of useful data for future benchmarking, and thought it was *'a great shame when clients decide not to commission one'*. Likewise, another stressed how useful it is to *'see how the school performs'* but raises doubt as to how many schools will actually complete that stage: *'...everyone says how useful it is but whether or not they will be prepared to pay for it, I am not sure'*. One user illustrated why the school decided not to undertake a 'Ready for Occupation' assessment: *'We couldn't find a date for [it] plus we felt we got it right'*.

These comments suggest that, given the time and financial constraints under which schools operate (see further below), it may be hard to encourage a higher proportion of clients to commit to this stage in the future, unless they have financial incentives to do so.

Special consideration to simplification and achieving a cost effective assessment process for this stage may be helpful in creating more interest in the benefits of a post occupancy review.

### 2.3 Primary reason for use

A majority of respondents (18 out of 26) said that DQI for schools was used in their case to comply with funding or other guidelines, or because it helps improve the BREEAM rating: *'It is mandatory, part of BSF, it's the main reason why people use it'*. Only three out of 26 respondents said it was used to engage users, and one told us it was used to collect ideas for users to communicate to designers. Unsurprisingly, users were generally less able to answer this question.

Some interviewees felt that the compliance requirement was the primary reason for use and that this had a negative impact on the quality of the process implementation. This suggests that users are rarely aware of benefits before the process begins, and that there is much to be gained from additional promotion of the process and its value to users. This aspect was confirmed in interviews, with several facilitators feeling the tool needed to be marketed better. Some standardisation of reporting might also help ensure that these key values for clients and building users can be brought out more clearly.

Facilitator, Jul 10 *'The clients have changed [and] in the past [few] years, it has always been about ticking the box. ...They asked us to do the brief in ½ day... they don't want to pay for preparation [and] they cancelled the final review. ...The session should be over the whole day, to give [participants] time to talk about [the project].'*

Facilitator, Jul 10 *'I find that DQI for schools is adapted in different ways by different authorities. Some see it as mandatory by PfS and it's merely a tick box routine exercise.'*

Publicity material needs to emphasise the DQI for Schools' benefits — both directly to users and through improving designers' understanding of general issues in school design.



Some standardisation of reporting could be used to ensure that benefits are commented upon in comparable terms across projects.

### 3. Issues to address

Overall, many positive comments were made about the DQI, but table 3.1 shows that only four respondents felt entirely positive about the benefits of the process in its current format or as it was delivered to them. A number of useful suggestions for improvements were made.

Nine interviewees were generally positive about the tool but suggested some improvements, whilst another nine reported that they had needed to adapt the process to ensure a better consultation exercise. Some commented additionally that the consultation they experienced had been a good process for reasons beyond the tool itself – either because the school had started consultation long before the DQI was brought in or because they felt success had been primarily due to the open approach of the design team.

**Table 3.1 Summary of opinion on DQI process**

	positive about DQI, no issues	positive about DQI but needs improvement	positive about DQI but use it differently	consultation positive experience but not due to DQI	DQI only used as a 'tick-box' exercise	No opinion
Facilitator	1	4	5		3	
Client		3	4			2
User	3	2		5	2	
Total	4	9	9	5	5	2

Ways in which the DQI could enhance an already effective process should be highlighted in describing potential uses of the tool.

Some respondents expressed ways in which benefits of DQI were reduced by a number of aspects. These included: understanding the DQI in the first instance; the timing of the process; a burdensome questionnaire; tick-box exercise facilitation; views not taken on board; stakeholders not buying into it, etc.

#### 3.1 Clear information for all involved about the DQI process

A few interviewees stressed a lack of common understanding on what the DQI method is for, from the facilitators', clients' and users' perspective. Indeed, it did not always seem to be clear what the purpose of using the DQI tool is, even for facilitators.

Facilitator training was raised by several, both in terms of trainers' content knowledge (why the process is important) and their skill at facilitation. One person interviewed felt that facilitators are recruited for their knowledge of the design process. This facilitator felt that facilitation experience was not weighted as it should be. The DQI



process can occasionally be undermined as a result of these skills gaps.

Facilitator, Jul 10 *'The facilitator's role is to get under the skin of what the client wants and use the tool to deliver that. I have the perception that some of the DQI training does not deliver that at all. It doesn't look at what value the tool is going to give the client'* (Facilitator, Jul 10).

Facilitator, Aug 10 *'...the process is about facilitation. They should recruit more people with that experience... On our training course, some people were stressed because they had no facilitation experience'* (Facilitator, Aug 10)

User, Sep 10 *'There needs to be clarity as to whether the DQI process is a prioritisation or weighting process. ... There should be a guide as to what constitutes good facilitation, what is a good or bad facilitator'* (Facilitator, Jul 10).

The skill of facilitation and the details of the objectives of the assessment sessions need to be distinguished and communicated in training.

The further purpose of the process – that it serves to LINK the users to the designers throughout the project to help them fulfil the user needs, could also be clarified for all involved.

Ensuring DQI leaders understand the process and potential outcomes so that they can encourage a sense of engagement is equally important. Some were found to be unclear what the DQI purpose really was, making successful encouragement of stakeholders less likely. Reports are not systematically communicated back to the designers, meaning that the needs of the users are not necessarily passed on.

Reports should reach the design team, and other stakeholders. Attention needs to be paid to the justification of the process, particularly where reports tell schools things they might already know (e.g. their values – it needs to be made clear that the briefing session is helping prioritise needs that really do vary even in a single building type); this is an essential aspect of the briefing.

Facilitator, Jul 10 *'The problem is that sometimes the DQI leader doesn't understand what DQI is about so they can't brief the users and we don't get the chance to explain to them before the workshop'*

Facilitator, Jul 10 *'I don't think DQI is as understood and as common place as we think it is. It's way off the mark for stakeholders and clients in particular. People don't register until they have done it.'*

A few interviewees pointed to a lack of interest from the clients whilst other comments indicate that there is a communication gap between facilitators and key members of the project team:

Assistance for schools and Local Authorities in explaining the role of the DQI leader and providing material to help them in this role may be a useful development for the future.



Client, Jul 10 *'All the education and client design advisors were all anti DQI... [there were] better ways of doing stakeholder engagement'*

Facilitator, Jul 10 *'It has to come from the local authority, the client design advisor, some are OK, some are not interested... It may just be the technical construction people are not interested in what the stakeholder has to say, [in which case] they won't want to do it'*

Facilitator, Jul 10 *'The part often missing is the discussion with key members of the project team, explaining what I can do with this tool, it is a catalyst for design and you want to understand where are your priorities. You can then get to the process'*

Client, Aug 10 *'Project managers... and senior local authority people too ... need to be involved more in understanding what the DQI does. It's often seen as an add-on, as not directly relevant. ...Is it built-in to the procurement process? Its route needs to be through mainstream project organisation.'*

Facilitator, Jul 10 *'...because the DQI leader had not primed schools properly, the schools thought it was a waste of time.'*

Client, Jul 10 *'[There is a] need to brief schools more thoroughly and show how participation has been fed into the process.'*

Facilitator, Jul 10 *'Sometimes you get a very apathetic set of people, they've already been through the process and they don't understand why they have to do it again. But at the end of the session they understand and they are very positive, they can see the benefits'*

User, Jul 10 *'It could have been done better as we weren't convinced at the outset. It was described as a tick box exercise. Although we later found out its usefulness, this could have been set up from the outset.'*

User, Sep 10 *'We were never explained [the benefits of the process], as far as I am aware we were just told these are the methods we are using'*

A simplified process overview could be provided in publicity material indicating the time required to carry out assessments, the likely costs to users, and the benefits to users and designers.

### 3.2 Using the DQI at the right time

The timing of involvement is crucial to the success of the DQI. In some cases, stakeholders have reported instances where the briefing assessment was carried out even though the design process was already quite advanced (in one example, a year into the design development). In such instances, participants are frustrated, they feel



the session is a waste of time, and that it is only a ‘tick-box’ exercise, not a consultation. Previous experiences also impact on people’s perception of the value of the DQI.

User, Jul 10 *‘The briefing stage session felt like a waste of time to us... and we did switch off to a certain extent as a result. If we had done it a year previously it would have been useful because when we did it the design process was quite advanced’*

User, Sep 10 *‘I found it was very good [but] it’s a pointless exercise, they were going to do what they wanted anyway, it’s a lip service exercise, they want to make you feel that you’ve been consulted’*

User, Sep 10 *‘The second meeting wasn’t useful because we received major design changes that morning which made the session pointless. Everyone was very annoyed’*

Facilitator, Aug 10 *‘...they had already been through DQI on the first wave of the BSF programme and had a bad experience, so everyone was very negative. All professionals and schools ... thought it was a waste of time. ...At the end they were a bit more positive’.*

In addition, a number of schools had been proactive in consulting with the stakeholders before the DQI was used – as a result some people felt it then became redundant. The use of the DQI on projects where it is genuinely not needed should be avoided; ways to prevent this need to be considered. As well as wasting resources, these instances are more likely to lead to poor regard for the tool.

Client, Aug 10 *‘They didn’t see how it added any value to the process they were doing anyway’*

User, Sep 10 *‘We didn’t change much design-wise... We had worked on this [project] for 12 months prior to [DQI]. ... This was just another tool that we could use to do so’*

User, Sep 10 *‘I remember saying “you are doing this as a tick-box exercise”. The school was already involved in putting the brief together prior to the DQI’*

Consider ways to help encourage that the process, especially the briefing stage, is embarked on in good time. Review ways to modify its use if it is undertaken late.

### 3.3 Reviewing the tools

#### The questionnaire

Respondents were asked about questionnaire length, language and content.

Most interviewees said the questionnaire was too long (18 out of 26) or long (5), a feeling shared by facilitators, clients and users: *‘every feedback form says there are too many questions’*. Three of those who



said it was long thought it was nonetheless important to cover all aspects. Only three thought it was appropriate in length.

Several noted that questions were repetitive, and that some questions related to aspects required by law, making them redundant. Twelve people – mostly users – said that some questions were too technical or difficult for lay people to respond to. People felt that such questions were sometimes irrelevant to them and that often, they *‘could not give a comprehensive answer’*. This complexity often leads to a lot of *‘don’t know’* answers, which can frustrate respondents as well as providing data that may not be helpfully comparable across projects.

Respondents also feel that many questions can only be responded to in a certain way (e.g. who wouldn’t prioritise good acoustics or light?). The type of question, the person it is aimed at and the degree of repetition are all important issues, as the questionnaire is often the user’s first point of contact with the DQI and helps to form a key impression of the process.

The overall length, the areas of technical focus and repetition of questions are off-putting for many, so the questionnaire may benefit from some modification.

Facilitator	<i>‘There are a lot of statements, and many statements do overlap. The style is very generic and the statements need to be made specific to the project for them to be meaningful. ...Some of the build quality statements are not very meaningful to the stakeholders at the briefing stage.’</i>
Facilitator, Jul 10	<i>‘A question like “buildings should produce few faults or complaints” makes for raised eyebrows’</i>
User, Sep 10	<i>‘They were lots of questions as a lay person I couldn’t answer, e.g. about electrics or some specific material used. I have no idea, I don’t know about the implication of using one material instead of another, it’s not relevant to me’</i>
User, Jul 10	<i>‘There were a lot of “don’t knows” from us... We expected to focus on functional aspects as this is what teachers know about, but we focused on a lot of things that we couldn’t contribute to that were for the design team only’.</i>

In total, 23 thought the questionnaire needed improvements to its language or content or both. It is worth exploring this as some interviewees consider that the length of time dedicated to questionnaire completion reduces the quality of the session (e.g. people get bored) and in particular the output that could be gained.

Facilitator, Aug 10	<i>‘A lot of questions – could reduce and concentrate them and get a better session’</i>
Facilitator, Jul 10	<i>‘It is not productive to work through the questions. ...It is a killer for any project and is a destructive process’;</i>
Facilitator, Jul 10	<i>‘Talking is the important thing, not the questionnaire, but the questionnaire is an aide-mémoire’</i>
Facilitator, Jul 10	<i>‘The most useful aspect is to get people to debate’</i>



A shorter and simpler assessment process would be popular.

One interviewee said that one of his main functions as facilitator was to *'deflect criticism of the questions... less experienced facilitators get pulled to pieces over the questions... some staff have a go on the whole thing. I stamp my authority at the start'* (Jul 10).

Another point made by several interviewees was that a single question could mean different things to different people depending on the respondent (e.g. pupil versus parent) and the nature of the project.

Facilitators also use different methods to address the problem of a time-consuming questionnaire filling exercise, e.g., break people into smaller groups and ask each group to respond to different part of the questionnaire (see further below).

### **Graphical output**

Graphical output is not systematically used in sessions and sometimes it is seen as superfluous: *'Likes and dislikes have been discussed so the spider is redundant'*. There are also issues of understanding from not only the user's but also the facilitator's point of view:

Jul 10

*'I don't think the tables and graphs are easy to understand. As a facilitator I am not always sure what it is showing me.'*

When used, people understand the spider diagram better than other graphical output. Fourteen out of 19 people find spider diagrams *'easy to understand'*, *'powerful'* or *'useful'* and this is equally felt amongst facilitators, clients and users. A further two thought it was *'ok'*. Three said it was difficult to understand.

In comparison, 11 out of 19 thought the other graphs were difficult to explain or understand, whilst seven had no issues with them. One thought they could be streamlined. It was also pointed out that without analytical comment or guidance, diagrams were *'not of much value but with the right commentary [they] are important. Even minor variations can be talked through and general comments give you hints about what is important'*.

Many people like the graphical output, especially the spider graph. If the assessment is not done online, many may not see it unless they review the report where graphs are used to illustrate views. Simplification of the questionnaire may help make immediate visualisation available even where hard copies are the basis.

### **3.4 Allowing for flexibility in use**

Whilst the DQI for schools encompasses a set of clearly defined tools, there is great variation in the way it is used. This is in part due to the tool's format, which not all respondents follow identically, and in part



due to a lack of clarity about how the tool should be used and/or what it is trying to achieve. A number of facilitators, generally experienced ones, have adapted the tools to optimise outcomes. Various ways of implementing the DQI include:

- Being flexible when organising the sessions to reflect the needs of a particular school group

Client, Aug 10 *'They did their system to work through and that worked better... they wanted mainly a briefing document.'*

- Asking participants to pick a number of key areas they wish to discuss or basing the session on those areas where people have differing views

Client, Aug 10 *'I have often asked them to say the 10 things that were most important thing the school must do, I have not used the DQI style questions necessarily'*

Facilitator, Jul 10 *'Very quickly areas with divergence of opinion are highlighted. That works quite well'*

- Breaking participants into small groups, rather than having each participant responding to all 113 questions – for example, creating groups out of a cross section of teachers and pupils, and allocating one key category of questions to each group (i.e. Functionality, Built Quality or Impact)

— Getting group consensus in this way is seen as eliminating the need to go through each question as a group, thus allowing more time for discussion around key issues. An alternative is to focus on the main chapter headings to adapt to the school profile (e.g. younger pupils or children with special needs)

Facilitator, Jul 10 *'...sometimes it's better to get them to do a group scoring. My approach is very flexible. For the most recent projects I broke the group of stakeholders into three groups and got them to score the three different parts of the questionnaire with a very strict time allowance'*

Facilitator, Jul 10 *'I tend to split things up, having one group looking at functionality, one looking at impact and one at building quality. I ask each group to present their conclusion. In that way you don't flood stakeholders with the 113 questions.'*

User, Jul 10 *'The workshop session was very fluid, we had a chance for open questions and got to speak to people individually'*

Facilitator, Jul 10 *'The discussion is very important, focusing on every single question is not necessary'*

Facilitator, Jul 10 *'I ask the design team to give a brief presentation to stakeholders ideally based on the 10 sub-headings [identified in the briefing session].'*

- Prioritising with senior school staff in advance of the session areas that are most relevant to the school or focusing on a vision statement from the school



Client, Aug 10     *'...I sat down with the Head [of school] in advance [to discuss] the things to focus on. ...Then I chatted to the facilitator and said what areas [the school] wanted to cover, I said they had gone through the checklist and then wanted confirmation for [these] key areas.'*

Facilitator, Jul 10     *'We start by looking at a visioning statement... to do with education, not much to do with the building. Later we start talking about converting the vision into a design brief... We don't give anyone copies of the DQI questions because it puts them off... We would bring up the list of default DQI issues in our discussion but not in [the DQI] format'*

- Completing questionnaires and assessments online or offline depending on the circumstances
  - When done offline (11 people said they get it done that way sometimes or always, compared to eight people who asked stakeholders to do their own online entries), reasons for using paper in the sessions and the facilitator afterwards filling in the online questionnaires include time constraints, lack of availability of technology, or people (e.g. parents) not being computer literate
  - Some facilitators have pointed out that they find it more effective to interact with people when they are asked to fill in a hard copy of the questionnaire and more people are likely to complete the questionnaire
  - Also, some find that many more 'don't know' answers when assessments are made online

Facilitator, Jul 10     *'When it's done on paper, the facilitator can spot mistakes and we are working round the workshop, ensuring people understand. ...If they don't understand ...we are here to explain.'*

—On the other hand, one facilitator pointed the benefit of doing the exercise online: *'whenever possible, it should be captured online because people can immediately see the output'*

There are opportunities to learn from the different ways facilitators are choosing to use the tool. There are also learning opportunities in understanding alternative stakeholder engagement processes and understanding why some clients feel they don't need the DQI.

On the ground, changes to the DQI process in use are not necessarily a weakness of the tool. Facilitators should feel empowered, and this is most likely to come from the ability to think actively about what constitutes the best delivery method for a given group. These decisions are also a rich source of information on how the tool can evolve. It nonetheless poses challenges for the CIC in terms of maintaining quality, and efforts must be made to ensure how different delivery decisions might impact the tool's effectiveness.

The implications of using the DQI flexibly need to be teased out in order to understand the full impact on process and outcomes.



### 3.5 Supporting facilitators

Some comments received from interviewed facilitators, both experienced and less experienced, indicated a need to receive more training and post-training support. The discrepancy in facilitation skills will have an impact on the perceived value of the DQI between assessments for a specific project or as a whole. As mentioned previously, the quality of facilitation is key and some facilitators have expressed concerns that more training would help ensure high quality delivery throughout all projects.

Some respondents to the DQI facilitator survey 2010 expressed a similar view and provided suggestions on how to address this.

DQI  
Facilitators  
survey,  
2010

*'...the success of the DQI methodology is down to the facilitation skills... Perhaps remaining on the DQI register should also include demonstrable positive feedback from Clients?'*

DQI  
Facilitators  
survey,  
2010

*'The quality of the facilitation needs to be monitored regularly to ensure we are all providing an acceptable and more professional level of service. Without this the reputation of DQI will suffer through poor facilitation from some facilitators'*

Ways to provide additional support to facilitators, including more feedback, cross-fertilisation and guidance would be welcomed.

### 3.6 Other findings

#### Session preparation and length

Just over half of facilitators said they spend ½ day or less preparing for a session (5 out of 9). Three said they spent up to one day and one said s/he spent 2-3 days, as part of a learning curve.

Sessions generally seem to last ½ day or less (14 out of 19) and never more than one day. The minimal time commitment from schools and clients is seen as an impediment to a satisfactory session for some (mostly facilitators and leaders). For instance, several interviewees stressed that invaluable time is taken up by completing the questionnaire, leaving little opportunity for discussions: *'More or less the whole session went on with people filling in the questionnaire'*. On the other hand, users have indicated that often their commitment to the consultation process is in addition to their 'day job', indicating they would have little time to dedicate more to the process. In this context the quality of the facilitation and the way in which the DQI tools are being implemented are critical to a successful output.

In a survey of 72 facilitators conducted by CIC in 2010, the average time spent in preparation was just over 6 hours for a briefing and over



5 hours for an assessment — confirming the interviewees to be representative of the average.

The results indicated that report writing takes up to one day or more (6 out of 8 people); only two facilitators said they completed the report in ½ day to one day. The main issues that were raised in relation to the report are: content that is deemed '*politically incorrect*' is edited out; the report is not always communicated to the design team; and the design team does not necessarily take report actions on board or comment on why they have not done so.

### **Session organisation**

Facilitators are the primary purchaser of the DQI key (15 out of 18 respondents). The project client is usually responsible for recruitment of stakeholders to the workshops, whilst either the client, leader or facilitator may be involved in organising a venue and date for the DQI session. Facilitators often indicated that they gave recommendations on the type of stakeholders to recruit.

### **The database**

It is unusual to have a database of this kind, which displays individuals' opinions of so many buildings. There is an opportunity to make great use of this material and to further enhance the value of the DQI process to clients and building users. Some refinements to how data is collected may make it more accessible and useful. Data on this scale is generally of interest to academics, but information from the database could be made available in a way that helps users and practitioners, such as Client Design Advisors, to promote use of the tool.

It would be beneficial to consider the best way to make use of the unparalleled database in future and to ensure that it's contents are relevant to improving value for money in schools, and other building projects.



## 4. Recommendations

The following points have been highlighted in the text to link the findings to the recommendations. These are repeated here as a list for ease of consideration.

- A major strength of the DQI is the sense of ‘ownership’ it creates through user involvement, which can form an important part of future promotion
- Continued training and support of facilitators will help to provide a basis for effective use of the DQI
- The briefing stage is the favoured stage, and it should be scheduled as the project starts to provide maximum benefit and success
- Special consideration to simplification and achieving a cost effective assessment process for a post occupancy review may be helpful in creating more interest in the benefits of this stage
- Publicity material needs to emphasise the DQI for Schools’ benefits — both to users directly and through improving designers’ understanding of general issues in school design
- Some standardisation of reporting could be used to ensure that benefits are commented upon in comparable terms across projects
- Ways in which the DQI can enhance an already effective process should be included in publicity materials about DQI uses
- The skill of facilitation and the details of the objectives of the assessment sessions need to be distinguished and communicated
- The further purpose of the process – that it serves to LINK the users to the designers throughout the project to help them fulfil the user needs – could also be clarified for all involved
- Attention needs to be paid to the justification of the process, particularly where reports tell schools things they might already know (e.g. their values). It needs to be made clear that the briefing session is designed to help prioritise needs that really do vary even in a single building type and that this is an essential aspect of the briefing
- Assistance for schools and Local Authorities in explaining the role of the DQI leader and providing material to help them in this role may be a useful development for the future
- A simplified process overview could be provided in publicity material — indicating the time required to carry out assessments, the likely costs to users, and the benefits to users and designers
- Consider ways to help see that the DQI process, especially the briefing stage, is embarked on in good time. Review ways to modify its use if it is undertaken later in the process
- The overall length, the areas of technical focus and repetition of questions are off-putting for many, so the questionnaire may benefit from some modification
- A shorter and simpler assessment process would be popular



- Many like the graphical output, especially the spider graph. If the assessment is not completed online, many may not see it unless they receive the report where it is used to illustrate views. Simplification of the questionnaire may help make immediate visualisation available even where hard copies are the basis
- There are opportunities to learn from the different ways facilitators are choosing to use the tool. There are also learning opportunities in understanding alternative stakeholder engagement processes and understanding why some clients feel they don't need the DQI
- The implications of using the DQI flexibly need to be teased out in order to understand the full impact on process and outcomes
- Ways to provide more support to facilitators, including more feedback, cross-fertilisation and guidance would be welcomed
- It would be beneficial to consider the best way to make use of the unparalleled database in future and to ensure that its contents are relevant to improving value for money in schools, and other building projects