



PILLARS OF QUALITY IN EDUCATION: A BRITISH PERSPECTIVE

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Abstract

Purpose: This paper seeks to identify the main factors that influence the quality of education in general and the quality of higher education in particular from the point of view of British academics.

Design/methodology/approach: From a philosophical position of realism, the research relies on multiple case studies within a mainly qualitative research design that employs semi-structured interviews as its research instruments. This study, unlike much other similar research, has adopted an 'inductive' approach to research. Based on a review of the relevant literature, 11 hypotheses have been developed and later tested by analysis of the collected primary data.

Findings: After interviewing 30 British academics and senior managers from nine different universities in the UK, eleven pillars/criteria are identified as having a crucial impact on the quality of education: Leadership and Strategic Management; Students, Academics and Staff Recruitment; Syllabus/ Curriculum; Research/Teaching; Pedagogy; Learning and research support; Knowledge Management; Academics' achievements; Students' progress, success and satisfaction; Universities'/Schools' achievements; and Innovation and Change Management.

Practical implications: The findings should furnish academics and senior managers with assistance in sustainable quality development in education.

Originality/value: It is hoped that this research will build a new theory of the quality of education, particularly its sustainability.



Keywords: Quality of education, Quality theories, British universities, Higher education quality

Paper type: Research paper

INTRODUCTION

Background

Quality development in education and higher education has gained a lot of attention, particularly over the last decade. Among education institutions worldwide, there have been various responses to this trend, ranging from implementing direct quality measurement scales to self-audit processes (Harvey, 2005). Increasingly, the rationale for quality development has been driven by funding mechanisms (Tippin *et al.*, 2012), accreditation tests (Taylor *et al.*, 2012), keeping pace with international practice (Harvey, 2004), national audits (Bereiter, 2007) and other trends, such as the massive growth in higher education and the influence of information technology (Harvey, 2004, 2005; Harvey *et al.*, 1993).

Since the 1980s, there has been a gradual emergence of what Westerheijden *et al.* (1994) refer to as “new” approaches to quality assessment “*as a result of the expansion of higher education systems in combination with limited budgets, of internationalisation of higher education and of economic competition, of more openness of governments in general and... of ideologies of neo-liberalism and deregulation...*” (Westerheijden *et al.*, 1994, p. 19). Quality monitoring became a mechanism for governments worldwide to tackle these competing factors, and frequently also to change the dominant focus to accountability rather than enhancement (Harvey, 2005).

Many quality monitoring models originated in the manufacturing and business sectors and when applied to higher education were frequently found unsuitable or only partially suitable, as they largely disregarded the nature of higher education and its employees, in particular the academics (Taras, 2008; Taylor *et al.*, 2012). This study concentrates on the views of academics and senior managers, rather than those of other stakeholders, such as students or employers, to allow for a more in-depth investigation.

Research question, aim and objectives

In seeking to single out from the many factors which affect the quality of education at all levels those few factors which influence its sustainable quality development, the ‘Research Question’ is formulated as: What are the main factors that have a substantial impact on the sustainable quality development of education in general and higher education in particular?

The research aim is to identify these major factors from the point of view of British academics. The research objectives are stated as follows:

1. To examine the impact of Leadership and Strategic Management in educational institutions on the quality of education;
2. To assess the contribution of appropriate Students, Academics and Staff Recruitment to the quality of education;
3. To evaluate the degree to which a quality Syllabus/Curriculum is important for quality education;
4. To explore how the quality of education is influenced by Research/Teaching;
5. To identify the effects of Pedagogy on the quality of education;
6. To investigate the correlation between good Learning and research support and an increase in the quality of education;
7. To determine the relationship between suitable Knowledge Management in educational institutions and the quality of education;
8. To test the extent to which the level of Academics' achievements can indicate the quality of education;
9. To establish the connectivity between Student progress, success and satisfaction and the perceived quality of education;
10. To evaluate any meaningful relationship between the quality of education and University/School achievements;
11. To assess the importance of appropriate Innovation and Change Management in higher education institutions for the quality of education;
12. To provide some recommendations to academics and education authorities regarding ways to improve the quality of education.

THEORETICAL DISCUSSIONS

This study, unlike much other similar research, has adopted an 'inductive' approach to research. It aims to build a new theory regarding the quality of education instead of testing one of the existing models, there being no comprehensive customised model for the quality of education (Erdem, 2009).

The EFQM Excellence Model as a benchmark

While quality is and has always been essential to the success of all endeavour, a one-size fits all approach to its measurement and delivery has resulted in over-generalised models that ignore the essential specifications and requirements of different sectors, such as education (Nicol and McFarlane-Dick, 2006).

One of the most advanced theories/models in quality management is the EFQM Excellence Model (European Foundation for Quality Management), which allows an organisation to assess its own strengths and weaknesses in detail across nine key areas, classified into two main groups (5 Enablers and 4 Results) with an overarching philosophy of continuous improvement that is applicable to all sectors. The overall score acts as a European benchmark and helps organisations identify areas for improvement (Ladwig *et al.*, 2007).

Due to its superiority in terms of scope, practicality, measurability, reliability and flexibility (Orrell, 2006), the EFQM Excellence Model is used in this study as a benchmark and to investigate the degree to which the nine factors are relevant to developing quality in higher education. The main hypothesis is that the influences on the quality of higher educational institutions are partially different, in terms of number, nature and category, from those that were mentioned in 'The EFQM Excellence Model' (see Fig. 1).

Influential factors on Quality of Education

While there are many parameters that can directly or indirectly contribute to the quality of education (Sadler, 2007) in general and the quality of higher education in particular, only a limited number have a substantial impact on the sustainable quality development of education (Amosa and

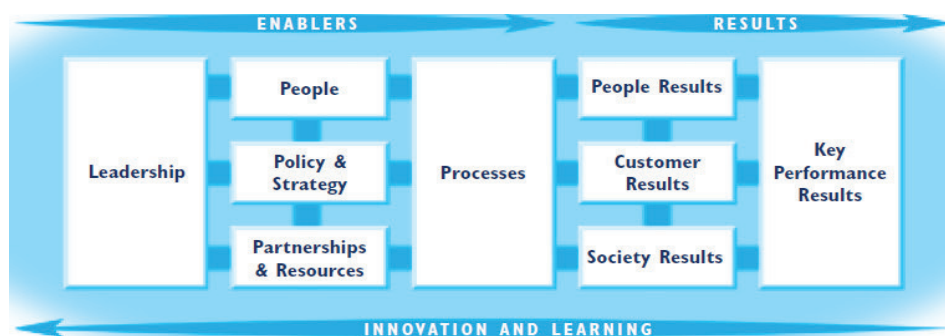


Figure 1. EFQM Excellence Model
Source: EFQM Excellent Model, 2003, p. 3

Cooper, 2006). Built on the discussed literature review in the following section, 11 critical success factors are identified that shape the pillars of a quality education system. Each of these issues, individually, considerably affects the quality of education. However, a synergetic combination of them can lead to more sustainable quality in education. The principles or critical success factors of Quality of Education are as follows:

Leadership and Strategic Management

It is an unfortunate fact that, with some exceptions, businesses in general create and maintain higher quality customer value than educational institutions (Yorke, 1998). One of the reasons for this is believed to be the lack of qualified professionals to lead places of education (Gibbs and Dunbar-Goddet, 2009). Strong, visionary leaders who can think and plan strategically are necessary for high quality education in schools and universities (Andriessen, 2006). Thus it is unlikely that, for instance, a professor of microbiology, as a dean, could lead a university toward higher quality (Westerheijden *et al.*, 1994).

Based on the above, the first hypothesis can be articulated as:
H1: Having professional and appropriate Leadership and Strategic Management can lead to higher quality in the education sector.

Students, Academics and Staff Recruitment

There is no guarantee of quality of education. If a school or university recruits low quality and unqualified students, academics and even non-teaching staff, it is unreasonable to expect first-class results (Bereiter, 2007). Quality of education is influenced not only by systems, processes and plans but also by the providers and receivers of educational services (Evans, 2008). If educational institutions really care about the quality of their education, they should recruit only high calibre students, academics and non-academic staff. People-related quality difficulties can have at least three interrelated roots (Bloxham and Boyd, 2007). Sometimes low quality education is due to recruiting low level students who cannot learn and benefit from the existing quality academics/ teachers and staff (Lane, 2008). Setting no entry or very easily fulfilled entry requirements could end up attracting incapable or untalented students/researchers (Jessop *et al.*, 2012).

The second hypothesis is H2: Quality people create quality results, so Student, Academic and Staff Recruitment has a major impact on the quality of education.

Syllabus/curriculum

Quality of education depends on what is taught at schools and universities (Boud, 2000), the main purpose of which is to educate and prepare students/researchers for a better future (Dale and Pymm, 2009). Following an appropriate syllabus/curriculum can more easily achieve this aim. High calibre students, academics, facilities, strategies and leaders are pointless without a quality syllabus/curriculum (Brittain *et al.*, 2006). The syllabus/curriculum should be reviewed, modified and adjusted to the requirements of the changing environment and expectations of students, their parents, society, employers and governments (Torrance, 2007). It would be unreasonable to teach topics to students that were obsolete, unnecessary or mismatched to what students really need to learn (Claxton, 1998).

H3: What is taught to the students in terms of Syllabus/Curriculum is another determinant of the quality of education.

Research/Teaching

Teaching (taught aspect) and research (research aspect) of quantity and quality are other factors in the successful provision of quality education (Taras, 2002). Equally or even more important than appropriacy of the syllabus/curriculum is the quality of the actual teaching and/or research activities (Cousin, 2008). Quality education relies on the availability of quality teaching and research services (Nicol and McFarlane-Dick, 2006). Although people can and do learn from experience, self-study, observation and discussion, the main justification for the existence of educational institutions is to provide more systematic, effective and official education through “teaching” and/or “research” (Cragin, 2004). It would be unacceptable for an educational institution to claim quality if neither teaching/tutoring services nor research facilities were available (Taras, 2008).

H4: The quality of education depends on the quality of Research/Teaching, which are the main activities of educational institutions.

Pedagogy

The way in which a subject is taught is another key factor. Traditional teaching methods no longer have any impact (Ladwig *et al.*, 2007; Amosa and Cooper, 2006). One of the requirements for creating and

maintaining quality education and the advantages it confers is good pedagogy (King, 2002; Roelofs and Terwel, 2009). Ineffective and inadequate teaching methods sharply reduce the quality of education (Roelofs and Terwel, 2009) and consequently undermine its expected results and advantages. The quality of an education/higher education institution cannot be guaranteed without a proper, customised and effective pedagogy which matches all other important elements (Roelofs and Terwel, 2009; Stoddart, 2004).

H5: Pedagogy or the suitability of the way in which syllabus is taught to students, can contribute to the quality of education.

Learning and research support

Proper classrooms with adequate teaching facilities, a comprehensive library and online library, trained and helpful staff and processes that facilitate learning and research are necessary (Ely, 1991). Educational organisations exist to provide the opportunity to learn and/or conduct research (Ractham and Zhang, 2006). The availability and quality of support provided to students/researchers is a factor in the successful fulfilment of such a mission. Overcrowding, poor temperature control, lighting, smell, ventilation and even wall colour in classrooms can negatively affect the students' learning and consequently the quality of education. Researchers need support to do their research properly and effectively in the given time (Erdem, 2009). Access (sometimes 24 hours) to laboratories, testing centres, printing, materials, tools, buildings, cutting, measuring, pressing, mixing, ... machineries, wind tunnels, ... is crucial for researchers (McGrath-Champ *et al.*, 2010). Access to proper learning and teaching facilities is no longer a privilege—it is the right of students and researchers.

H6: Effective and quality Learning and research support can lead to higher quality education.

Knowledge Management

Overloaded information can be as damaging as the lack of it, so there is a need for a system to manage the collection, creation, storage and distribution of knowledge and information (Gibbs and Dunbar-Goddet, 2007). The quality of education and research is directly connected to an organisation's capability to properly manage the knowledge required by their students and researchers (McGrath-Champ *et al.*, 2010). Without

the necessary knowledge/information or the required systems for creating, updating and distributing this knowledge, research and educational institutions would be faced with a crisis and a lowering of standards (Knight and Yorke, 2003). The availability of technology dedicated to the effective organising of Knowledge Management is indispensable. As stated by Holbeche (1999), “KM [Knowledge Management] involves blending a company’s internal and external information and turning it into actionable knowledge via a technology platform”.

H7: Reliable and effective Knowledge Management can help educational institutions to enhance the quality of their education.

Academics’ achievements

Academics and teachers must be allowed the chance to be successful in terms of publications, research and recognition if their institution is to secure a reputation for quality (Gibbs and Simpson, 2004). Put simply, quality of education depends on the quality of educators (Harvey, 2005). It is unlikely that a poor academic/teacher can deliver the top-class teaching that produces successful students (Roelofs and Terwel, 2009). From the students’ perspective, quality academics/teachers are not only experts in their fields but are capable of conveying their knowledge and skills to their students fully and understandably (Gibbs and Simpson, 2004). An educator’s success can also be judged by his/her career progress: academic and non-academic roles/responsibilities and advisory posts; number of publications and quality of publishing journals/conferences; amount of research conducted, amount and frequency of grants received; and recognition received in the form of prizes, certificates and publicity (Hattie, 2009).

H8: The level of Academics’ achievements can demonstrate the level of quality of education and the quality of the educational institution.

Students’ progress, success and satisfaction

Almost all the diverse quality models/theories agree on one issue: the importance of the perspective of the main customer/stakeholder as a measurement of quality (Rust, 2000). Students are the only clients and one of the most important stakeholders of any educational institution; therefore, it makes sense to measure the quality of a university/school in terms of the progress, success and satisfaction of its students (Kennedy, 2009; Taylor *et al.*, 2012). These elements are interrelated but separate.

Student progress focuses on the ‘processes’ of a student’s development: an education and an educational organisation may claim quality if participating students achieve reasonable progress in their study and/or research (Hattie, 2009). *Student success* mainly, but not only, emphasises the ‘outputs/results’ of quality education. Finally, *student satisfaction* indicates the degree to which students perceive their educators to have met the requirements of quality of education (Harvey *et al.*, 1993).

H9: Student progress, success and satisfaction is the most, or at least one of the most important indicators, of the quality of education.

Universities’/schools’ achievements

Institutional success is another sign of high-calibre education (Knight, 2000). This can be measured by an establishment’s ranking, amount of grant received and its rate of expansion (Stoddart, 2004; Scutter *et al.*, 2010). A top university/school is expected to give excellence, one of the indicators of which is its standing in a league table of peer organisations (Orrell, 2006). Likewise, the degree of success of educational/research institutions might represent the quality level of the education provided (Knight, 2001). Some organisations which rank universities/schools are unreliable, and their published rankings should not be considered a sign of quality (Tippin *et al.*, 2012). A few independent institutions are generally reliable with an acceptable degree of bias (Scutter *et al.*, 2010). Every year, universities/schools are ranked according to different criteria. The institutions themselves and also the majority of prospective students/researchers consider these rankings one of the most important metrics of institutional achievement and educational quality (Ladwig *et al.*, 2007).

H10: University/school achievements are one of the signs of having high quality education.

Innovation and Change Management

Innovation is change, but innovation would fail if there were no adequate Change Management system to support it. Education, directly or indirectly, is about innovation and development in different sciences and fields of studies; therefore, higher levels of innovation represent a higher quality of education (Kaiserswerth, 2009). There is consensus amongst different authors that innovation is the life-blood of any organisation (Hissel, 2009). Poot *et al.* (2009) and Spradlin (2009) believe

universities and schools should be the source of innovation and prepare students/researchers to be innovative, so it is expected that universities and schools be innovative in almost everything they do. Innovation can be seen in the recruiting of students/academics/teachers, in preparing the syllabus/curriculum, in developing pedagogy, in the managing and provision of learning and research support, in teaching/research, in knowledge management, in leadership and strategic management, and in universities', students' and academics' achievements (Dvir, 2009). Change Management can guarantee that universities and schools benefit from innovation in full. Although well-managed innovation can be beneficial for any educational institutions and their students, there is almost always some resistance to the change that innovation creates in an organisation (Kaiserswerth, 2009).

H11: Continuous, purposeful and well planned Innovation and Change Management is one of the keys to high quality education.

The 11 components of this model thus arranged shape a system that changes its inputs (students, academics and staff) into appropriate outputs (academics' achievements, students' progress, success and satisfaction, university/school achievements) through sets of well-managed and quality processes and systems (syllabus/curriculum, research/teaching, pedagogy, knowledge management), in accordance with the EFQM Excellence Model (see Fig. 1).

RESEARCH METHODOLOGY

The philosophical position of this study is that of realism due to its match to the research aim and question. As Saunders puts it: "*Realism's essence is that what the senses show us is reality, is the truth: that objects have an existence independent of the human mind*" (Saunders et al., 2009 p. 114).

To this end, an inductive approach has been adopted in order to maximise the importance of the human aspects relating to the research issue and to build a new theory of quality of education, in the absence of any comprehensive and customised existing theory.

Within a predominantly qualitative research design, the study utilises semi-structured interviews with 30 British academics and senior managers from nine UK universities as its research instruments. A qualitative approach to the research is considered '*ideal if you want*

to extract...motivations, perceptions...' from the participants (Cooper and Schindler, 2008, p. 162), and interviews are the best means of achieving this (Cooper and Schindler, 2008). Of the three interview types identified by Saunders *et al.* (2009), the semi-structured form lends itself best to this research. Qualitative research is also more flexible and more conducive to "*understanding and interpreting*" than the quantitative method, which focuses on "*describing, explaining and predicting*" (Cooper and Schindler, 2008, p. 164). However, the study is enriched by the inclusion of some quantitative elements.

Of the different research strategies available, the case study in general and multiple case studies in particular are identified as the most suitable for reaching a profound understanding of a phenomenon on a limited scale rather than superficially exploring a wide range of phenomena (Yin, 2009). Understanding the roots of the quality of education by focusing on a limited number of universities in one country made multiple case studies the best choice for this study.

The Stratified Sampling method, which is one type of Probability Sampling, was employed to collect data from British interviewees. 120 potential participants were chosen and contacted from nine universities in the UK, of which 30 kindly consented to be interviewed, giving an average-to-good response rate of 25%.

The collected data have been analysed using the "Thematic Analysis" technique, whereby the content of each interview was coded, with similar codes being classified into separate themes, and the repetitions and degree of each code and each theme in each interview and all interviews were quantified. As a result, some interesting quantitative findings emerged from the qualitative interviews.

Five Likert scale options (totally agree, agree, neutral, disagree and totally disagree) were considered as possible answers for each question/hypothesis in order to quantify the results of the interviews. By considering the words or statements that were used by each interviewee to explain their opinions regarding each question/hypothesis, the closest option among the five options was selected to represent each answer of each respondent. For example, if an interviewee said "I do believe suitable leadership and strategic management has a positive impact on the quality of education", "totally agree" was selected as the equivalent to the strong endorsement "do believe".

The content of the interviews has been summarised briefly in a quantitative format in the following table. The numbers inside each cell show the number of people (academics) in favour of each option. For instance, 24 of the 30 interviewees *Totally Agree* and six of them *Agree* with the assumption of the first hypothesis and none of the academics are *Neutral*, or *Disagree* or *Totally Disagree* with this proposition.

FINDINGS AND DISCUSSION

Fortunately, as is evident from the following table, there is a consensus of strong support for all 11 hypotheses of this research amongst the participants. While no interviewee *totally disagreed* with the hypotheses, a few *disagreed* with five or six. While the degree of agreement with each of these hypotheses varies, all participants believe that the eleven pillars/criteria of quality education are those identified in the section '*Influential Factors on Quality of Education*'.

H1: "Having professional and appropriate *Leadership and Strategic Management* could lead to higher quality in the education sector". Traditionally, the vast majority of schools'/universities' heads are just one of the teachers/academics with no managerial education, whereas they need qualified leaders with strategic perspective. 80% of participants *totally agreed* and the rest *agreed*.

H2: "Quality people create quality results, so the *Student, Academic and Staff Recruitment* has major consequences for the quality of education". Only one of the participants *disagreed* with this hypothesis. This academic said "I don't think there is a necessary cause or link between how good somebody is as an academic, in the sense of what they can do in an academic field and the ability to deliver that as part of an education".

H3: "What is supposed to be taught to the student in terms of *Syllabus/Curriculum* is another determinant of the quality of education". As with H2, only one of the interviewees *disagreed* with the third hypothesis. According to this participant, syllabuses are of very similar and good quality, and can be downloaded from the internet. This does not guarantee quality education, so they are not very significant.

H4: "Quality of education depends on the quality of *Research/Teaching*, which are the main activities at educational institutions".

Table 1. Brief summary of the findings: British perspective

The research hypotheses	Quantification of the given answers			
	Totally agree	Agree	Neutral	Totally disagree
H1: Having professional and appropriate <i>Leadership and Strategic Management</i> can lead to higher quality education	24	6	0	0
H2: Quality people create quality results so <i>Students, Academics and Staff Recruitment</i> have a major impact on the quality of education	22	6	1	0
H3: <i>Syllabus/ Curriculum</i> is another determinant of quality in education	23	6	0	0
H4: Quality of education depends on the quality of <i>Research/Teaching</i> , which are the main activities at educational institutions	9	17	4	0
H5: <i>Pedagogy</i> or suitability of the way in which the syllabus is taught to students can contribute to the quality of education	25	4	1	0
H6: Effective and quality <i>Learning and research support</i> can lead to higher quality education	20	9	1	0
H7: Reliable and effective <i>Knowledge Management</i> can help educational institutions to enhance the quality of their education	15	14	1	0
H8: The level of <i>Academics' achievements</i> can demonstrate the level of quality of education and quality of the educational institution	8	16	5	0
H9: <i>Student progress, success and satisfaction</i> is the most or at least one of the most important indicators of quality of education	15	12	1	0
H10: <i>University/School achievements</i> are one of the signs of having high quality education	4	17	4	0
H11: Continuous, purposeful and well-planned <i>Innovation and Change Management</i> is one of the keys to high quality education	20	7	1	0

Source: Developed by the author

Although nobody *disagreed* with this hypothesis and altogether 86.66% *totally agreed* or *agreed* with it, the percentage of people who *totally agreed* was considerably lower than the three previous hypotheses.

H5: “*Pedagogy*, or the suitability of the way in which the syllabus is taught to students, can contribute to the quality of education”. The number of British academics that *totally agreed* with this hypothesis was the highest amongst all 11 hypotheses at 83.33%.

H6: “Effective and quality *Learning and research support* can lead to a higher quality of education”. This proposition was supported strongly with 66.66% *totally agreeing* and 30% *agreeing*.

H7: “Reliable and effective *Knowledge Management* can help educational institutions to promote the quality of their education”. While some of the participants were not completely familiar with the concept of “Knowledge Management” at first, they supported this hypothesis passionately.

H8: “The level of *Academics’ Achievements* can demonstrate the level of quality of education and the quality of the educational institution”. Only one academic *disagreed* with this hypothesis. This interviewee believed that some academics did not have many publications, but at the same time they provided good quality teaching that promoted the quality of education.

H9: “*Students’ progress, success and satisfaction* is the most, or at least one of the most, important indicators of quality of education”. Two out of thirty British academics opposed this hypothesis. They believed this was not really an important indicator of the quality of education and a student’s success and progress were mainly dependent on the background of the student and the quality of the previous education they had had.

H10: “*High Universities’/Schools’ Achievements* is one of the signs of high quality education”. Universities’/schools’ success is another sign of having a quality education system (Jessop *et al.*, 2012). Although nobody *totally disagreed*, compared to other hypotheses this received the highest level of *disagreement*: 16.66%, alongside 13.33% neutral responses.

H11: “Continued, purposeful and well-planned *Innovation and Change Management* is one of the keys to high quality education”. Like Knowledge

Management, the concept of Change Management was not completely familiar to all participants. However, after becoming familiar with it, the majority supported the hypothesis, with just two out of the thirty *disagreeing*. They stated that: “You might have a very well-planned system or programme initiated, but that plan needs to be executed and needs to be executed for the people on the ground and a very good plan does not necessarily result in a very good execution and satisfaction of the recipients”.

To summarise, there is overall support for the hypotheses advanced in this study and a shared belief in the eleven criteria of quality education (see Abstract).

CONCLUSION

No research can expect total unanimity and the degree of variance here is normal. Although some of the British academics ‘disagree’ with some of the hypotheses, none ‘totally disagree’ with any. Based on the degree of support received, these 11 hypotheses can be categorised into 3 interrelated groups, the defining criteria for which being the number of ‘Disagree’ or ‘Neutral’ responses:

A) *Very Strong Support* are those hypotheses without any ‘Totally Disagree’, ‘Disagree’ or ‘Neutral’ responses. Only H1 falls into this category.

B) *Strong Support* refers to the propositions which elicited at least one ‘Neutral’ response but no total disagreements or disagreements. Hypotheses 4, 5, 6 and 7 are in this group.

C) *Average Support* are the hypotheses with which at least one of the participants disagreed and none totally agreed. Hypotheses 2, 3, 8, 9, 10 and 11 are located in this category.

In brief, while the degree of agreement with each of these hypotheses is varied, all of the British participants believe that the eleven pillars/criteria of quality education are Leadership and Strategic Management; Students, Academics and Staff Recruitment; Syllabus/ Curriculum; Research/Teaching; Pedagogy; Learning and research support; Knowledge Management; Academics’ achievements; Students’ progress, success and satisfaction; Universities’/Schools’ achievements; and Innovation and Change Management.

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