

# Quality in Higher Education: A literature review

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## Chapter 1: Introduction

This report is part of a *startdossier* to support the *Onderwijsraad* in its exploration of key themes of the 2015 work programme. In particular, the report links to what has been proposed in the work programme on learning communities in higher education (page 18).

The aim of the report is to survey the relevant literature on the quality of higher education and to offer building blocks and food for thought regarding the council's advice on the theme of quality in higher education. Initially the four guiding research questions were:

- 1) What are the key perspectives in the literature on the definition(s) of quality in higher education? What is quality and what are the debates on (definitions of) quality?
- 2) What are, according to the literature, the most important factors that determine quality (the societal context, governmental policies, the organisation, the school/department, the programme, and the student).
- 3) Which developments took place in the Netherlands regarding the quality of higher education since around 2000 (pre-Bologna)? Again at the different levels: system, institution, schools/departments, programmes, faculty, and students.
- 4) How does the Netherlands compare to other countries and what have been the developments over the past years?

At the intermediate stage of the project, research questions 3 and 4 were reconsidered (see also the introduction of chapter 6 for an explanation) and reformulated into:

- 3\*) Which indicators and arguments are used in the Dutch public debate on the quality of Dutch higher education, including changes in quality over time and in a comparative perspective?
- 4\*) To what extent do these indicators and arguments actually bear relevance (in light of the answers to research questions 1 and 2)?

The structure is as follows. Chapter 2 deals with the concept and definition(s) of quality in the context of higher education. Not only does it offer insights in the pertinent literature, but it also guides our literature search in the subsequent chapters. Chapter 3 deals with the literature that focuses on factors affecting quality at the student level. Chapters 4 and 5 deal with the organisational and the system levels, respectively. Chapter 6 discusses stakeholder perspectives on quality in the Dutch and international higher education discourse and offers reflections on the use of their indicators and arguments.



## Chapter 2: Definitions of Quality

### **Introduction**

In this chapter we present key perspectives on the concept of quality of higher education and try to answer the questions: What are the key perspectives in the literature on the definition(s) of quality in higher education? What is quality and what are the debates on (definitions of) quality?

Almost all academic publication on quality in higher education – and this applies to quality in general as well – note that quality is a slippery concept. Quality is: “multi-dimensional, multi-level, and dynamic” (Vlasceanu et al., 2004, 46), “a wicked problem and ill-defined ... contested, multifaceted ...” (Krause, 2012, 285) and “a poorly defined and loose concept” (Stensaker, 2007, 100). That said, various authors have tried to come to terms with the concept and offered different definitions, approaches, etc. In our overview, we will start off with the seminal work of Harvey and Green (1993).

Before we do so, it is important to sketch the context for the increasing attention to quality in higher education in the Western world from the mid-1980s on. Interest in and attention for quality in higher education obviously goes back to the Middle Ages, and through time various stakeholders – particularly governments, being responsible for the provision of public higher education – have expressed concerns about the quality of higher education. But, roughly speaking, most of the concerns were not particularly well-articulated. Governments would regulate and plan the provision of higher education, set entry requirements for students and – possibly – set standards for staff working in higher education institutions (Neave and Van Vught, 1991). But beyond this, there would be a general trust in higher education institutions and academics (as professionals) that would know what to do and how to do it (Trow, 1996). This changed from the mid-1980s on, when governments – starting in Western European countries – gradually changed their perspectives on how to steer their higher education systems. Governments started to grant higher education institutions more autonomy, but – in exchange – asked them to account for their activities, including the quality of their work. Neave (1998) nicely captures this change as a transformation from *ex ante* control (through regulation) to *ex posteriori* evaluation of the (quality of the) activities carried out. Note that this development is far from linear and that countries show quite different levels of autonomy if one focuses on different aspects of autonomy. Estermann et al (2011) empirically illustrate this by looking at how autonomous contemporary European higher education institutions are, distinguishing organisational, financial, staffing and academic autonomy (see also chapter 5). With that change, the question of what constitutes and determines quality came to the foreground and discussions emerged on how to define, measure and assure quality in higher education (Harvey and Williams, 2010). Tight (2012, 104) claims that “[n]ow that quality systems are an established and accepted part of higher education, the level of interest in practice and theory may have peaked, but the volume of research and writing in this area remains high”.



## ***Defining Quality***

Harvey and Green (1993) posited that quality is relative in two ways. First, quality is in the eye of the beholder. This may seem trivial, but it is important to stress that different stakeholders can (and will) have differing views on the quality of higher education. Whereas staff may judge the contents of a programme pivotal to its quality, students may argue that the quality of their experience is what counts. Governments may argue that quality is “proven” if a programme is accredited by a trustworthy agency. Harvey and Knight (1996) found that students and staff emphasise the quality of the student experience, employers particularly find employability important and governments focus on quality as a means of control. Second, quality is relative to the standard one maintains. Only in a philosophical sense, one could argue that quality is absolute by equating quality with beauty or truth (Harvey and Green, 1993, 10). Otherwise, quality can only be meaningful if measured against a benchmark.

Taking these two elements together<sup>1</sup>, the authors offer five conceptions of quality (Harvey and Green, 1993; Harvey 2007):

- 1) Quality as exceptional: quality is exclusive, unique, distinctive, self-evident (i.e. not necessary to prove), quality is achieved when (implicit) standards are surpassed;
- 2) Quality as perfection or consistency: quality is exclusive, process-focused and based on specifications being met perfectly, and characterised by notions of ‘no faults’ (zero defects) and getting the things right first time;
- 3) Quality as fitness for purpose: quality is inclusive, measured against the objective or purpose, hence a focus on effectiveness (either from the perspective of the service provider or those at the “receiving end”: students, employers);
- 4) Quality as value for money: quality is value-based, with a focus on efficiency; quality explicitly being connected to accountability;
- 5) Quality as transformation: a focus on qualitative value-added change (enhancement, empowerment) and improvement, but difficult to measure against predetermined benchmarks or standards.

The five conceptions have been used to clarify objectives or rationales of quality assurance. For example, if a government’s prime focus is on accountability, it is most likely that quality is perceived as fitness for purpose (higher education institutions are asked to explain whether objectives have been met) or as value for money (higher education institutions are asked to explain and sometimes “prove” – e.g. by using performance indicators – resources have been used efficiently). If the key objective of quality assurance is improvement, it is likely that quality is seen as transformative or exceptional. Apart from connections to objectives or rationales, an additional link is made with underlying epistemologies (Harvey, 2007). Conceiving of quality as transformative or exceptional hints at an interpretive approach, in

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<sup>1</sup> It would be tempting to present the conceptions graphically, taking the two elements as dimensions, but, first, the conceptions show overlap, and, second, denote many other characteristics. A graphical representation would imply a loss of richness of the conceptions.

that quality judgments are situational and socially constructed. The other notions of quality are much more rooted in a positivistic epistemology. It assumes that standards and benchmarks are meaningful and suggests that quality is to a considerable extent objectively measurable (against those standards and benchmarks). Krause (2012) extends the debate on concepts of quality by linking notions of quality to theory. Notions of quality as transformation drew scholars to put research on quality in the context of pedagogical and educational theories of learning, for learning also denotes change and transformation. This can be extended to the organisational level (see e.g. Senge, 2006 on organisational learning).

### ***Quality: Subject, Object, Values***

The Harvey and Green paper has been cited extensively and has been used often to solve discussions on what quality is (or should be). It has made researchers, policy-makers and practitioners aware of the relativity of the concept and (hidden) assumptions of different conceptualizations. The work has been criticized as well. Van Kemenade et al. (2008) argue that much has changed in quality assurance and management and ask for more attention to underlying values of quality. They depart from a more functionalistic approach and argue that the key questions regarding quality to be answered are: to/for whom (object), by whom (subject), by which standard, and against which values? Regarding the object, they state that it is crucial to determine what the unit of analysis is: the student, the curriculum, the course, the lecturer, the university, the educational process, etc. The question with respect to standards drills down to deciding which features of the object should be taken into account (e.g. student learning outcomes, student satisfaction, added value) and what the benchmark is for assessing the level of quality. Even within the sub-categorisation of features, one may have to make distinctions. Wiers-Jenssen et al. (2002), for instance, unpack student satisfaction, arguing that an analytical and empirical distinction can be made between quality of teaching, quality of supervision and feedback, composition and content of curriculum, balance between teaching activities and self-study, quality of support facilities, quality of physical infrastructure, quality of and access to leisure activities, and social climate. Their empirical research points out that all these subcategories correlate differently but significantly with overall satisfaction, but that student background characteristics (gender, discipline, age, performance, experience) affect levels of overall satisfaction as well. The subject is the agent that (most often) determines the features and benchmarks. Regarding the underlying values, Van Kemenade et al. (2008) offer four basic value systems: control (rules and procedures to create order and to impose compliance: does education provide graduates with the necessary skills and knowledge to contribute to the economy and society?), continuous improvement (result- and profit-oriented, with an important role for the “customer” to judge the success: are educational outcomes exceeded?), commitment (shared learning, seeking [new] societal values, future-oriented: are students transformed into world citizens?) and breakthrough (redesign and re-invention, oriented towards creativity and flexibility: are students educated to become the leaders of the future?).

### ***Conclusion and Outlook***

Possibly, Van Kemenade et al. (2008) do not add that much to the conceptualisations of what quality in essence is, for the basic value systems are – maybe less explicit, or in slightly

different words – also visible in Harvey and Green’s (1993) work. But they offer, we think, a more coherent framework for looking at objects and subjects of quality.

The answer(s) to RQ1 are therefore:

- The question of what quality is, is difficult to answer, for quality is relative and “in the eye of the beholder”.
- The key perspectives on the definition of quality can be found in the literature that appeared since Harvey and Green (1993), distinguishing quality as exceptional, perfection, fitness-for-purpose, value for money, and transformation.
- Although these quality perspectives are connected to different objectives, rationales, value systems and theories, and therefore suggests connotations of intangibility and volatility, quality perspectives can be made operational by asking: to whom, by whom, by which standards (and against which value)?

The latter functional perspective will be adhered to and translated into the context of higher education research in the following way.

*Objects and levels of research:* In our literature review, we will take the (level) of the *object* as point of departure. We address in chapter 3 the objects located at the student, pedagogy and curriculum level, in chapter 4 we turn to the organisational level. Finally, in chapter 5, we turn to the system level.

*Key terms:* In our search for relevant studies – web searches, but also online educational databases (e.g. ERIC - Education Resources Information Center) and key journals – we obviously looked for studies that had the word “quality” in the title or abstract. But, as the conceptual literature suggests, quality is relative (against standard). This means that many researchers have defined their research on “quality” in terms of performance (indicators), efficiency, effects and effectiveness.

*Subject and standards:* Our focus on objects and subjects implies that we needed to find studies of researchers that asked questions about standards (not) being reached. That is, quality (improvement) is only meaningful, if researchers were able to operationalise “quality” and if they were able to include variables that arguably affect (levels or dimensions) of quality. We realise that this approach drove us in the direction of studies of a positivistic and quantitative nature. It must be stressed that we intended to be more inclusive, but much (qualitative and interpretative-oriented) research is rooted in conceptions of quality as transformation and excellence, and lacked – almost by default – a clear focus on which elements of quality actually improved or were affected. In addition, much of the research in those traditions was relatively small-scale.

*Timeframe:* we limited ourselves by mostly focusing on studies that appeared after 1995. We had a preference for recent literature (that anyway would reflect on or incorporate earlier research) in light of the increasing attention to quality (and related issues) since the mid-1990s.

*Countries and language:* Most of the research relevant for our study was to be found in countries that have a rich and sophisticated tradition in (higher) education research. It therefore does not come as a surprise that we found most of the studies in the US, Australia, the UK, and the rest of Europe. We did not – by default – exclude studies in other countries, but had to bear in mind that the findings would be relevant for the Dutch context.

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## Chapter 3: Quality – The Individual Level

### **Introduction**

The majority of research conducted on the quality of higher education focuses on the individual level that is on the student experience, specifically student learning and engagement. In the literature, there is a distinction made between the *deep approach to learning* and the *surface approach to learning*. Students who use the deep approach to learning experience both scholastic gains such as critical thinking skills, a comprehensive understanding of ideas, and personal gains such as enjoyment and satisfaction with the learning activity. In contrast, students who use the surface approach to learning are uncritical and unreflective regarding new information, focus primarily on rote memorization and see little value in the learning activity. There is a fundamental agreement found in the literature that quality is measured through students adopting the deep approach to learning. Furthermore, the literature suggests that there is a connection between deep learning and student engagement. Students who are engaged in the learning process, whether that is in or outside the classroom, are more likely to adopt a deep approach to learning.

In this chapter, we focus on student learning and engagement and give an overview of the pedagogical practices and curriculum designs which cultivate deep learning and engagement among students. We also present a survey of well-established, large-scale quantitative studies conducted on student learning and engagement.

### **Approaches to Learning<sup>2</sup>**

Research on how students learn emerged primarily from four networks of researchers: the Lancaster Group (led by Entwistle), the Australian Group (led by Biggs), the Swedish Group (led by Marton) and the Richmond Group (led by Pask) (Beattie, Collins, & McInnes, 1997, p. 3). Over the span of 40 years, these four groups made substantial contributions to research on student learning. This research area was later termed *approaches to learning* by Marton which signaled a shift in the research focus. Instead of researchers focusing solely on the process of learning, they also became interested in how factors such as intention and motivation influence the learning process (Marton, Hounsell, & Entwistle, 1984). The collective work of these four groups resulted in the establishment of two distinct approaches to learning, surface and deep learning (Beattie et al., 1997, p. 3). Later, this body of work became the meta-theory *student approaches to learning (SAL)* for “conceptualising teaching and learning” (Biggs, Kember, & Leung, 2001, p. 134).

The deep learning approach uses the constructivist theory as a point of departure as it emphasizes that students construct knowledge and teaching is not solely about transmitting information to students, but about engaging them in an active learning process which builds

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<sup>2</sup> Beattie, Collins and McInnes (1997) give a historical overview of the contributions of the four research groups (Lancaster group, Australian group, Swedish group and the Richmond group) regarding deep and surface learning. We used this article as a guide to structure the key component of SAL theory for this report.

upon their pre-existing knowledge (Biggs & Tang, 2007, p. 21). Students using the deep approach to learning are motivated to learn in order to understand ideas for themselves, their motivation drives them to enter into an active learning process which involves relating ideas to previous knowledge and experience, identifying core patterns and principles and critically assessing new ideas (Entwistle, 2000; Ramsden, 1992, p. 52). The surface approach on the other hand is built on the idea of reproducing knowledge and rote learning (Ramsden, 1992, p. 52). Students using the surface approach to learning are only motivated to complete the task at hand, they focus on factual content rather than bigger picture issues, see little value or meaning in the task and study without reflection on purpose or strategy (Entwistle, McCune, & Walker, 2001; Ramsden, 1992, p. 52). There is a central agreement in the literature that the deep approach to learning is more beneficial to students as it requires students to think about bigger picture issues, hypothesize and apply their understanding to different contexts, be active agents in the learning process instead of passive observers and generates an overall satisfaction and enjoyment with the learning experience (Biggs & Tang, 2007, p. 29; Entwistle et al., 2001; Ramsden, 1992, p. 82).

### ***Factors Influencing Learning Approaches***

Early research on student learning approaches focused on the link between motivation, study methods and academic performance. Between 1968 and 1973, the Lancaster Group conducted a series of studies which were the first of their kind to reflect on the influence of internal factors (e.g. motivation and personality) on students' academic success (Beattie et al., 1997, p. 3). They developed and tested a series of inventories with the objective of identifying which attributes (personality, motivation, study method) were connected to academic achievement (Entwistle & Ramsden, 1983, pp. 33-34). Through the study of 1,087 first year students at seven U.K. universities, the Lancaster group was able to categorize students into four groups each associated with a different method of studying; three of these groups were academically successful while the fourth was not (Entwistle & Ramsden, 1983, pp. 33-34). The first group are highly motivated, very successful students with good study skills, who lack a social or athletic life, but are emotionally stable; the second group also contains successful students, but these students doubt their own ability, they are almost as successful as the first group but only through putting in long hours of work; the third group are successful, highly motivated students usually stemming from the arts and humanities, who exhibit good study habits, however do not closely follow the syllabus and lastly the fourth group is the least successful group, these students have an active athletic and social life, suffer from low motivation, poor study skills and limited study time (Entwistle & Ramsden, 1983, pp. 34-35). Although these studies did not examine learning approaches employed by the students, they showed how students' personalities, motivation and study methods are linked to their academic success (Entwistle & Ramsden, 1983, pp. 33-34).

Building upon this research, Biggs of the Australian Group developed the *Study Process Questionnaire (SPQ)* to determine which variables affect different approaches to learning. According to Biggs, presage factors influence the learning process prior to a student participating in a learning activity (Biggs et al., 2001, p. 135). A student brings along these factors such as pre-existing knowledge, intelligence, preferred learning approaches to the learning activity, in addition other presage factors are present and influence the learning activity such as teaching method, assessment and institutional structure and climate (Biggs

et al., 2001, p. 135). Once the student enters the learning process, the interaction between these factors “determine the on-going approach to a particular task, which in turn determines the outcome” (Biggs et al., 2001, p. 135). These factors affect each other and a student’s approach to learning will “adjust to the particular context and course being taught” (Biggs et al., 2001, p. 135). Based on the SPQ results, Biggs argues,

“... both teacher and student are jointly responsible for the [learning] outcome, the teacher for structuring the enabling conditions, the learner for engaging them. Thus, an approach to learning describes the nature of the relationship between student, context, and task” (Biggs et al., 2001, p. 137).

Additionally, a student’s motivation (motive) and learning strategy also influence his/her approach to learning. For example, a student motivated by “fear of failure” will adopt a *surface approach* to learning and employ a strategy of narrowly targeting information and rote learning, while a student motivated by intrinsic interest in the topic will adopt a *deep approach* to learning and a strategy to maximize his/her understanding (Biggs et al., 2001, p. 135). Biggs also identifies a third approach to learning called *achieving*. Students who employ this approach are motivated by achievement and use a strategy that effectively uses time and resources (Biggs et al., 2001, p. 135). However, overall in the literature more focus is placed on the surface and deep approaches.

Pask of the Richmond Group went on to define two strategies students employ when confronted with unfamiliar concepts. These two strategies are called the serialist and holistic strategies. For example, when a student employs a serialist strategy, he/she uses a step-by-step approach to understand new information such as reading a new text systematically, concentrating on the details and facts (Beattie et al., 1997, pp. 7-8; Entwistle et al., 2001). Whereas a student using a holistic strategy adopts a more comprehensive view of the new information and does not focus on the topic in isolation instead may work in a nonlinear fashion, read around the topic, backtrack and forge ahead to points of interest (Beattie et al., 1997, pp. 7-8; Entwistle et al., 2001). Furthermore, a study conducted by Marton and Säljö of the Swedish group examined which approach to learning students adopted when reading a new text. They found that students use different approaches to learning based on their intention prior to the task (Marton & Säljö, 1984). Deep learning is associated with a student’s intent of gaining understanding and surface learning is associated with a student’s intent to reproduce knowledge (Marton & Säljö, 1984).

In the following years, the Lancaster Group expanded on this research and developed the *Approaches to Study Inventory (ASI)*. The ASI builds upon both Marton and Pask’s work and measures the connection between students’ intention, strategy and learning approach adopted (Entwistle & McCune, 2004, p. 329). It resulted in the identification of a typology of four orientations to studying. The *reproducing orientation* indicates a surface approach to learning which stresses rote memorization, following the syllabus closely and is associated with an individual’s fear of failure and extrinsic motivation regarding completion of the study task (Entwistle & McCune, 2004, p. 329; Entwistle & Ramsden, 1983, p. 40). The *meaning orientation* indicates a deep approach to learning, intrinsic motivation and desire to construct meaning such as through comprehensive learning (Entwistle & Ramsden, 1983, p. 40). The *achieving orientation* involves a more tactical approach to learning such as investing effort to



achieving study requirements and is linked to both positive aspects such as academic success and negative aspects such as unsystematic study habits (Entwistle & McCune, 2004, p. 329). Lastly, the *non-academic orientation* indicates a student's negative mindset regarding studying (Entwistle & McCune, 2004, p. 329) and low intrinsic motivation (Beattie et al., 1997, p. 9). These orientations are compilations of several strands of SAL literature as they highlight the influence of motivation, study methods and strategy in determining students' selection of approaches to learning. After the completion of the second Lancaster Group project, the focus of SAL in higher education literature shifted to finding teaching and assessment methods that cultivated deep learning among learners (Beattie et al., 1997, p. 9).

## ***Student Engagement***

Research since the 1990s has shown a connection between student engagement, student retention and deep learning (Campbell & Campbell, 1997; Carini, Kuh, & Klein, 2006; Crisp & Cruz, 2009; Hu & Kuh, 2002; Tinto, 1993, 2012; Umbach & Wawrzynski, 2005; Zhao & Kuh, 2004). Student engagement is two-leveled: first it refers to students' investment in their studies and other educational purposeful activities; second it refers to how institutions organize their resources, curriculum and other learning opportunities to encourage students to actively engage in the learning process (NSSE, 2014c). Similar to deep learning, student engagement is based on the constructivist assumption that learning is influenced by individual participation (Coates, 2006, p. 26). Literature on student engagement situates a variety of activities under the umbrella of *educational purposeful activities* such as learning communities, mentoring programs and first year seminars.

The effects of student engagement on learning have been widely researched in the United States and the majority of large-scale quantitative studies such as the *National Survey of Student Engagement* and the *College Experience Questionnaire* have been conducted at its higher education institutions. For example, the National Survey of Student Engagement<sup>3</sup> (NSSE) is a well-established survey tool, annually implemented at hundreds of universities and colleges across the United States (Kuh, 2001, p. 12). Launched as a pilot project in 1998-99, it reframed the collegiate 'quality' conversation and catapulted the concept of student engagement into the higher education discussion (Kuh, 2001, p. 12). The NSSE employs different survey instruments which target different groups of individuals such as students and staff. For example, the *College Student Report* gathers data about first-year and senior students' participation in programs and activities provided by their institutions to further their learning and individual development (NSSE, 2014a). Other survey instruments target specific groups of individuals such as first year students (*Beginning College Survey of Student Engagement*), community college students (*Community College Survey of Student Engagement*), faculty (*Faculty Survey of Student Engagement*) and law students (*Law School Survey of Student Engagement*) (NSSE, 2014a). The NSSE measures student engagement in ten engagement indicators organized into four engagement themes (NSSE,

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<sup>3</sup> In 2007, the Australian Council for Educational Research (ACER) launched a survey tool similar to the NSSE, the Australasian Survey of Student Engagement (AUSSE) which was administered in 2012 at 32 educational institutions in Australia and New Zealand. However, as the survey instrument is relatively new the majority of the literature found on student engagement focuses on U.S. institutions of higher learning and the NSSE.

2014b). The NSSE developed these indicators to “represent the multi-dimensional nature of student engagement at national, sector, institutional, and intra-institutional levels” (NSSE, 2014b).

The following table shows and briefly describes the ten engagement indicators and four engagement themes.

<b>Theme</b>	<b>Engagement Indicators</b>
<b>Academic Challenge</b>	<p><i>Higher-Order Learning</i>: refers to how much students’ coursework emphasizes challenging cognitive tasks such as application, analysis, judgment, and synthesis</p> <p><i>Reflective &amp; Integrative Learning</i>: requires students to relate their understandings and experiences to the content at hand</p> <p><i>Learning Strategies</i>: refers to active engagement with and analysis of course material rather than approaching learning as absorption</p> <p><i>Quantitative Reasoning</i>: refers to the ability to reason quantitatively – to evaluate, support, and critique arguments using numerical and statistical information</p>
<b>Learning with Peers</b>	<p><i>Collaborative Learning</i>: collaboration with peers to solve problems or master difficult material</p> <p><i>Discussions with Diverse Others</i>: interaction with and learning from others with different backgrounds and life experiences</p>
<b>Experiences with Faculty</b>	<p><i>Student-Faculty Interaction</i>: interactions with faculty can positively influence the cognitive growth, development, and persistence of college students</p> <p><i>Effective Teaching Practices</i>: organized instruction, clear explanations, illustrative examples, and effective feedback on student work</p>
<b>Campus Environment</b>	<p><i>Quality of Interactions</i>: characterized by positive interpersonal relations which promote student learning and success. Students who enjoy supportive relationships with peers, advisors, faculty, and staff are better able to find assistance when needed, and to learn from and with those around them.</p> <p><i>Supportive Environment</i>: institutions that are committed to student success provide support and involvement across a variety of domains, including the cognitive, social, and physical.</p>

*Table 3.1: Engagement themes and indicators (adapted and quoted from Engagement Indicators, the National Survey on Student Engagement website, NSSE, 2014b)*

The NSSE results and similar survey tools such as the *College Student Experiences Questionnaire* have been used as data sources for researchers to make connections between student engagement and its influence on other parts of academic life such as high level of learning, positive academic performance, critical thinking skills, college attendance and overall student satisfaction with their experience. In addition, factors such as parental

education and student academic preparation have also been identified as contributors to the degree in which students engage. The following four studies demonstrate these links and contributing factors.

Carini and Kuh (2006) use a survey instrument of the NSSE, *the College Student Report*, to investigate how student engagement relates to traditional measures of academic performance (Carini et al., 2006, p. 4). Their study of 1,058 students at 14 universities shows that student engagement is linked to positive learning outcomes such as good grades and critical thinking skills (Carini et al., 2006). Furthermore, their results also suggest that low-ability students benefit more from engagement than high-ability students (Carini et al., 2006, p. 23). The authors note certain irregularities may have occurred during data collection as the survey instrument was not administered in a standardized manner at all participating institutions i.e. some students were allotted more time to complete the survey (Carini et al., 2006, p. 5). This irregularity may of course bias the results of the study.

In another study, Zhao and Kuh (2004) use the NSSE as a data source to investigate whether student participation in a learning community is linked to student success. Learning communities, a concept which first gained academic interest in the 1980s, can take many forms such as residential communities, skill-based communities etc. and broadens the locus of learning beyond the classroom (Zhao & Kuh, 2004, pp. 115-116). In their study, Zhao and Kuh examine learning communities in the form of “formal programs where groups of students take two or more classes together, and may or may not have a residential component” (Zhao & Kuh, 2004, p. 119). In their sample size of 80,479 first-year and senior students from 365 4-year U.S. colleges and universities, Zhao and Kuh found that student participation in a learning community “is uniformly and positive linked with student academic performance, engagement in educationally fruitful activities (such as academic integration, active and collaborative learning, and interaction with faculty members), gains associated with college attendance, and overall satisfaction with the college experience” (Zhao & Kuh, 2004, p. 124). The largest limitation of this study is the ambiguous wording of ‘learning communities’ on the NSSE survey (Zhao & Kuh, 2004, p. 127). However, these ambiguities were resolved in later NSSE surveys. Furthermore, the authors stress, that “despite the ambiguous wording, the results show an overwhelmingly positive effect of participating in learning communities for both first-year and senior students” (Zhao & Kuh, 2004, p. 130).

Umbach and Wawrzynski (2005) examine the relationship between faculty involvement and student engagement. The authors examine NSSE scores of students at institutions that also surveyed faculty which resulted in a sample size of first year students (n = 20,226), senior students (n = 22,033) and faculty (n = 14,336) (Umbach & Wawrzynski, 2005, p. 158). Their results show that students report high levels of learning and engagement when faculty members use collaborative learning techniques, challenge students academically and valued “enriching educational activities” (Umbach & Wawrzynski, 2005). The authors identify three limitations of their study. First, they were unable to connect faculty directly to the students, that is if the students surveyed had ever been enrolled in a course taught by the faculty. Second their data on one of the dependent variables relied on student self-reported gains which might be a problematic measure for faculty impact. They refer to Pascarella who argues that self-reports might be biased by “student’s entering characteristics” for example,

their openness “to the impact of a liberal arts education” (Pascarella, 2001, p. 23). Finally, the “effect sizes of the coefficients presented are small” (Umbach & Wawrzynski, 2005, p. 173).

In a related study, Hu and Kuh (2002) use a different data source, the *College Student Experiences Questionnaire (CSEQ)* at Indiana University, to identify which individual and institutional characteristics are associated with various degrees of student engagement (Hu & Kuh, 2002). The CSEQ has been used by hundreds of 4-year U.S. colleges and universities since 1979 to assess the quality of undergraduate education (Hu & Kuh, 2002, p. 557). Hu and Kuh base their study on the self-reported experiences of 50,883 full-time undergraduates at 123 U.S. institutions, who completed the CSEQ between 1990-1998 (Hu & Kuh, 2002). The authors found that aspects such as parental education and student academic preparation are positively related to high degrees of student engagement. They also found that students from public and research institutions were less engaged than their counterparts in private educational institutions (Hu & Kuh, 2002). However, one limitation of this study is that only full-time undergraduate students were surveyed (Hu & Kuh, 2002, p. 571).

In sum, student engagement is linked to deep learning as it encourages students to become active agents in the learning process. Students who are engaged in educational purposeful activities such as learning communities, expand their capacity for learning and self-development with skills such as critical thinking (Carini et al., 2006), improve their academic performance (Carini et al., 2006; Zhao & Kuh, 2004), and increase the quality of many other aspects of their academic life such as college attendance and overall satisfaction (Zhao & Kuh, 2004). Although student engagement is partially influenced by individual characteristics such as parental education (Hu & Kuh, 2002), institutions and faculty do matter and can play a deciding role in inspiring students to engage by fostering faculty practices such as implementing collaborative learning techniques and academically challenging curriculum (Umbach & Wawrzynski, 2005).

### ***The First Year Experience***

The first year of tertiary education is a critical time for students as they are especially vulnerable to dropout during the transition period from secondary school and an institution of higher learning. First year students have the highest rate of attrition which decreases thereafter (Tinto, 2012). In order to improve student retention, students need to be solidified as active learners and engaged in the academic community (Tinto, 2012). Institutions and teachers need to provide students with ways of becoming engaged both in and outside the classroom (Tinto, 1993, p. 210).

Tinto's 1993 model of individual student departure is one of the most widely discussed and cited sources on student dropout in higher education literature. According to Tinto, students' academic and social integration is deeply rooted in them developing a sense of belonging at the university (Milem & Berger, 1997, p. 389). Tinto references Van Gennep (1960) in his explanation that new university students pass through three transformative stages (although each individual journey may vary in length, degree etc.) in which they separate themselves from their past communities and families (the stage of separation), transition into a new community and acquire norms and patterns of behaviors (the stage of transition), and finally

integrate themselves fully into the new community (stage of incorporation) (Tinto, 1993, p. 95).

According to Tinto, student engagement is crucial in ensuring student retention as the more students are engaged in social and academic activities on campus, the more they incorporate themselves into the academic community and persist with their studies (Tinto, 1993). A survey of the literature indicates that there is a wide-spread implementation of different methods to ensure student engagement during the critical first year. In the United States, first year seminars or freshmen interest groups (FIGS), a form of an extended orientation program, are popular. They are usually structured to provide students with information about academics, offer an outlet to social and campus activities and are sometimes designed to target underprepared students with additional study skills classes (Tinto, 2012, p. 33). Student-faculty mentoring programs for first-year students have also proven to be helpful in assisting students acclimatize to their new surroundings. Campbell and Campbell (1997) compared students who had taken part in a faculty/student mentor program with non-mentored students. They found that students who were involved in mentoring relationships received higher marks, had a lower drop-out rate and completed more credits per semester than their counterparts (Campbell & Campbell, 1997). Although the Campbell study was conducted at one institution with 339 participants, the results can be applied to a broader context as it falls in line with the results of a meta-analysis conducted on mentoring literature by Crisp and Cruz. They analyzed mentoring literature published between the span of 1999 – 2007 and their findings show a positive connection between mentoring, student retention and grade point average (Crisp & Cruz, 2009, p. 532).

As the literature suggest there is a connection between student engagement, student retention and deep learning. Plugging students into integration programs such as faculty-student mentoring and first-year seminars during the critical first year help put students on the right track to finding outlets for engagement, which is an essential part of the deep learning process.

### ***Good Teaching Practices and Supportive Curriculum Methods***

Deep learning and engagement are two fundamental factors that contribute to the quality of higher education. However, according to pertinent studies, in order for students to achieve these two factors the right environment needs to be cultivated through good teaching practices and a supportive curriculum.

### **Perceptions of Teaching**

Studies from various authors indicate that teachers' perception of teaching is equally important to teaching method (Biggs & Tang, 2007, p. 142; Ramsden, 1992), as it influences how teachers develop their teaching practices and view the learning process and their role in it.

Biggs and Tang (2007) explain that there are three models of thinking regarding teaching. The first and second teaching models are based on 'blame' and assign failure in the learning process to certain parties or individuals. The first model sees the learning process as the learner's responsibility and failure to succeed in learning tasks is blamed on poorly

performing students. The second model sees the learning process as the teacher's responsibility and when students fail to learn, it is blamed on poorly executed teaching. However, the third model integrates both learning and teaching as equal parts of the process and sees effective teaching as a method to encourage students to use the learning approach (deep or surface) necessary to achieve the learning outcomes (Biggs & Tang, 2007, p. 15). In the same vein, Ramsden (1992) classifies three clusters of teaching theories teachers adhere to in higher education. Ramsden derived these theory clusters from the qualitative work of researchers such as Margaret Balla, Gloria Dall'Alba and Elaine Martin etc. (Ramsden, 1992, pp. 111). In the first cluster, teaching is viewed as telling or transmitting knowledge to students, in the second cluster teaching involves organizing student activity as in not solely telling students what to think but keeping them busy with tasks designed to cover material. Finally, in the third cluster teaching is linked to student learning, it is viewed as working cooperatively with learners to help change their understanding and actively engage them with the subject matter (Ramsden, 1992, pp. 111-116).

Baeten, Kyndt, Struyven, and Dochy (2010) report similar results in their analysis of 93 articles on the nature of the relationship between factors that discourage and encourage specific approaches to learning. They found that students whose teachers adopted teaching approaches that focused on working with students to achieve their learning outcomes, opposed to teaching approaches that focused primarily on transmitting knowledge, reported using considerably deeper approaches to learning (Baeten et al., 2010, p. 247). Also, students' perception of teaching plays a role in what learning approach they adopted. If students perceived teaching as "good" or "student-centred" they were more likely to adopt a deep approach to learning (Baeten et al., 2010, p. 248). In this line, Ramsden (1992) developed from his years of qualitative research in higher education six key principles of effective teaching in higher education:

**Principle (1):** good teaching simulates student interest and provides a quality explanation

**Principle (2):** a teacher practicing good teaching is concerned with and shows respect for students and their learning process

**Principle (3):** good teaching provides helpful assessment and feedback

**Principle (4):** good teaching has clear goals and provides students with an academic challenge

**Principle (5):** good teaching recognizes that students must be engaged in the process to reach understanding

**Principle (6):** good teaching is open to change and involves learning more about the effects of teaching on learning

These principles show that good teaching is a compilation of different elements, appropriate feedback and assessment, flexible teaching style and curriculum and most importantly values the learner as an active agent in the learning process.

As these authors explain, teachers' perception of teaching is connected to their approach to teaching. Those who view teaching as transmitting knowledge or organizing student activity fail to engage students in deep learning. In order to counter this, teachers need to reposition their thinking in line with Biggs and Tang's third model or Ramsden's third theory cluster and view teaching as a cooperative process between both the teacher and learner. Implicitly, these findings seem to suggest that teacher training geared towards these "good teaching" principles and practices would enhance the quality/effectiveness of teaching.

## **Curriculum**

An inherent part of good teaching practices is curriculum design. Widely discussed in the curriculum literature are three closely linked curriculum methods: (1) outcomes-based teaching and learning (OBTL), (2) constructive alignment and (3) problem-based learning (PBL) (Biggs & Tang, 2007). These methods are regarded as means to cultivate deep learning among students. OBTL is built upon the concept that educators design their curriculum by first stating the intended outcomes of a particular course or program, conducting their teaching in a way that increases the likelihood of students achieving the intended outcomes and preceding to assess students based on how well the outcomes were achieved (Biggs & Tang, 2007, p. 5).

Constructive alignment emerged as a powerful tool for educators to achieve OBTL. Stemming from the constructivist learning theory, this term was coined by John Biggs in 1994 (Biggs & Tang, 2007). 'Constructive' refers to the learner's task of constructing meaning and understanding through learning activities while 'alignment' refers to the teacher's task of setting up a learning environment that supports the student in achieving the intended outcomes (Biggs, 2003). In other words, educators systematically align teaching and learning activities with assessment tasks of the intended outcomes (Biggs & Tang, 2007, p. 7). An example of how constructive alignment can be implemented is problem-based learning (PBL). PBL is frequently used in professional degree programs such as medicine, architecture etc., but can also be implemented in traditional subjects (Biggs, 2003). PBL is designed to get students to solve professional problems. Students are confronted with these problems and have to solve them and are assessed on how well they solve the problems (Biggs, 2003). PBL is an instance of constructive alignment as both defining characteristics are present: the alignment component is visible in the matching of the intended outcomes with the teaching and assessment methods, the constructive component is visible as the students construct new meaning during the learning activity such as practical measures to solve professional problems (Biggs, 2003).

## **Assessment and Feedback**

Assessment and feedback also play integral parts in the learning process. A fair method of assessment and correctly given feedback have been proven to motivate students to continue learning and adopt deep approaches to learning. In the learning process, motivation is determined by different factors. An intrinsically motivated student is driven by internal factors such as personal interest or a desire to learn and gain deeper understanding, while an extrinsically motivated student is driven by external factors such as receiving positive external praise or recognition for effort or avoiding negative consequences such as sanctions from authority figures e.g. university officials, teachers, parents etc. Intrinsic motivation is

linked to the deep approach and extrinsic motivation to the surface approach (Biggs & Tang, 2007, pp. 35-36). Teachers can encourage intrinsic motivation among their students by using constructive alignment and enabling students to be successful in their tasks by using a fair assessment format (Biggs & Tang, 2007, p. 33). More traditional norm-referenced assessment ranks students' performance against their peers. Criteria-based assessment, however, relies on students' ability to meet preset criteria (the intended outcomes) and measures how they reach the intended outcomes with special attention paid to effort invested and exhibited study skills and know-how (Biggs & Tang, 2007, p. 33). Criteria-based assessment, unlike norm-referenced assessment, places the opportunity to succeed within the student's control as their assessment is based on their own effort and not compared to others (Biggs & Tang, 2007, p. 33).

Hattie and Timperley (2007) conducted a study of meta-analyses of feedback. They report that despite considerable variability in the 12 meta-analyses, a consensus of the studies indicates that feedback which involves a student getting information about how to do a task better has the largest effect size, however the meta-analyses give mixed results regarding this form of feedback's impact on learning (Hattie & Timperley, 2007, p. 84-86). In response to this research gap, Hattie and Timperley (2007) propose their own four-level feedback model based on their analysis of the feedback literature. They construct their feedback model with the purpose of "reduc[ing] discrepancies between understandings/performance and a desired goal" (Hattie & Timperley, 2007, p. 87). Their model consists of four levels: task, process, self-regulation and self. Each level represents a focal point where feedback is directed: feedback at the task level (FT) is directed at how well the task was understood/performed; feedback at the process level (FP) is given based on evaluation of the main process needed to understand/perform the task; feedback at the self-regulation level (FR) is directed at self-monitoring and self-evaluation actions and lastly feedback at the self-level (FS) is directed at the person such as in the form of personal praise ("You are so brilliant") (Hattie & Timperley, 2007, p. 90). FS is the least effective form of feedback while FR and FP are influential forms as they generate "deep processing and mastery of tasks" (Hattie & Timperley, 2007, pp. 90-91). In sum, feedback at the process level (FP) is most effective in encouraging students to engage in deep learning (Hattie & Timperley, 2007, p. 93).

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## Chapter 4: Quality – The Organisational Level

### ***Introduction***

There are different bodies of research regarding the link between institutional factors and the quality of higher education. One relatively large body of research from the US deals with the link between various institutional characteristics (size, selectivity, mission, expenditure) and quality in teaching and learning in higher education. These studies rely mostly on large-scale national surveys (e.g. the National Survey on Student Engagement, NSSE) and other databases and compare different U.S. institutions across the country. Measurements of quality and institutional characteristics are diverse and therefore comparisons are problematic. Other bodies of literature presented in this section are smaller, consisting of one or two studies. The studies are concerned with the effect of institutional policies and culture, staff positions, and the impact of new governance arrangements on quality in higher education. The studies presented in this chapter reflect the U.S. predominance in this research field with the expectation of few German-based studies. Moreover, additional studies, small-scale or descriptive in nature, are not included in this literature overview as their transferability to other contexts is limited. Furthermore, the direct link between quality of teaching and learning is often missing in other studies and are therefore also excluded.

### ***Institutional Characteristics***

Studies in this section are concerned with the so called “between college effects” (Pascarella & Terenzini, 2005). This refers to the question if and how different institutional characteristics effect students during college. These studies all use diverse outcome measures which are linked to quality learning and teaching. The diverse measurements make direct comparisons difficult. However, the results of the studies indicate the complexity of the relationship between institutional characteristics and quality measures.

Pike, Kuh and Gonyea (2003) explored the link between institutional mission (defined by Carnegie 2000 classification: Doctoral/ Research-Extensive; Doctoral/Research-Intensive; Master’s I; Master’s II; Baccalaureate Liberal Arts and Baccalaureate General Colleges), student college experience and learning outcomes. Additionally, they examined how student background characteristics (e.g. race, gender) influenced this link. They used the College Student Experience Questionnaire (CSEQ) as a data source and examined responses from 1,500 undergraduates. As outcome variables the experience of integration (academic and social integration) and self reported learning gains (gains in general education, communication, interpersonal development and intellectual development) were measured. The study showed that educational experience of students differed between institutions. Student background characteristics are a probable explanation for the reported differences in college experience. Furthermore, the authors found that “[g]ains in learning and intellectual development were directly related to integration of diverse experiences and perceptions of the college environment” (Pike et al., 2003, p. 256). Whereas an indirect relationship was found between gains and academic and social integration. As an illustration for the complexity, the study showed that “(...) female, minority and students with educational

aspiration beyond a baccalaureate degree tended to be more involved and have more positive perceptions of the college environment. As a result, these students reported greater gains in learning and intellectual development” (Pike et al., 2003, 256) Furthermore, the study found that the relationship between first year students and social involvement was negative and this indirectly led to lower gains in learning. The positive perception these student had of the college environment did not abolish the negative influence of lower social integration. Moreover, the classification of the institution according to the Carnegie classification was not directly related to different experiences or learning gains.

In a more recent study, (Kuh et al., 2010)<sup>4</sup> explore in detail which institutional characteristics matter. Based on the previous studies they selected twenty higher education institutions that were very effective in fostering student engagement and success, which was defined as better-than-predicted scores on the National Survey of Student Engagement (NSSE) and better-than-predicted graduation rates. The authors found that the following four conditions were key to the success of the institutions: an ethic of positive restlessness permeating the campus; student-data driven deliberations and decisions about the curriculum and other institutional priorities; cooperation between academic and student affairs staff; and campus leaders prioritizing to increase the numbers of faculty and staff who understand the importance of and become committed to student success.

Pascarella et al. (2006) examined the relationship between institutional selectivity and good teaching practices. Institutional selectivity is a commonly used indicator of quality. However, this statement is not validated by research. The study used two independent data sets the National Study of Student Learning (NSSL) and the National Survey of Student Engagement (NSSE). Institutional selectivity was measured as average of test scores of enrolled and incoming students. The study showed that the level of institution selectivity influenced good teaching practices. However, the net effects were low. The authors found that “[o]n average, across all good teaching practices variables [...] more than 95% of the between-institution differences and almost 99% of the total differences were unexplained by the academic selectivity of a college or university” (Pascarella et al., 2006, p. 279). This might explain results from other studies which showed a marginal relationship between selectivity and learning and cognitive development (Pascarella et al., 2006).

The link between institutional characteristics and dropout was explored by Chen (2012). Institutional characteristics which are commonly seen as related to student dropout were operationalized as: institutional demographics, structure, faculty resources and institutional financial resources. Student level characteristics were also seen as an another important factor and included in addition to institutional characteristics in the analysis. The data was taken from the Survey Beginning Postsecondary Students (BPS96/01) and Integrated Postsecondary Education Data System (IPEDS) which allowed for a longitudinal study. The sample consisted of 5,762 students from 400 four-year institutions. The study reported different outcomes regarding student characteristics in relation to dropout. First, the dropout rate was highest for first year students. Second, a negative relation to dropout as found between educational aspiration, first year GPA, academic and social integration and for the

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<sup>4</sup> We did not have direct access to the book, and rely here on a short summary of it in the magazine *Change* (July 2011).

amount of financial aid received. Regarding institutional characteristics, the result displayed a strong connection between financial resources and dropout rates. A higher level of spending on student services led to lower dropout rates. But, no significant relationship was found regarding expenditure on instruction and academic support. Furthermore, concerning other institutional characteristics (selectivity, control) no relationship to dropout was found. The results of this study fall in line with other research conducted on this topic. Another dropout study from Hovdhaugen and Aamodt (2009) investigated why students in Norway dropout of higher education and if institutions can influence this decision. The study showed that students' reasons for dropping out were mostly out of the institution's control. However, the authors argue, since the learning environment plays a prominent role in the decision to drop out, improvement of the learning environment through fostering contact between students and teachers might lead to lower dropout rates. This study was based on the Norwegian system, therefore dropout reasons related to tuition fee were not presented. Furthermore, the good economic situation and labour market in Norway and other system level characteristics may have influenced the results. Nevertheless, the study indicates that it might be difficult for institutions to influence dropout rates because many other external factors are influential in this decision making process.

Two studies from Pike and colleagues (Pike, Kuh, McCormick, Ethington, & Smart, 2011; Pike, Smart, Kuh, & Hayek, 2006) examined the link between expenditures and quality in education. In both papers, the authors state that former research has shown contradicting results, either indicating a positive or negative relationship between expenditure and quality in higher education. Reasons for these contradictions, according to Pike et al. (2011) are diverse measurements of expenditures and that only direct influences are considered. In another study, Pike et al. (2006) explored the influences of six different measurements of expenditure on student engagement. Furthermore, the authors investigated the influence of student characteristics and differences between public and private universities on these relationship between expenditure and engagement. Data was gathered through the NSSE, IPEDS and America's Best Colleges 2001. The study distinguished between expenditures for instruction, research, public service, academic support, student service and institutional support. Student engagement was measured as level of academic challenge, active and collaborative learning, student interaction with faculty, enriching educational experiences and supportive campus environment. Although it was acknowledged that student characteristics may impact engagement, this study did not controlled for student characteristics. Furthermore, the results did not represent causal relationships between the variables measured, but indicated a relationship between the variables. In line with other studies, this analysis showed a complex relationship between expenditure and student engagement which is dependent on year in school, institutional control and type of engagement. To illustrate this complexity, academic and institutional support expenditures were related to four out of the five outcome measures for first year students in public institutions and a relationship was found to only one outcome measure for senior students. Other type of expenditures were not strongly related to the outcome variables. Furthermore, the study showed a considerable negative relationship between attending a doctoral research university and student engagement, in particular senior students showed low levels of engagement.

Pike et al. (2011) also considered the indirect influences of expenditure on student engagement and learning outcomes. Additionally, the study controlled for student characteristics and other institutional characteristics which could influence the results. Additionally, it distinguished between first year and senior students and in contrast, to earlier studies only public institutions were considered. Data was taken from the NSSE. Expenditure were measured as undergraduate expenditure on the institutional level combining investment in instruction, academic support, student service and institutional support. As outcome variables academic challenges, active and collaborative learning, student faculty interaction, enriching educational experiences and support campus environment were measured. The study showed significant relationships only between expenditure and cognitive gains of first year students. However, Pike et al (2011, p. 101) argue that, “[i]ndirect relationships between expenditures and outcomes, mediated by student engagement, affected a much wider range of learning outcomes”.

Similar to this study, Toutkoushian and Smart (2001) explored the link between various institutional characteristics (spending, selectivity, size, diversity, expenditure and student faculty ratio) and self-reported student gains. Emphasis was placed on the influence of institutional expenditure. Data was gathered from a survey; a random sample from student answers was taken in two years (1986 and 1990). Three blocks of variables were proposed: first, a block related to student background characteristics; second, a block related to student acquired characteristics and measured how students allocate their time at university and third, institutional characteristics (selectivity, level of enrolment, level of tuition and fees, student faculty ratio, Carnegie classification, percentage of graduate students, percentage of minority students and average faculty salary). Expenditure was measured as spending per student, percentage of expenditure devoted to instruction, academic support and institutional support. Student gains were summarized into five groups: work/interpersonal skills; learning knowledge; tolerance/awareness; preparation for graduate school and communication skills. The results confirmed that institutional and student characteristics influenced the quality of higher education differently. A positive relation was found between 'per student expenditure' and interpersonal skills and learning/knowledge acquisition. On the one hand, higher expenditure for academic support had a negative relationship with gains in learning/knowledge and communication. On the other hand, higher spending on institutional support led to higher gains in learning and knowledge. Whereas expenditures on instruction did not have any impact. Besides the influences of expenditure, other institutional characteristics also influenced student gains. High selectivity was positively related to communication skills, and negatively related to interpersonal skills. In less selective institutions higher gains in tolerance/awareness were reported. Larger institutions shown lower gains in interpersonal skills, tolerance/awareness, preparation for graduate schools. Furthermore, a high proportion of graduate students at an institution did not led to higher gains in learning/ knowledge. The percentage of minority students at an institution had a small but positive relationship to tolerance /awareness and communication but a negative one to learning. A higher fee or tuition lowered gains in interpersonal skills and slightly raised gains in knowledge. A higher student-faculty ration only reduced student gains in communication skills. Another important result emerged from the study: student gains went beyond achievements in learning and that these gains are differently affected by the diverse institutional characteristics. This complexity should be kept in mind since it show that side-

effects and even negative effects can be encountered when changes in institutional characteristics are planned.

Porter (2006) examined the effect of institutional characteristics on student engagement. He argued that most other studies conducted on this topic have limitations. First, the use of the NSSE, CIRP or CSEQ as data sources is not optimal. These surveys are optional for institutions and therefore do not represent a random sample of all institutions in the country. Furthermore, these surveys often ignore pre-college characteristics. Additionally, only a limited set of institutional variables are taken into account. Porter (2006) also criticized the Carnegie classification as a measure for institutional mission as the classification has weaknesses. Finally, he criticized the use of multiple regression models and advertised hierarchical linear modeling. The study from Porter (2006) used data from the Beginning Post-secondary Student Survey (BPS). This survey was comprised of a representative sample of all institutions and included data on pre college characteristics of students. Engagement was measured by seven variables: attendance of academic/career-related lectures, conventions or field trips, participation in study groups outside of class, music groups, school clubs and choirs; informal, academic or social interaction with advisors or faculty members outside of the classroom and office; contact with advisers regarding academic plan preparation. Various measures for student characteristics were taken into account such as age, gender and family background. Institutional variables consisted of size (number of students, student-faculty ration) which influences student engagement through institutional density (faculty per acre, students per acre) and curriculum differentiation (number of majors); mission (% of graduate student, Carnegie classification) which is linked to student engagement through research emphasis (% of PhD students); selectivity (Barrons index; admission rate) influence student engagement through peer ability (average SAT score). As a result of this study, influences of institutional characteristics on student engagement were found. More precisely put, a positive relation was found between selectivity and student engagement, which is the opposite of findings in other research. Furthermore, a higher percentage of graduate students showed a negative relation to student engagement. This seemed to imply a strong focus on faculty research is at the cost of undergraduate education. The author recapped that abolishing graduate education might not be a good option but that other reward structures might change the situation. Moreover, size of the institution influenced the outcome, smaller institution foster higher engagement. Also the structure of the curriculum influenced the outcome, curriculum differentiation had a negative impact on engagement.

In their book, "How college affect students" Pascarella and Terenzini (2005) provided a comprehensive literature review on research on college experience conducted from 1989 to 1999. Older publications or documents stemming from 2000-2002 were also included when possible and relevant. The results of their analysis were also compared to findings from their previous volume published in 1991. Whereas this publication covered many areas, the most relevant information for this report focuses on the 'between college effects'. Whereby the results from this part were divided into six areas: two-years vs. four-year colleges; college quality (mainly measured as selectivity); college type; college size; college racial and gender composition and college environment. Outcome measures used by the reviewed studies were divided into eight areas: development of verbal, quantitative, and subject matter



competences; cognitive skills and intellectual growth; psychological change; attitudes and values; moral development; educational attainment and persistence; career and economic impacts and quality of life after college. Both volumes shared the same main conclusion, that the net impact on students across the outcome measures were similar albeit the differences of the diverse colleges in the US. The authors remarked that throughout the various studies, there was “(...) no single institutional characteristic or set of characteristics [that] has a consistent impact across outcomes (...) statistically reliable between-college effects are apparent in certain outcome areas” (Pascarella & Terenzini, 2005, p. 591). However, in the case ‘between college effects’ were found they were small and their importance for practice questionable.

Following relevant results of the review are described in more detail. In both volumes, research showed that students at two-year colleges need longer to earn a bachelor degree and that a negative impact of earning an occupational status exists. However, these relationships were small and outweighed when students later transferred to four-year colleges. Furthermore, recent research also indicates that the differences are not consistent throughout the outcome measures. For example, when controlling for pre-college variables, first year student gains in reading comprehension, mathematics and critical thinking were equal between students attending two-years and four years institutions. Regarding the impact in which the quality of an institution (measured often as selectivity) could have on students, the review showed that effects were different between the outcomes measures. However, also it should be noted that the effects were minimal and sometimes negative. All in all, selectivity, “(...) has less important implications for intellectual and personal growth during college than for career and socioeconomic achievements” (Pascarella & Terenzini, 2005, p. 593). The positive effect which selectivity had on student persistence, educational aspiration and degree completion was small and mediated by other factors. The advantage of attending a highly selective institution for the occupational status was trivial and stronger only for the upper 1-2 percent of these institutions. The impact of college type (measured as Carnegie classification) on students, was seen as constant throughout the first and second volume of the book and as an unsatisfied framework for comparisons. Differences between the institutions within one classifications might be of more relevance. The influence of institutional size (measured as (measured as enrolment) had small and often indirect effects on outcomes.

As shown above, institutional characteristics had little influences on the outcome measurements research indicated that “(...) institutional environments may be a more useful approach to understand between-college effects on learning and cognitive development (...)” (Pascarella & Terenzini, 2005, p. 599). For example, an environment which emphasizes scholarly and analytical behavior, fosters learning and general cognitive growth. Furthermore, the authors note, “[s]tudent perceptions that faculty members care about them and about teaching, as well as faculty accessibility to students, all promote persistence and degree completion even after adjustments for variety of precollege characteristics, including ability” (Pascarella & Terenzini, 2005, p. 600).

There are limitations in these studies. Some have been mentioned above. For example, the use of data sources which do not represent a representative set of institutions and use a limited set of control variables. Furthermore, all studies above are based on investigations

conducted in the U.S. higher education system. Therefore, generalization across higher education systems is difficult. But, given the complex interrelation of different institutional characteristics and the diverse outcome variables, it can be assumed that this is also the case in other higher education systems.

### ***Type of Faculty Position***

In the U.S., but also in other higher education systems the number of temporary faculty members has increased. This is regarded as a negative effect on academic freedom, but is considered to have little to even a positive effect on teaching and learning. However, these assumptions are not based on evidence from research (Umbach, 2007). Umbach (2007) investigated how different types of positions (contingent faculty staff (full and part-time), tenured staff and tenure track staff) were related to the quality of teaching and if proportions of contingent faculty within an institution influenced the use of good teaching practices. This relationship was measured through: engagement of staff with students which was operationalized as the interaction between teacher and student differentiated in course-related and non-course-related interaction; the use of active collaborative teaching methods; challenging students academically; and time spent for teaching preparation. The study compared 132 colleges and universities and 17,914 faculty members. The sample was taken from the Faculty Survey of Student Engagement. According to the analysis, contingency status of staff (particularly part-time positions) were negatively related to teaching performance in undergraduate education. Part-time teacher relied less on collaborative teaching methods and were less prone to challenge their student than tenured or tenure-track faculty. Non-tenured full time staff did not show much difference to tenured and tenured-track colleagues when it came to the structure of their classes but interacted less with students. The proportion of contingency faculty in an institution did not have an effect on all quality measures. However, there was a negative effect on non-class interaction.

### ***Teaching and Learning Policies and Teaching Culture***

Cox et al. (2011) investigated whether institutional teaching policies and a common culture for teaching within the institution influenced the use of specific instructional practices. Teaching culture in this study was understood as a “campus commitment to teaching excellence and meaningful assessment of teaching” (Cox et al., 2011, p. 809). The authors wanted to test if the existence of a teaching culture influences the use of specific teaching practices and whether institutional teaching policies foster the existence of a teaching culture and due to this indirectly foster the use of good teaching practices. Furthermore, they investigated if the existence of policies, culture and the use of different teaching practices differed between different types of institutions. The sample of the study comprised of 45 colleges and universities and 5,612 faculty. Good teaching practices were practices which are known to influence student learning such as promoting encounters with differences; casual and substantive faculty-student interaction outside of class. The study showed that there were positive relationships between institutional culture and the use of out-of-class interaction, whereas there were no relationship between culture and encounters with differences found. Policies of teaching and learning had no direct influence on the use of teaching practices. Similarly, no clear indirect relationships were found. The presence of institutional teaching policies did not affect the culture of an institution. Comparisons between

different types of institutions showed that the culture of an institution was strongly related to institutional characteristics (size, selectivity, control and Carnegie classification). Limitations of this study were that a non-representative sample of institutions was chosen and that a limited set of outcome variables were measured. Furthermore, the content of the different teaching and learning policies were not taken into consideration. However, it indicated that institutional policies do not always led to changes in teaching practices or to an enhanced culture for teaching and learning. The authors concluded that more knowledge is needed to better understand the link between teaching policies, institutional teaching culture and teaching practices.

Berings (2010) focused on organizational cultures that contribute to the development of effective and efficient quality care. Using a framework of competing values (innovative versus traditional, collective-oriented versus individual professionalism, and systematic approach versus individual approach) and applying this to 44 departments of Flemish higher education institutions, he found that departments with high scores on innovative, collective- and system-oriented values were more successful (measured as student and staff satisfaction), but stresses that other configurations of values also lead to success, implying there is no “one best way” (Berings, 2010, 56).

Interestingly, there were hardly studies in the field of higher education, focusing on the potential impact of leadership, although Bryman (2007) offers a good overview of what appear to be thirteen “leadership behaviors” that lead to departmental effectiveness. He cautions that effectiveness is defined differently across the studies he reviewed, and hence the studies encompasses quite different and implicit notions of quality: many of the studies took perceived effectiveness in the eye of the beholder (academics) as a point of departure. His overview points at the impact of: clear sense of direction/strategic vision, preparing departmental arrangements to facilitate the direction set, being considerate, treating academic staff fairly and with integrity, being trustworthy and having personal integrity, allowing the opportunity to participate in key decisions/encouraging open communication, communicating well about the direction the department is going, acting as a role model/having credibility, creating a positive/collegial work atmosphere in the department, advancing the department’s cause with respect to constituencies internal and external to the university and being proactive in doing so, providing feedback on performance, providing resources for and adjusting workloads to stimulate scholarship and research, and making academic appointments that enhance department’s reputation.

### ***Incentives and their Influence on Teaching Quality***

Wilkesmann (2012) examined how different selective incentives (merit pay, performance related budgeting, management by objectives and teaching awards) influence the effort put into teaching by German professors. The target group of the study was all professors at German universities (1,119 answered questionnaires were used for analysis (response rate 13,99%)). Three activities related to teaching (preparation and revision of content; method and instructional design and evaluation) were included in the study. The study examined how much effort professors put into these tasks and how important they are perceived them. The results showed that merit pay, formula based funding, and teaching awards did not affect teaching behavior of professors. If self-determination is highly perceived by professors a

positive relation is only found to teaching behavior but not to effort put into teaching in practice. Thus, the study showed that selective incentives do not affect teaching behavior. Similarly, but on another level, Henke and Dohmen (2012) investigated the effect of incentives on higher education institutions in Germany. They found that the impact performance-based funding allocation on higher education is highly depended on the actual operationalization. When the budget share was high, teaching was positively affected. However, the effect on teaching was also determined by the cap limit. The cap limit determines the actual gain or loss of funding in comparison to the funding previously received. A minimal risk of losing funding had a positive influence on teaching indicators whereby a high risk of change in funding received positively influence on research indicators and had negative effects on teaching indicators. Another study conducted by Becker et al (2012), confirmed the importance of intrinsic motivation for efforts in teaching and learning. They also found, that the value of teaching throughout the institution and from colleagues had positive effects. Whereas teaching awards, performance based funding did not influence teaching motivation of professors. This results indicate the importance of the environment for motivation and thus for quality teaching.

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## Chapter 5: Quality – The System Level

### ***Introduction***

There is – compared to the other levels of analysis – limited research on the impact of system-level factors affecting the quality of higher education. One part of the explanation is that – from a conceptual perspective – potentially relevant factors that (practically and theoretically) are “closer” to the *explanandum*, are more likely to be focused upon in research. Researchers in general, but particularly those that study micro-processes of learning, teaching and the curriculum, would not attribute much explanatory power to system (macro-level) characteristics, although this obviously does not mean that macro-level characteristics do not matter ..., either positively or negatively. What can be argued however, is that such macro-level characteristics rarely have a direct impact on quality, but generally “trickle through” the different levels of the system. E.g. more funding may have an impact on the quality of education (see also some of the studies discussed below), but obviously only if these resources are allocated and used wisely ... Likewise, more competition (as a governance arrangement) may increase quality, but may also have unwanted side-effects, like increased anxiety among staff (“publish or perish”) and increased bureaucracy (see e.g. the administrative burden that competition for funding often brings along)<sup>5</sup>. Moreover, in much research that focuses on quality within a particular higher education system, the macro-level situation is (almost) the same for each higher education institution, programme, etc. Incorporating system-level characteristics would therefore only be relevant in comparative research, which is much scarcer. Apart from that, for research on system-level factors – in contrast to classroom research – experimental or quasi-experimental designs cannot be used. Researchers therefore have to rely on other (comparative) designs, such as comparing most-similar or most-dissimilar cases. There are obviously advantages of such approaches, but there are methodological downsides as well, e.g. the problem of equivalence, macro-level variance reduction and the number of cases (see e.g. Goedegebuure and Van Vught, 1994).

We therefore rely in this section mostly on comparative research that addressed quality (in the broadest sense, and in this case it was most often defined and interpreted as *performance*) of higher education systems. We will see that most research focused on the impact of factors related to the level of regulation and funding.

### ***The Impact of Governance Arrangements***

The earliest research on this topic was found in the US. Knott and Payne (2004) analysed the impact of state governance configurations, defined as the level of regulatory discretion of the state-wide governing boards. They measured the impact on university revenues (under the direct influence of the state board), and performance outcomes (market value of university endowments, research funding, publications, citations). Their research suggests

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<sup>5</sup> Similar arguments and findings can be found in the broader governance literature. E.g. Andrews (2011) reported that there is not much empirical evidence for efficiency gains through the introduction of New Public Management in various countries.

that performances are better in state systems that have decentralised state-wide boards and have fewer regulatory powers. The results, however, were not always significant and did not always point in the same direction. Their research suggests that contexts do matter: “States and regions of the country have different political cultures and economic conditions. These differences can play a more important role in determining the features of university performance than governance structures” (p. 27).

In a project for the European Commission, File and Stensaker (eds. 2006) tried – amongst others – to answer the question on the effectiveness of new governance arrangements in higher education. Their study maps the various changes in steering approaches and policy initiatives of 32 European governments (all EC members plus – at that time – access, candidate and EEA/EFTA countries). Through deeming eyes they see a change towards “facilitative” steering (instead of controlling higher education), in which multi-vocal government arrangements and institutional autonomy play important roles. On the basis of a survey – the researchers expressed their concern about the low response rate and, hence, representativeness – among institutions participating in the Socrates/Erasmus network, the researchers conclude that “The overall picture that derives from this is that policies are seen as being somewhat effective while further improvements are needed” (p. 30). Please note that the survey responses were individuals’ perceptions of rather broad set of questions on particular long-term changes (1995-2006), in areas like access, graduation rates, quality of teaching and learning and research output. The percentages of respondents (n=660) that scored “policies perceived as being very effective”, on a four-point Likert scale, ranged from a low 9% (employment of graduates) to a relatively high 26% (international student mobility). Scores for “somewhat effective” ranged from 47% to 56%.

In a follow-up on this study, De Boer et al. (2008) investigated the relationship between governance (more specifically four forms of institutional autonomy: organisational, financial, interventional and policy autonomy) and performance in the following dimensions: access, mature learners, graduation, employability, international student mobility, research output, capacity to attract funding, and cost effectiveness. They classified EU countries in four categories of level of autonomy (low, low-medium, medium-high, high) based on their scores on five elements of the EU’s modernisation agenda. These scores were derived from expert analyses of policy developments in the countries of the study. They furthermore looked for relationships for each of the eight dimensions. The researchers conclude carefully: “For some of the performance dimensions we find that governance reforms aiming to enhance the institutional autonomy of universities are likely to contribute to increased system performance under certain conditions” (p. 97). In other words, contexts matter .... As important as the first conclusion is the additional conclusion that for four performance dimensions (access, mature learners, international student mobility, employability), governance arrangements did not matter.

The study resonates with the literature the researchers refer to. E.g. Aghion et al. (2010) studied the relation between on the one hand, university autonomy (measured by perceptions of institutional leaders of higher education institutions) and level of competition and on the other hand, performance (position in the Shanghai Jiao Tong University ARWU ranking). Indeed they found a positive correlation. Their findings are strengthened by a

causal analysis of US data that highlights that autonomy and competition enhance university output.

The *Empowering universities* project (Hoareau et al., 2012) tried to take the assessment of effective European governance/policies one step further by using the governance characteristics (policy, organizational and financial autonomy) of the 32 countries of the De Boer et al. (2008) study, together with funding indicators (expenditure per student) as dimensions of higher education policy. They correlated the scores on these variables with performance indicators for research attractiveness and output, size of the higher education system, and graduation and employment. Furthermore, they measured the impact of these performances on the country's overall level of innovation (economic output). The authors acknowledged that they maintained a fairly simple model and that the indicators were "fuzzy" (p. 36), but nevertheless showed that (level of) funding and level of policy autonomy (defined as "the ability of universities to create academic communities through the selection of staff and students and to determine their teaching and research programs") contribute positively to performance.

Other recent studies (Fowles, 2010) confirm the relationship between the level of competition and performance (in this case degree completion) in a study on more than 500 US universities. A somewhat deviating finding is presented by Rutherford and Rabovsky (2014), who found – in their research on 500 US public four-year institutions – that performance-based funding (clearly a funding model based on competition) did not positively affect (actually lowered) degree completion, retention rates and number of (Bachelor) graduates. They suggest that funding models based on through-put indicators may be more effective.

Hill et al. (2014) investigated which external factors contribute to quality of US higher education institutions, operationalized as the rankings of the National Research Council peer evaluations (1993) of the universities' research/doctoral programmes. The choice for this indicator has been defended by pointing at the high correlation this indicator has with various other estimates of quality. In a regression analysis of 47 institutions (only the states' flagship institutions) and the full sample 145 institutions, it was found that total enrolments, revenues per student and years since the first PhD correlated positively and degree of regulation negatively with the quality of the doctoral programmes for the flagship institutions. The same variables minus degree of regulation plus flagship status, land-grant status, political culture traditionalism, total state population and recent changes thereof were significant for the full sample. Interestingly, most political, cultural and demographic factors in the models were not significant. The authors conclude that "... our most important findings as indicating that leading public research institutions were advantaged by early positioning in graduate education and especially propitious state socioeconomic and political circumstances after World War II" (p. 45).

In a similar vein, Williams et al. (2013) looked for variables that could explain higher education performance at the system level. Resource levels, level of regulation, and connectivity were deemed to be important variables. An analysis of 48 countries confirmed the role of resource levels and environmental factors, but the authors are cautious in their conclusions: "Although there is a relationship between our environment measure and performance different models can produce similar results for output" (p. 9).



## **Efficiency Studies**

A fair amount of efficiency studies have been carried out rooted in economics, using advanced statistical models and research designs (Data Envelopment Analysis, Stochastic Frontier Analysis), to investigate levels of efficiency (see e.g. Worthington and Lee, 2008). We only briefly touch upon these, particularly because many of these do not focus on education. In addition, despite advanced modelling, many of the studies only include readily available statistics (inputs and outputs), which not always reflect the complexity of the underlying processes (research and teaching). E.g. Agasisti and Johnes (2015), analysing efficiency of US higher education institutions, “only” use number of bachelor degrees and number of postgraduate degrees as independent teaching and learning variables. Moreover (and related), a key challenge in this type of research is to specify the so-called production function for higher education, which – given the intangibility of research and teaching and problems regarding the separation of teaching, research and other activities is quite challenging. Finally, most of the studies focus on the technical aspects of measuring and modelling, at the cost of theory development regarding the question of why certain higher education institutions would be more efficient than others (apart from arriving at conclusions regarding the impact of scope and scale of teaching and research activities).

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## Chapter 6: Quality of Dutch Higher Education

### **Introduction**

Before we embark on research questions 3 and 4, it is important to reflect on the findings so far. We first answer research question 2 (which factors affect quality of higher education?) at the three levels of analysis. Fairly robust findings – but see the caveats we mention – are presented in italics.

*Individual level:* The bulk of research conducted on the quality of higher education at the individual level focuses on the student experience, specifically the deep approach to learning and student engagement in the learning process. These two concepts are the key cornerstones on which other research is built upon e.g. teaching and curriculum methods that promote deep learning and engagement among students. However, some results of the discussed studies exhibit limitations. For example, these limitations are visible in the presented literature on student engagement. A significant problem of the NSSE survey is its voluntary character. Hence, the results may be systematically biased to include only certain educational institutions. Furthermore, Zhao and Kuh (2004) highlight some ambiguities in the framing of NSSE survey questions. On a positive note, the literature suggests that the quality of higher education at the individual level is best achieved by *promoting deep learning among students through engagement in educational activities* such as learning communities, first-year seminars, mentoring programs and a combination of student-centered teaching approaches and supportive curriculum and assessment methods.

*Organisational level:* The review of these studies indicates there is no clear and simple relationship between institutional characteristics and the quality of teaching. Despite the difficulties in comparing these diverse studies due to different quality measures (or in the case of leadership, related measures of [perceived] effectiveness), all the studies indicated that this relationship is complex. The direct or indirect relationships found were either positive or negative depending on the variables chosen. However, when relationships were found, they were small and often trivial in their importance. Nevertheless, important lessons can be learned from the literature, first, *institutional level characteristics can have a direct or indirect impact on the quality of teaching and learning. But this relationship is complex and dependent on the quality measures used.* Second, not all commonly used quality measures (e.g. selectivity of institutions) are linked to better quality outcomes. Furthermore, policies or the introduction of incentives do not always lead to intended outcomes. Additionally, measures of quality are highly diverse and differently affected by institutional characteristics, the acknowledgement of this diversity being important for policy actions. Finally, some results indicate that *an environment which values teaching has an important positive effect on teaching behavior as well as on student outcomes and this may be more important than specific institutional characteristics* (Becker, Wild, Tadsen, & Stegmüller, 2012; Pascarella & Terenzini, 2005). Finally, system level characteristics and the historical and cultural background of the institutions might influence the results (hinting at path dependencies) and this might lead to problems of generalizability of the results.

*System level:* Much of the research is located in the disciplines of political sciences and economics. Obviously this leads to a focus on variables and factors in the politico-administrative (political culture, level of regulation and competition) and economic (funding, funding arrangements) sphere. Sometimes, models are relatively simplistic (e.g. cross-sectional analyses, lacking a time dimension), not fully equipped to measure impacts or effects. In terms of robustness, the studies often pertain to relatively large groups of systems or institutions. Due to data availability problems, models do not encompass the full range of quality indicators, but have to focus on specific indicators of higher education performance or output (e.g. research output: publications; student performance: time to graduation, retention rates). Some of these are rather poor indicators (e.g. global ranking scores may reflect elements of quality, but are arguably measures of prestige and status as well). Overall, *there are some signs that levels of autonomy, a certain level of competition and resource levels do affect quality (positively)*, but there are many caveats regarding the variety of variables and operationalisations.

This leads us to the following reflections:

- There is considerable evidence for the impact of various factors on the quality of higher education, although this claim needs qualifications;
- First, the findings are more robust at the micro-level and less robust at the organisational and system level;
- Second, studies differ in terms of their choice of dependent variable. Whereas in some case explicit reference is made to quality of teaching and education, other studies speak of efficiency or rather generally of about (good/better) performance.
- Third, a vast array of quality indicators appear in the collective of studies; in some studies researchers carefully design instruments for measuring quality and in other studies researchers make use of easily available proxies of quality or performance.

In our search for relevant academic publications on the quality of higher education, it was striking that we hardly found academic studies that explicitly dealt with questions regarding the quality of Dutch higher education. This may suggest that researchers shy away from trying to answer difficult and complex (and - some would argue – unanswerable) questions. Data availability also plays a role. This is illustrated by the fact that the research presented in earlier chapters often makes use of “acceptable” indicators, e.g. stemming from the IPEDS databases (and such databases are – as far as we know – not available in the Netherlands). Also, there is much more research on quality in primary and secondary education that uses pupils’ test performances (e.g. *CITO-toets* scores, or international test scores, e.g. the OECD Programme for International Student Assessment, PISA) as indicators of quality. This is not to say that these indicators are perfect: various scholars have expressed conceptual and methodological concerns regarding PISA (see e.g. Meyer and Benavot, 2013). The point is however that such indicators are hardly available for higher education in the Netherlands or other countries<sup>6</sup>.

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<sup>6</sup> The OECD does present data on adult competencies. The Programme for the International Assessment of

The answers to the initial research questions 3 and 4, would therefore be, rather disappointingly: “we do not know”. Having said that, there is much discussion on the quality of higher education (or lack thereof) in the Dutch media and policy debates. This is not surprising, for the government is responsible for maintaining (or improving) the quality of higher education and, also obviously, various stakeholders have their own view, subjective and/or supported by evidence, on the quality of higher education. We thought it expedient not to close down this chapter with the short – and unsatisfactory – answers to questions 3 and 4, but to rephrase the questions in light of the findings in chapters 2 to 5. Our reformulations are:

3\*) Which indicators and arguments are used in the Dutch public debate on the quality of Dutch higher education, including changes in quality over time and in comparative perspective?

4\*) To what extent do these indicators and arguments actually bear relevance (in light of the answers to research questions 1 and 2)?

In the following paragraphs, we discuss a couple of examples from documents of different stakeholders on Dutch higher education in the past years. Please note that the primary objective of presenting these examples is not to criticise the stakeholders. Every stakeholder is entitled to have a view on the topic of quality and to explain that view. We use the examples to put the perspectives offered in the context of our conceptual exploration (chapter 2) and our earlier findings (chapters 3 to 6).

### ***Committee-Veerman (Differentiëren in Drievoud)***

Much of the current debate on quality in/of higher education can be traced back to the report of the Advisory Committee on a Future-proof Higher Education System (2010). The committee argues (p. 17-18, our translation) that:

“the general quality of Dutch higher education is good ... Dutch study programmes meet the standards .... Also students are positive about the quality of higher education ... the most important points of criticism [of students] relate to `educational logistics` .... Dutch students are reluctant to excel and, compared to European colleagues, spend fewer hours on their studies”.

Also, according to the committee, retention rates are too low and drop-out levels are too high.

*Comments and reflections:* The reflection in this report are insightful in that in the first part of the argument the committee stays close to the core concept of quality, as discussed in the literature. There is reference to the quality assurance system (accreditation) in the Netherlands, and the fact that almost all study programmes are accredited (i.e. meet the quality standards set by the NVAO) arguably supports the claim of a certain level of quality.

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Adult Competencies (PIAAC) gathers such data, but whereas scores on the PIAAC may represent the level of skills and knowledge, these scores are the outcomes of what a person has learned throughout his/her life, and can therefore not be attributed to higher education solely.

This claim and warrant resonates with how Harvey and Green (1993) see quality as fit-for-purpose (meeting standards) with the important qualification that the standards are not chosen by the institution or programme itself, but externally defined, although various stakeholders including the institutions themselves have been involved in developing the standards and criteria. The committee's reference to student satisfaction resonates with the research – mainly in the US, but also in the UK and Australia – that makes use of student evaluations (e.g. NSSE) as indicators of quality. Acknowledging that perceptions of quality are in the eye of the beholder, it seems reasonable to take into account the views of a key stakeholder: the students that “experienced” the education.

The reference to low retention rates and high drop-outs are understandable in the broader context of the committee's assignment, but less easily to connect to the studies we came across. For sure, one can argue – with reference to efficient use of resources (Harvey and Green's definition of quality as value for money) – that low retention rates and high drop-outs point at inefficiencies in the higher education fabric. But, first, the discussion zooms in on only a few indicators of quality (and thus largely ignore the broader teaching and learning context). Second, see also above, high levels of drop-out and low retention rates may be seen as indicators of high quality (quality as exception).

### ***Dutch Government (Wet Kwaliteit in Verscheidenheid)***

For an encompassing view, much time would be needed to analyse the Dutch government's perspective on quality in/of higher education. Aspects of quality and perspectives permeate all policy documents of the Ministry of Education, Culture and Science. The website of the *Rijksoverheid* offers a brief but good – in light of our objectives – overview of the government's perspective. It is argued that (our translation):

“the quality of higher education needs to be increased even more. The government has taken a number of measures. *Hogescholen* and universities need to specialize, a more conscious student decision-making process should decrease drop-out” (Rijksoverheid, 2015).

More concretely, students should be better informed about studying in higher education and higher education institutions should better take into account the wishes and needs of the students and employers. These views should be seen in the context of the *Wet Kwaliteit in verscheidenheid hoger onderwijs* that aims to make the Dutch higher education system “future-proof” and of higher quality (taking on board many of the recommendations of the committee-Veerman, see below). Two elements of the policy stand out (from the *Memorie van Toelichting*, January 2013): a better, but more stringent study climate (more incentives to students to perform better; more intensive and challenging education; more contact hours; smaller groups) and a transparent and efficient supply of programmes: more profiling and differentiation.

*Comments and reflections:* The views on quality are varied, although there is quite often an implicit reference to quality as fitness for purpose (i.e. policies are suggested in line with the overall aim of the government to develop a “future-proof” higher education system, in a discourse in which achieving and sustaining quality is more or less equated with the realization of the policies) and value for money (high drop-out rates and long study duration

are interpreted as signs of ineffectiveness and inefficiency). Like in many other higher education policy papers, it appears that quality is not defined in a “scientifically” precise way, but more as a guiding notion (one that not many stakeholders can take issue with) for policy development and policy choices.

### ***Netherlands Association of Universities of Applied Sciences (VH)***<sup>7</sup>

On their web site the *Vereniging Hogescholen* (VH) states (our translation):

“The quality of education is of primary importance. The quality of study programmes of the *hogescholen* is being monitored by the NVAO. All publicly-funded programmes have been positively evaluated and hence accredited. But, *hogescholen* continue to invest in the quality of education. Also, the *vereniging* monitors the quality. Annually, student satisfaction is measured. The *vereniging* also looks at the performance of graduates on the labour market (factsheet HBO-Monitor 2013)”.

*Comment and reflections:* This is a rather factual presentation of the objective(s) of the association and its member institutions with respect to quality. Implicitly the message is that the quality is up to the standards, for all programmes are accredited. Furthermore, the association bears in mind a key stakeholder’s perspective (student satisfaction) and outcomes (e.g. levels of [un]employment, terms of employment, relation between education and employment).

### ***Education Inspectorate (Annual report, 2014)***

The latest annual report of the Inspectorate (2014), contains a section on the quality of higher education. Here the Inspectorate argues – on the basis of its evaluation of the accreditation system – that higher demands are made regarding the organization of the curriculum and the teachers, but particularly regarding the examinations and final student projects. The annual report also echoes the findings of the NVAO that there is an increasing visibility of “quality awareness” of those involved. Although there is a small increase in number of study programmes not immediately accredited, the Inspectorate argues that this is likely due to a change of procedures: the introduction of the so-called *herstelperiode* may have tempted institutions to submit their new programmes given the limited risks of doing so (the impact of the introduction of the *herstelperiode* on existing programmes seems limited). Students are quite satisfied about their education, according to the Dutch National Student Survey and – importantly – the level of dissatisfaction decreases. Students are relatively most dissatisfied with the quality of the teachers. Also graduates – according to surveys – are reasonably satisfied.

*Comments and reflections:* It is difficult to pinpoint the conception of quality in the Inspectorate report. It appears that it is closest to Harvey and Green’s (1993) perspectives of quality as fitness for purpose and quality as transformation. The latter conception is exemplified by a quote from the report (our translation): “The Inspectorate acknowledges that

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<sup>7</sup> The Association of universities in the Netherlands (VSNU) presents similar narratives on its website and in its publications.



many aspects of quality are important. We assess the quality of education to offer institutions insight and – where needed – to engage in a communication with the institutions, not to judge them” (Education Inspectorate, 2014, 5). Stressing that quality cannot be summarized in a single mark, the report uses a variety of indicators that signal quality (or lack thereof) in higher education.

### ***The Netherlands Institute for Social Research (SCP)***<sup>8</sup>

Acknowledging the different faces of quality, Bronneman-Helmers (2009) argues that results matter, but that these results are importantly shaped by the quality of the educational inputs and processes. She reflects on the state of the art – with respect to higher education – and observes that the number of contact hours in the *hogescholen* sector is low, the secondary education qualifications of enrolling students change (fewer VWO certificates), and retention rates are stable. Graduate surveys indicate that students are not fully satisfied about the depth and level of their education. The author suspects that the increasing number of students have led to less intensive attention to learning and teaching. Because retention rates are important (in the resource allocation model), *hogescholen* – she claims – standards have likely been compromised. Regarding the university sector, the author contends that the introduction of the Bachelor-Master structure has not (yet) led to more flexibility and freedom of choice. This could partly be due to the lack of a “*harde knip*” between the Bachelor and Master programmes. She refers to the then minister’s argument that better informed choices of students will force universities to take care of the quality of their programmes. Graduates are content with the depth and level of their education. She concludes (p. 135) that although the Bachelor-Master structure has increased the variety, it has not increased the quality. More is needed and in this context she refers to the 2007 OECD report that shared some concerns about Dutch education.

*Comments and reflections:* The contribution is not fully clear on what quality actually is. The statement that the Bachelor-Master structure has not led to an increase of quality is not substantiated, neither is it clear which aspects of quality are referred to. Implicitly, it looks like quality is seen as fitness for purpose (in relation to the objectives set) with a focus on outputs (“results matter”) and processes leading to these outputs (“shaped inputs and processes”), but arguable the contribution could be read as a reflection on the success/goal achievement of Dutch higher education (in light of the references to the OECD report and the implementation of the Bologna process) instead of an assessment of the quality. Taking on board student views (perceptions, quality in the eye of the beholder) of quality is acceptable, for the relevance of these views are also explained in the higher education literature on quality. But there is hardly an explanation why some of the chosen indicators are measures of quality. Low numbers of contact hours may be a concern, but it does not tell the full story about what students learn. Also, low retention rates may be indicators of high quality (quality as exception). That is, high levels of drop-out are acceptable in light of the view that quality is exclusive and that procedures need to be in place to distinguish and separate “excellent” students from “not so excellent” students.

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<sup>8</sup> Please note that the views expressed may not be the view of the SCP. The chapter is not clear on this: neither does the author say these are the views of the SCP, nor does she say these are her personal views.

## ***Accreditation Organisation of the Netherlands (Annual report, 2013)***

The annual report (NVAO, 2014, 9) kicks off with the following (our translation):

“High quality education is of great societal importance. A considerable level of autonomy for and thus of trust in higher education institutions is a requirement for high quality. The accreditation system forms a basis for trust in higher education institutions ....”

Tables in the report (page 16) report that the percentage of positive results remained stable (85-90% excellent, good or sufficient) in the past three years, which implies that standards are met across the board. The number of withdrawn submissions increased significantly in 2013, which could hint at a lack of confidence of the submitters in the quality of their submissions (and hence the quality of their programmes or institution), but – even if this were the case – the percentage of “good” reviews increased significantly from around 5% to around 15%. The pattern of good performance is furthermore supported by data from earlier reviews: in the period 2003-2009, only 1% of the NVAO decisions on Dutch higher education were negative (NVAO, 2010). Although not a comment on quality itself, the 2013 annual report states that: “Higher education institutions and chairs of audit committees find that the institutional audit has an important positive effect on the quality culture” (NVAO, 2013, 17). This comment on quality culture must be seen in the context of the NVAO’s strategy, that emphasises its second objective – next to judging and securing the quality – related to supporting a quality culture and consequently the improvement of quality. Quality culture is defined as an organisational culture in which all stakeholders, internal and external, through critical reflection, contribute to the improvement of the quality (NVAO, 2013, 7).

*Comments and reflections:* The NVAO stays clear from direct claims on the quality of Dutch (and Flemish) higher education. Between the lines one can read that the very high number of positive reviews in the Netherlands means standards are met. In stating this the NVAO clearly adheres to Harvey and Green’s definition of quality as fitness for purpose. Hence, the programmes are of sufficiently quality and institutional quality assurance processes are in place that give the NVAO reason to trust the institutions to live up to the expectations. A somewhat stronger claim is put forward regarding the link between a culture of quality and quality improvement. This claim is somewhat problematic, for – first – evidence for the link between (quality) culture and (quality) improvement is not offered and – second – it is not fully explained what exactly a quality culture is (Ehlers, [2009] offers a good overview) with the risk of offering a claim that is self-evident or even tautological. That said, there are suggestions in the literature there is a relationship between culture and improvement. E.g. Nair (2006) performed a meta review of studies (most of these in the for-profit sector) on the impact of quality management – which can be understood as an element of a quality culture – on performance and found that many quality management practices positively influence (firm) performance, with the caveats of different operationalisations of these practices and the important role of moderating variables.

## ***Elsevier (Beste Studies)***

On the Elsevier *beste studies* web site, it is argued that the site offers factual information on study programmes in general and, more specifically, the best studies in the Netherlands. On

the basis of student and faculty ratings the website produces scores and rankings at the programme and institutional level. Bachelor students rate their programmes regarding the facilities, the programme, the quality of teaching and teachers, assessment procedures, internal organisation, and communication (in total 35 items for *hogescholen* students and 39 for university students, five-point Likert scales). For the ranking of higher education institutions, Elsevier uses the overall satisfaction scores of the students. With respect to faculty ratings, professors and associate professors have been asked to rate study programmes (but not their own) with respect to the quality of the bachelor programme, the offer of master programmes, the quality of teachers and the quality of the publications of staff.

*Comment and reflections:* The quality perspective taken is one of excellence (Harvey and Green, 1993). At the same time, there are hints of quality as zero default, for many items of the student survey relate to whether (good) practices are in place (availability teachers, information about rules and procedures, availability of working space, timely announcement of results, etc.). This is not the place to criticise in detail the approach taken by Elsevier, but two comments are relevant. First, arriving at “best” study programmes on the basis of student perceptions (of only their own programme) seems rather arbitrary from a methodological perspective. At best, the data inform us that students of a certain programme are apparently more satisfied about some elements of the infrastructure and processes in place than about other elements and that students of a particular programme are more satisfied than students from another programme. The same goes for faculty ratings: one may query the reliability of staff perceptions, given the very generic items and the strong claim that (our translation) “professors, in general, have sufficient knowledge of their domain to judge the quality of programmes at other universities” (Elsevier, 2015, 10). Second, comparing the Dutch student survey with those used elsewhere (e.g. NSSE, see chapter 3) shows that other surveys pay much more attention to aspects of teaching, learning and engagement (the latter a key variable related to quality, as our literature review revealed).

### ***OECD (Education at a Glance)***

For many years, the OECD has presented performance indicators on (higher) education (e.g. OECD, 2014). Many of the indicators chosen have been carefully developed and improved over time to allow for meaningful comparisons across countries and “proper” use in higher education policies (but see e.g. Meyer and Benavot, 2013 for a critical view; see also Lawn and Grek, 2012, chapter 8). Although there are a few implicit hints to suggest that the indicators in one way or another are indicators of quality. Overall the OECD consistently refers to the indicators representing outcomes and performances (participation rates, access rates, levels of internationalisation), (potential) policy levers (resources), antecedents or constraints (teachers’ working conditions). Only in a few cases, the OECD – still very much in an implicit way – shares quality-related observations. Their editorial comment “Thus, societies that have large shares of low-skilled people risk a deterioration in social cohesion and well-being” (OECD, 2014, 14) can be interpreted as an implicit call to governments to work towards a highly-qualified population.

*Comments and reflections:* The OECD data should primarily be seen as indicators of inputs and outputs to the education system. Given the lack of explicit reference to quality, it is not

possible to link the OECD's perspective to one of the views of quality offered by Harvey and Green (1993). One obviously can criticise the choice and measurement of indicators and one can comment on the usefulness of indicators. The "problem" is that many of these indicators start to live their own life and are seen as targets (Strathern, 1997). This has led Strathern to offer a variant of Goodhart's law: "When a measure becomes a target, it ceases to be a good measure". Governments and other agencies interpret the indicators as indicators of quality and argue for the improvement of performance, without actually having a clear view of what 'causes' the (lower) performance. Or, alternatively, attribute good or high scores on the indicators – unwarranted – to "sound" system characteristics. Lawn and Grek (2012, 125) report that the Finnish Ministry of Education – in 2007 – attributed the positive PISA results to its education system offering high quality and equality to its students. Whereas Lawn and Grek in this way thoughtfully reflect on PISA as a major governing resource for national actors, used as a political technology, they do not reflect on the possibility that emerging global benchmarks, indicators and standards may not be used "wisely". The point to be made here is that even if there were clear indicators of (good) performance available for higher education systems, one would still not know much about which factors affect those performances.

### ***European Commission (Modernisation of Higher Education)***

The perspectives espoused by the European Commission (EC) are multiple. We briefly single out a few example that zoom in on the quality of teaching and learning, part of the broader EC agenda that argues for and supports the modernization of higher education across Europe. In general, the EC argues that:

"[h]igh quality and relevant higher education is able to equip students with the knowledge, skills and core transferable competences they need to succeed after graduation, within a high quality learning environment which recognises and supports good teaching" (European Commission, 2015).

Teachers are seen as key in the reform process, for:

"[b]etter working conditions, including transparent and fair recruitment procedures, better initial and continuing professional development, and better recognition and reward of teaching and research excellence, are essential to ensure that Europe produces, attracts, and retains the high quality academic staff it needs".

A fairly recent report (High Level Group on the Modernisation of Higher Education, 2013) explores in more detail recommendations for high quality in teaching and learning. The authors realize that:

"... there is no single definition for high quality in teaching and learning, as both are multi-faceted activities that depend largely on the context, such as the subject, the learners, the mode of instruction, resources, etc. Yet there are factors that are conducive to good teaching and learning,

regardless of subject and context, and the High Level Group has tried to identify them in this report” (p. 14).

The remainder of the report formulates general recommendations, e.g. academic staff entrance, progression and promotion decisions should take account of an assessment of teaching performance alongside other factors.

*Comments and reflections:* The EC documents – again stressing that we only looked at a few of these – are not clear about the underlying conception of quality. This is largely due to the political nature of the documents, which should be seen as communications to spur developments in the EU’s nation states. It is interesting to note that nowhere in the 2013 report there is reference to key publications on (factors that affect) the quality of higher education and the reader is left in the dark how the authors of the report arrive at their recommendations<sup>9</sup>. The report presents examples of “good practice”, but it is not clear why these would be good practices. There is implicit reference to research that has been carried out, but this seems to refer to the fact that experts (read: mostly representatives of stakeholder organisations) have been consulted.

## **Reflections**

The exploration of how different stakeholders engage with (dimensions) of quality in higher education (in the Netherlands and internationally) leads us to the following reflections:

- Most stakeholders acknowledge the complexity of the concept of quality. Most stakeholders conceive of quality as fitness for purpose or value for money.
- Maybe partly because of the complexity, some stakeholders avoid the use of the quality concept and often refer to ‘performances’ of the higher education institutions or the system of higher education. Not all performances – as our comments in this chapter make clear – are by default denoting high quality.
- The drift towards discussing performances instead of quality as such coincides to some extent with a drift towards seeing quality as meeting a key stakeholder’s objectives. E.g. high drop-out rates are indicators of low levels of quality (=performance) *because* the government (and others) argue that such high rates are signs of inefficiency.
- Generally speaking, many of the stakeholders have a rather narrow view on quality or performances, e.g. focusing solely on retention rates or solely on student and staff perceptions.
- In the policy discourses, there is limited reference to the key literature on quality and performances in the higher education literature (including the pitfalls of measurement, reliability and validity).

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<sup>9</sup> There is reference to a Eurydice report on aspects of quality learning, but this report could not be found in the public domain.

It is tempting – given the reflections – to close down with a negative overall assessment of the policy discourses on quality in Dutch higher education as being shallow in terms of a lack of in-depth engagement with the underlying notions of quality as a complex phenomenon, and narrow in scope with a focus on readily available performance indicators. It is important however, first, to note that despite ambiguity regarding what quality is and how it can be measured, there is considerable agreement among the stakeholders that the Dutch higher education system is of ‘considerable’ quality given a robust accreditation system in place in which most programmes meet the accreditation criteria (the situation regarding the recently introduced institutional audit is not yet clear) and considerable levels of satisfaction among students and graduates. Second, our literature review (chapters 3 to 6) does offer insights in what appear to be relevant variables affecting quality at either the individual, institutional or system level. To enrich the discussion on quality in Dutch higher education it would be wise to start building bridges between that rich literature and the policy discourse.

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