Assessment literacy: Qualities of the assessment-literate UAS teachers

Re-evaluation of the learning outcomes for the basic and senior examination qualification formulated by the BKE/SKE Expert Group (2013)

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Je ogen uitkijken

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Foreword

This document contains the report by the project group 'Je Ogen Uitkijken' (With Open Eyes', describing the 'qualities of the assessment-literate university of applied sciences (UAS) teacher'. Commissioned by the Netherlands Association of Universities of Applied Sciences, and in close cooperation with the members of the UASs' Network for Assessment Literacy (netwerk Toetsbekwaamheid h(b)o), the project group re-evaluated the learning outcomes drawn up in 2013 under the leadership of Dominique Sluijsmans (Expertgroep BKE/SKE, 2013). This resulted in the formulation of four qualities, developed at both the basic and senior levels (basic examination qualification/BKE and senior examination qualification/SKE). The qualities of the assessment-literate UAS teacher thereby replace the learning outcomes developed by the BKE/SKE Expert Group (2013).

The re-evaluation was prompted by the Rullmann Commission's recommendation to boost the further implementation of and knowledge development about the BKE/SKE across all universities of applied sciences (Commissie Evaluatie externe validering toetsing en examinering in het HBO, 2017). This recommendation led to discussions in both the Netherlands Association of Universities of Applied Sciences and the UASs' Network for Assessment Literacy on the development of the concept of 'sustainable assessment literacy', and the question of how the focus on sustainable assessment literacy could be anchored sustainably within the professional quality culture of universities of applied sciences.

The project group drew up several design principles for the re-evaluation. The guiding principle for the re-evaluation was that it should result in a single set of qualities of the assessment-literate UAS teacher, which would be recognised by all institutions and degree programmes.
Therefore, an essential aspect was the function of these qualities: the qualities provide a framework for UASs to pursue professional development in a way that is consistent with their own contexts, and consistent with the teachers' roles, tasks and responsibilities. Thus, following the BKE/SKE Expert Group, the Project Group 'Je Ogen Uitkijken' emphatically makes no claims about the 'how', but only about the 'why' and the 'what'.

In this report, chapter 1 explains the background, context and assignment. Chapter 2 describes the process of the development of the qualities. Chapters 3 and 4 successively describe the scope of the qualities, and explain which conceptual frameworks served as the basis for the re-evaluation. Chapter 5 clarifies the difference between the BKE and the SKE. Subsequently, in chapter 6 the qualities for the BKE and SKE are presented. Finally, chapter 7 offers guidance on how to demonstrate the qualities.

The project group believes that the qualities of the assessment-literate UAS teacher that have been formulated, can boost the sustainable anchoring of the focus on sustainable assessment literacy in the quality culture of UASs. In the qualities, an emphatic link is made with teaching skills and professional conduct, meaning that assessment literacy can be viewed and experienced even more emphatically as part of professional teaching practice.

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1 Background, context and assignment

In 2012 the Committee on the External Validation of Assessment Quality in Universities of Applied Sciences (Commissie Externe Validering Examenkwaliteit Hoger Beroepsonderwijs) stated in their report entitled 'Vreemde Ogen Dwingen'[1], that it was essential to strengthen assessment literacy as part of teachers' basic didactic competence (basisdidactische bekwaamheid, BDB). The committee also recommended the introduction of a qualification system to distinguish between basic and senior assessment literacy (Commissie externe validering examenkwaliteit hoger beroepsonderwijs, 2011). This recommendation led both to the formulation of learning outcomes and indicators (BKE/SKE Expert Group 2013) and to the founding of the *UASs' Network for Assessment Competence*, to which almost all universities of applied sciences belong.

In 2017, the Evaluation Committee on the external validation of assessment and examining at universities of applied sciences concluded in their report entitled 'Zienderogen vooruit' (Eyes Forward), that the professional development of assessment literacy had been one of the greatest successes of the implementation of 'Vreemde Ogen Dwingen'. in part thanks to the way in which universities of applied sciences had shared their experiences and developed knowledge in relation to the BKE and SKE professional development trajectories (Commissie Evaluatie externe validering toetsing en examinering in het HBO, 2017).

On 9 February 2018, the annual general meeting of the Netherlands Association of Universities of Applied Sciences approved a proposal for the implementation of 'Zienderogen vooruit'. This proposal specifically named two intended outcomes: the UAS-wide 'roll-out' of the results of the pilot 'graduation protocol' (Verbeteren en Verantwoorden van Afstuderen in het hbo 2.0; Andriessen et al., 2016; 2017) and the further implementation of and knowledge development about the BKE/SKE (see, for example, Sluijsmans et al., 2017). Therefore, the project 'Je Ogen Uitkijken' adopted these outcomes.

An evaluation of the implementation of the BKE and SKE has shown that UASs underwent significant development when establishing the professional development and certification trajectories, and that the formulated BKE/SKE learning outcomes provide a basis for the professional development of UAS teachers. The learning outcomes help to provide ways to discuss and expand the assessment literacy of novice and established UAS teachers, as well

[1] This Dutch expression means that a stranger's eyes make more of an impression than the eyes of someone familiar.

as having a benchmark for assessing assessment literacy in a comparative way.

The evaluation has also shown that both experienced and novice UAS teachers are enthusiastic about the content of the BKE/SKE and about collaborating with colleagues on assessment (Sluijsmans et al., 2017).

However, more than seven years after the learning outcomes were formulated, the question arose to what extent the professional development trajectories contribute to sustainable assessment literacy. How do teachers retain their assessment literacy once they have passed the BKE/SKE? Are the trajectories consistent with the vision of their institution and the context of their degree programme? Almost eight years after 'Vreemde Ogen Dwingen', and in the light of all of the developments within assessing, should the teacher still be mastering the same knowledge and skills? What exactly does sustainable assessment literacy entail? And how can the focus on sustainable assessment literacy be anchored structurally in the professional quality culture at the UASs?

With regard to the BKE and SKE, the 'Je Ogen Uitkijken' project thus focused on what is meant by sustainable assessment literacy, and how the focus on this can be anchored sustainably within the UASs. To answer this question, and to be able to offer specific guidance in a way that is suitable for the institution concerned, a start was made on re-evaluating the learning outcomes that were formulated by the Expert Group (Expertgroep BKE/SKE, 2013). This led to the formulation of four qualities of the UAS teachers' assessment literacy. These qualities are presented and explained in this report.

2 Development of the qualities

As described above, the re-evaluation of the learning outcomes forms part of the 'Je Ogen Uitkijken' project. This project is led by Tamara van Schilt-Mol (HAN University of Applied Sciences) and Liesbeth Baartman (Utrecht University of Applied Sciences). The project comprises a project group, a core group (representing ten universities of applied sciences from the UASs' Network for Assessment Literacy), an implementation group (network members) and a steering-/consultative group (see also Table 1). The project group develops the project activities and submits them to the core group. The project group then carries out the activities in collaboration with the members of the core group. The project group translates the concrete outcomes of the activities into examples and/or practical tools, which are implemented and evaluated by the core group and the implementation group.

Various project activities were carried out for this re-evaluation. The project started with a literature review. This served as the foundation for the conceptual frameworks on which the re-evaluation is based. After this, assessment forms from 18 universities of applied sciences were analysed to establish how universities of applied sciences operationalised the learning outcomes drawn up by the BKE/SKE Expert Group. In addition, similarities and differences between the universities of applied sciences were identified. Both the literature review and the analysis were carried out by the project group and the findings were discussed with the core group.
In a subsequent calibration session, members of the core group assessed a BKE portfolio merely on the basis of the learning outcomes formulated by the BKE/SKE Expert Group (2013) and on the basis of the assessment form used by the university of applied sciences in question. The aim was to gain insight into which aspects of assessment literacy were shared, and to understand the extent to which they (should) provide room for specific, context-related competence aspects of the various universities of applied sciences.

These activities resulted in the formulation of design principles for the re-evaluation of the learning outcomes. These design principles were proposed to the steering committee/consultative group and to a representative of the core group. Based on the design principles, the project group formulated an initial draft version of the qualities of the

UAS teacher assessment literacy, which was discussed in two expert meetings and by the core group. Experts who were not present at these discussions could give written feedback. Based on the discussions and the feedback, the qualities were adjusted and a second draft version was produced. Table 1 gives an overview of the experts who were involved in the re-evaluation as part of the core group, the steering committee/consultative group, the expert group and the project group.

Table 1.

Parties involved in the re-evaluation

Name	University of Applied Sciences/institution	Position
Project group		
Tamara van Schilt-Mol	HAN University of Applied Sciences	Associate Professor of Testing and Assessment
Kitty Meijer	Utrecht University of Applied Sciences	Teacher/PhD candidate
Liesbeth Baartman	Utrecht University of Applied Sciences	Senior teacher/associate professor Professional education
Jeroen van der Linden	HAN University of Applied Sciences	Teacher educator/PhD candidate
Lisette Munneke	Utrecht University of Applied Sciences	Senior teacher/researcher
Marjoleine Dobbelaer	HAN University of Applied Sciences	Researcher
Core group		
Brenda Aalders	Hanze University of Applied Sciences	Educational advisor/policy officer
Dedmer Swart	NHL Stenden	Educational advisor
Eric Tigchelaar	Amsterdam University of Applied Sciences	Education developer
Irene Biemond	Windesheim University of Applied Sciences	Senior educational advisor
Judith Revet	Inholland University of Applied Sciences	Educational advisor
Kees Schimmel	Christelijke Hogeschool Ede	Educational advisor on quality assurance
Maaike Cox	Aeres University of Applied Sciences	Member of assessment advisory committee
Martijn Leenknecht	HZ University of Applied Sciences	Policy advisor/researcher
Martje Köhlen	Rotterdam University of Applied Sciences	Educational advisor
Nadya Raat	Saxion	Educational advisor

Table 1. Continued

Parties involved in the re-evaluation

Expert group		
Ellen Lucker	Amsterdam School of the Arts	Educational policy advisor
Désirée Joosten-ten Brinke	OU/Fontys University of Applied Sciences	Professor of Adult Education Dean of Faculty of Education Science, Academic Director of master programme Assessment expert
Vincent Kalis	Tilburg University	Assessment expert
Harry Molkenboer	Examinations and Assessment Office (Bureau Toetsen en Beoordelen)	Assessment expert

In 12 round-table discussions, the draft version was subsequently propounded to a total of 87 people. They included teachers, members of boards of examiners, quality assurance officers, policy advisors, BDB/BKE/SKE trainers, BDB/BKE/SKE assessors, and members of the 'Community of Practice BDB'. A complete list of participating universities of applied sciences can be found in Appendix 1. The input from the round-table discussions was discussed by the members of the project group and core group, and the project group incorporated the outcomes into the definitive set of qualities.

3 Scope of the qualities

3.1 From learning outcomes to qualities

The re-evaluated BKE/SKE learning outcomes have been described as qualities. By describing what a competent teacher ideally knows, shows and is able to do with regard to assessment - in other words, what their qualities are – it will become possible to review the current and desired assessment literacy of individual teachers within degree programmes. In this way, the qualities provide guidance for the further development of (sustained) assessment literacy. It is up to the individual institution/degree programme to 'translate' these qualities to the context of the teacher concerned, and to 'translate' them into a suitable way of demonstrating competence. In doing so, key questions include:

1. Which assessment literacy is relevant for this particular education professional, in view of their roles, tasks and responsibilities?
2. What has the teacher achieved to date, what would he like to/what should he achieve, and how can he/does he want to achieve this?
3. In what way can the teacher develop and maintain 'sustainable assessment literacy'?

3.2 Relationship between the BDB and the BKE

In 2013, all universities of applied sciences affiliated with the Netherlands Association of Universities of Applied Sciences signed the protocol on the Basic Teaching Qualification (BDB). This protocol agreed that all universities of applied sciences would advance the professional development of new teachers with regard to five aspects: (1) teaching, (2) supervising students, (3) designing education, (4) assessment, and (5) professionalisation. In the 'assessment' component of the BDB, it is stated that teachers must give, assess and analyse exams, *and* that the BKE (which was still being developed at the time of the establishment of the BDB) should provide guidance for the 'assessment' component of the BDB.

The qualities of the assessment-literate UAS teacher stated in this document were formulated in accordance with the frameworks of the BDB *and* form an integral part of the BDB. The BKE qualities of the assessment-literate UAS teacher are thereby an operationalisation of the 'assessment' component of the BDB. Specifically, this means that assessment literacy (as formulated in the BKE/SKE qualities) is not viewed as an isolated competence, but as part of teacher competence. This also means, of course, that the 'assessment' component of the BDB overlaps with the other four components of the BDB: in the BDB protocol, for example, being

able to give feedback falls under the 'professional teaching component, and supervising students' learning falls under the 'supervising students' component. Naturally, these aspects are also inextricably linked to the 'assessment' component.

In practice, more and more universities of applied sciences are integrating the BKE fully into the BDB. By following and completing a BDB trajectory, participants thus show that they also possess the qualities of the assessment-literate UAS teacher. In addition, many universities of applied sciences also have separate professional development and certification trajectories for so-called 'established' teachers: teachers who obtained a didactic qualification in the past. These trajectories were often less focused on assessment than is the case for today's BDB trajectories. Being able to demonstrate one's mastery of the qualities of the assessment-literate UAS teacher can thus be seen as supplementary to a previously-obtained didactic qualification.

3.3 Education professionals with assessment literacy

The qualities of the assessment-literate UAS teacher described in chapter 6 *can* also function as a starting point for the achievement of assessment literacy by educational professionals who are not teachers, but do have a certain responsibility for assessment as part of their specific role or task. Within the context of universities of applied sciences, after all, teachers are not the only ones responsible for high-quality assessment. (Degree programme) managers, policy staff, exams office staff, practical instructors , etc., who are also responsible for assessment, should have assessment literacy for the tasks that they carry out.

We thereby stress that the way in which universities of applied sciences/degree programmes further develop the described qualities can be highly dependent on the role, tasks and responsibilities of the professional who wishes to develop these qualities. For example, we expect that most teachers will be able to develop, implement and analyse an exam cyclically. By contrast, an assessment policy officer should be informed in a more general sense about the quality criteria that play a role in producing exams, or in giving feedback on the quality of an exam, among other things.

Given that these education professionals are often not appointed or trained as teachers, it cannot be assumed that they will have mastered the qualities of the assessment-literate UAS teacher. After all, many of them will not have followed the BDB trajectory. For these professionals, the described qualities *can* provide a guide to developing those aspects that are considered suitable in view of their tasks and responsibilities. We stress, though, that this is not a proposal for obligatory certification for this group of education professionals; here, too, certification should be seen emphatically as a means of demonstrating mastery of the qualities and for mutual recognition (see also section 3.4).

3.4 Mutual recognition and standardisation

As described above, the qualities of the assessment-literate UAS teacher form part of the qualities that are distinguished in the Basic Teaching Qualification (BDB). Concerning mutual recognition of the BDB, the BDB Protocol (Vereniging Hogescholen, 2013), signed by all universities of applied sciences affiliated with the Netherlands Association of Universities of Applied Sciences, states the following:

> *"1. The didactic level of teachers at universities of applied sciences is established at the institutional level in the regulations on the Basic Didactic Qualification.*
> *2. The institution grants the Basic Didactic Qualification (BDB) to teachers on the basis of prior assessment.*
> *3. Every teacher who is certified by a university of applied sciences will be recognised as a qualified UAS teacher by all other participating institutions, without further assessment."*

This protocol also guarantees the mutual recognition of the BKE: after all, the 'assessment' component of the BDB protocol is linked one-on-one to the BKE. However, the standardisation of the BKE, as well as the mutual recognition and standardisation of the SKE, is not thereby automatically safeguarded.

The UASs' Network for Assessment Literacy will play an active role in both the standardisation of the BKE and the SKE, and in the mutual recognition of the SKE. This will be done by facilitating, among other things, the following:

- Networking meetings which offer space for:
  - feedback from colleagues on the BKE and SKE trajectories
  - exchange of examples of ways in which teachers demonstrate assessment literacy
  - calibration sessions for the BKE and SKE
- Exchange of assessors between universities of applied sciences

4 Conceptual framework for the BKE and the SKE

The project group 'Je Ogen Uitkijken' based the re-evaluation of the learning outcomes on three constructs: 'sustainable assessment literacy', 'quality of assessment' and 'systematic and cyclical development, implementation and evaluation.' The latter two constructs are consistent with the starting points used by the BKE/SKE Expert Group (2013). The construct 'sustainable assessment literacy' was added; the development of this construct was based on the literature review (Meijer et al., 2020), and a discussion of its implications for the re-evaluation of the learning outcomes with the core group.

4.1 Sustainable assessment literacy

Assessment literacy is generally seen as a mix of fundamental knowledge and skills, focused on the ability to produce high-quality assessments (Popham, 2009; Price et al., 2012). Teachers know what the aim of an assessment is, are able to develop and administer a test, and are able to analyse the results and use them to make decisions about students (Brookhart, 2011; Flynn et al., 2004). Thereby, they use assessments to support students' learning, for example by using peer feedback (Lees & Anderson, 2015; Smith, 2011; Stiggins, 2010). However, UAS teachers construct exams in collaboration with the professional field, organise the exams, and are responsible for evaluating the exams and implementing improvements. In addition, there are many teachers with tasks that go beyond the assessment itself, such as designing the assessment programme for a learning trajectory or curriculum, and safeguarding assessment in their role as a member of a board of examiners.

Based on the learning outcomes formulated by the BKE/SKE Expert Group (2013), the assessment-literate UAS teacher is able to run through an assessment cycle and to substantiate the decisions they make in doing so. In addition, the competent UAS teacher is aware that the assessment, for which he is responsible, forms part of a larger whole: he can identify the function of the assessment, identify the implications of the assessment policy for the assessment in question, and describe how his assessment fits into the overall assessment programme. The senior assessment-literate UAS teacher has a vision on assessment, is able to establish relationships between various assessments, and can contribute to safeguarding the assessment quality in both policy and supervision of fellow teachers. Thus, the concept "senior" does not mean "having experience", but being able to monitor and influence assessment quality at degree programme level.

From these descriptions, it is clear that sustainable assessment literacy not only relates to having basic knowledge and skills in relation to assessment (application of cyclical methodology), but also that it is important to have an understanding of the context in which the assessment is developed and administered.

A review of various definitions and models (including Pastore & Andrade, 2019; Herppich et al., 2018; Looney et al., 2017; and Xu and Brown, 2016) helped us to develop a better understanding of what the concept of sustainable assessment literacy means for UAS teachers.
Sustainable assessment literacy does not only concern knowledge of assessment, skills for shaping assessments, and skills for being able to do this in a specific context. It is also about awareness of one's own assessment identity and assessment conceptions. This includes being able to integrate assessment into education, mastery of the social and emotional aspects of assessment (including paying attention to one's own role as an assessor, the ethical aspects, and the impact of assessment), the willingness and ability to reflect on one's own conduct, and the capacity to keep developing, so that assessment is consistent both with the profession and the didactic approach.

4.2 Assessment quality

In the report by the BKE/SKE Expert Group (2013), the operationalisation of 'assessment quality' was based on the assessment pyramid (Joosten-ten Brinke, 2011). The re-evaluation is based on the 'assessment web' (*toetsweb,* Van Schilt-Mol et al., 2016). The assessment web (Figure 1) can be seen as the further development of the assessment pyramid into a quality assurance instrument.

In the assessment web, assessment quality is translated into five assessment entities:

- *Quality of the assessment (tasks).* By assessment, we mean (learning) activities/measurement instruments that are used to establish whether the intended learning outcomes have been achieved (Joosten-ten Brinke & Draaier, 2015). The quality of the assessment as a whole also includes the design of the assessment models and instructions for students and assessors. By assessment tasks, we mean the items, questions or assignments within an assessment whereby students are challenged to demonstrate their knowledge and skills (Draaier & Joosten-ten Brinke, 2015).
- *Quality of the assessment programme.* The assessment programme is an intentional and substantiated combination of assessment types that match the objectives and structure

of a degree programme (the study programme) (Baartman & Van der Vleuten, 2015). It is about the clear relationship between assessment and the safeguarding of the different functions of assessment.

- *Quality of assessment policy.* Assessment policy refers to the entire range of agreements, both substantive and procedural, in relation to testing and assessment (Bruijns & Kok, 2015). Several levels can be distinguished within the integral assessment policy, including the policy at the institutional level and the policy at the degree programme level.
- *Quality of the assessment organisation.* The quality of the whole assessment organisation is key to being able to safeguard the quality of assessment. By assessment organisation, we mean the way in which teachers, boards of examiners, assessment committees, management and support staff work together purposefully to achieve the desired assessment quality for all assessment entities (Van Deursen & Van Zijl, 2015). It also concerns the establishment of the roles, tasks and responsibilities of the actors/parties involved in assessment, cooperation based on defined roles and the logistical organisation of assessment.
- *Quality of assessment literacy.* In the assessment web diagram, 'assessment literacy' refers to the expertise that actors within the degree programme should have in order to achieve quality across all assessment entities (Van Berkel, Sluijsmans & Joosten-ten Brinke, 2015). Specifically for the entity 'assessment', the assessment literacy of teachers, boards of examiners and other involved parties is of utmost importance: every teacher must be able to interpret assessment information and use it to establish how a student is doing, and how this information can further contribute to the student's learning (Straetmans, 2006).

The five entities are connected with one other and also with the centre of the web. From each of the five entities, institutions can work towards sustainable assessment quality via four development phases: the outer ring is the activity-oriented phase, the inner ring is the chain-oriented phase. A characteristic of the activity-oriented phase is that individual actors carry out freestanding assessment activities on an ad hoc basis; in the process-oriented phase, relevant actors in the degree programme carry out interrelated assessment activities, based on short-term policy.

A characteristic of the system-oriented phase is that all relevant actors within the degree programme carry out interrelated assessment activities based on mid-term policy, and these are integrated into ongoing processes in the degree programme. Finally, in the chain-oriented phase, core partners are also involved and the assessment activities are not only integrated into the degree programme, based on long-term policy, but also into the chain (Toetsing Getoetst, 2016).

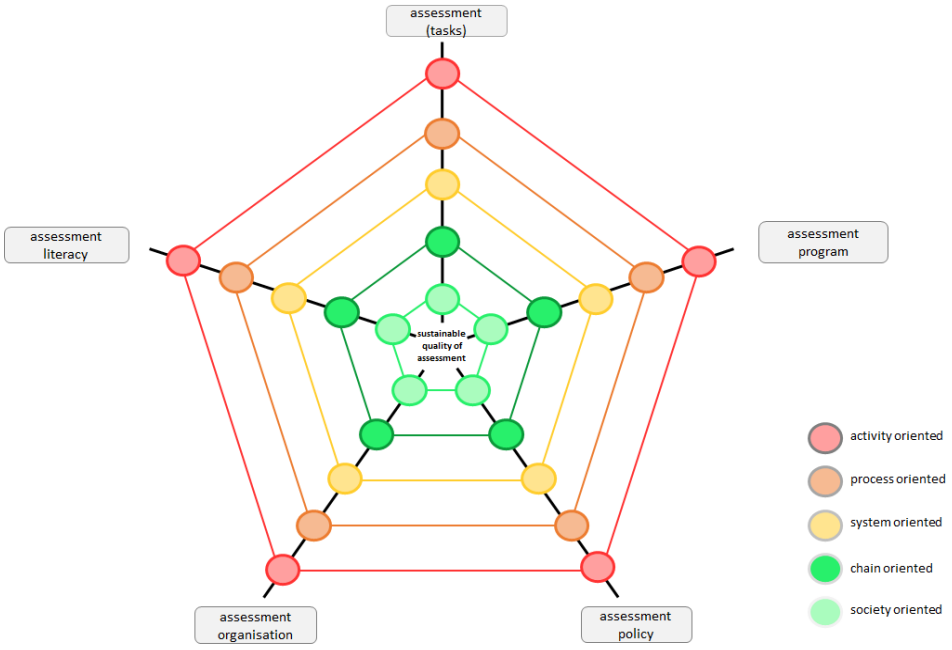

Figure 1. The assessment web (Van Schilt-Mol et al., 2016)

By progressing on the development phases, degree programmes move closer towards the centre of the web; they work on quality in a sustainable way. Both the assessment entities and the development phases influence the stability of the centre of the assessment web. If a particular entity lacks sufficient quality, this immediately has implications for the quality of the other entities. For example, if the assessment policy is not transparent, this will have an impact on the quality of the assessment programmes, assessment and the underlying items.

4.3 Systematic and cyclical development, implementation and analysis

The quality assurance of responsible assessment and examining is dependent on the quality of every phase in the assessment process (Joosten-ten Brinke & Sluijsmans, 2012). In other words, the quality of the assessment as a whole is as high as the quality of the weakest link in the assessment process (Expertgroep bke/ske, 2013). If one of the components of the assessment process is not executed well enough, this naturally has consequences for the quality of the other components of the assessment process.

The development, administering and analysis of assessments should be seen as a cyclical, systematic process. The cyclical character implies that after the assessment has been evaluated, the outcomes of the evaluation are used for the (re)design of an improved (version of the) assessment. Although, in educational practice at different UASs, different versions of assessment cycles are used, whether or not supplemented with the formative assessment cycle (Gulikers & Baartman, 2017). Different phases are identified within every cycle that can be used for assessment with both a learning and decision function. A number of recognisable phases that can be distinguished in the various cycles include:

1. Selection of basic design
2. Construction of assessment matrix
3. Assessment construction and marking system
4. Administering the assessment
5. Evaluating the assessment
6. Processing and analysing the assessment results
7. Communicating about assessment results, including provision of feedback
8. Evaluating and improving the assessment and teaching

As described by the Expert Group (2013), specific products are developed in each phase. Implementing the phases of an assessment cycle should be viewed, as far as possible, from a whole-task perspective (Jansen-Noordman & Van Merriënboer, 1997) in terms of going through an entire assessment cycle or several assessment cycles, because learning to apply single phases from the assessment cycle does not ensure full assessment quality (Expertgroep BKE/SKE 2013).

5 Difference between the BKE and the SKE

5.1 Complexity levels

The BKE/SKE Expert Group (2013) states that the difference between the BKE and the SKE can best be indicated with reference to four complexity factors: relation level, responsibility, supervision and role/task (Expertgroep BKE/SKE, 2013). The re-evaluation built upon these. For each complexity level, the distinction between the BKE and the SKE for the qualities of the assessment-literate UAS teacher can be described as follows:

Relation level

BKE
The teacher is able to position the assessments for which they are (co-)responsible, and is aware of the place of this/these assessment(s) within the programme.
SKE
Has an overview of the place and function of the assessment within the degree programme.

Responsibility

BKE
(Co-)responsible for an assessment (or several assessments).
SKE
(Co-)responsible for the (relationship between the) assessments that are administered within (part of) the degree programme.

Supervision

BKE
Enters into a discussion with colleagues about the assessment for which the teacher is (co-) responsible, actively gathers feedback on the quality of their own assessment.
SKE
Advises colleagues on assessment and supervision when realising high-quality assessments.

Role/Task

BKE
Teaching staff who primarily fulfil the role of teacher and assessor.
SKE
Teaching staff who not only fulfil the role of teacher and assessor, but also have responsibilities based on one or more specific roles in the area of assessment for issues that go beyond the assessment itself (e.g., member of curriculum committee, board of examiners, assessment committee, quality assurance, etc.).

5.2 Assessment entities

The pyramid of contemporary assessment and evaluation (Joosten-ten Brinke, 2011) was taken as the starting point for the learning outcomes formulated by the BKE/SKE Expert Group. For this pyramid the starting point is the *teacher's* perspective: what competence does the teacher need in order to carry out high-quality assessment? In the re-evaluation, we decided to approach this from the *organisation's* perspective: this not only entails focusing on what an individual teacher needs, but also on what the assessment organisation demands of teachers in terms of specific knowledge and skills, and how the assessment organisation can ensure that teachers retain their assessment literacy and have opportunities to develop this competence.

In addition, with the original learning outcomes, the decision was made to link the responsibilities of the teachers to specific assessment entities; for example, it was stated that the BKE mainly relates to the assessment entity 'assessment and assessment tasks', and the SKE to the entities 'assessment programme' and 'assessment policy'. In the re-evaluation, we assumed that *all* teachers have a task and/or responsibility within *all* entities (including the assessment entity 'assessment organisation'), and that the interpretation of these is dependent on the complexity factors identified by the BKE/SKE Expert Group (relation level, supervision, responsibility level and role).

6 Qualities of the assessment-literate UAS teacher

This chapter presents the qualities of the assessment-literate university of applied sciences (UAS) teacher. There are four qualities, whereby for each quality a distinction is made between the qualities of the assessment-literate UAS teacher at BKE and SKE level. Appendix 2 contains a glossary, which explains several concepts used in the qualities in more detail.

6.1 Quality 1: you act within the context of the assessment policy and the assessment organisation

BKE-1
You are familiar with your own role, tasks and responsibilities and those of others within the whole of the assessment policy and the assessment organisation, and act on this basis. You work on the quality of assessment based on the degree programme's vision on assessment and learning. You are aware of the relationship between assessment, the assessment policy and the vision on assessment and learning.
SKE-1
You evaluate the quality of those parts of/processes within the assessment organisation for which you are responsible, and can advise on these. In doing so, you are aware of the different roles, tasks and responsibilities within the assessment organisation. In your role, you contribute actively to practical guidance for colleagues, and to the development, implementation and/or evaluation of assessment policy and/or the (frameworks of the) assessment organisation of the degree programme.

6.2 Quality 2: you act within the educational and assessment programme

BKE-2
You are familiar with the place and function of assessment in the education and assessment programme. You link assessment to the degree programme's vision and the programme learning outcomes.
SKE-2
You actively contribute to developing the assessment programme of the degree programme. You evaluate the quality of the assessment programme in relation to the programme learning outcomes, and advise on the (re)design of the assessment programme. You versee the whole as well as the coherence and interconnections between assessments within the degree programme in relation to the education programme.

6.3 Quality 3: you can adequately apply assessment knowledge and skills

BKE-3
You can redesign/develop, implement and evaluate assessments in a cyclical and systematic way. You can substantiate the decisions made. You use information from assessments to develop your teaching, and give students additional help in their development by providing feedback. You take careful and substantiated decisions based on information from assessments, and can clearly communicate about this to students. In doing so, you are aware of the impact of assessment.
SKE-3
You support and supervise colleagues in the assessment process, and evaluate the quality of your own assessments and those of colleagues. You translate the outcomes of evaluations into specific recommendations. You advise on issues relating to design and evaluation. In doing so, you constantly balance issues based on the function of the assessments and the context in which they are used.

6.4 Quality 4: you retain your assessment literacy

BKE-4
As a critical professional, you continuously reflect on your own conduct in relation to assessment and adjust your actions on this basis. You are aware of your own experiences with and views on assessment, and the way in which these influence your own conduct and development.
SKE-4
As a critical professional, you focus on the continuous development of your own assessment literacy, in line with your role, tasks and responsibilities. You hold and/or initiate a substantive discussion about the importance of assessment literacy as part of teacher competence, and about the quality of assessment within the degree programme.

7 Demonstrating mastery of qualities

The described qualities leave room for universities of applied sciences and degree programmes to develop the “how” in a context-specific way. The way in which teachers demonstrate competence can thus differ per university of applied sciences, degree programme or teacher. Universities of applied sciences can thereby opt for degree programme- or institution-specific emphases that are related to assessment questions and the assessment culture of the institution and/or degree programme. It is assumed that how the various universities of applied sciences interpret the demonstration of competence for the original BKE/SKE learning outcomes, (at present) usually in the form of assessment and portfolios, also covers the formulated qualities. Examples of ways in which teachers (can) demonstrate their competence will be shared in the UASs’ Network for Assessment Literacy.

Drawing on the SKE trajectories, universities of applied sciences have already shared positive examples of how teachers can demonstrate qualities. One example of this is allowing teachers themselves to gather evidence in order to demonstrate the qualities. This approache is highly rated, because it connects to the teachers’s assessment questions and the daily practice in which they must be able to apply their knowledge and skills. Positive experiences were obtained in tailored trajectories where teachers could demonstrate their assessment literacy by improving the quality of education based on a central, shared question.

When describing the qualities, knowledge and skills are seen as dynamic and context-dependent. This means, first, that knowledge and skills are subject to change, and teachers should be aware of the necessity of keeping them up-to-date, and second, that concepts can have different meanings; concepts such as “assessment” or “portfolio”, for instance, can encapsulate different (context-dependent) details and views. It is therefore important to make teachers aware of these differences, and enable them to interpret these concepts within their *own* daily practice. Finally, knowledge and skills are needed in order to be able to have the (right) discussion, to be able to put forward arguments, and thereby to provide input for reflection and continuous learning. Knowledge and skills thus underlie the described qualities.

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Appendix 1. Overview of consulted universities of applied sciences

Participants in the round-table discussions came from the following universities of applied sciences:

- Aeres
- Amsterdam School of the Arts
- Avans University of Applied Sciences
- Christelijke Hogeschool Ede
- Fontys University of Applied Sciences
- The Hague University of Applied Sciences
- Hanze University of Applied Sciences Groningen
- HAS University of Applied Sciences
- Leiden University of Applied Sciences
- Rotterdam University of Applied Sciences
- Utrecht University of Applied Sciences
- Amsterdam University of Applied Sciences
- HAN University of Applied Sciences
- Utrecht University of Applied Sciences
- Windesheim University of Applied Sciences
- Saxion University of Applied Sciences
- Hotel School
- HZ University of Applied Sciences
- Inholland University of Applied Sciences
- Zuyd University of Applied Sciences

Appendix 2. Glossary of qualities

Intended learning outcomes

The accreditation organisation (NVAO) describes the intended learning outcomes of the degree programme as a whole as results that demonstrate the level (associate degree, Bachelor or Master) defined in the Dutch qualification framework and the degree programme orientation (university or university of applied sciences). In the past, the intended learning outcomes were often indicated with terms such as 'exit qualifications' or 'final qualifications'.

Decisions

Decisions are constantly made based on assessment results. These can be consequential (summative) decisions, such as granting ECTS credits or a diploma; but also less consequential (summative or formative) decisions about (interim) progress (diagnosis, adjustment, prediction), and so-called low-stake (formative) decisions about the educational (learning) process (information and feedback). For example, these include decisions about adjusting the teaching in order to steer the students' learning.

Cyclical and systematic development/redesign, implementation and evaluation

Developing, administering and analysing assessment should be seen as a cyclical process that takes place in a systematic way. The cyclical character implies that after the assessment has been evaluated, the outcomes of the evaluation are used for the (re)design of a new (version of the) assessment. We can distinguish around eight phases that can be used for assessment with both
a summative and a formative function: 1) choice of basic design, 2) construction of assessment matrix, 3) assessment construction and marking system, 4) holding the assessment, 5) evaluation of the assessment, 6) processing and analysis of assessment results, 7) communication about assessment results, including giving feedback and 8) evaluating and improving the assessment and the teaching. Within the formative cycle (Gulikers & Baartman, 2017), the following five phases are identified: 1) clarification of expectations, 2) eliciting of student responses, 3) analysis and interpretation of student responses, 4) communication about results with students, and 5) taking follow-up actions.

Teacher competence

Teacher competence refers to the five aspects of the Basic Didactic Qualification (BDB), namely: 'teaching, 'supervising students', 'designing education', 'assessment' and 'professionallisation.

Feedback

Feedback can best be described as a process in which the student gains insight into the similarities and differences between the level/quality of the actual performance and the intended performance (Boud & Molloy, 2013). Importantly, feedback is only effective if the student is able to do something *and* does something with the feedback in order to improve their performance. Feedback involves three activities, namely feedup, feedback and feedforward (Hattie & Timperly, 2007). Feedup focuses on the question, 'Where am I (the student) going?'; feedback is about 'Where am I (the student) now?' Feedforward concerns the question, 'How can I (the student) get to the desired situation/how do I progress?'

Function of assessment

The functions of assessment are usually described as summative and formative. If information from assessments is used to establish whether the educational objectives have been reached and to take decisions about passing/failing/certification/admission, we refer to the summative function. If the information is used to improve the process of teaching and learning during the education, we refer to the formative function.
Assessment covers both functions, to a greater or lesser degree: for example, an assessment with a primary and summative function provides information about the student's progress and information that can be used to improve the teaching and learning process, meaning that this assessment also has a formative function.

Impact of assessment

The impact of assessment includes the social and emotional impact of evaluations and decisions on the student, but also on the degree programme, the university of applied sciences, and at a societal level. For example, the teacher ensures a safe climate for the student. They pay attention to the impact of their marking on the student, but they are also aware of their role as assessor. In addition, there are external interests at stake that the teacher should be aware of, such as binding study advice, for example.

Quality of assessment

The quality of assessment can be operationalised as the interplay between the assessment entities assessments/assessment tasks, assessment programme, assessment policy, assessment organisation and assessment literacy. The overall quality is determined by the quality of all of the entities, whereby the quality as a whole is as high as the weakest link.

Assessment policy

Assessment policy refers to the entire range of agreements, both substantive and procedural, in relation to exams and assessment (Bruijns & Kok, 2015). Several levels can be distinguished within the integral assessment policy, including the policy at the institutional level and the policy at the degree programme level. The elaboration of the qualities of the assessment-literate UAS teacher refers to the 'assessment policy'; this includes both the degree programme's assessment policy and the institution's assessment policy.

Assessment

Assessment is understood to mean (learning) activities/measurement instruments that are used to establish whether the intended learning outcomes have been achieved (Joosten-ten Brinke & Draaier, 2015). Thus, this emphatically includes **both** activities/measurement instruments with a formative function **and** those with a summative function (assessments/exams). Assessments can be used to 1) stimulate and steer students' learning, 2) make careful and fair decisions about students, and 3) optimise the quality of the education provided.

Assessment organisation

The assessment organisation refers to the way in which teachers, boards of examiners, assessment committees, curriculum or programme committees, management, support staff and the professional field work together purposefully to achieve the desired assessment quality (Van Deursen & Van Zijl, 2015). It also concerns the establishment of the roles, tasks and responsibilities of the actors/parties involved in assessment, cooperation based on defined roles and the logistical organisation of assessment. Within an assessment organisation, three main processes are identified: (1) the design of the assessment policy, (2) the design of the assessment programme, and (3) the design of assessments and assessment tasks. In addition,

various supporting processes take place, such as the professional development of actors (assessment literacy), setting up exam timetables, appointing assessors, granting exemptions, etc.

Assessment process

The (re)designing, holding and evaluation of assessments is a process that involves different phases and steps. For a detailed description of these, see '*Cyclisch en systematisch ontwikkelen/herontwerpen, uitvoeren en evalueren* [Cyclical and systematic development/redesign, implementation and evaluation].'

Assessment programme

An assessment programme is an intentional and substantiated combination of assessment types that matches the objectives and structure of a degree course (study programme) (Baartman & Van der Vleuten, 2015). It also concerns the clear connections between assessments and the safeguarding of the different functions of assessment. In addition to the construction of specific degree programme qualifications over the different years of the assessment programme (vertical coordination of the assessment programme), it is also important to coordinate assessment for each study unit/study phase in the assessment programme (horizontal coordination).

Design and evaluation questions

Design and evaluation questions concern both questions about the design of (complex) assessment forms and questions concerning their evaluation. This includes, for example, questions about the integral assessment of the exit level or interdisciplinary projects.