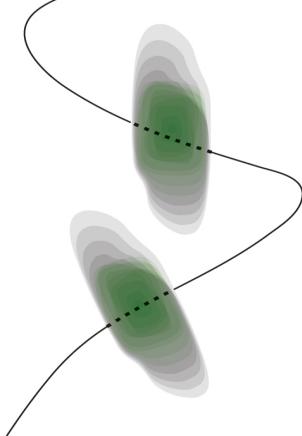


**Development and Validation of an Assessment form for  
Clinical Competence in Physiotherapy Education**

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**Water the Flowers,  
Not the Weeds.**

(Fletcher Peacock, 2000)

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## **Summary**

In many physiotherapy course programs clinical education (or clinical competence) is a major part of the final examination. External accountability and credibility of the physiotherapy diploma requires an assessment procedure of this clinical education that meets the highest standards related to the validity and reliability. In *this* research project a new assessment form for the evaluation of the clinical education was developed while gathering validity evidence during the developmental process. The collected validity evidence supports the use of this assessment form to make a valid judgment about the clinical competence of a student at the end of a clinical period during their final year. Further research and development of the assessment form is needed to collect evidence regarding the reliability of the assessment form.

## **Development and Validation of an Assessment Form for Clinical Competence in Physiotherapy Education**

The Accreditation Organisation of the Netherlands and Flanders (NVAO) has recently changed the accreditation process for Educational Institutes in the Netherlands (NVAO, 2010). Next to the change of structure of the accreditation system the NVAO has put more focus on the requirement for educational institutes to justify the graduate outcome. In the ‘Assessment Framework for Limited Programme Assessments’ (NVAO, 2010) there are three standards described (a) Intended Learning Outcomes; (b) Teaching-learning Environment; and (c) Assessment and achieved Learning Outcomes. The third standard specifically addresses the validity, reliability and transparency of tests and assessments used within higher education. Higher Educational Institutions are required to provide tests that are valid, reliable and transparent to students.

Although validity and reliability of assessments are two vital aspects of assessments, research about these aspects within the assessment of the clinical education period of students in Physiotherapy has been relatively scarce (Lewis, Stiller & Hardy, 2008; Meldrum, 2008). Only recently more attention has been paid to the validity and reliability of clinical education assessment forms (Coote et al., 2007; M. Dalton, Davidson, & J., 2011; Megan Dalton, Davidson, & Keating, 2012; M. Dalton, Keating, & M., 2009; Fitzgerald, Delitto, & Irrgang, 2007; Lewis, Stiller, & Hardy, 2008; Meldrum et al., 2008; Roach et al., 2012).

Clinical education is an important part of physiotherapy education and is essential in order to achieve the competency level of a starting professional. The World Confederation for Physical Therapy describes clinical education as “the delivery and evaluation of learning experiences in practice settings”. Clinical education sites can be all sorts of settings that provide services according to the patient/client model (assessment or evaluation and therapeutic interventions) (WCPT, 2011). Judgments of fail or pass of the clinical education period should be based on valid and reliable assessment tools in order to be able to justify graduate performance.

With the implementation of a new curriculum in the education for physiotherapy at Saxion University of Applied sciences also a new clinical education assessment was introduced. The criteria in the assessment form against which the students are assessed are based on the Dutch national competence profile as published by the Royal Dutch Society for Physical Therapy (KNGF, 2006). Within this competence profile three different professional roles are distinguished (a) Physical Therapist as a Care Provider; (b) Physical Therapist as a

Manager; and (c) Physical Therapist as a Developer of the Profession. During the clinical education period students encounter all roles of the physical therapist, but at Saxion the judgment on the clinical competence of the student is predominantly focused on the role of the student as a care provider. Therefore the assessment form addresses the three competences that are related to the role of care provider. These competences are (a) Screening, Diagnosing and Planning; (b) Therapeutic Intervention; and (c) Preventive Intervention (KNMF, 2006). Next to these three competences the student is also judged according to the ‘Norms of Professionalism’ as mentioned in the national competence profile. These norms of professionalism are related to three categories (a) dealing with work and tasks; (b) dealing with others; and (c) dealing with one’s own functioning.

No information is available on the reliability or validity of the instrument that previously has been used in the department of physiotherapy at Saxion University since no research has been done to this, nor has the development process of the assessment form been documented, structured or evidence based.

The increasing importance of using evidence based assessment methods within higher education and the absence of any evidence related to the reliability and validity of the clinical placement assessment forms currently used in Saxion has led to the following project goal: develop a standardised, valid, and reliable instrument to assess clinical performance of physiotherapy students. The focus of this research report will be on the development of the assessment form and on the validity of the assessment form. This focus has led to the following research question:

- How to develop a valid assessment form for the evaluation of clinical competence in physiotherapy students?
  - What is the validity of the assessment form used for clinical practice evaluation?
  - To what extent do the items in the assessment form measure the intended construct?
  - What is the relation between the (total) score of the items and the global rating?
  - To what extent do the items support the rater in giving a global score?

The reliability of the assessment form is not a part of this research project but should be addressed in future research projects related to the assessment form for clinical competence.

### Clinical Competence

In literature the terms *clinical competence* and *professional competence* are used interchangeably. Although many authors use the terms professional competence or clinical competence in relation to (para-) medical health professions (V. Cross, 2001; Megan Dalton et al., 2012; Epstein & Hundert, 2002; Hayes, Huber, Rogers, & Sanders, 1999; van der Vleuten & Schuwirth, 2005; Wass, Van der Vleuten, Shatzer, & Jones, 2001) only a very few of them give a clear definition of the meaning of professional competence and clinical competence. Carr (Carr, 2004) refers to a definition given by Southgate defining competence in a doctor as “being composed of cognitive, interpersonal skills, moral and personality attributes. It is in part the will, to consistently select and perform relevant clinical tasks in the context of the social environment in order to resolve health problems of individuals in an efficient, effective economic and humane manner”. The most explicit definition is given by Epstein and Hundert (2002) who define professional competence within the medical profession as “the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and community being served”. In relation to physiotherapy education most authors use clinical competence with a reference to the performance of students in their clinical education period. When talking about measuring the clinical competence of students some authors also describe this as grading the *performance* of the student during the clinical education period (Hayes et al., 1999; Joseph, Hendricks, & Frantz, 2011; Roach et al., 2012)

In the glossary of the World Confederation for Physical Therapy (WCPT) no reference to professional competence or clinical competence can be found. So although both concepts exist within the (predominantly) educational literature, they are not commonly used within the professional field of physiotherapy itself. Within this project clinical competence is considered to be a part of professional competence. Clinical competence is the combination of professional behaviour with the professional role of care provider, where professional competence is seen as the combination of professional behaviour with the three professional roles from the physiotherapist as described in the Dutch physiotherapy competence profile. The Royal Dutch Association for Physiotherapy (KNMF) developed this competence profile in cooperation with the Dutch Association for Physiotherapy Education (SROF). The profile was published in 2005 and replaced the profile from 1998. The next update of the Dutch physiotherapist profile is expected in the spring of 2014. As described before the Dutch competence profile divides the physiotherapist profile in three different professional roles

where each professional role is further defined by several competences. These competences will be discussed in the next paragraph.

This project has focused on the development of an assessment form to measure the level of performance of the physiotherapy student during the clinical education period. The way the clinical education is integrated in the curriculum of physiotherapy is that it should facilitate the student to show behaviour that is in line with the *Norms of Professionalism* and further develop the professional role of care provider. The role of care provider has been defined by three competences (a) Screening, Diagnosing & Planning; (b) Therapeutic Intervention; and (c) Preventive intervention. This role is one of the three professional roles of the physiotherapist as described in the Dutch professional profile of physiotherapy (KNGF, 2006). The second role of the physiotherapist that is described in the profile is the role of manager. This role contains the two competences of *Organising* and *Enterprising*. The third role is the role of developer of the profession and contains the two competences of *Research* and *Innovation*.

For a good understanding of clinical competence and the construction of the assessment form it is important to have an understanding of the content of the professional roles and competences. The roles and competences of the Dutch profile will be compared to corresponding competences of the Australian and Irish professional profile and the competences as mentioned in clinical performance instrument of the American Physical Therapy Association (Council, 2006; Physiotherapists, 2008; Roach et al., 2002). The decision to compare the Dutch profile with these international profiles has been based on the presence of literature about the development, validity and/or reliability of the assessment of clinical education in these countries. In all three countries (Australia, Ireland and the United States) the assessment form is a nationwide form that has been based on the national profile of the physiotherapist. The three performance instruments have also been included in the WCPT guideline for the clinical education component of physical therapist professional entry level education (WCPT, 2011).

The American profile has three main sections (a) Professional practice; (b) Patient management; and (c) Practice management. These three sections contain a total of 18 performance criteria. The Australian Standards consist of nine standards that are further specified between 3 to 6 elements per standard whereas the Irish profile is divided in three competency areas (a) Professional practice; (b) Providing a quality service; and (c) Education and Development. The three competence areas are subdivided in 7 subareas.

## Care Provider

The physiotherapist in the role of care provider “provides help in the form of treatment and guidance. He also provides services in the form of advice, information, education, training and coaching” (KNGF, 2006). As mentioned before the role of care provider comprises of three competences.

**Screening, Diagnosing & Planning.** The competence of Screening, diagnosing, planning (SDP) refers to the process of the physiotherapeutic exploration and assessment of (possible) health problems; formulating a physiotherapeutic diagnosis and, in cooperation with the patient, setting up a treatment or prevention plan. The therapist will usually perform an anamnesis followed by a clinical evaluation. This competence requires next to sufficient knowledge about the functioning of the human (body) from a biological, psychological and social perspective, also good practical and reasoning skills in order to perform a good clinical evaluation. The whole process can be referred to as clinical reasoning. Edwards & Jones (Edwards, Jones, Carr, Braunack-Mayer, & Jensen, 2004) refer to the definition of clinical reasoning as:

A process in which the therapist, interacting with the patient and others (such as family members or others providing care) helps patients structure meaning, goals, and health management strategies based on clinical data, patient choices, and professional judgment and knowledge (p.313).

A more specific definition of clinical reasoning in physiotherapy is given by the KNGF (2006) in the Dutch physiotherapist profile:

Clinical reasoning comprises the mental processes of collecting, interpreting and structuring information, which enables the physical therapist to clarify and solve a problem based on his biomedical, behavioural-scientific and physiotherapeutic knowledge. In making decisions, the physiotherapist will have to consider social and financial-economic aspects in coherence and in addition to many professional considerations (p.12)

From an international perspective the competence ‘screening, diagnosing, planning’ is comparable with standard four, five and six of the ‘Australian Standards for Physiotherapy’ (2006). These standards are Assess the client (standard 4), Interpret and analyse the assessment findings (standard 5), and Develop a physiotherapy intervention plan (standard 6). In the Irish competence profile of physiotherapy the SDP-competence best equals the part of assessment within the part of ‘Caseload Management’. The performance criteria of clinical

reasoning (standard 7), screening (8), examination (9), evaluation (10), diagnosis and prognosis (11), and plan of care (12) under the section of Patient Management of the American profile are all united in the Dutch competence of screening, diagnosing & planning.

**Therapeutic Intervention.** Once the physiotherapist has set the physiotherapeutic diagnosis and has discussed the therapeutic plan with the patient, the phase of the therapeutic intervention can start. Therapeutic Intervention is defined as the execution of the therapeutic plan in a methodical way and in cooperation with the patient. It includes the evaluation on the effects of the intervention and, if necessary, adjustment of the plan to optimize the therapy results. Next to that the physiotherapist also reports the therapy process to account to third parties.

Internationally the competence ‘Therapeutic Intervention’ is commensurable with the standards 7 (implement safe and effective physiotherapy interventions) and 8 (evaluate the effectiveness and efficiency of physiotherapy intervention) from the Australian Standards (2006) as well as criteria 13 (procedural interventions) and 15 (documentation) of the American profile. The Irish competency profile describes this as ‘Intervention’ and ‘documentation’ under the B section of Caseload Management.

**Preventive Intervention.** Preventive intervention is the third competence of the role of care provider. With this intervention the therapist gives information and advice with regard to health stimulating behaviour and measures to prevent health problems. The therapist gives training on an individual basis and/or in groups that are aimed at health stimulating behaviour in daily life, work and leisure time (KNGF, 2006). Activities from the therapist range from informing, advising and coaching to actually give training programmes and courses. All activities are focused on stimulating a healthy lifestyle with the client or patient and therefore reducing the risk of health problems.

Only the American profile, by means of criterion 14 (education) underlines the importance of prevention as much as the Dutch profile. In most other profiles prevention is considered to be a part of the therapeutic intervention. In a further specification of standard 7 of the Australian Standards (implement safe and effective physiotherapy intervention(s)) the implementation of health promotion activities is mentioned whereas the standards from Ireland do not directly refer to any type of preventive interventions.

### **Manager**

Next to the role of care provider the role of manager has been distinguished. The role of manager relates to the organisation of the therapist’s professional activities and the

contribution he or she makes to the functioning of the organisation internally and in relation to the environment. The manager role has been defined by the competences *organising* and *enterprising*. Organising involves the systematic patient administration and financial administration, the use of efficient work methods and the contribution to a pleasant and constructive work and treatment environment. Enterprising signifies the businesslike orientation on the weak and strong points of the organisation as well as the challenges and chances and the ability to act on it by making a business plan. Organising and enterprising are best compared to standard 3 (assess, interpret and apply information to continuously improve practice) and standard 9 (operate effectively across a range of settings) of the Australian Standards. The Irish competence profile defines the role of manager as *Planning and maintaining a quality service* and in the US-profile the manager competencies are obvious in criterion 17 (financial resources) and 18 (direction and supervision of personnel) of the Patient management section and criterion 1 (safety) and 3 (accountability) of the Professional Practice section.

### **Developer of the Profession**

The third and last professional role of the physiotherapist as described in the Dutch professional profile is the role of developer of the profession. The role of developer of the profession has a specific focus on the quality of the provision of care or service by means of personal development of the physiotherapist or a contribution from the therapist to the development of the profession as a whole. The developer role comprises of two competencies of which *research* being the first competence. Next to maintaining an up-to-date patient administration form from which data can be contracted for research purposes this competence also refers to the active participation of the physiotherapist in scientific research projects.

The second competence is innovation. Innovation can take place at three levels (a) personal level (b) work methods and professional acting in the organisation and (c) innovation within the profession of physiotherapy. One characteristic of innovation is the development and dissemination of new insights by means of research, education and information.

The professional role of developer of the profession as it is described in the Dutch profile cannot easily be recognized in the other international profiles. The research component is not a subdivided section in the other profiles but it is more incorporated in the behavioural indicators or performance indicators related to the role of care provider.

The similarity regarding innovation mainly lies in the personal development part. Innovation as such is not a term that is used in the other profiles. The personal development

part is well described in the US-profile under criterion 6 (professional development) and in the Australian Standards under standard 3 (access, interpret and apply information to continuously improve practice). Within key area 3 (education) the Irish profile distinguishes *continuing professional development* (personal) and *education* (for the clinic or practice) that are both related to the further development of the quality of care.

As explained before the role of care provider relates to the primary process and the other two roles are supportive to this primary process. The roles are not separate but usually complimentary to each other and in daily practice it is hard to distinguish the different roles and competencies. Maintaining a good patient administration for instance is a requirement that relates to therapeutic intervention as well as it is a requirement for both the role of manager and the role developer of the profession.

### **Norms of Professionalism**

Apart from the three professional roles of a physiotherapist also the *Norms of Professionalism* have been defined in the Dutch competence profile. These norms can be seen as general professional competencies (van der Vleuten & Schuwirth, 2005) and relate to the behaviour in which the norms and values of professional practice are visible. The norms of professionalism focus on three different dimensions, namely dealing with tasks/works, dealing with other people and dealing with oneself. The norms of professionalism in the Dutch profile equals standard 1 (demonstrate professional behaviour appropriate to physiotherapy) from the Australian Standards, section 2 (professional behaviour) and 4 (communication) from the American profile and professionalism in part A (professional practice) in the Irish profile.

There is a substantial difference in structure between the physiotherapy competence profiles of the USA, Australia, Ireland and the Netherlands. This difference makes it complicated to compare the profiles. The comparison that has been made shows that the professional role of the physiotherapist as a care provider (evaluation and assessment) can be compared the easiest amongst the different international profiles and are least influenced by cultural, legal and social differences between the countries. The Dutch roles of manager and developer of the profession are harder to compare to the other competency profiles.

The clinical education period at Saxion is oriented towards the development of the student in the role of care provider. The assessment form should therefore focus on the assessment of this role. The comparison of the assessment forms that are used internationally

is also made with specific attention to the criteria that are related to the role of care provider and not for the role of manager and developer of the profession.

### **Method Phase 1**

The project of developing the assessment form consisted of two phases. The first phase was the development of a new assessment form for clinical practice. The second phase consisted of a field trial, an analysis of the data and a survey amongst the clinical supervisors about the usability of the assessment form.

#### **Development of the Assessment Form**

The assessment of the performance of the student during the clinical education period is a summative assessment focused on the norms of professionalism and the role of care provider. At the Saxion physiotherapy education the other two roles are assessed in a different way by means of carrying out a (research) project at the final year of education

The model that has been used for the development of the clinical practice assessment form is the *four building blocks* approach as described by Wilson (Wilson, 2005). This approach for developing a measurement instrument distinguishes four building blocks in the process of constructing measurement instruments. The four blocks are Construct mapping, Items design, Outcome Space, and Measurement model. The process of constructing a new measurement instrument for assessing the *clinical education period* will be described based on these four steps.

#### **Construct Mapping**

The reason why assessment forms are developed is that there's a need to register or grade a person's overall ability or specific quality. In his book Wilson (2005) refers to the 'overall ability' as *the construct*. In this project the ability (the construct) that needs to be measured is the clinical or professional competence of physiotherapy students. The observation and registration of the student's performance is carried out in order to be able to make a judgement on the overall quality of the student as a physiotherapist. Considering the assumption of unidimensionality this overall quality can be seen as the one ability that is being measured. Wilson considers the construct that needs to be measured to have a fairly simple form. It ranges from the one end to the other end (high-low, small-big, poor-rich) and the score of a respondent (student) can be at any point in between. Clinical competence as a construct within the educational context is considered as a continuum of very poor level of

competence (incompetent) to a very high level of competence (excellent). In measuring this construct interest lays in where the individual stands on this range of one extreme to another.

The assessment form for the clinical education period is intended to measure the underlying concept of ‘clinical competence’. Dalton & Keating (M. Dalton et al., 2009) made a construct map for identifying clinical competence in the field of Physiotherapy. Clinical competence was considered a continuum of performance from very poor (incompetent) through to very high levels of competence. Students of physiotherapy can demonstrate more or less of the variable clinical competence. The construct map of clinical competence as presented by Dalton et al (2009) has been adopted for the assessment form within this project.

This model from M. Dalton et al. (2009) comprises of five levels of clinical competence that form a continuum of clinical competence. In this project the construct of clinical competence is composed of the norms of professionalism and of the role of care provider. As stated in the Dutch competence profile the norms of professionalism are considered to be conditional behaviour to perform well on the professional roles and its competences. The model takes the level of a starting professional as the level of reference. That implies that the *excellent level* of level of clinical competence is not a level that can only be achieved by a very experienced professional, but it means an excellent level of clinical competence relative to the level of the starting physiotherapist. In the Dutch competence profile a distinction is made per competence between level indicators of the starting level and of advanced level. This difference is also incorporated during the items design of the assessment form.

### **Items Design**

The construction of the item list is based on the Dutch competence profile (KNGF, 2006) and international literature about assessment criteria for the clinical competence or the clinical education period of physiotherapy students. The literature search has lead to the construction of a first item pool. This initial item pool was presented to three different focus groups of clinical instructors and teachers. The feedback from the focus groups was then processed and a final list of items was constructed.

General criteria for the construction of the items were (a) target one attribute; (b) describe an observable and measurable behaviour; (c) avoid negative wording; (d) be explicit in meaning; and (e) be as concise as possible

The initial item pool consisted of items that were assembled from already existing clinical period assessment forms found in the international literature ((Coote et al., 2007; M.

Dalton et al., 2009; Fitzgerald et al., 2007; Roach et al., 2002) The process of the construction of all these assessment forms was well documented and all authors mention the involvement of expert groups in defining the performance indicators (items). All items that were found on the existing assessment form were listed and categorized. Items that were observed to be an indicator for one of the four construct domains were categorized together. The four construct domains that were used were based on the Dutch competence profile (KNGF, 2006) regarding professional behaviour and the professional role as a caretaker.

After the categorization of all the items other articles (Vinette Cross, 1998; V. Cross, 1999, 2001; V. Cross & Hicks, 1997; Hayes et al., 1999; Joseph et al., 2011; Lewis et al., 2008; Sanford, Stratford, & Solomon, 1993; Stickley, 2005) with information about performance indicators to measure the clinical competence of physiotherapy students were analysed. The items were checked against the existing list of items obtained from the assessment forms. Comparable items present on all or most of the lists were identified and were considered to be most relevant. Items least present on any of the assessment forms were considered to be of least importance. Items were also compared to the description of the 3 competences (of the professional role of caretaker) as described in the Dutch competence profile of physiotherapy.

### **Outcome Space**

The structure of the assessment form in this project has been based on the Australian ‘Assessment of Physiotherapy Practice’ (APP) (M. Dalton et al., 2009). It was decided to use the same rating scale for item scoring as was used in the APP since there was positive validity evidence on instrument internal structure.

Each could be scored on a 5-point scale between 0 (*student rarely demonstrates behaviour related to the performance indicators*) and 4 (*student shows behaviour related to performance indicators at an excellent level*). A rating of 0 or 1 indicates that the level of performance of the student has not met the minimum acceptable standard for that item. A score of 2 will be considered to be the minimum acceptable score for an entry-level physiotherapist (passing standard).

Next to the item score the clinical supervisor should give an overall score for the performance of the student. This overall score, on a scale of 1 (*very poor*) to 10 (*excellent*) is the score that will be administered at the university for being the final score for the clinical period of the student.

## Measurement Model

The object of the measurement model is to relate the scored data back to the construct. Data were analysed using SPSS software (version 20). Calculated were the means and variances of the items, the reliability, p-values the item-test correlations and an analysis of differential item functioning was carried out.

## Results Phase 1

The result of phase 1 was a concept of the final assessment form. The assessment form consisted of 19 items that were selected from a very large initial item pool. The items should be scored on a scale of 0 (*rarely demonstrates performance corresponding with the performance indicators*) to 4 (*demonstrates most performance indicators to an excellent standard*). A score of 2 was considered to be the minimum acceptable score, which indicates that a score of 0 or 1 is a score for a student whose performance was considered to be insufficient. Next to the score of 0 to 4 per item the rater should administer a global score on a scale of 1 to 10.

The *first* draft of the assessment form contained 18 items and was presented to three different focus groups. The first focus group consisted of 12 clinical supervisors and the second focus group consisted of 14 clinical supervisors. The third group consisted of 8 physiotherapy lecturers from Saxion. Questions to the focus groups were related to comprehensiveness of the items per construct domain, clarity of the items and the performance indicators and clearness of the grading system used in the form. The feedback of the groups consisted in essence of the following topics; the lack of an item for evaluating the performance of group therapy, the lack of an item for evaluating the performance of a student within a special type of clinical education called *learning-workplace*<sup>1</sup> (leerwerkplaats) and a comment on the specificity of item 18 related to giving information and advice to the patient. Next to these comments some additions were suggested to the performance indicators with a reference to the patient- and financial administration of the therapeutic care. Feedback from all three groups resulted in the addition of one item (item 19) that concerned the performance of group therapy, a textual adjustment of item 18 with more focus on counselling and education in promoting a healthy lifestyle and some minor adjustments of the performance indicators. It was decided not to add a specific item for evaluating the *learning-workplace*

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<sup>1</sup> In a learning workplace the student also supervises a 1st-year and a 2nd-year student during their clinical education.

performance of the student since it is not considered to be a component of clinical competence and only a limited amount of students have their clinical education at one of these work-learning settings. Feedback on the performance of the student in these kind of clinical education settings should be addressed in the open text box on the assessment form.

The final version of the assessment form (Appendix A) that was used for the implementation consisted thus wise of 19 items within four construct domains.

## **Method Phase 2**

The second phase of the project consisted of a field trial. In this trial the assessment forms were administered to the clinical supervisors and students to be used as the assessment form for the clinical period. The data from the assessment form were gathered and analysed. Next to that a small user survey amongst the clinical supervisors was carried out.

### **Field-test**

After the final draft of the assessment form the information for the clinical supervisors and students was constructed. The information for the students was presented on Blackboard (digital learning environment) and the information for the clinical supervisors was sent by mail to the clinic. The information that was provided contained:

- Letter with general information about the new assessment form, contact information from the university and information on the research project
- Assessment form + Performance indicators (see Appendix B)
- Instructions on how to use the form (see Appendix C)
- FAQ-list (see Appendix D)

### **Participants**

The assessment form was introduced parallel to the then used (*old*) assessment form. For the clinical supervisor and the student it was optional to use the new form or not for the first testing period of six months. After the first six months the new assessment would replace the old assessment form and the new form would then be the standard form to use.

Participants are all physiotherapy students of Saxion who are in their first or second clinical education period as part of the graduation phase of their education. Students are obliged to do two clinical periods of one university semester, one within a health institution

like a hospital, rehabilitation centre or an institute for elderly care and one clinical period in a private practice.

Only students from the Dutch program are included. The Dutch program also includes many German students who will do their clinical period in Germany. Therefore the assessment form was also translated into German.

## User Information

After the one and a half year period a small user survey (see Appendix E) has been carried out amongst the clinical supervisors about the assessment form. The survey focused on the usability of the assessment form.

## Data Management and Analysis

All the completed forms were copied and handed in to the researcher. The original forms stayed at Saxion. From the copied forms the data were de-identified and entered into SPSS.

## Validity

In this project of developing an evidence based assessment form for the clinical practice of physiotherapy students the focus of evidence is placed on the validity of the assessment instrument. Camara (2003) states “Validity is the most important consideration in developing and evaluating educational assessments”. It involves accumulating the evidence that provides a scientific basis for the proposed test score interpretations (Camara, 2003; Cizek, 2012)

In the 1999 version of the Standards for Educational and Psychological Testing (*The Standards*) the concept of validity changed from what it was in the previous editions of The Standards (Brown, 2010; Camara, 2003; Cizek, Bowen, & Church, 2010; Cizek, Rosenberg, & Koons, 2007; Downing, 2003; Goodwin & Leech, 2003). Brown refers to the definition of Validity in the standards of 1999 as “the degree to which evidence and theory support the interpretations of test scores entailed by proposed use of tests”. Instead of defining various types of validity, the concept of validity is now being considered as a unitary concept. The Standards identify five sources of evidence for validity (a) evidence based on test content; (b) evidence based on internal structure; (c) evidence based on relationships to other variables (d) evidence based on response processes; and (e) evidence based on consequences of testing (Brown, 2010; Cizek et al., 2007). Whether validity evidence based on consequential validity

should be part of the validation process of a test is highly debated within the literature (Baartman, Bastiaens, Kirschner, & van der Vleuten, 2006; Brown, 2010; Cizek et al., 2010; Cizek et al., 2007) but for reasons of completeness of the unitary concept of validity it is included in this report.

### **Test Content Evidence**

Evidence that is based on the test content should demonstrate that the content of the test sufficiently reflects the content domain. In other words, is the test (or assessment) a good representation of the construct that needs to be assessed?

### **Response Process Evidence**

In the 1999 Standards context response process was defined as evidence of data integrity such that all sources of potential error associated with test administration are controlled or eliminated to the largest extent possible.

Gathering evidence for the assessment form for clinical education should not so much be focused on the students who are the subject of observation, but specifically on the clinical supervisors who score their observations on the form. The degree to which the graders rate the performance in accordance with the scoring rubric is a critical validity issue. Next to that it is important to investigate the items that have been left blank the most. These items might need to be adjusted or deleted based on the feedback of the graders on why they have left that particular item blank. It must also be made clear what the influence is on the score interpretations of the items that have been left blank. Grader accuracy, scoring rubric stability and inter-rater reliability are all important sources of response process evidence.

### **Internal Structure**

The internal structure refers to the internal consistency of the test and relates to the question to which extent the different items in the test contribute to the intended measurement of the measurement (Brown, 2010).

Another category of evidence for the internal structure is Differential Item Functioning (DIF). DIF techniques can help identify item bias. An item in the test is considered biased if it functions differently for a group of test takers based on gender, culture, ethnicity, or race. In such a case students who have the same ability do not have an equal chance of success.

Different types of reliability such as test-retest reliability, inter-rater reliability all contribute to the internal structure validity evidence base of an instrument (Downing, 2003).

### **Relation to other Variables**

Evidence based on relation to other variables refers to validity evidence that is collected by measuring the correlation with other measurement instruments and its criteria measuring the same or similar construct (e.g. other test scores, grades, supervisor ratings) (McCoach, Gable, & Madura, 2013)

### **Consequential Validity**

Validity evidence based on the consequences of testing refers to evaluating both the intended and the unintended consequences associated with a test. Consequences of testing can both be positive and negative. Primary concern with respect to unfavourable consequences is that any negative impact on a person or on a group should not be caused by any source of test invalidity such as differential item functioning or construct under-representation (Brown, 2010; Sireci & Sukin, 2013).

In this project validation is directed at gathering validity evidence related to (a) test content (b) response process and (c) internal structure. Test content evidence is collected by founding the assessment form on the Dutch competence profile, making a comparison with international competence profiles and assessment forms, the use of focus groups and the survey amongst the clinical instructors. Analysis of the completed forms and the user survey both contribute to the evidence related to the response process. Finally, statistical analysis of all the data add to the evidence related to the internal structure of the assessment instrument. Validity evidence of ‘relation to other variables’ and ‘consequential validity’ cannot be obtained because of limited resources (i.e. time, personnel, availability and acceptability of other measurement instruments that measure the same construct and research capacity)

## **Results Phase 2**

A total of 207 assessment forms (n=207) were collected over a period of one and a half year of which 132 forms were returned from a clinical site in the Netherlands and 75 forms from a clinical site in Germany. 153 forms were complete and had no missing item scores. Fifty forms had one or two missing item scores and four forms (all from Germany) had three or more missing item scores. These last forms were excluded from all analysis because of >15% of missing scores per assessment form. There is no determined standard regarding an acceptable percentage of missing data (Dong & Peng, 2013) but maximal acceptable percentages ranging between 5% and 20% have been described (Schlomer, Bauman, & Card, 2010). In this project a maximum of 10% of missing data (per assessment

form) has been accepted. Most missing item scores were reported with item 18 (education and advice to promote a healthy lifestyle) and with item 19 (providing group therapy and guiding training programs) of which respectively 7.7% and 15.9% of the item scores were not reported.

A reliability analysis was performed and Cronbach's alpha is 0.96, which is a remarkable high score. There was no increase (*nor decrease*) of Cronbach's alpha if one of the items was deleted. The discrimination index (or corrected item-total correlation) varies between 0.52 (item 4; *pays attention to legal, ethical and cultural aspects of the physiotherapeutic care*) and 0.85 (item 13; *sets up a treatment plan in cooperation with the patient or client*). The Pearson correlation coefficient between the overall score and the item total score is 0.84 and is significant at the p<0.01 level.

The mean total score is 61.3 (SD=10.8) with a minimum score of 14.5 and a maximum score of 76. The mean overall score (on a scale of 1 to 10) is 7.9 (SD=1.2) with a minimum score of 5 and a maximum score of 10.

### **Group Comparison**

Analysis of the results per group shows a Cronbach's alpha of 0.95 for the Dutch group and a Cronbach's alpha of .91 for the German group. The average overall score from the Dutch group is 7.4 (SD=.96) with an average total score of 57.3 (SD=10.3) where the mean of the overall score of the German group is 8.8 (SD=.99) with a mean total score of 68.7 (SD=7.3). Both the difference in mean overall score (=1.4) and mean total score (=11.4) are significant.

When looking at the discrimination index there are two items (item 4 and item 7) that have a relatively high difference of the discrimination index between the two groups. Item 4 relates to the awareness of students towards legal, ethical and cultural issues within their professional work. The discrimination index for item 4 in the Dutch group is 0.47 and for the German group this is 0.05 (difference of 0.43). Item 7 measures the capability of the student to organize his/her own work and take initiative towards the clinical supervisor to discuss own learning goals. The discrimination index for item 7 for the Dutch group is 0.67 and for the German group this is 0.23 (difference is 0.44). This large difference in discrimination index for the two items between the two groups might be an indication for differential item functioning.

### **User Survey Results**

The survey questions were returned by a total of 51 clinical supervisors out of a total

of 120 clinical sites. Under the assumption that only one supervisor per clinical site responded to the survey the response rate is approximately 42%. Most satisfied are the clinical supervisors (76% agree, 4% disagree) about the time it costs to fill out the assessment form. Thirty-seven percent of the respondents indicate to have missed training on how to use the assessment form whereas forty percent declare not to have missed training. The majority of clinical supervisors (60%) state that the information they received was sufficient to be able to use the assessment form. A small group (14%) does not feel supported by the assessment form to give concrete feedback to the student and even a smaller group indicates to make no use at all of the behavioural indicators that belong to the assessment form. Although sixty percent of the supervisors agree on the completeness of the set of items, still twenty-six percent has its doubts and fourteen percent is actually missing some items. Two respondents gave an example of an item they were missing. In the *open remark* area of the survey the following responses were given (a) more focus on assertivity and autonomy of the student and (b) an item related to time-efficiency and patient administration. The respondents (57%) also indicate that they are well able to differentiate between the different levels (zero to four). Only sixteen percent indicate that they are not able to do so. On the question which assessment form is preferred (the current form compared to the previous form) a small majority of the respondents (60%) prefer the current form and forty percent of the respondents are indifferent about the two forms. No respondent has chosen the previous assessment form to be the form of his or her preference.

## Discussion

The different validity evidence that was accumulated during the process of validation of the assessment form supports the notion that the scores on this assessment form can be used to judge the level of performance of clinical competence of a student of the clinical period during their final year of clinical practice. The evidence supports the belief that the items in the assessment form are exhaustive and that they measure the intended construct of clinical competence of the physiotherapy student.

The Cronbach's alpha (0.96) has a striking high value. Based on just the Cronbach's alpha it is tempting to state that the assessment form has a very high internal consistency, which would be a good indication that all the items measure the same concept or construct. Such a statement should be made with caution. The internal consistency of a test is just one of the indicators related to validity. It is a piece of evidence (internal structure) that is gathered

in the validation process of the assessment form. It would be wrong to base a conclusion just on the basis of one statistical outcome. Next to this, the calculation of Cronbach's alpha is made under the assumption that every single item is judged independently from the other items by the clinical supervisor. It could be questioned whether this has actually been the case. The question that rises is how meticulous the clinical supervisors have judged every item by itself, or if they have just skimmed through all the items with a pre-occupied mind. Further research into the way the clinical supervisors make use of the form is necessary to amass knowledge related to the response process.

Another aspect that plays a role in the high Cronbach's alpha value is the fact that in a lot of cases the assessment form is a product of the judgment of more than one supervisor. Many students have had more than one clinical supervisor during their clinical education. As is recommended in the assessment procedure those supervisors discuss the evaluation of the student before they fill out the assessment form. This way the possible uncertainty of two different judgments is diminished. It can be argued that for an objective assessment of the validity and reliability of the assessment form it is not desirable to have the supervisors attune their judgment before filling out the form. On the other hand, since in the procedure it is recommended and in daily practice very common behaviour, the tuning of the judgment is part of the assessment process in which the assessment form is used and therefore it is relevant to integrate that in the research.

The results of the user survey show that the majority of the supervisors agree with the statement that the assessment form is supportive in making the final judgment of giving the global score. This information adds validity evidence in relation to the response process. In what way the form is supportive has not been investigated. Does the grading score per item have an additional value, or are the items with the behavioural indicators enough to support the clinical supervisor? This question is interesting in the way that it can help to decide how to further develop the grading procedure. In the current procedure the final score of the student is not calculated using the total item score. The strong relation between the two (Pearson's  $r$  is 0.84) supports the conception that the total itemscore could be integrated into the procedure of determining the final score for the student, instead of just using the global score as a final result for the student. For the further development of the assessment form i.e. a more sophisticated standard setting, the integration of the item total score in the grading procedure is an interesting issue that needs further exploration.

Analysis of Cronbach's alpha if item deleted shows that there are several items that, if they were to be singularly deleted, could be deleted without a negative influence on

Cronbach's alpha. It could be argued that those items could then be removed from the item list without jeopardizing the internal consistency. Removing one or more items will however have an influence on another part of the validity evidence. The item list was constructed and reviewed by physiotherapy experts and based on the national competence profile and (inter) national literature. An item deletion without the involvement of a focus group diminishes the value of the test content validity evidence that was gathered in the development process of the assessment form. Another argument against the deletion of an item is the conceivable idea that people will start to miss specific items and start to question the validity of the assessment form. In the public opinion it might be hard to believe that leaving out some items will not be of influence of the total judgment. Next to that it is the idea that the items with the behavioural indicators also have an educational importance. The items and indicators not only provide the clinical supervisor with information on where to judge the student on, the student also knows on beforehand what the judgment criteria are and which behaviour is required to pass the minimal standard. Leaving out some items will limit the available information for the student. It might also be true that, although the item is not present anymore on the assessment form, the clinical supervisor still (consciously or subconsciously) still integrates the content of that item into his overall judgment or incorporates it into the judgment of another item. The explicitness for the student where he or she will be judged on is then also diminished.

A closer look at the items that have been left blank showed that item 18 (8%) and item 19 (16%) had the most missing data. Item 19 (providing group therapy and/or coaching with training programs) might be an item that could not be judged because in some clinics no group therapy is provided. Item 18 is an item that relates to specific behaviour of the physiotherapist (or student) in educating the patient. This behaviour could be hard to discriminate from behaviour that is expressed during the diagnostic or therapeutic process and therefore some clinical supervisors might find it hard to judge this specific item. In the analysis of the data no distinction was made between a complete missing score, and the real score of *item was not judged*. Remarkably it is also item 18 and item 19 that were adjusted (18) or added (19) based on feedback from the focus groups. Both items could be removed from the item list without having an influence on the internal consistency. But, as stated before, the removal of items could jeopardize the validity evidence related to test content and therefore the items should stay on the item list of the assessment instrument.

The score of zero (rarely shows behaviour according to the behavioural indicators) is a score that indicates a very poor level of performance of the student. The score shows up on an average of 0,8% per item (highest percentage 3% at item 16). This could be considered a low

percentage but in the final stage of a student's career a very poor level of performance should be the exception. Expectation was that the frequency of the zero score would be higher (2,5-5%). A possible influence could be that scoring 'zero' has a negative psychological effect. It would be interesting to explore if the percentage of lowest scores would change if the grading scale were changed into 1 to 5.

The differences in scores between the Dutch and the German student group (both global score and item total score) might indicate some bias in the grading of the students. A possible cause of this bias might be an improper adjustment to the educational level or grading system from the clinical supervisors. The Dutch global score of scoring 1 to 10 is very different from the German global score of 1 to 6 and in Germany it is much more common to award the highest mark (1) than in the Netherlands (10). Next to the influence on the global score this cultural difference might also have had its influence in the grading of the items. Item 4 (awareness of students towards legal, ethical and cultural issues within their professional work) and item 7 (capability of the student to organize his/her own work and take initiative towards the clinical supervisor to discuss own learning goals) show signs of differential item functioning (DIF). The discrimination index for these items within the German group is very low. The idea is that this is related to the way the German clinical supervisors use the scoring form based on differences between German and Dutch culture and educational system. A training session on how to use the form and grading scales might have prevented or diminished the bias in grading and the presence of DIF.

The usability of the assessment instrument is not a part of the validation process, but can be an important argument in the decision by policy makers about the use of the instrument. The survey that was carried out, that also addressed the satisfaction about the use of the assessment form, was a short non-validated survey that contained 13 questions. Results from this survey should be interpreted with caution and can only be regarded as indicative, but show a positive attitude towards the usability of the assessment form. In general, the clinical supervisors are satisfied with the content and the usability of the assessment form and they feel supported by the form in making a decision about the final grading (global score).

The collected test content evidence (focus groups, results of user-survey, physiotherapy profiles, literature search), internal structure evidence (statistical analysis) and response process evidence (analysis of data, user-survey responses) are all supportive validity evidence for the developed assessment instrument. It can therefore be concluded that the scores on this assessment form can be used to make a valid judgment about the clinical competency of a student at the end of a clinical period during their final year. The validity

arguments are certainly valid for the group from which the data were used in this project. A new statistical analysis should be performed for every new group and the assessment form should be evaluated every year or every two years with the focus groups to continue building validity evidence. The evaluation process should then be regarded and treated as a validation process.

With any change in the educational program of physiotherapy or in the competence profile of the physiotherapist a repetition of the validation process will be required. For the process of accumulating validity evidence it is recommended to further explore the functioning of a few items (item 4, 7, 18 and 19), the relation between the item total score and the global score to further accumulate validity evidence.

## References

- Baartman, L. K. J., Bastiaens, T. J., Kirschner, P. A., & van der Vleuten, C. (2006). The wheel of competency assessment: presenting quality criteria for competency assessment programs. *Studies in Educational Evaluation*, 32, 153-170. doi: 10.1016/j.stueduc.2006.04.006
- Brown, T. (2010). construct Validity: A Unitary Concept for Occupational Therapy Assessment and Measurement. *Hong Kong Journal of Occupational Therapy*, 20(1), 30-42.
- Camara, W. J. (2003). Professional Testing Standards: What Educators Need To Know (pp. 11).
- Carr, S. J. (2004). Assessing clinical competency in medical senior house officers: how and why should we do it? *Postgraduate Medical Journal*, 80(940), 63-66. doi: 10.1136/pmj.2003.011718
- Cizek, G. J. (2012). Defining and distinguishing validity: interpretations of score meaning and justifications of test use. *Psychol Methods*, 17(1), 31-43. doi: 10.1037/a0026975
- Cizek, G. J., Bowen, D., & Church, K. (2010). Sources of Validity Evidence for Educational and Psychological Tests: A Follow-Up Study. *Educational and Psychological Measurement*, 70(5), 732-743. doi: 10.1177/0013164410379323
- Cizek, G. J., Rosenberg, S. L., & Koons, H. H. (2007). Sources of Validity Evidence for Educational and Psychological Tests. *Educational and Psychological Measurement*, 68(3), 397-412. doi: 10.1177/0013164407310130
- Coote, S., Alpine, L., Cassiy, C., Loughnane, M., Macmahon, S., Meldrum, D., . . . O'Mahoney, M. (2007). The development and evaluation of a Common Assessment Form for physiotherapy practice education in Ireland. *Physiotherapy Ireland*, 28(2), 6-10.
- Council, A. P. (2006). Australian Standards for Physiotherapy. Canberra.
- Cross, V. (1998). Begging to Differ? Clinicians' and academics' views on desirable attributes for physiotherapy students on clinical placement. *Assessment & Evaluation in Higher Education*, 23(3), 295-311. doi: 10.1080/0260293980230306
- Cross, V. (1999). The Same But Different A Delphi study of clinicians' and academics' perceptions of physiotherapy undergraduates. *Physiotherapy*, 85(1), 28-39. doi: 10.1016/s0031-9406(05)66061-0
- Cross, V. (2001). Approaching Consensus in Clinical Competence AssessmentThird round of a Delphi study of academics' and clinicians' perceptions of physiotherapy undergraduates. *Physiotherapy*, 87(7), 341-350. doi: 10.1016/s0031-9406(05)60866-8
- Cross, V., & Hicks, C. (1997). What Do Clinical Educators Look for in Physiotherapy Students? *Physiotherapy*, 83(5), 249-260. doi: 10.1016/s0031-9406(05)66217-7
- Dalton, M., Davidson, M., & J., K. (2011). The APP is a valid measure of professional competence of physiotherapy students: a cross-sectional study with Rasch analysis. *Journal of Physiotherapy*, 57(4), 239-246.
- Dalton, M., Davidson, M., & Keating, J. (2012). The assessment of Physiotherapy Practice (APP) is a reliable measure of professional competence of physiotherapy students: a reliability study. *Journal of Physiotherapy*, 58(1), 49-56. doi: [http://dx.doi.org/10.1016/S1836-9553\(12\)70072-3](http://dx.doi.org/10.1016/S1836-9553(12)70072-3)
- Dalton, M., Keating, J., & M., D. (2009). Development of the Assessment of Physiotherapy Practice (APP): A standardised and valid approach to assessment of clinical

- competence in physiotherapy (pp. 6-28). Brisbane: Griffith University: Australian Learning and Teaching Council (ALTC).
- Dong, Y., & Peng, C.-Y. J. (2013). Principled missing data methods for researchers. <http://www.springerplus.com/content/2/1/222> doi:10.1186/2193-1801-2-222
- Downing, S. M. (2003). Validity: on the meaningful interpretation of assessment data. *Medical Education*, 37(9), 830-837. doi: 10.1046/j.1365-2923.2003.01594.x
- Edwards, I., Jones, M., Carr, J., Braunack-Mayer, A., & Jensen, G. M. (2004). Clinical Reasoning Strategies in Physical Therapy. *Physical Therapy*, 84(4), 312-330.
- Epstein, R. M., & Hundert, E. M. (2002). Defining and Assessing Professional Competence. *The Journal of the American Medical Association*, 287(2), 226-235.
- Fitzgerald, L. M., Delitto, A., & Irrgang, J. J. (2007). Validation of the Clinical Internship Evaluation Tool *Physical Therapy*, 87(7), 844-860.
- Goodwin, L. D., & Leech, N. L. (2003). The meaning of validity in the New Standards for Educational and Psychological Testing: Implications for measurement courses. *Measurement and Evaluation in Counseling and Development*, 36, 181-191.
- Hayes, K. W., Huber, G., Rogers, J., & Sanders, B. (1999). Behaviors that cause clinical instructors to question the clinical competence of physical therapist students. *Physical Therapy*, 79(7), 653-667.
- Joseph, C., Hendricks, C., & Frantz, J. (2011). Exploring the key performance areas and assessment criteria for the evaluation of students' clinical performance: a delphi study. *South African Journal of Physiotherapy*, 67(2).
- KNGF. (2006). The Professional Profile of the Physical Therapist (pp. 33). Amersfoort, The Netherlands: Drukkerij De Gans.
- Lewis, L. K., Stiller, K., & Hardy, F. (2008). A clinical assessment tool used for physiotherapy students—Is it reliable? *Physiotherapy Theory and Practice*, 24(2), 121-134. doi: 10.1080/09593980701508894
- McCoach, D. B., Gable, R. K., & Madura, J. P. (2013). Evidence Based on Relations to Other Variables: Bolstering the Empirical Validity Arguments for Constructs *Instrument Development in the Affective Domain* (Third ed.). New York: Springer.
- Meldrum, D., Lydon, A.-M., Loughnane, M., Geary, F., Shanley, L., Sayers, K., . . . Filan, D. (2008). Assessment of undergraduate physiotherapist clinical performance: investigation of educator inter-rater reliability. *Physiotherapy*, 94(3), 212-219. doi: 10.1016/j.physio.2008.03.003
- Physiotherapists, I. S. o. C. (2008). Therapy Project Office, Physiotherapy Competences.
- Roach, K., Frost, J., Francis, N., Giles, S., Nordrum, J., & Delitto, A. (2012). Validation of the Revised Physical Therapist Clinical Performance Instrument (PT CPI): Version 2006. *Physical Therapy*, 92(3), 416-428. doi: 10.2522/ptj.20110129
- Roach, K., Gandy, J., Deusinger, S., Clark, S., Gramet, P., & Gresham, B. (2002). The Development and Testing of APTA Clinical Performance Instruments. *Physical Therapy*, 82(4), 329-353.
- Sanford, J., Stratford, P., & Solomon, P. (1993). Clinical evaluation: physiotherapists' ranking of competencies. *Medical Teacher*, 15(4), 369-377. doi: doi:10.3109/01421599309006659
- Schloemer, G. L., Bauman, S., & Card, N. A. (2010). Supplemental Material for Best Practices for Missing Data Management in Counseling Psychology. *Journal of Counseling Psychology*. doi: 10.1037/a0018082.supp
- Sireci, S. G., & Sukin, T. (2013). Test validity. 61-84. doi: 10.1037/14047-004

- Stickley, L. A. (2005). Content Validity of a Clinical Education Performance Tool: The Physical Therapist Manual for the Assessment of Clinical Skills. *Journal of Allied Health*, 34(1), 24-24-30.
- van der Vleuten, C. P., & Schuwirth, L. W. (2005). Assessing professional competence: from methods to programmes. *Med Educ*, 39(3), 309-317. doi: 10.1111/j.1365-2929.2005.02094.x
- Wass, V., Van der Vleuten, C., Shatzer, J., & Jones, R. (2001). Assessment of clinical competence. *The Lancet*, 357(9260), 945-949. doi: 10.1016/s0140-6736(00)04221-5
- WCPT. (2011). WCPT guideline for the clinical education component of physical therapist professional entry level education (pp. 28). London: World Confederation for Physical Therapy.
- Wilson, M. (2005). *Constructing Measures: An Item Response Modeling Approach* Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

## Appendix A



### Beoordelingsformulier Stage Niveau 3

Naam student:

Studentnummer:

Naam stagebegeleider(s):

Stage instelling:

- 0 = Vertoont zelden gedrag overeenkomstig de gedragsindicatoren  
 1 = Vertoont weinig gedragsindicatoren op (net) voldoende niveau  
 2 = Vertoont veel gedragsindicatoren op (net) voldoende niveau  
 3 = Vertoont meeste gedragsindicatoren op een goed niveau  
 4 = Vertoont meeste gedragsindicatoren op een uitstekend niveau  
 N = item is niet beoordeeld

Een classificatie van 0 of 1 betekent dat student **niet voldaan** heeft aan de minimale eisen

<b>Professioneel Gedrag (normen van professionaliteit)</b>	<b>Omcirkel 1 nummer</b>
1. Is kwaliteitsgericht bij het omgaan met werk en taken	0 1 2 3 4 N
2. Werkt constructief samen met anderen	0 1 2 3 4 N
3. Heeft een ontwikkelingsgerichte beroepshouding	0 1 2 3 4 N
4. Heeft aandacht voor wettelijke, ethische en culturele aspecten binnen de fysiotherapeutische hulpverlening	0 1 2 3 4 N
5. Handelt op basis van een toereikende kennisbasis	0 1 2 3 4 N
6. Communiceert effectief en op gepaste wijze	0 1 2 3 4 N
7. Organiseert eigen werkzaamheden	0 1 2 3 4 N
<b>Screening, Diagnosticeren, Plannen</b>	
8. Voert een op de situatie toegepaste anamnese uit	0 1 2 3 4 N
9. Stelt een onderzoeksplan op	0 1 2 3 4 N
10. Voert een effectief onderzoek uit	0 1 2 3 4 N
11. Interpreteert (verklaart/legt uit) de gegevens uit het onderzoek	0 1 2 3 4 N
12. Stelt een fysiotherapeutische diagnose op	0 1 2 3 4 N
13. Stelt een behandelplan op (in samenspraak met de patiënt/cliënt)	0 1 2 3 4 N
<b>Therapeutisch Handelen</b>	
14. Voert de behandeling op gepaste wijze uit	0 1 2 3 4 N
15. Evalueert het resultaat van de interventie	0 1 2 3 4 N
16. Onderbouwt het fysiotherapeutisch handelen en maakt daarbij gebruik van 'evidence based practice'	0 1 2 3 4 N
17. Legt gegevens en bevindingen met betrekking tot de fysiotherapeutische hulverlening vast	0 1 2 3 4 N
<b>Preventief Handelen</b>	
18. Geeft voorlichting en advies over gezondheid bevorderend gedrag gericht op het voorkomen van gezondheidsproblemen	0 1 2 3 4 N
19. Voert groepsbehandelingen en/of trainingsprogramma's uit	0 1 2 3 4 N

De algemene beoordeling van de student, uitgedrukt in een cijfer is: .....(cijfer 1 t/m 10)



**Beoordelingsformulier Stage  
Niveau 3**

Naam student:

Eindbeoordeling: .....

Studentnummer:

Stagedata:

Stageperiode:      Stage 1      Stage 2

---

**Toelichting op de beoordeling:**

*Indien er sprake is van een leerwerkplaats, dan kan hier specifieke informatie mbt de beoordeling beschreven worden.*

**Aandachtspunten en advies**

Datum:

Datum:

Naam stagebegeleider(s):

Naam student:

Handtekening begeleider(s):

Handtekening student:

## Appendix B

### Voorbeelden van gedragsindicatoren

Professioneel gedrag
<b>1. Gericht op kwalitatief hoogwaardige fysiotherapeutische hulpverlening</b>
✓ Patiëntgericht: stelt de individuele probleemervaring van patiënt en wat hij prioriteit vindt voor de behandeling, centraal
✓ Zelfstandig: verricht de eigen taken/ werkzaamheden naar behoren zonder bijsturing van anderen, vraagt-waar nodig-hulp/advies van anderen
✓ Doelgericht: handelt oplossingsgericht, ontwijkt (lastige) beslissingen niet, past zich aan-waar nodig-aan de omstandigheden en imponeert wanneer de situatie daarom vraagt
✓ Methodisch: werkt gestructureerd, planmatig, bewust, doelmatig en efficiënt, en weet eigen werkzaamheden binnen de gestelde kwaliteitsnormen en tijd af te ronden
✓ Betrokken: toont eigen initiatief en inzet en verricht werkzaamheden met zorg en aandacht, nauwgezet en consciëntieus.
✓ Onafhankelijk: is zich bewust van eigen functie, positie en rol, vormt zich een onpartijdig oordeel en neemt beslissingen rekening houdend met perspectieven en belangen van alle direct betrokken partijen
✓ Verantwoordelijk: is aanspreekbaar op beslissingen, feitelijk handelen en de consequenties daarvan, en handelt in overeenstemming met inhoudelijke, ethische en juridische waarden
<b>2. Werkt constructief samen met anderen</b>
✓ Betrouwbaar: houdt zich aan afspraken, werkt accuraat en punctueel, behandelt verkregen informatie met gepaste vertrouwelijkheid en onthoudt zich van toezeggingen die niet nagekomen kunnen worden
✓ Coöperatief: werkt op constructieve wijze in teamverband samen met anderen, stemt eigen werkzaamheden af, is hulpvaardig en collegiaal, geeft en vraagt feedback
✓ Communicatief: geeft uitleg over eigen handelen, beslissingen en overwegingen, communiceert helder en concreet, in woord en geschrift, stemt communicatie af op de ander en ontwijk moeilijke, confronterende gesprekken niet
✓ Open: staat open voor vragen, feedback en gezichtspunten van anderen, stelt (waarde)oordeelen uit
✓ Respectvol: toont belangstelling en respect, houdt rekening met emoties van anderen, kan hun waarden helpen verhelderen, bevestigen of transformeren en hanteert correcte omgangsvormen
<b>3. Heeft een ontwikkelingsgerichte beroepshouding</b>
✓ Zelfbewust: kan eigen gedachten, gevoelens en gedrag benoemen en met elkaar in overeenstemming brengen, is zich bewust van eigen capaciteiten en beperkingen, handelt consequent en standvastig
✓ Kritisch reflectief: is in staat het eigen functioneren en gedrag kritisch te bekijken en ter discussie te stellen, geeft zich rekenschap van de grenzen van de eigen deskundigheid en van de eigen bestaande vooroordelen, zoekt feedback en accepteert kritiek
✓ Ontwikkelingsgericht: toont bereidheid de eigen deskundigheid op peil te houden cq te vergroten, zoekt actief naar mogelijkheden voor verbetering.
✓ Kan persoonlijke leerdoelen formuleren en beschrijven
✓ Kan concrete acties benoemen hoe de leerdoelen zijn te bereiken
<b>4. Heeft aandacht voor wettelijke, ethische en culturele aspecten binnen de fysiotherapeutische hulpverlening</b>
✓ Houdt zich aan het beleid en procedures binnen de stage-instelling
✓ Informeert collega's/personeel over omstandigheden die de kwaliteit van handelen kunnen beïnvloeden
✓ Volgt hygiëne-protocol, houdt zich aan ARBO-beleid en veiligheidsvoorschriften
✓ Houdt zich aan afgesproken werktijden (komt op tijd)
✓ Meldt zich op correcte wijze af (bij bv. ziekte)
✓ Houdt zich aan kledingvoorschriften
✓ Handelt ethisch verantwoord en past ethische redeneringsprincipes toe indien nodig
✓ Gaat op respectvolle wijze om met gewoonten, waarden en normen, levensbeschouwelijke en culturele achtergrond van de patiënt/cliënt
<b>5. Handelt op basis van een toereikende kennisbasis</b>
✓ Kennis van Psychologie
✓ Kennis mbt Communicatie
✓ Kennis van (neuro-)Anatomie
✓ Kennis van Pathologie
✓ Kennis van Fysiologie
✓ Kennis van Fysiotherapeutische vaardigheden
✓ Kennis (Nederlandse) Gezondheidszorg + zorgverzekeringsstelsel
<b>6. Communicert effectief en op gepaste wijze (verbaal en non-verbaal)</b>
✓ Groet collega's, medewerkers, patiënten op gepaste wijze
✓ Luistert naar anderen en reageert op wat er gezegd wordt
✓ Toont zowel verbaal als non-verbaal empathie
✓ Geeft duidelijke instructies aan de patiënt
✓ Gebruikt geen vakjargon bij de patiënt, maar doet dit wel waar nodig
✓ Past communicatiestijl aan de omgeving aan (patiënt, kinderen, collega's, andere hulpverleners,...)
✓ Communicert op een wijze die rekening houdt met vertrouwelijkheid en privacy-gevoeligheid van de informatie
✓ Spreekt zich uit tijdens professionele bijeenkomsten (gerelateerd aan patiënt of organisatie)
✓ Neemt initiatief voor contact met andere hulpverleners

**7. Organiseert eigen werkzaamheden**

- ✓ Voert werkzaamheden binnen beschikbare tijd uit
- ✓ Besteert onverwachte 'vrije tijd' op een zinvolle wijze
- ✓ Maakt afspraken met patiënten voor behandeling
- ✓ Beheert eigen agenda mbt patiënt afspraken, werkoverleggen, patiënt besprekingen,....
- ✓ Maakt op eigen initiatief afspraken met begeleider voor evaluatie gesprekken en beoordelingsgesprekken
- ✓ Bespreekt op eigen initiatief leerdoelen met begeleider

**Screenen, Diagnosticeren, Plannen****8. Voert een op de situatie toegepaste anamnese uit**

- ✓ Positioneert de patiënt/cliënt op een veilige en comfortabele manier
- ✓ De anamnese wordt gestructureerd en doelgericht uitgevoerd
- ✓ De vragen zijn helder en relevant
- ✓ Neemt op vriendelijke wijze leiding tijdens de anamnese
- ✓ Reageert gepast op (belangrijke) aanwijzingen vanuit de patiënt/cliënt
- ✓ Vraagt op gepaste wijze informatie mbt bio-psycho -sociale factoren
- ✓ Toont goede luistervaardigheden (verbaal en non-verbaal)
- ✓ Voert anamnese uit binnen beschikbare tijd
- ✓ Stelt hypotheses op basis van verkregen informatie uit anamnese
- ✓ Vraagt/zoekt naar extra informatie indien nodig (bv. van andere zorgverleners) en met toestemming van de patiënt/cliënt

**9. Stelt een onderzoeksplan op**

- ✓ Doet op basis van de hulpvraag en de verzamelde gegevens een uitspraak over de fysiotherapeutische indicatiestelling
- ✓ Herkent rode vlaggen en handelt conform richtlijnen
- ✓ Selecteert alle relevante variabelen die onderzocht moeten worden
- ✓ Stelt op basis van de indicatiestelling een onderzoeksplan op
- ✓ Hanteert het ICF-model (functies en anatomische eigenschappen, activiteiten, participatie)
- ✓ Beargumenteert/ onderbouwd het onderzoeksplan

**10. Voert een effectief onderzoek uit**

- ✓ Houdt rekening met veiligheid en welbevinden van patiënt/cliënt tijdens onderzoek
- ✓ Het onderzoek wordt op gestructureerde wijze uitgevoerd
- ✓ Past de juiste onderzoekstechnieken toe
- ✓ Houdt contact met de patiënt/cliënt tijdens het onderzoek
- ✓ Legt patiënt het doel van de onderzoeken uit
- ✓ Voert onderzoek uit binnen beschikbare tijd

**11. Interpreteert (verklaart/legt uit) de gegevens uit het onderzoek (klinisch redeneren)**

- ✓ Benoemt/beschrijft de relevantie/betekenis van de uitkomsten van het onderzoek
- ✓ Herkent rode, gele, blauwe en zwarte vlaggen
- ✓ Herkent klinische beelden en koppelt dit aan pathologie
- ✓ Beschrijft het klinisch beeld en verwachte verloop van de aandoening
- ✓ Interpreteert uitkomsten van tests aan de hand van evidence based practice
- ✓ Past, indien nodig, op basis van onderzoeksuitkomsten het onderzoeksplan aan

**12. Stelt een fysiotherapeutische diagnose op**

- ✓ Stelt vast of er een indicatie is voor fysiotherapeutische behandeling
- ✓ Verwijsd patiënt/cliënt door naar arts indien situatie daar om vraagt (o.a. rode vlaggen)
- ✓ Formuleert op basis van het gezondheidsprofiel (ICF) een fysiotherapeutische diagnose
- ✓ Legt verband tussen de uitkomsten uit het onderzoek en de hulpvraag (klacht) van de patiënt.
- ✓ Benoemd herstel bevorderende en – belemmerende factoren
- ✓ Geeft een prognose

**13. Stelt een behandelplan op**

- ✓ Het plan bevat realistische korte termijn en lange termijn doelstellingen (of hoofddoel en subdoelen)
- ✓ Doelstellingen zijn specifiek, meetbaar, acceptabel, realistisch en tijdgebonden geformuleerd (SMART)
- ✓ De bevindingen uit het onderzoek en de doelstellingen van de behandeling zijn besproken en toegelicht/uitgelegd met/aan de patiënt/cliënt
- ✓ Het behandelplan houdt rekening met de mogelijkheden en beperkingen binnen de stage-instelling en van de patiënt (vb. Behandelfrequentie, behandeltaal)
- ✓ De interventies passen bij de hulpvraag en bij het gezondheidsprobleem
- ✓ Geeft aan wanneer behandeling binnen een groep een goede behandelmogelijkheid is
- ✓ Het behandelplan kan worden onderbouwd aan de hand van de hulpvraag, resultaten uit het onderzoek, 'best evidence' en beschikbare bronnen
- ✓ Informeert/adviseert de patiënt/cliënt over de effecten van wel/geen fysiotherapeutische behandeling

**Therapeutisch Handelen (therapeutische interventie)****14. Voert de behandeling op gepaste wijze uit**

- ✓ Voert interventies doelgericht en effectief uit
- ✓ Manuele behandelvaardigheden zijn van voldoende niveau (past op juiste wijze behandeltechniek toe)
- ✓ Informeert de patiënt/cliënt over het doel van de behandeling

- ✓ Legt de patiënt uit wat er van hem/haar wordt verwacht
- ✓ Stemt de belasting af op de belastbaarheid van de patiënt/cliënt (ook binnen groepsbehandeling)
- ✓ Organiseert de behandelruimte ter voorbereiding op de behandeling
- ✓ Voert de behandeling zelfstandig uit
- ✓ Herkent wanneer hulp van anderen gewenst is en aarzelt niet deze hulp te vragen
- ✓ Geeft groepsbehandelingen
- ✓ Wijkt beargumenteerd af van opgesteld behandelplan als situatie daarom vraagt en stelt behandelplan bij
- ✓ Voert behandeling uit binnen de beschikbare tijd

**15. Evalueert het resultaat van de interventie**

- ✓ Neemt relevante evaluatieprocedures of uitkomstmaten op in het behandelplan
- ✓ Bespreekt bevindingen (evaluatie) met de patiënt/cliënt
- ✓ Past behandelplan aan op basis van evaluatie
- ✓ Documenteert en communiceert resultaten van de evaluatie met anderen (indien nodig)

**16. Onderbouwt het fysiotherapeutisch handelen en maakt daarbij gebruik van 'evidence based practice'**

- ✓ Betrekt wetenschappelijke literatuur, klinische expertise en voorkeuren van de patiënt/cliënt bij het opstellen van de beste behandeling
- ✓ Maakt gebruik van de richtlijnen van het KNGF en kan daar beargumenteerd vanaf wijken
- ✓ Helpt patiënt/cliënt (verzorgers) bij het zoeken naar betrouwbare en recente (para)medische informatie
- ✓ Gaat op zoek naar informatie om eigen kennis tav gezondheidsprobleem van patiënt/cliënt te vergroten

**17. Legt gegevens met betrekking tot de fysiotherapeutische hulpverlening vast**

- ✓ Is vaardig in het gebruik van elektronisch patiëntendossier
- ✓ Documenteert volgens de voorschriften die gelden binnen de stage-instelling (patiëntdossier, brieven, gegevens voor verzekeraar)
- ✓ Past schrijfstijl aan het doel van de documentatie aan
- ✓ Gebruikt vakjargon waar nodig

**Preventief Handelen****18. Geeft voorlichting en advies over gezondheids -bevorderend gedrag gericht op het voorkomen van gezondheidsproblemen**

- ✓ Bespreekt verwachtingen van de patiënt over de behandeling
- ✓ Maakt gebruik van een bewuste strategie om het gedrag van de patiënt/cliënt te beïnvloeden
- ✓ Bespreekt verwachtingen van de patiënt over de behandeling
- ✓ Stimuleert de patiënt/cliënt in het nemen van verantwoordelijkheid voor het behalen van de behandeldoelstellingen
- ✓ Laat patiënt gegeven informatie in eigen woorden herhalen

**19. Voert groepsbehandelingen en/of trainingsprogramma's uit**

- ✓ Voert beweegprogramma's uit voor (specifieke doel)groepen
- ✓ Geeft feedback aan de groep/ patiënt/cliënt
- ✓ Stemt benadering en aanpak af op de groep/patiënt/cliënt
- ✓ Past oefenstof aan indien situatie daarom vraagt
- ✓ Toont leiderschap binnen de groepsbehandeling

## Appendix C

### Korte instructie voor het invullen van het beoordelingsformulier

- Bespreek (indien mogelijk) de beoordeling met collega's
- Omcirkel één score voor elk item
- Vul eerst de itemscores in en dan het algemene eindcijfer
- Alle items moeten worden gescoord
- Geef de student duidelijke feedback en refereer daarbij aan de gedragsindicatoren

De items zijn geordend volgens de competenties binnen de beroepsrol hulverlener en de normen van professionaliteit. Deze worden echter niet apart beoordeeld. Alleen de items worden apart beoordeeld. Vervolgens dient nog een eindcijfer voor de prestatie van de student in zijn geheel gegeven te worden.

Voor elk item staan op het bijgevoegde formulier een aantal gedragsindicatoren beschreven. Deze indicatoren zijn indicatief voor het gedrag dat wordt verwacht bij het betreffende item (zie ook de lijst met veel gestelde vragen). Het formulier met gedragsindicatoren is een hulpmiddel bij het geven van feedback aan studenten.

Er zijn vier onderdelen die ingevuld moeten worden.

1. Stage gegevens (bovenaan formulier)
2. Beoordeling per item
3. Algehele beoordeling van de student
4. Persoonlijke feedback voor de student

Vul de gegevens in zoals deze boven aan het formulier gevraagd worden.

Geef voor elk item een beoordeling (score). De beoordeling dient gerefereerd te worden aan het minimale niveau dat van een beginnend beroepsbeoefenaar verwacht mag worden (zie ook lijst met 'veel gestelde vragen').

Nadat alle items zijn beoordeeld met een score dient de stage in zijn geheel beoordeeld te worden met een cijfer.

Aan de achterzijde van het formulier is ruimte voor persoonlijke feedback voor de student. Voor leerwerkplaatsen is hier ruimte om extra informatie tav de specifieke beoordeling binnen een leerwerkplaats te schrijven.

Kijk voor meer informatie ook bij 'veel gestelde vragen'.

## Appendix D

### **Veel gestelde vragen ten aanzien van het beoordelingsformulier**

#### **Waarom wordt de beoordeling gekoppeld aan het niveau van een beginnend beroepsbeoefenaar?**

Het niveau van een beginnend beroepsbeoefenaar is een niveau dat voor iedereen makkelijker voor te stellen is dan het te verwachten niveau van een student bij aanvang van de eerste (of tweede) stage.

#### **Wat geldt voor de opleiding als eindbeoordeling van de stage, de itemscore of het algemene eindcijfer?**

Het algemene eindcijfer geldt voor de opleiding als eindbeoordeling van de stage. Dit cijfer komt ook op de cijferlijst bij het diploma van de student te staan. Het scoren van de items is vooral een krachtig feedback instrument en kan helpen bij het bepalen van het eindcijfer.

#### **Worden de scores bij elkaar opgeteld voor het bepalen van een cijfer?**

Nee. De scores per item worden niet opgeteld om tot een eindcijfer te komen. Dit zou mogelijk in de toekomst wel kunnen, maar daar moet eerst onderzoek naar gedaan worden. De scores per item kunnen helpen om het eindcijfer te bepalen. Tevens zijn de scores een goede indicatie voor de student over zijn/haar ontwikkeling en prestaties. De itemscore en de gedragsindicatoren zijn goed te gebruiken om feedback te geven aan de student.

#### **Wat wordt bedoeld met de score '1': 'Vertoont weinig gedragsindicatoren op (net) voldoende niveau?**

De score '1' op een bepaald item betekent dat de student niet functioneert op het niveau van een beginnend beroepsbeoefenaar op dat item. Het kan zijn dat op een paar indicatoren de student wel net voldoende scoort, maar op het item in totaal niet. Het is dan belangrijk om in concreet gedrag te beschrijven op basis waarvan (welke indicatoren benoemd in overzicht of aangegeven door de beoordelaar) de student een '1' krijgt voor dat item.

#### **Wanneer moet ik op een item een '2' scoren?**

Als de student gedrag heeft laten zien in relatie tot het item, dat je beschouwd als het minimaal noodzakelijke gedrag voor een beginnend beroepsbeoefenaar. De student is 'net goed genoeg' om gezien te worden als beginnend beroepsbeoefenaar (tav het te beoordelen item)

#### **Wanneer moet ik op een item een '3' scoren?**

Als de student op overtuigende wijze gedrag heeft laten zien in relatie tot het item, dat je beschouwd als gedrag voor een beginnend beroepsbeoefenaar.

#### **Wanneer moet ik op een item een '4' scoren?**

Als de student uitstekend gedrag heeft laten op meerdere gedragsindicatoren gerelateerd aan het te beoordelen item.

**Hoe beoordeel ik een student als zij geen gedrag laten zien dat overeenkomt met een van de gedragsindicatoren?**

Het overzicht van gedragsindicatoren heeft niet de intentie volledig te zijn, noch is het bedoeld als een afvinklijst. Het is bedoeld als een overzicht van representatieve voorbeelden van gedragsindicatoren voor de items. Zij demonstreren het principe dat feedback naar studenten beschreven dient te worden in vormen van concreet gedrag dat de student dient te laten zien om een betere beoordeling te krijgen.

**Moet ik de student beoordelen op elke gedragsindicator?**

Nee. De student wordt beoordeeld op elk van de 19 items op het beoordelingsformulier. De gedragsindicatoren geven voorbeelden van observeerbaar gedrag die indicatief zijn voor het bijbehorende item. De beoordelaar kan deze voorbeelden en ook andere relevante indicatoren gebruiken bij het geven van feedback aan de student en bij het bepalen van de prestaties van de student op het betreffende item.

**De student was niet blij met een score van '2' op een item en klaagde daar over, wat kan ik daar op zeggen?**

Beschrijf de student het gedrag dat je wil zien (had willen zien) om met een goed gevoel de student een hogere score op het item te geven. Welk gedrag had je willen zien om bv een score '3' of een score '4' te geven. Het dient voor de student duidelijk te zijn waarom jij vindt dat het gedrag van de student past bij het minimaal acceptabele niveau van een beginnend beroepsbeoefenaar.

**Ik heb een zeer goede student, kan ik deze student een itemscore van '4' geven?**

Ja, absoluut! In het algemeen hebben beoordelaars de neiging om de uitersten van een beoordelingsschaal te vermijden. Het is echter uitermate belangrijk om de hele beoordelingsschaal te gebruiken. Het is goed om te beseffen dat de student zich richt op het bereiken van een (uitstekend/excellent) niveau van een beginnend beroepsbeoefenaar. Het gaat niet om het bereiken van het (uitstekende)niveau dat je verwacht van een beroepsbeoefenaar met enige/meerdere jaren ervaring.

**Er is geen item over het begeleiden van andere stagiaires, zoals in een leerwerkplaats gebeurd. Waarom niet?**

Bij de ontwikkeling van een nieuw beoordelingsformulier is allereerst gekeken naar de beoordeling van de student in relatie tot het beroepsprofiel van de fysiotherapeut. De feedback en de beoordeling ten aanzien van het begeleiden van 1<sup>e</sup> en 2<sup>e</sup> jaars studenten in de stage kan ingevuld worden in de tekstbox aan de achterzijde van het beoordelingsformulier. Een volgende stap in de verdere ontwikkeling van het beoordelingsformulier kan zijn om ook een (of meerdere) item(s) op te nemen in relatie tot stage lopen in een leerwerkplaats.

**Ik mis een aantal gedragsindicatoren bij een bepaald item die ik wel belangrijk vind. Kan ik deze wel mee laten wegen in mijn beoordeling?**

Ja, dat kan zeker. Het overzicht met gedragsindicatoren heeft niet de intentie volledig te zijn, maar richting gevend. Indien andere indicatoren meewegen in de beoordeling van de student tav een item, dan is het belangrijk deze indicatoren met de student te bespreken in de vorm van 'concreet gedrag'.

**Ik heb een vraag over het beoordelingsformulier. Met wie kan ik contact opnemen?**

Je kunt contact opnemen met Govert Verhoog: 06-20172627 of een mail sturen naar [g.p.j.verhoog@saxion.nl](mailto:g.p.j.verhoog@saxion.nl)

**Ik heb feedback/commentaar op het beoordelingsformulier en/of de gedragsindicatoren. Naar wie kan ik dat sturen?**

Feedback kan gestuurd worden naar Govert Verhoog: [g.p.j.verhoog@saxion.nl](mailto:g.p.j.verhoog@saxion.nl)

In het studiejaar 2012-2013 zal door middel van een dialoog tussen studenten, stagebegeleiders en de opleiding verder gewerkt worden aan de verbetering van de beoordeling van studenten in de stage.

**Is het nieuwe formulier ook digitaal in te vullen?**

Op dit moment is het formulier nog niet digitaal in te vullen. Het is wel de bedoeling dit in de loop van 2012-2013 mogelijk te maken.

## Appendix E

### Evaluatie beoordelingsformulier stage

Deze enquête vindt plaats in het kader van het onderzoek dat gekoppeld is aan de invoering van het huidige beoordelingsformulier voor studenten in de stage. De enquête bevat 13 vragen en vraagt niet meer dan 3 minuten van uw tijd om in te vullen. De vragen hebben betrekking op het huidige beoordelingsformulier van de stage. Alvast hartelijk bedankt voor uw medewerking!

\* Required

**Het is voor mij duidelijk wat er met elk item op het scoreformulier wordt bedoeld.** \*

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**Het is voor mij duidelijk wat het niveau van een beginnend beroepsbeoefenaar is.** \*

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**De tijd die ik nodig heb voor het invullen van het beoordelingsformulier is goed** \*

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**Het beoordelingsformulier ondersteunt mij bij het geven van concrete feedback aan de student** \*

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**De items vormen een compleet overzicht van het gedrag en de vaardigheden waar een student op beoordeeld zou moeten worden. \***

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**Bij het geven van feedback maak ik gebruik van de gedragsindicatoren die bij het beoordelingsformulier horen. \***

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**Op basis van de informatie die ik heb ontvangen kan ik het beoordelingsformulier goed invullen \***

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**Ik heb een training in het gebruik van het beoordelingsformulier gemist \***

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**Bij het beoordelen van een item kan ik goed onderscheid maken tussen de verschillende niveaus \***

De schaal die wordt gebruikt bij de beoordeling van elk item loopt van '0' (Vertoont zelden gedrag overeenkomstig de gedragsindicatoren) tot '4' (vertoont meeste gedragsindicatoren op een uitstekend niveau).

*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens      Helemaal mee eens

**Het beoordelingsformulier helpt mij bij het bepalen van mijn eindbeoordeling \***  
*Mark only one oval.*

1      2      3      4      5

Helemaal niet mee eens                        Helemaal mee eens

11. Als u dit formulier vergelijkt met het vorige beoordelingsformulier, welke prefereert u dan?

Het vorige beoordelingsformulier bestond uit een 'open feedback formulier', waarbij per competentie en beroepstaak feedback kon worden gegeven op het functioneren van de student in de stage.

*Check all that apply.*

- Het vorige beoordelingsformulier
- Het huidige beoordelingsformulier
- Geen voorkeur

12. Zijn er items die u mist in het beoordelingsformulier? Zo ja, welke?

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13. Ik maak nog graag de volgende opmerking over het beoordelingsformulier

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