



# *Sports Physiotherapy*

# *Audit ToolKit Document*

*December 2006*

*Be Confident - Be Competent*  
[www.SportsPhysiotherapyForAll.org](http://www.SportsPhysiotherapyForAll.org)



*A Leonardo Da Vinci Funded Project*



- *International Federation of Sports Physiotherapy, contracting partner, The Netherlands*
- *Queen Margaret University College, coordinating partner, Scotland*
- *Facolta di Scienze della Formazione of the University of Genoa, Italy*
- *Faculdade de Motricidade Humana, Portugal*
- *Hogeschool van Utrecht, Faculteit Gezondheidszorg, The Netherlands*
- *National Sports Academy, Bulgaria*



# Sports Physiotherapy Audit ToolKit Document

**A document that describes the development, the procedures and the audit tools of the SPT Audit ToolKit.  
A guide to using the Audit ToolKit in formal, non-formal and informal settings.**

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## Executive Summary: Sports Physiotherapy Audit ToolKit Document December 2006

Sports physiotherapy is a growing specialisation in cultures that strive to promote an active lifestyle and athletic excellence. Sports physiotherapy is now recognised as a specialism in many countries.

The SPA project is a Leonardo da Vinci funded project and aims to promote the mobility and recognition of sports physiotherapists in Europe and beyond, while enhancing safe participation in physical activity and sport.

The development of competencies and standards represents the first stage of the Sports Physiotherapy for All (SPA) Project. The document Sports Physiotherapy Competencies and Standards presents the eleven competencies and standards which describe the professional behaviours of masters level sports physiotherapists in Europe, and explains the background to their development.

The second stage of the project is the development of the SPT Audit ToolKit (ATK). This ATK is designed to enable the evaluation of competencies and standards in sports physiotherapists. These will enable individuals to provide evidence of their competencies and identify further learning needs.

This document will show how the Audit ToolKit is developed and how it can be used in an individual way to achieve recognition of skills (and in future registration by IFSP). The Audit ToolKit can also be used in an educational setting, both as an assessment instrument, and to develop programmes with learning outcomes which meet the SPT competencies and standards.

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## Section 1: Introduction

### 1.1 The Sports Physiotherapy for All Project

Sports physiotherapy is a growing specialisation in cultures that strive to promote an active lifestyle and athletic excellence.

European governments have started to guide changes in Higher Education institutions to create a European Higher Education Area. This will mean that undergraduate and postgraduate qualifications are more comparable, while maintaining the wealth of cultural diversity (LTSN, 2004). In time, it is hoped that the promotion of convergence in higher education will enable more professionals to move throughout Europe during their working lives. This goal led to the development of the Sports Physiotherapy for All Project.

The Sports Physiotherapy for All (SPA) Project developed in the climate of increasing need for the promotion of mobility and recognition of Sports Physiotherapists in Europe and beyond, and safe participation in physical activity and sport for Europeans by the development of:

- European competencies and standards for Sports Physiotherapists
- An audit tool kit, evaluated in a European context
- A code of conduct regarding ethical behaviour in relation to doping (see also document SPT Competencies and Standards, 2005)<sup>1</sup>
- A website interface between research, practice, education and employment
- An interactive website for continuing professional education and
- An information resource for public access to Sports Physiotherapy

For more information about the SPA Project and its outcomes, the development and outcomes of the Sports Physiotherapy Competencies and Standards, the collaborations between the International Federation of Sports Physiotherapy (IFSP), the five higher education institutions and other international partners, researchers, consultants and experts in the field of sport, sports physiotherapy and education, see the document SPT Competencies and Standards, 2005.

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<sup>1</sup> SPT Competencies and Standards (2005) is available at [www.SportsPhysiotherapyForAll.org](http://www.SportsPhysiotherapyForAll.org)

## 1.2 Work package 2: The development of audit tools to measure competencies

To support the SPA Project's goal of standardising professional qualifications for Sports Physiotherapists throughout the European Union and beyond, an Audit ToolKit (ATK) has been developed for sports physiotherapists. The ATK will give an overview of

- all the evidence that has to be collected
- how it has to be designed, developed and collected
- which standards have to be met
- how many percentages of the standards that have to be met
- after delivering all the evidence it shows if the sports physiotherapist has met these standards to deliver his personal audit tool kit for official assessment
- it will show clearly which standards haven't been met yet and thus gives a pathway for further development
- after it is submitted for official assessment, it will show if the sports physiotherapist is competent at masters level and ready for registration.

The audit tools will give sports physiotherapists guidance on how to design, develop or just collect their evidence, their professional products and services to demonstrate achieved competencies by formal, non-formal and informal learning (see Section 2 for definitions and descriptions).

The ATK can also be used in a sports physiotherapy educational setting. Lecturers can assess their students by using the audit tools. Students can use the audit tools as outlined above.

The ATK can be used as a quality assurance instrument, to check if the learning outcomes of the programme are achieved by the students. In countries where there is no officially recognised national Quality Assurance system, institutes which provide programmes in sports physiotherapy should consider using the ATK if they want to offer (parts of) an officially recognised masters programme in sports physiotherapy.

Those institutes will be advised to use, alongside the ATK, the Quality Self Assessment System (QSAS) (see QSAS document). This has been developed to support the process of (self) assessment of Masters' programmes. It applies to both self assessment and external audit of Masters' programmes. The framework is an instrument which contains a schematic representation of all the subjects, facets and quality criteria on which the external audit committee bases its accreditation decision. The following 6 subjects have been defined: Aims of the study programme – learning outcomes (SPA competencies, behaviours and standards); the study programme; staff deployment; facilities; and internal quality assurance; and results.

Results from the self assessment enable the Masters programme management, institute, or course leader to work on improving and organising the study programme. Consequently, the actual external audit (if this is appropriate in country) can be anticipated with confidence.

## Section 2: Definition and descriptions

### 2.1 Formal, Non-formal and Informal Learning

The classification in different kinds of learning is mentioned by Colletta (1996). This characterises learning with three criteria: intention, organisation and qualification.

Formal learning has a high intention to learn, is strongly organised and always qualified. Formal learning corresponds to academic learning and takes place in an educational setting.

Non-formal learning often has the intention to learn, is often organised and often qualified, but not always univocal. This learning takes place in work-related learning supply, e.g. courses from the national member board of sports physiotherapy, corporate learning or training for example organised by the hospital.

Informal learning usually has no intention to learn, is spontaneous, independent learning that is minimally organised and almost never qualified. This occurs both within and outwith the workplace. Colleagues, employers and clients seem to have an important role in the support of informal learning (Grotendorst et al 2006).

### 2.2 Professional products and services: A definition and description

A professional product is a concrete and tangible output, usable within the professional domain. A professional service is a service that will be delivered as part of a professional activity, in direct interaction with the customer (client, patient, colleague, etc). Products and services serve as concrete evidence of a sports physiotherapist's achievements, and can be articulated through learning outcomes achieved in formal postgraduate programmes of study or from non-formal and informal learning. Examples of documentation includes learning goals, plans and attainment of these through any of the following:

- Video of a specific sports physiotherapeutic treatment
- Personal reflection
- Feedback from sports physiotherapy colleagues
- Patient feedback
- Case report
- Development of a guideline for treatment
- Article for a scientific or professional journal
- Plan for supervision
- Quality case plan or
- Action plan to encourage interdisciplinary working

The products and services demonstrate: which behaviour in which context, which level, which indicators. Questions such as “Do I meet the critical factors for success?” and “Can I evidence this?” should be asked.

### 2.3 Audit tool: A definition and description

The audit tools are instruments which will systematically measure the competencies of a sports physiotherapist. These competencies include: professional skills; knowledge and attitudes; and relate to the products and services delivered by sports physiotherapists.

The audit tools will assess individuals' formal, non-formal and informal learning against threshold standards for each competency. They can also be used by the sports physiotherapist to benchmark themselves against each of the competencies to identify individual performance, and as an assessment of future learning needs which enables a personal plan for continuing professional development / lifelong learning.

#### 2.4 Portfolio: A definition and description

A portfolio is a collection of well organised evidence of learning and competence development.

A professional development portfolio contains learning action plans, reflective writing, and feedback reports. A professional development portfolio facilitates continuous professional development (CPD) or life long learning (LLL), the development of qualities necessary professional and technical duties throughout the practitioner's working life.

An assessment portfolio can provide evidence that the sports physiotherapist has met approved standards of proficiency. It is likely that an assessment portfolio will contain a number of examples explicit to different competencies and that the audit tool kit will be used to assess the evidence. This would ensure competencies are being achieved in postgraduate programmes of masters study and short accredited courses, as well as through working as a sports physiotherapist. The format could be paper, CD-ROM, or online and may be submitted to an audit committee for registration with IFSP.

#### 2.5 The SPT Audit Tool Kit: A definition and description

The SPT ATK contains 15 different audit tools to measure 11 competencies, and is available on CD-ROM, online, a digital collection of files to send by email for assessment, or a paper version.

These audit tools and their underlying assessment structure are the result of the Delphi Research led by the SPA core group partner and researcher from Hogeschool Utrecht and with the support of 31 experts in the field of sports physiotherapy and education worldwide (see Section 3).

The SPT Audit ToolKit (ATK) is an instrument to enhance professional development and facilitate lifelong learning in Europe and beyond. The ATK will help sports physiotherapists provide the highest standards of care.

The ATK is also an instrument that can be used to create an assessment portfolio. The assessment portfolio provides evidence that the sports physiotherapist has met approved standards of proficiency.

The ATK is not intended to identify negligent practice or to gain evidence for disciplinary purposes.

## Section 3: The development process of the audit tool kit

### 3.1 Competency based assessment

One of the aims of the SPA project is to develop a training route and a clear pathway for physiotherapists in their ongoing professional development. The audit tool kit (ATK) will enable the quality assessment of a Sports Physiotherapist's competencies.

This chapter will present the vision behind the ATK, how the ATK was developed, what choices have been made and the aims of competency based testing.

### 3.2. Delphi Research

#### 3.2.1 *Delphi method*

To determine which distinguishing key features will be measured in the ATK a Delphi study was undertaken. This methodology uses a valid and transparent approach to determine the criteria and instruments which will measure the various competencies.

The Delphi method has manifested itself as a reliable qualitative research method because it can be applied for use in problem situations, in situations requiring important and far-reaching decisions, and it renders consensus over a widespread area (Clayton 1997, Murry 1995, Williams 1994).

In a Delphi research study a panel of experts is interviewed about specific questions or problems. Information and questions concerning the study are sent to every expert, who returns their responses anonymously. The experts' answers are examined, sorted and gathered by the researcher, who subsequently sends the experts a new questionnaire. In that questionnaire the expert is asked to reconsider his answer and to return his response again, accompanied by his opinion on the items. The rounds are continued until consensus (e.g. >60% of the experts give the same score) or stability is achieved.

A gross list of candidates invited to take part in the research study is compiled, preferably those working in sports physiotherapy and education. 26 experts chosen by the core group completed all 5 rounds.

#### 3.2.2 *Data processing procedure*

The importance of an instrument or product for assessing a particular competence is reflected on a 5-point scale.

The researchers decide in advance that, for instance, when a product or an instrument scores below 3 and more than 75% of the experts have chosen this score, it is assumed to be of no importance. This assumption is presented to the experts. When more than 50% of them agree with it, the assumption is made. The importance of a product or instrument is eventually reflected in the score. By repeatedly submitting the score to the experts some of them shift in their ratings during the various rounds. This occurs in the first two rounds in particular. It is stated beforehand that the rounds are to be continued until stability emerges. Stability is

defined as a shift between two rounds to a different score of the competencies involved by less than 20% of the participants (Murry 1995).

### *3.2.3 Results of Delphi Research: The conclusions, consequences and decisions made for further development of the ATK*

With the help of the experts in this study we have developed the outline of the Audit Tool Kit. The outcome of the different rounds are collected in the feedback reports. In the period between February and March 2006 the ATK was developed further with regard to procedures and definitive test protocols until it became a useful instrument.

In the Delphi study it was asked which items to test (distinguishing key features) and with what instruments (audit tools). In addition, the level was defined on a ten point scale where the experts agree a master in sports physiotherapy is supposed to be (reference level). It was found that the behavioural criteria needing tested were valid, and the level of importance of the different criteria was further classified.

In the construction of the audit tool kit this information was used to distinguish the scores of the candidate. Following consultation with the SPA core group it was decided to measure the standards in a tick box construction. Then the average score from behavioural criteria was used as a measure of importance. For example, if the behavioural criteria in one competency has an average score of 4, then it is estimated that 80% of the standards need to be met to call the candidate competent (in that specific competency). In other words, the score of the candidate will be balanced by the importance of the competencies.

The SPA project core group decided not to add a preamble about professional behaviour (e.g. team worker, sense of humour) to the ATK. This was proposed as an option in the first feedback report following suggestions from the experts, but after discussion in the Core Group it was agreed that these items were already taken into account in the standards.

The final audit tools used are those chosen by the experts. First it was recognised that a lot of audit tools were almost the same: these were grouped and made more generic in order to make the tool kit more robust and usable. For example:

Evidence based essay, scientific paper and article became scientific article.  
Examples of behaviour and practical examination became a video and report

At the end 15 audit tools remained. The only audit tool not used at this stage of development is the theoretical test. For this test, a database of questions will be built but development of this will take a bit longer. It is recommended that IFSP should continue the development of the ATK.

## Section 4: User's Aid to the Audit ToolKit

### 4.1 Basic structure of the Audit ToolKit (ATK)

The final audit tools selected, together with the Competencies and Standards, form the basis of the ATK. The sports physiotherapist (SPT) can download all required documents from the SPA/IFSP website: [http://www.sportsphysiotherapyforall.org/what\\_is\\_spa/audit\\_toolkit.html](http://www.sportsphysiotherapyforall.org/what_is_spa/audit_toolkit.html).

The audit tools include a definition and description, content (checklist on Competencies and Standards) and structural guidelines. The description refers to the competencies this audit tool could be used for. The structural guidelines provide instructions for the design of the evidence requiring collection. There are also links to examples of good practice.

Connections should be made between the standards, products and reflection log per competency by the SPT. Behind the standards in the checklist, the SPT adds the links to the particular products where the assessors can find the evidence this competency has been met.

There are several audit tools for each competency (conforming to the results of the Delphi Research). To increase the flexibility of the ATK it is possible to add one optional product or service to provide evidence. The weightings of specific audit tools (on reliability and validity, conforming to the results of the Delphi Research) are taken into account to calculate the minimum percentage of the standards that have to be demonstrated per competency. At least 3 audit tools per competency must be used to demonstrate that particular competency (for competency 6, 10 and 11 there are just two or three audit tools mentioned, so all of them must be used). It is up to the SPT to use an extra given audit tool and to deliver an extra product or service to assure the minimum of the standards.

An outcome of the Delphi research is a practical exam for competencies 1, 2, 3 and 4 for the role of the manager of the client/patient. The development and organisation of this practical examination will be taken forward by IFSP. Until this is ready a video will be the optional product to demonstrate evidence for being competent in Injury Prevention, Acute Intervention, Rehabilitation and Performance Enhancement.

Digital environment:

On the SPA/IFSP website under 'What is SPA?' you can find the Educational Portal: <http://www.sportsphysiotherapyforall.org/content/view/270/343/>.

Click on 'what is the educational portal?': <http://portal.SportsPhysiotherapyForAll.org> and then click on: 'go to the Reserved Area'.

Do this, and you can log on by creating your personal account and find your own personal portfolio. This digital portfolio contains a private depository where you can upload the products of your daily life practice, developed by using the 15 audit tools. Here you can also upload the checklist on Competencies and Standards.

CD Rom:

If you don't want to use the Educational Portal, you can download the files from the SPA website, use them, save them to your computer and when you are ready, save your personal portfolio for assessment on a CD Rom and send this to the Assessment Committee of IFSP.

Paper version:

If it's really not possible to use a computer, it is an option to get the documents by post. After the self assessment the documents can be sent back to the Assessment Committee by post.

## 4.2 The procedure of the ATK

### 4.2.1 Guidelines to use the ATK

Every audit tool is connected to the checklist on Competencies and Standards to demonstrate the standards that are met with the evidence. The total number of standards that should be met per competency is based on the importance of that competency. (This importance again has been determined by the experts in the Delphi Research). If the minimum percentage of standards is not met, the SPT has to describe per competency in the reflection log which standards haven't been met and why, or must develop new evidence and undertake reassessment using some of the audit tools.

Only one version of each audit tool and corresponding product or service may be submitted to demonstrate a competency. *Only when it is not possible to demonstrate the minimum percentage with just one version of each audit tool and related product or service will an SPT be allowed to submit another product or service related to the audit tools for that competency.*

To take Competency 1 (Injury Prevention) as an example: this means only one case study, one video/report, one discussion report, one audio (digital) piece of evidence/report and one optional product to provide evidence is allowed to be submitted. For Competency 1 the SPT must meet at least 92% of all related standards. If the SPT already meets the standards using three audit tools, this will be satisfactory. If they are still unsure about meeting the minimum of the standards, they can use the other audit tools mentioned for this particular competency.

It is possible and is certainly permitted to write a case study that demonstrates and meets some of the standards for competencies 1, 2, 3 and 4.

### 4.2.2 Procedure of self assessment with the ATK by sports physiotherapists

To help the SPT check if they meet the standards, a procedure for self assessment will be described.

1. The SPT uses the audit tools to develop and collect evidence (products/services). With this evidence the first step will be that the SPT uses the audit tools to assess themselves against the standards (with the checklist). Therefore the SPT confirms the given standards with a YES or NO, based on their piece of evidence. The SPT adds the links to the products and describes the parts or paragraphs of these products referring to this particular standard (so that the assessors know where to find the evidence).
2. The SPT then checks the overview of the total set of standards to see which are missing. The SPT can choose to add new evidence or to replace existing evidence and complete the missing scores. They can also choose to reflect on missing standards in the reflection log (below each competency in the checklist on competencies and standards).
3. An SPT does not have to score all of the standards positively. Depending on the importance of the competency, the scores are a calculated percentage of the standards per particular competency.
4. If the SPT wants to be registered as a certified SPT at Master's level, they must design a learning pathway or personal development plan (PDP) on the missing standards (see audit tools belonging to competency 6 Life Long Learning). After following whatever action is

required to develop the missing standards and deliver the evidence for being competent, the SPT must undertake self assessment again with the audit toolkit.

5. After collecting all evidence and checking that the minimum percentage of all standards has been met according to the self assessment, the SPT is ready to deliver their assessment portfolio for official assessment by the international IFSP audit committee.

#### *4.2.3 One strategy for developing your portfolio and self-assessing with the audit toolkit step by step:*

##### A) retrospective self-assessment

1. Read through the standards once so that you are familiar with them.
2. Where you don't understand the language, clarify (To start with, questions will be answered on [cbulley@qmuc.ac.uk](mailto:cbulley@qmuc.ac.uk). Where possible, these answers could be added to a Question & Answer bank). This may also be possible through a mentoring system in the future.
3. Read through the possible audit tools and the guidance provided. Take note that the possibility exists of using some 'other' tool that is not listed (To start with, questions will be answered on [brigitte.vanbarneveld@hu.nl](mailto:brigitte.vanbarneveld@hu.nl). Where possible, these answers could be added to a Question & Answer bank). This may also be possible through a mentoring system in the future.
4. Collect together any written documents you have produced during your career (e.g. articles for newsletters or journals, poster or PowerPoint presentations, service development plans, article critiques).
5. If you have completed or are working on postgraduate study (e.g. MSc), collect together any module descriptors, course outlines, and assessments you have carried out.
6. Number your products e.g. article = Product 1. Add page numbers so that you can indicate precisely where the standard is addressed.
7. Complete the form below at (C) for Product 1. This will help you summarise which standards are addressed in the product. You can also direct the assessor to the page number where it is addressed. It could take several hours to do this for one product – it will be faster once you are more familiar with the standards. You should only have to do it once for each product.
8. Once you have done this, you can take the completed form and compare it to the audit toolkit assessment sheet – tick each relevant standard that has been addressed.
9. Remember that each standard should be demonstrated through three audit tools. You are aiming for three ticks in each box (in general)
10. Remember that specific tools are suggested for each standard, but there is the option of an 'other' tool – giving some flexibility.
11. Remember also that you have to achieve a minimum percentage of the standards for each competency – this percentage differs depending on the competency, so check that. You may find that you have ticked boxes for enough of the standards.

B) prospective planning to complete your portfolio

12. Once you have completed this process for each of your products, list the standards you have not ticked at all as well as the standards which need more ticks. Check which audit tools are most appropriate to fill the gaps.
13. Be clever about planning how to complete the ATK. A case study on a specific topic may enable you to tick several of the remaining standards.
14. Plan ahead – you may need to develop skills or knowledge in a certain area before you can demonstrate a specific standard. People will be at different stages in their careers – some will need to develop many standards. Make sure that you demonstrate this learning by using the audit tools.

C) Example

Self-Assessment: Product Number _____ e.g. 1	
<b>Description of Product:</b> <i>E.g. Research Article – this article reports an evaluation of a new intervention within the clinic setting. The intervention aims to prevent re-injury [Competency 1] and is a new innovation [Competency 10]. It was evaluated using research methods [Competency 8] and the article is a form of dissemination [Competency 9].</i>	
Standard Addressed:	Location in Document:
<b>Competency 1:</b>	
e.g. 1A:1	Literature review: page 1 paragraph 3
1A:2	Literature review: page 2 paragraph 1
<b>Competency 8:</b>	
e.g. 8B:1	Literature review: page 1 paragraph 3 Methodology: page 3 paragraph 2
8C:1	Methodology- Results: pages 3-5
8C:2	Literature review: pages 1-2
8D: 1	Results: page 5
8D: 2	Literature review: pages 1-2
8E:1	Throughout article
<b>Competency 9:</b>	
9D:1 (written presentation)	Throughout article
9E:3 (other professionals)	Throughout article
9E:4 (written medium)	Throughout article
9F:2 (argument for academic audience)	Throughout article
<b>Competency 10:</b>	
10A:1	Evaluation of new technique
10C:1	Outcome study of a novel intervention strategy
10D:2	Literature review: rationale for study: page 2

#### *4.2.4 Candidate assessment procedure*

When the assessors received the portfolio of the SPT for assessment, the procedure continues as follows:

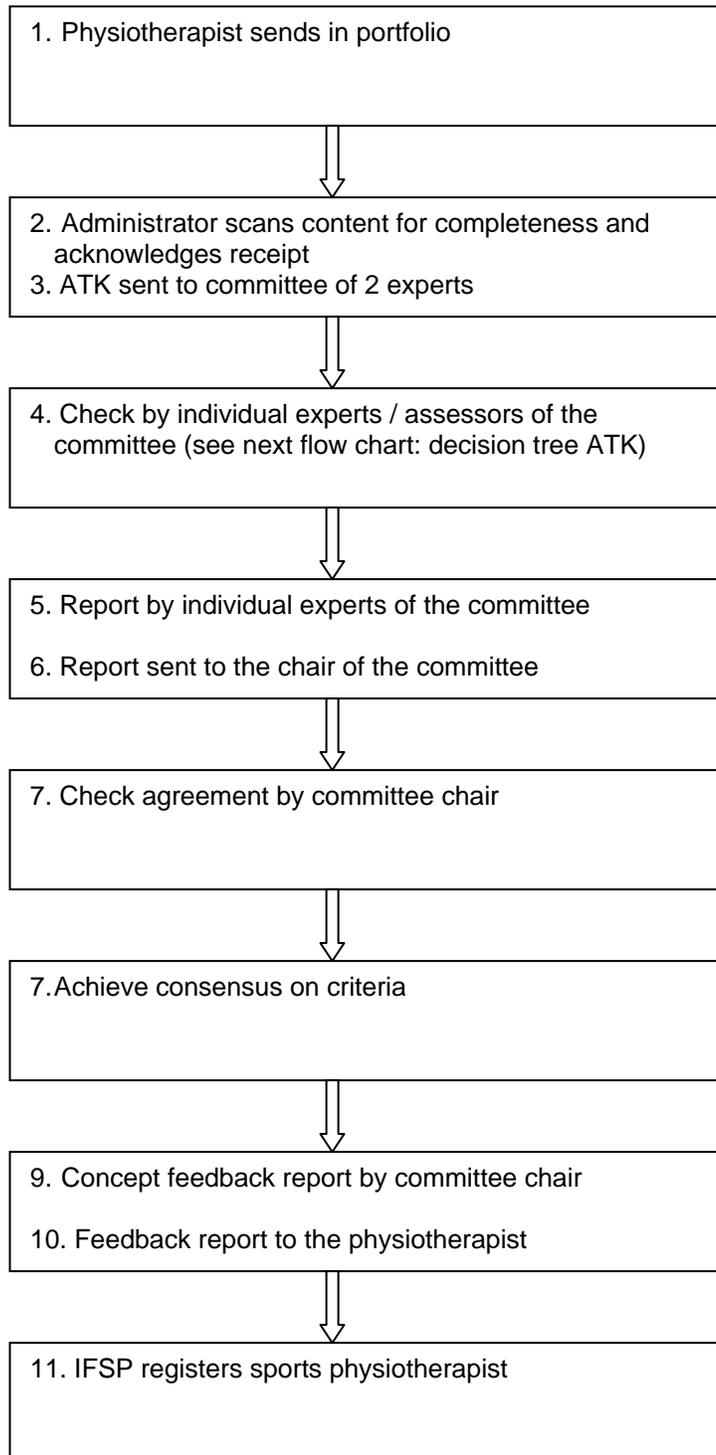
1. Upon submission by the candidate, the assessors receive either a link which gives access to the ATK of the SPT (digital version), a CD-ROM, or paper version with overviews and appendices of the ATK.
2. Two assessors receive and assess the portfolio. (Inter assessor reliability proved to be high in workpackage 4).
3. A competency is chosen and against this the evidence is checked to meet its given standards. The assessor notes their score alongside the candidate's self assessment score.
4. After completing all competencies, the assessor reviews the total score list and checks whether the minimum score of the standards are assessed. Upon confirmation these results are again submitted.
5. If there are differences between the two assessors, they need to find consensus. If there is a difference between the score of the assessors or between the self assessment of the SPT and the assessors, the assessors can use the standards to make themselves clear in their judgment and make use of the column for comment.
6. The assessors compile a definitive score list, including a conclusion whether the candidate does or does not meet masters level competence. This list will be sent to the IFSP and to the candidate.
7. This overview of standards will give the SPT an outline for a further Personal Development Plan (PDP) and offers the possibility to plan a career pathway.

This assessment procedure will be shown in the flowchart in the next paragraph.

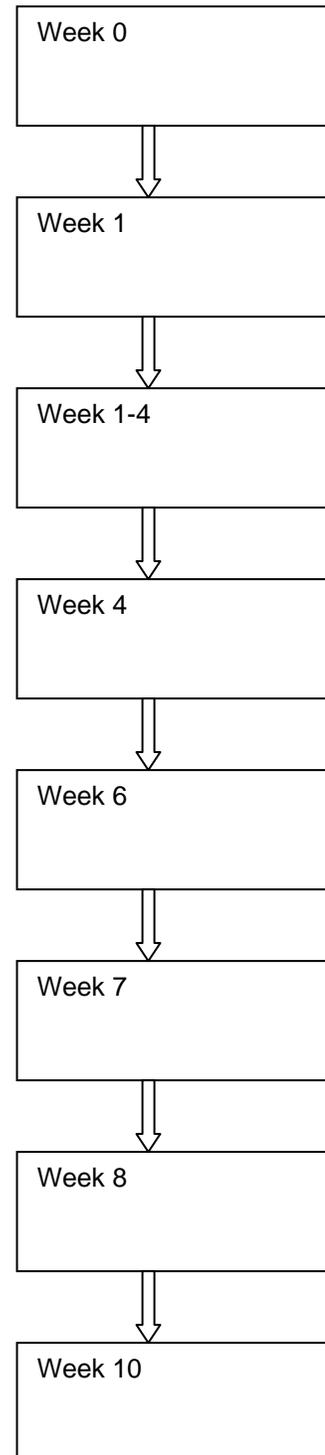
#### *4.2.5 Flowchart Audit Tool Kit Procedure*

The flowchart of the ATK procedure shows that the whole procedure takes a couple of weeks. If the digital audit tool kit is not used, it probably will take some further weeks. After the flowchart the 11 phases will be explained step by step.

## Activity



## Time schedule



1. *Physiotherapist sends in portfolio*

The SPT sends to the administrator of the assessment committee of the IFSP either the link with permission to read the ATK, or a CD-ROM or paper version of the ATK and 2 copies.

2. *Administrator scans content for completeness and acknowledges receipt*

The administrator checks the content of the ATK for completeness of number and type of products and services to be developed and collected using the correct audit tools and can also check if the minimum percentage of standards has been demonstrated for all competencies. The administrator will send a receipt acknowledgement to the SPT.

3. *ATK sent to assessment committee of IFSP*

If the ATK is totally complete for official assessment, the administrator may send the ATK to the international assessment committee of IFSP.

4. *Check by individual experts of the committee*

The experts will assess the ATK by using the audit tools and will assess the products and services on all of the standards ticked off and demonstrated by the SPT. A Decision Tree Flowchart of this assessment process will be shown on the next page.

5. *Report by individual expert assessors of the committee*

The assessors will individually assess the ATK of the SPT. They will use the same overview checklist of standards so that it is possible to see the differences between the SPT, assessor 1 and 2 afterwards.

6. *Report sent to the chair of the committee*

The ATK with overview of standards will be sent to the committee chair.

7. *Check of agreement by committee chair*

The chair of the committee will check the whole ATK for completeness, procedures and possible disagreement on demonstrated standards. If there is disparity, a meeting will be arranged to discuss this.

8. *Achieving consensus on criteria*

In a discussion between the two assessors, led by the chair, a consensus should be reached on the standards demonstrated. The conclusion will be recorded in a feedback report.

9. *Concept feedback report by committee chair*

The chair of the committee should provide a concept feedback report with advice for further development and learning needs for the SPT, or with recommendations to IFSP to register the SPT.

10. *Feedback report to the sports physiotherapist*

The IFSP sends the feedback report to the SPT with advice for further development and learning needs for the SPT or with congratulations for entering the register of the IFSP.

11. *IFSP registers the sports physiotherapist*

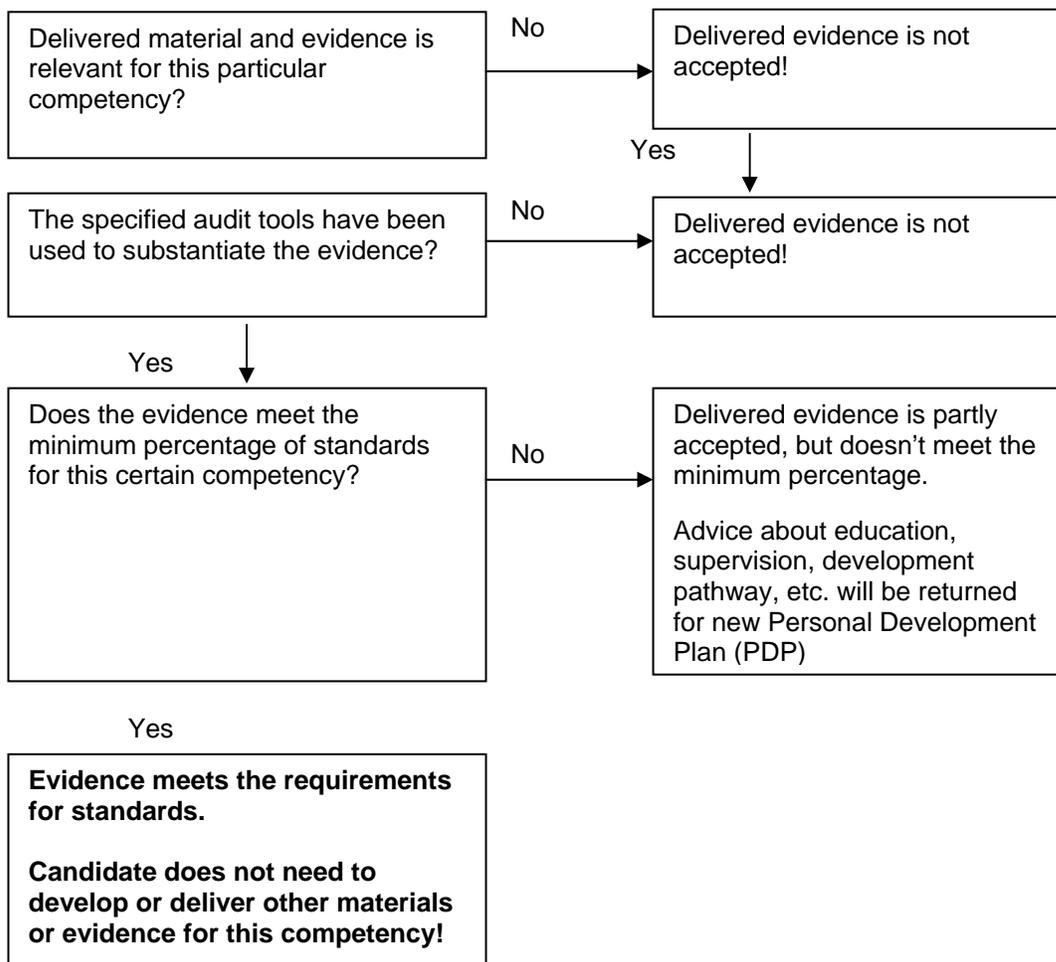
IFSP initiates the acceptance of the SPT into their register. A 5 year period of registration may be used, at which point a new cycle occurs beginning with step 1 again. It has to be decided which evidence will be needed for re-registration.

#### 4.2.6 Decision Tree Flowchart ATK

The candidate delivers his ATK with evidence materials, products and services, in accordance with the audit tool kit procedure (see paragraph 4.2.4). The result of the assessment (from step 4 of the audit tool kit procedure onwards) shows, based on the delivered materials of evidence, the following three possibilities per competency:

1. The evidence does not fulfil the demands on content and form and doesn't lead to recognition of the competency.
2. The evidence only partly fulfils the demands and does not lead to recognition of the competency. Advice would be given about the missing standards per competency.
3. The evidence fulfils the demands on content, form and minimum percentage of standards. The candidate gets recognition for the competency.

With regard to the assessment criteria we can use the following decision tree.



This procedure will be followed for each competency, to complete step 4 of the Flowchart ATK Procedure.

### 4.3 The 15 Audit Tools

The 15 audit tools, as an outcome of the Delphi Research, will help the SPT to develop or to collect their evidence to demonstrate competence. They will guide the SPT to develop professional products and services, give examples of best practice and help make clear what still has to be developed (Personal Development Plan). They will also assist in self assessment prior to submission for official assessment.

These audit tools are formats to develop/collect:

1. 360 Degree Feedback Report by supervisor / peer / mentor / athlete / management
2. Audio (Digital) Evidence and Report
3. Case Study (one for case study patient related, one for organisational setting)
4. CPR Test and Certificate
5. Discussion Report
6. Dissemination / Innovation Project
7. Education Evidence
8. Poster Presentation
9. Presentation
10. Professional Development Portfolio
11. (Quality) Management Plan
12. Reflective Analysis Report
13. Scientific Article
14. Systematic Literature Review
15. Video of Behaviour (Digital Evidence) and Report (Optional Audit tool)

All audit tools are linked to the Checklist on competencies and standards, downloadable at [http://www.sportsphysiotherapyforall.org/what\\_is\\_spa/audit\\_toolkit.html](http://www.sportsphysiotherapyforall.org/what_is_spa/audit_toolkit.html).

There are 3 supporting instruments related to the audit tools for a 360 Degree Feedback Report, a Professional Development Portfolio and a Reflective Analysis Report: a Patient Feedback Questionnaire, a Patient Record Data Collection Form, and a Peer Review Feedback Form, also downloadable at [http://www.sportsphysiotherapyforall.org/what\\_is\\_spa/audit\\_toolkit.html](http://www.sportsphysiotherapyforall.org/what_is_spa/audit_toolkit.html).

Appendices 2 and 3 on page 87 and 91 are two tables showing which audit tools can be used for which competencies and vice versa.

The next pages describe in detail the 15 audit tools and how to develop the evidence of being competent in Sports Physiotherapy at master's level.

### 4.3.1 Audit Tool for 360 Degree Feedback Report

 <b>Audit Tool for 360 Degree Feedback Report</b>
<p><b>Definition:</b> In human resources, 360-degree feedback is employee development feedback that comes from all around the employee. The feedback would come from a variety of stakeholders, such as subordinates, peers, superordinates, customers and patients in the organisational hierarchy, as well as a self-assessment. "360" refers to the 360 degrees in a circle.</p>
<p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure minimum thresholds (standards) of competencies <u>Acute Intervention</u>, <u>Rehabilitation</u>, <u>Performance Enhancement</u>, <u>Professionalism and Management</u> and <u>Dissemination of Best Practice</u> have been met. This Audit Tool describes guidelines to organise and achieve the 360 degree feedback that has to be delivered. The sports physiotherapist has to point out at the start, the standards which they want to demonstrate with this service. At the end of the guidelines there are URLs to other guidelines or examples of good practice related to this product.</p> <p>360 degree assessment is a method to get feedback from important people involved in your daily professional practice, research or writing. A period of practical, supervised work in Acute Intervention, Rehabilitation, Performance Enhancement, Professionalism and Management, and Dissemination of Best Practice with an experienced, officially certificated supervisor in sports physiotherapy would allow a report to be written. All feedback will help give a clear view of your behaviour and the results of this behaviour, in order to start thinking and reflecting about this and to enhance your personal development. In this assessment situation all people who are asked to give feedback (supervisor included), will use only the standards chosen by the sports physiotherapist to provide their assessment.</p>
<p><b>References:</b> Best practice guidelines of 360 degree feedback: These guidelines were produced with the active support and funding of the following organisations: Chartered Institute of Personnel, Development, South West London Branch, SHL, The British Psychological Society, The Department of Trade and Industry, University of Surrey Roehampton. <a href="http://www.psychtesting.org.uk/files/getfile1.asp?id=6">http://www.psychtesting.org.uk/files/getfile1.asp?id=6</a></p>
<p style="text-align: center;"><b>GUIDELINES</b></p>
<p style="text-align: center;"><b>Content</b></p>
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no).</b></p> <p><b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan)</p>

## Structure

You can use the [patient feedback questionnaire](#), the [patient record data collection form](#), (informed consent examples included) and the [peer review feedback form](#) as examples to create your own formats for questionnaires for feedback; and the Audit Tool [Reflective Analysis Report](#) to reflect.

### Establishing the purpose

- Clarify the purpose and objectives (It is very unlikely that a 360 degree scheme would be accepted where there is no history of systematic feedback on performance)
- Make totally clear which specific standards of which specific competencies you want to be assessed on
- Try to influence support from your organisational culture for the introduction of 360 degree feedback

### Establishing the process

- Ask for senior management commitment
- Clarify the aims. Ensure that everybody involved in the process is clear about what it involves and their specific role(s).
- A clear process for identifying the raters (full involvement of recipient in identifying who will be in the best position to comment on performance. The raters must be credible to the recipient for them to act on the resulting feedback and have day-to-day involvement with the recipient)
- Ask for the feedback presented in a useful and sensitive way
- Clear and positive communication is pivotal
- A point of contact for participants questions or concerns will help roll out of the 360 degree process

### Implementation

- Clear communication to all involved
- Clear owner responsible for administering the process
- Clear deadlines and monitoring whether they are being met

### Feedback

- Communicate feedback face-to-face, with a report afterwards is most adequate
- A frequent concern is that the person being rated may respond negatively to the information and take it out on their raters. To minimise this concern, most feedback schemes promise anonymity for the raters
- Consider appropriate support for receiving the feedback
- Consider appropriate and sensitive timing as part of the process
- The number of raters is important on two counts. First, the assessment has to be based on a large enough sample to ensure that it is valid; if it is too small, there is a danger that one rater's view will have a major impact on the overall results. Second, the sample of raters needs to be large enough that individual sources cannot be identified (if it needs to be anonymous); a minimum of three to five people, depending on the circumstances. The implications for time and administrative effort involved are clear. Where there are fewer than three to five people available, it may be necessary to combine groups, for example, direct reports and peers to ensure confidentiality.
- Once a decision is made on who has access to the ratings, this needs to be adhered to consistently through the life of the process. A change in who has access to the information is one of the most common reasons for lack of trust in the process.
- Give some basic tips for completing the checklist for the raters, for example highlighting really observed behaviours

## Examples

<http://www.psychtesting.org.uk/files/getfile1.asp?id=6>

Best practice guidelines of 360 degree feedback

Patient feedback questionnaire: This questionnaire has been developed by the Chartered Society of Physiotherapy, the UK professional organisation for chartered physiotherapists, in order to improve physiotherapy services. <http://www.csp.org.uk/uploads/documents/SOPPAudit.pdf>

Peer review / feedback audit tool: <http://www.csp.org.uk/uploads/documents/SOPPAudit.pdf>

Silverman, M., Kerrin, M, Carter, A. 360 Degree Feedback, Beyond the Spin, IES Report 418

<http://www.employment-studies.co.uk/summary/summary.php?id=418>

This report is directed at HR practitioners and senior managers responsible for either performance management or management development. The findings will be of interest to those implementing, or considering implementing, 360-degree feedback, and also for those who are already committed to the process in reflecting on whether the approach is delivering benefits for them.

Alimo-Metcalfe, B. (1998). 360° Feedback and Leadership Development. International Journal of Selection and Assessment, 6, 35-44.

#### 4.3.2 Audit tool for Audio (Digital Evidence) and Report

 <b>Audit tool for Audio (Digital Evidence) and Report</b>
<p><b>Definition:</b> Audio: In video communications, electrical signals that carry sounds. The term is also used to describe systems concerned with sound recording and transmission; speech pickup systems, transmission links that carry sounds, amplifiers and the like. The audible part of a transmitted signal.</p>
<p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Injury Prevention</u>, <u>Rehabilitation</u> and <u>Promotion of Fair Play and Anti-Doping Practices</u> have been met. This Audit Tool describes guidelines to demonstrate the professional service that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this service.</p>
<p><b>References:</b></p>
<p style="text-align: center;"><b>GUIDELINES</b></p>
<p style="text-align: center;"><b>Content</b></p>
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)</b></p>
<p><b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan)</p>

<b>Structure</b>
<p>Document the patient's consent (see examples: tips on informed consent)</p> <p>Record your discussion or presentation about Injury Prevention, Rehabilitation, Promotion of a Safe, Active Lifestyle, Promotion of Fair Play, and Anti-Doping Practices</p> <p>Record important fragments</p> <p>Use together with audit tool <u>Discussion Report</u> for competency Injury Prevention, Rehabilitation and Promotion of Fair Play, and Anti-Doping Practices</p> <p>Audio supported by report with detailed information about the evidence of which competency, specific behaviours and standards are shown, the scenes, the people, the actions and a timetable</p> <p>The results for the patient</p> <p>Teller/time</p>
<b>Examples</b>
<p>Office for Protection from Research Risks.  <a href="http://www.hhs.gov/ohrp/humansubjects/guidance/ictips.htm">http://www.hhs.gov/ohrp/humansubjects/guidance/ictips.htm</a></p> <p>Tips on informed consent: Informed Consent Checklist - Basic and Additional Elements. Web-Based Instruction on Informed Consent.  <a href="http://www.hhs.gov/ohrp/humansubjects/assurance/consentckls.htm">http://www.hhs.gov/ohrp/humansubjects/assurance/consentckls.htm</a></p> <p><a href="http://www.research.umn.edu/consent/orientation.html">http://www.research.umn.edu/consent/orientation.html</a>  This site provides information on the informed consent process and also a tool to help you create a consent document.</p>

4.3.3 Audit Tool for Case Study (one for case study patient related), one for organisational setting

	<p><b>Audit tool for Case Study</b></p>
<p><b>Definition:</b> An uncontrolled (prospective or retrospective) observational study involving an intervention and outcome in a single patient. (synonyms: anecdote, case history, single case report)</p>	
<p><b>Description:</b>          This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Injury Prevention</u>, <u>Acute Intervention</u>, <u>Rehabilitation</u>, and <u>Performance Enhancement</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Case Study that has to be delivered. The sports physiotherapist has to point out at the start, the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. Case studies are a valuable way to share the experiences of others who have travelled the road before you. They are also useful for encouraging discussion about best practices and problem-solving strategies. It gives a detailed analysis of a person or group from a social or psychological or medical point of view. There is ethical responsibility and need for patients' or clients' anonymity in case studies by omitting names and other personal information.</p>	
<p><b>References:</b> McEwen, I. ed. Writing Case Reports: A How-to Manual for Clinicians. 2<sup>nd</sup> ed. Alexandria, Va: American Physical Therapy Association; 2001</p>	
<p style="text-align: center;"><b>GUIDELINES</b></p>	
<p style="text-align: center;"><b>Content</b></p>	
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)</b>  <b>Reflection log:</b>          If you do not meet some of the standards you wanted to achieve, you will have to explain:          Why were these standards not met?          How can you prove you are competent for this competency if these standards are still missing?          What are your new plans for development? (see PDP: Personal Development Plan)</p>	

## Structure

*There is ethical responsibility and need for patients' or clients' anonymity in the case study by omitting names and other personal information.*

### **Title**

1. The title clearly reflects the content of the article

### **Summary**

2. The summary represents a concise accurate reflection of the article

### **Division**

3. The division is clear and comprises at least: introduction, research method, results and discussion

### **Introduction**

4. Specify the reason for the case study
5. Specify the relevance of the problem
6. Describe the perspective and theoretical framework from which the problem has been approached
7. Indicate what is known about the problem in the literature
8. State a clear definition of the problem

### **Literature**

9. The quality of the research studies referred to has to be specified
10. A literature list must be included and it must be correctly composed

### **Measuring instruments**

11. Describe the validity, reliability and responsiveness of the applied measuring instruments
12. Fit the applied measuring instruments within the theoretical framework used

### **Clinical reasoning**

13. Include the deciding moments and their criteria in the treatment description

### **Intervention**

14. Indicate the criteria on which the choice of intervention is based
15. Define the objectives of the intervention appropriately
16. The intervention must be based on relevant and prevailing scientific theories or on a rationale of one's own
17. Indicate the strength of the scientific evidence in the chosen treatment
18. Describe the intervention in an accurate and standardised way

**Results**

19. Use the correct descriptive statistics in the description of results
20. Describe the results clearly
21. Use appropriate visual representations of the data, if applicable

**Discussion**

22. Write the discussion in a lucid way
23. Compare one's own findings with the findings from literature
24. Indicate where further research is called for

**Readability and layout**

25. The case study has to be well readable for the target group
26. The tables and figures have to be clear (if applicable)
27. Use an appropriate layout

**Examples (URLs)**

Grieve, R. (2005). Proximal hamstring rupture, restoration of function without surgical intervention: a case study on myofascial trigger point pressure release. *Journal of Bodyworks and Movement Therapies* (in press).

<http://dx.doi.org/10.1016/j.jbmt.2005.08.003>

Herrington, L. (2004). The rehabilitation of two patients with functionally unstable ACL deficient knees: a case report. *Physical Therapy in Sport*(5), 175-178.

<http://dx.doi.org/10.1016/j.ptsp.2004.08.003>

Booth, L. (2005). A physiotherapy perspective on improving swing technique in a professional golfer: a case study. *Physical Therapy in Sport*(6), 97-102.

<http://dx.doi.org/10.1016/j.ptsp.2005.01.003>

Griffiths, H. (2003). A case study of lateral epicondyle pain in a cricketer: a clinical reasoning approach to management. *Physical Therapy in Sport*(4), 192-198.

<http://dx.doi.org/10.1016/j.ptsp.2003.08.002>

Sousa, J.P., Cabri, J., Donaghy, M. (2007) Case Research in Sports Physiotherapy *Physical Therapy in Sport* (under review)



## Audit tool for Case Study in organisational setting

### Definition:

“An empirical inquiry that investigates a contemporary phenomenon within its real life context when the boundaries between the phenomenon and context are not clearly evident and in which multiple sources of evidence are used” (Yin 2003)

A case is a unit of analysis that relates to the way the research question has been defined and refers to an individual, an organisation, a department, a process (e.g. implementation process) or a programme.

### Description:

This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competency Professionalism and Management have been met. This Audit Tool describes guidelines to produce or develop the professional product Case Study that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product.

A case study is a kind of research strategy, research design or action plan that describes the logic steps which link the research question with the conclusions (including data collection, analysis and interpretation).

When to use a case study?

- Interest in in-depth understanding of contemporary complex social and organisational processes and phenomena
- Context is of critical importance
- The researcher cannot control or manipulate the variables
- Interest in (organisational) members in their “natural setting”
- Interested in: How, What, Why questions

To answer the research question you choose one case or multiple cases.

Types of case studies (Yin 2003)

- Explanatory
  - Suitable for doing causal studies
  - E.g. finding explanations of why an implementation process did not succeed
- Exploratory
  - Explores a certain topic through a case study
  - E.g. “what effect reorganisation had on a certain group of employees?”
- Descriptive
  - Describes and analyses certain situations/cultures
  - E.g. case that illustrates and analyses examples of innovations in diverse domains and geographic areas.

There is ethical responsibility and need for people’s and organisations’ anonymity in case studies by omitting names and other personal information.

**References:** Yin, R. K. (2003). Case study research: Design and methods (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.

<b>GUIDELINES</b>
<b>Content</b>
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)</b></p> <p><b>Reflection log:</b></p> <p>If you do not meet some of the standards you wanted to achieve, you will have to explain:  Why were these standards not met?  How can you prove you are competent for this competency if these standards are still missing?  What are your new plans for development? (see PDP: Personal Development Plan)</p>
<b>Structure</b>
<p>Research Design:</p> <p>Identifying the problem, research questions: very clear!</p> <p>Using the literature – the conceptual framework</p> <ul style="list-style-type: none"> <li>– Literature used depending on the study's questions and research design</li> <li>– At the beginning of the study: <ul style="list-style-type: none"> <li>* Identify what is already known – what is important</li> <li>* Helps clarifying the research question</li> <li>* Helps proposing a conceptual framework</li> </ul> </li> <li>– When data is collected: <ul style="list-style-type: none"> <li>* Helps the understanding of patterns in data</li> </ul> </li> <li>– When conclusions are drawn: <ul style="list-style-type: none"> <li>* Helps with comparing and contrasting the findings of the case with findings from other cases  and adds to the fields knowledge base</li> <li>* Points to study in similar/different contexts, clarify the limits of the present case study</li> </ul> </li> </ul> <p>Define the unit of analysis</p>

Designing the study: one case vs. multiple cases, rationale for choosing it:

- Single case study approach:
  - \* Critical case
  - \* Extreme or unique case
  - \* Representative or typical case (“everyday situation”)
  - \* Revelatory case (little research done on the subject)
  - \* Longitudinal case
- Multiple case study approach:
  - \* Opportunity to replicate findings from one case (cross-case comparison)
  - \* Allow revision of the framework before applying it to another case
  - \* More reliability and validity of the conclusions/inferences
  - \* Time and resource-intensive
- Qualitative, quantitative or mixed methods

Reliability and validity issues:

- Internal validity
  - \* The extent to which the study correctly answers the questions it claims to answer using the data that were gathered
  - \* Strategies for enhancing data validity: Triangulation (multiple data, methods, investigators), checking out rival explanations, member checks (see Miles and Huberman’s Tactics for Testing or Confirming Findings, 1994, for more strategies)
- External validity
  - \* The extent to which the results of the study can be generalised
- Reliability
  - \* If a later researcher follows the same procedures as described by an earlier researcher, he/she should arrive at the same findings and conclusions (Yin 2003)

Collecting the data

- Six main sources of data: documentation (annual reports, news, articles, etc.), archival records (previous survey results, employee records), interviews, direct observation, participant observation, physical objects
- Heavy reliance on qualitative research methods

Analysing the data: sensing themes

- Immersion in the collected data, openness, flexibility to perceive patterns
- Identifying categories and coding processes
  - \* Codes development:
    - Theory-driven
    - Prior-research driven
    - Data-driven
- Major themes, sub-themes

Data collection and analysis: simultaneous and recursive process

- Begin the analysis with your first interview!
- Helps you to, e.g.:
  - \* Make decisions to narrow or widen the study
  - \* Identify “leads” to pursue and plan further data collections
  - \* Develop additional questions to ask participants
  - \* Reflect on your own observations and biases
  - \* Stimulate your reading of literature

## Integrating the study findings

### Interpreting findings and drawing conclusions:

- The very act of categorising is the beginning of building your understanding/theory: building a larger meaning of the phenomena
- Explore themes: connect and interrelate
  - \* How do themes fit together; how they are connected with ideas you have, previous literature, prior research?
  - \* What further questions need to be asked?  
(see Miles and Huberman's Tactics for Testing or Confirming Findings, 1994, for more tactics to help you think with your data)
- Be open to the possibilities of change but remain focused on the original purpose of the research
- Be like a detective: record, analyse info but also make inferences about the information
- Be prepared to obtain contrary findings and consider alternative explanations

*Writing the case study:*

There is ethical responsibility and need for people's or organisations' anonymity in the case study by omitting names and other personal information.

**Title**

1. The title clearly reflects the content of the article

**Summary**

2. The summary represents a concise accurate reflection of the article

**Division**

3. The division is clear and it comprises at least: introduction, research method, results and discussion

**Introduction**

4. Specify the reason for the case study
5. Specify the relevance of the problem
6. Describe the perspective and theoretical framework from which the problem has been approached
7. Indicate what is known about the problem in the literature
8. State a clear definition of the problem

**Literature**

9. The quality of the research studies referred to has to be specified
10. A literature list must be included and it must be correctly composed

**Measuring instruments**

11. Describe the validity, reliability and responsiveness of the applied measuring instruments
12. Fit the applied measuring instruments within the theoretical framework used

**Clinical reasoning**

13. Include the deciding moments and their criteria in the description of your activities

**Intervention**

14. Indicate the criteria on which the choice of your activities are based
15. Define the objectives of your activities appropriately
16. Your activities must be based on relevant and prevailing scientific theories or on a rationale of your own
17. Indicate the strength of the scientific evidence in the chosen activities
18. Describe your activities in an accurate and standardised way

**Results**

19. Use the correct descriptive statistics in the description of results
20. Describe the results clearly
21. Use appropriate visual representations of the data, if applicable

**Discussion**

22. Write the discussion in a lucid way
23. Compare one's own findings with the findings from literature
24. Indicate where further research is called for

**Readability and layout**

- 25. The case study has to be easily readable for the target group
- 26. The tables and figures have to be clear (if applicable)
- 27. Use an appropriate layout

**Examples, URLs or materials for further reading**

Yin, R. K. (2003). Case study research: Design and methods (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.

Ellinger, A. D. Contextual Factors Influencing Informal Learning in a Workplace Setting: The Case of "Reinventing Itself Company", Human Resource Development Quarterly, vol 16, no 3, Fall 2005

Miles, M. M. and Huberman, M. A. Qualitative data analysis: an expanded source-book, 1994

Swanson & Holton, Research in organisations. Foundations and methods of inquiry, 1993

#### 4.3.4 Audit Tool for Cardio Pulmonary Resuscitation Test and Certificate

 <b>Audit tool for CPR test and Certificate</b>
<p><b>Definition:</b> A test to check and a certificate to prove your knowledge and skills related to first aid and cardiopulmonary resuscitation.</p> <p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competency <u>Acute Intervention</u> have been met. This Audit Tool describes guidelines to produce CPR test results (training and certification) that have to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. Cardiopulmonary resuscitation (CPR) is a combination of rescue breathing and chest compressions delivered to victims thought to be in cardiac arrest. When cardiac arrest occurs, the heart stops pumping blood. CPR can support a small amount of blood flow to the heart and brain to “buy time” until normal heart function is restored. CPR science guidelines are the basis for teaching and testing CPR.</p>
<p><b>References:</b> First Aid Training and CPR Test Online, 2004 <a href="http://www.cprtest.co.uk/cpr.php">http://www.cprtest.co.uk/cpr.php</a></p>
<p style="text-align: center;"><b>GUIDELINES</b></p>
<p style="text-align: center;"><b>Content</b></p>
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)</b> <b>You must add your certificate, which needs to be updated every two years.</b></p> <p><b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan)</p>

<b>Structure</b>
<p>Annual CPR test to update your first aid knowledge and skills</p> <p><b>Required</b> to go to a University or Centre for Emergency Programmes for practical testing and receiving a Certificate of Completion for passing written and practical testing every two years</p>
<b>Examples (URLs)</b>
<p>First Aid Training and CPR Test Online, 2004  <a href="http://www.cprtest.co.uk/cpr.php">http://www.cprtest.co.uk/cpr.php</a></p> <p>American Heart Association Guidelines for Cardiopulmonary Resuscitation, 2005  <a href="http://circ.ahajournals.org/content/vol112/24_suppl/">http://circ.ahajournals.org/content/vol112/24_suppl/</a></p> <p>Lance, B., Becker, MD; Berg, R. A. MD; Pepe, P. E. MD, MPH; Ahamed H. Idris, MD; Aufderheide, T. P., MD; Barnes, T. A.; EdD, RRT; Stratton, S. J., MD; Chandra, N. C. MD, A Reappraisal of Mouth-to-Mouth Ventilation During Bystander-Initiated Cardiopulmonary Resuscitation. A Statement for Healthcare Professionals from the Ventilation Working Group of the Basic Life Support and Paediatric Life Support Subcommittees, American Heart Association, Circulation, 1997;96:2102-2112  <a href="http://circ.ahajournals.org/cgi/content/full/96/6/2102">http://circ.ahajournals.org/cgi/content/full/96/6/2102</a></p> <p><a href="http://www.asianjobsite.co.uk/cprintro.swf">http://www.asianjobsite.co.uk/cprintro.swf</a></p> <p><a href="http://www.redcross.org/services/youth/izone/quizzes.html">http://www.redcross.org/services/youth/izone/quizzes.html</a></p> <p><a href="http://www.cw.bc.ca/OnlineCourses/cpr.asp#4">http://www.cw.bc.ca/OnlineCourses/cpr.asp#4</a></p> <p>Heart and Stroke Facts, American Heart Association, 2003  This booklet discusses the major types of heart and blood vessel (cardiovascular) disorders. In it, you'll learn 1) what some of the major disorders and their risk factors are; 2) what can be done to reduce risk; 3) how victims are diagnosed and treated. A companion booklet, Heart Disease and Stroke Statistics Update, contains the most recent prevalence, incidence, mortality and cost statistics available as of the publication date.  <a href="http://www.americanheart.org/downloadable/heart/1056719919740HSFacts2003text.pdf">http://www.americanheart.org/downloadable/heart/1056719919740HSFacts2003text.pdf</a></p>

#### 4.3.5 Audit Tool for Discussion Report

 <b>Audit tool for Discussion Report</b>
<p><b>Definition:</b> An extended communication (often interactive) dealing with a particular topic; an exchange of views on some topic. A discussion report is a written document describing the discussion findings of some individual or group.</p> <p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Injury Prevention</u>, <u>Rehabilitation</u>, <u>Dissemination of Best Practice</u> and <u>Promotion of Fair Play and Anti-Doping Practices</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Discussion Report that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. A discussion can be held in a scientific paper, on subject-specific internet discussion forums, or in topical newspaper discussion columns. If you collect the different discussion on specific sports physiotherapeutic treatments, cases, guidelines, and topics, and put them together in the right order you are building up a discussion report. Examples: Start up a discussion about a specific sports physiotherapeutic topic for example on the SPA website discussion forum. This could be a topic for which no evidence already exists and research has just been started. This discussion could help focus on which elements would be important for research. Or a discussion about which sports physiotherapeutic guidelines need to be developed. Discussion about implementation of sports physiotherapeutic guidelines in daily life practice. For examples on discussion of systematic reviews, see audit tool <u>systematic literature review</u>.</p>
<b>References:</b>
<b>GUIDELINES</b>
<b>Content</b>
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no).</b></p> <p><b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan)</p>

## Structure

Introduction establishes subject/issue under discussion

Be able to stage discussion effectively

Use connectives to sequence arguments logically

Use evidence of research about facts/ideas/issues

Be able to write about issues from more than one perspective

Apply knowledge of spelling and punctuation conventions

Use language that indicates a shift in point of view (e.g. 'however', 'on the other hand')

Conclude discussion effectively (e.g. makes a recommendation)

Tips for live discussion:

- strive for relatively equal participation
- respect yourself, each other and different perspectives
- engage in active listening
- do not repeat what others have said clearly
- be patient with peers; do not interrupt
- be aware of your own and others' body language and eye contact
- take risks and allow yourself to be uncertain
- make a clear, concise point when making a comment
- be prepared; do the reading; get sufficient sleep
- relate discussion to readings

do not be drawn into individual debate over trivialities

## Examples

Proctor, M. L., Hing, W., Johnson, T. C., Murphy, P. A. Spinal manipulation for primary and secondary dysmenorrhoea (Cochrane Review). In: The Cochrane Library, Issue 1, 2006. Chichester, UK: John Wiley & Sons, Ltd..

Foster, N. E., Thompson, K. A.; Baxter, G. D., Allen, J. M. Management of Non-specific Low Back Pain by Physiotherapists in Britain and Ireland: A Descriptive Questionnaire of Current Clinical Practice. Spine. 24(13):1332, July 1, 1999.

Sjödahl, C., Jarnlo, B., Persson, B. Gait improvement in unilateral transfemoral amputees by a combined psychological and physiotherapeutic treatment, Journal of Rehabilitation Medicine Volume 33, Number 3 / July 1, 2001 114 - 118 Taylor & Francis

[http://taylorandfrancis.metapress.com/\(mmeyou45ywqlniujyprzptzm\)/app/home/contribution.asp?referrer=parent&backto=issue,4,8;journal,34,36;linkingpublicationresults,1:104919,1](http://taylorandfrancis.metapress.com/(mmeyou45ywqlniujyprzptzm)/app/home/contribution.asp?referrer=parent&backto=issue,4,8;journal,34,36;linkingpublicationresults,1:104919,1)

In order to facilitate communication around Sports Physiotherapy and the SPA project, there is an email discussion

[http://www.sportsphysiotherapyforall.org/the\\_team/discuss.html](http://www.sportsphysiotherapyforall.org/the_team/discuss.html)

Email discussion groups allow individuals to communicate with other who share the same interests. In the UK, for example, [JISCMail](#) provides a home to over 2,000 discussion lists for the UK Higher Education Community. [Sport-med](#) and [Physio](#) mailing lists provide a forum for people interested in Sports Physiotherapy.

<http://www.jiscmail.ac.uk/>

Discussion forum example: This is a place to post all your questions, suggestions and/or words of advice on topics of a sporting nature.

<http://p214.ezboard.com/fphysiobasecommunityforum91289frm9>

Example of how to prepare a discussion:

<http://www.alliancept.org/bulletins/discussentryleveledu.pdf>

<http://www.alliancept.org/bulletins/guideentryleveledu.pdf>

<http://www.alliancept.org/bulletins/guideentryleveledubull.pdf>

Table to score criteria for a written discussion

[http://alex.edfac.usyd.edu.au/Primary/ncc\\_resources/discussion\\_crit.pdf](http://alex.edfac.usyd.edu.au/Primary/ncc_resources/discussion_crit.pdf)

#### 4.3.6 Audit Tool for Dissemination / Innovation Project

 <b>Audit tool for Dissemination / Innovation Project</b>
<b>Definition:</b> Dissemination means to spread awareness, or open a subject to widespread discussion and debate. Innovation is a process of taking new ideas through to satisfied customers. It is the conversion of new knowledge (creation or combination) into new products and services and distribution methods. A project is an undertaking that encompasses a set of tasks or activities having a definable starting point and well defined objectives. Usually each task has a planned completion data (due date) and assigned resources.
<b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Professionalism and Management</u> and <u>Dissemination of Best Practice</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Dissemination / Innovation Project that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. Project planning is a discipline for stating how to complete a project within a certain timeframe, usually with defined stages, and with designated resources. One view of project planning divides the activity into: Setting objectives (these should be measurable like identifying deliverables), Planning the schedule, and Making supporting plans. Supporting plans may include those related to: human resources, communication methods, and risk management. Dissemination and innovation projects have the specific purpose to disseminate and to implement innovations, evidence based results of research, best practices, and to stimulate and enhance the development of the profession.
<b>References:</b>
<b>GUIDELINES</b>
<b>Content</b>
<b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)</b> <b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan)

## Structure

### *General guidelines:*

Make clear the main item and purpose

Choose an appropriate title

Write an abstract and summary

### *Scientific guidelines:*

Clear description of Sports Physiotherapy and every day practice

Clear description of applied science

Clear hypothesis and theoretical framework

Thorough literature research strategy

List most relevant articles

### *Research design:*

Use research methods and statistical analysis

Use correct power calculation

Use theoretical framework and measurement instruments in a consistent way

### *Relevance:*

Recommendations are socially relevant

Recommendations are relevant for the profession of Sports Physiotherapy (research and innovation of care)

Recommendations enhance the body of knowledge of Sports Physiotherapy (research and innovation of care)

### *Structure/design*

Composition

Scientific writing style

Literature references

Literature list

Coherent structure

Language, spelling, grammar and clarity

General care

### *Management guidelines and tips:*

Be able to follow a plan dynamically – that is, to change key parameters as the needs, resources, skills, time, money, organisation, quality, and information require

Control over programmatic decisions

In innovation, this structure is created through roadmaps, guiding principles, business processes, organisational charts and systems. Strategic planning and road-mapping processes cannot guarantee brilliant flashes of creative insight, but they can prepare minds and increase the odds that such flashes occur in real time

Manage a multidisciplinary group of service providers who can integrate their unique skills into an effective and dynamic plan

Coordinate efforts of the team

Have overview of key needs and concerns of the clients

Don't let the efforts be taken over by bureaucratic constraints, including the paperwork and other documentation that are needed to track the implementation and impact.

Critical to teamwork is leadership: administering and supervising the team members, real involvement and positive feedback

*Project phases:*

Initiative phase: The idea

- Determine present-day state of affairs
- Examine global formulation of a problem
- Global definition of the desired result
- Who is going to own, to assess and to use the results
- Global defining of the project
- Defining of the project phases
- Description of the work method
- Draw up of project assignment

Definition phase: What?

- What: more clear defining of the scope and the scale, the final requirements of the end results
- As clearly as possible define the project results and the activities for the next phase
- Activities: functional and operational requirements, design restrictions, required conditions, appointment of a project leader
- Result: describe project programme

Design phase: How?

- What: contents list, competencies
- Activities: communication with actors, creation of bearing surface, finding realisable solutions (education/learning budget, manpower, facilities)
- Who: project team: strategic combination (content, management qualities, reflection of the organisation)
- Result: project design, form and content (model for delivery), meeting the required needs

Preparation phase: How to start and to do?

- What: organisation, acquisition and training of people, development of materials, evaluation, pilot of design on the organisation (everything that has to be done to realise the project outcomes)
- Who: the project team and other involved people
- Results: realisation of the plan

Realisation phase: Do

- What: monitoring of delivery processes, really achieving the goals
- Who: the project leader/ coordinator in cooperation with the team
- Result: realising of the goals and a programme for quality care and maintenance

Evaluation phase: Quality care and maintenance

- What: correcting/ adjusting based on monitoring, to minimise complaints and disturbances
- Who: the coordinator and other involved people
- Result: implementation of adjustments/quality care

## Examples

Example of an innovation project in physiotherapy:

<http://www.csp.org.uk/director/effectivepractice/sharingeffectivephysiotherapy/projectmeasurement.cfm>

Information about project measurement ([Service Information Checklist](#), [List of Outcome Measures](#))

<http://www.ingentaconnect.com/content/bsc/hssc/2003/00000011/00000003/art00003>

Fitzgerald L.<sup>1</sup>; Ferlie E.<sup>2</sup>; Hawkins C.<sup>3</sup>, Innovation in healthcare: how does credible evidence influence professionals? [Health & Social Care in the Community](#), Volume 11, Number 3, May 2003, pp. 219-228(10), [Blackwell Publishing](#)

Haynes, B. Haines, A. Getting research findings into practice. Barriers and bridges to evidence based clinical practice, *BMJ*. 1998 July 25; 317(7153): 273–276.

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1113594>

Problems in implementing evidence based medicine and possible solutions

Grol, R. Successes and Failures in the Implementation of Evidence-Based Guidelines for Clinical Practice. *Medical Care*. 39(8) Supplement 2:II-46-II-54, August 2001.

<http://www.lww-medicalcare.com/pt/re/medcare/abstract.00005650-200108002-00003.htm;jsessionid=EEA70HqLeE26yqbmMBWLu2PHhqlpeYnE9iLLRLSsisHmLEHrT9hK!987057721!-949856145!9001!-1>

A study about the development and implementation of (evidence-based) clinical practice guidelines, to learn from their successes and failures

<http://www.practicebasedlearning.org/home.htm>

Example of project on dissemination of physiotherapy best practice in education

Kilvington, J. Research in Radiography and Physiotherapy, Faculty of Health & Human Sciences, University of Hertfordshire, <http://perseus.herts.ac.uk/uinfo/schools/ppr/rad/research.cfm>

Corrigan, P. W, Steiner, L., McCracken, S. G., Blaser, B. Barr, M. Strategies for Disseminating Evidence-Based Practices to Staff Who Treat People With Serious Mental Illness, *Psychiatr Serv* 52:1598-1606, December 2001

<http://www.psychiatryonline.org/cgi/content/full/52/12/1598>

Review of the research on dissemination strategies that facilitate the transfer of research-based practices from academic setting to public-sector psychiatry

Wammes, B. M., Blom, C. A., Koelen, M, De Groot, S. D. W., Remijnse-Meester, W. T. A. and Van Staveren, W. A. Implementation research for 'evidence-based' guideline development by dieticians: a pilot study to test an instrument, *Journal of Human Nutrition & Dietetics* Volume 15, Issue 4, Page 243 - August 2002

<http://www.blackwell-synergy.com/links/doi/10.1046/j.1365-277X.2002.00368.x>

#### 4.3.7 Audit Tool for Education Evidence

 <b>Audit tool for Education Evidence</b>
<p><b>Definition:</b> Education is the act, process or result of educating or being educated. The activities that impart knowledge and/or skills and/or attitude; also, the act or process of training by a prescribed or customary course of study or discipline; also the competencies obtained or developed by a learning process. Evidence of education can be delivered by preparation, evaluation and feedback reports and by video.</p> <p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Promotion of a Safe, Active Lifestyle and Dissemination of Best Practice</u> have been met. This Audit Tool describes guidelines for the professional service Education that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this service. Synonyms: Instruction, Teaching, Training. Education implies not so much the communication of knowledge as the discipline of the intellect, the establishment of the principles, and the regulation of the heart. Instruction is that part of education which furnishes the mind with knowledge. Teaching is the same, being simply more familiar. It is also applied to practice, such as teaching to speak a language; teaching a dog to do tricks. Training is a department of education in which the chief element is exercise or practice for the purpose of imparting facility in any physical or mental operation. Breeding commonly relates to the manners and outward conduct. Teachers' work has to be seen as a cyclical process of preparation, execution and evaluation of interventions in education. This job may be regarded as 'decision making' (Sol 1984) and is partly routine (intuitive) and partly reasoned (rational). Due to the many changes and growth of evidence in the healthcare system, the required knowledge, skills and behaviours of physiotherapists are increasing in complexity. Therefore, education of physiotherapists must also evolve. There is a greater need for evidence-based practice skills which include research evaluation and outcome measurement. Also, professional autonomy requires skills that enable a physiotherapist to correctly diagnose and treat an individual with a physical dysfunction.</p> <p>It will help to use the audit tool for <b>presentation, video, and 360 degree feedback report</b> too.</p>
<b>References:</b>

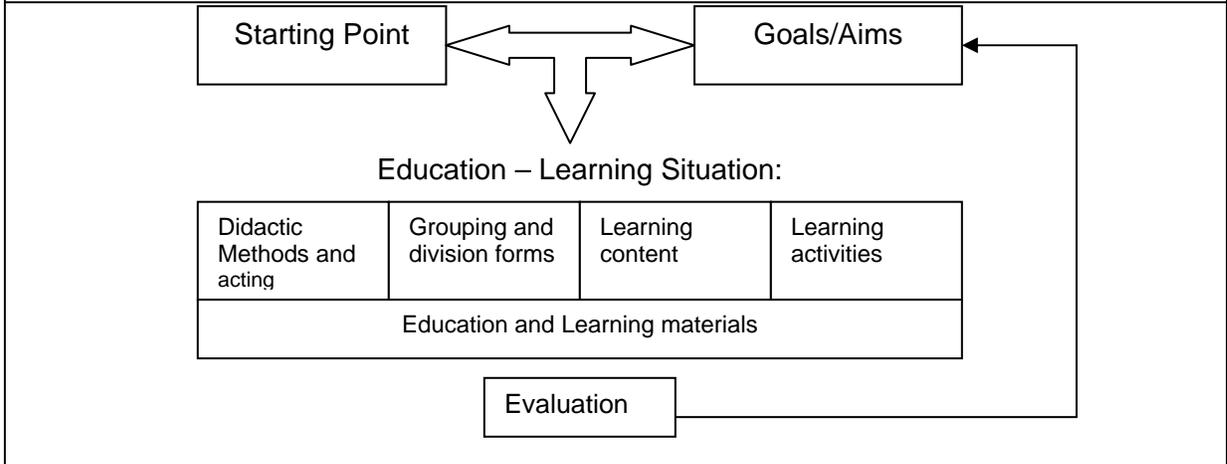
**GUIDELINES**

**Content**

**Complete these guidelines with the checklist on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no).**  
**Reflection log:**  
 If you do not meet some of the standards you wanted to achieve, you will have to explain:  
 Why were these standards not met?  
 How can you prove you are competent for this competency if these standards are still missing?  
 What are your new plans for development? (see PDP: Personal Development Plan)

**Structure**

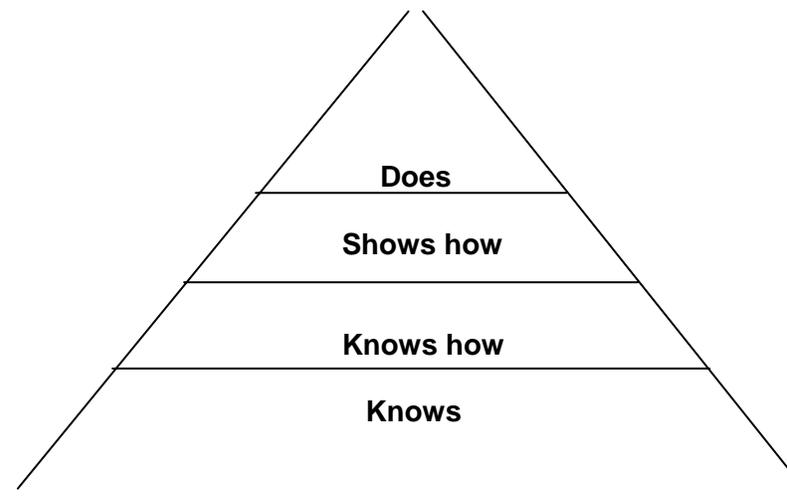
Perspectives on aims and content of education:  
 The knowledge-oriented perspective  
 Society-oriented perspective  
 Pupil-oriented perspective: more self directed independent learning  
 Experiential learning



Knowledge-oriented education / learning:  
 The didactical model of 'Van Gelder' is a strongly oriented model of knowledge transfer. In this model the teacher/lecturer:

- determines the intellectual starting level of pupils/students;
- determines which goals he wants the students to realise;
- chooses the most appropriate way of teaching, to reach these goals;
- by evaluation, controls if the goals are reached effectively. The mostly used form of evaluation is exams.

In knowledge transfer based education the main factor to be able to fulfil a profession successful is to possess a great amount of theoretical knowledge.



*Miller's competence model (1992)*

Competence-based education / learning:

In competency based education it is important to learn someone's competencies in a real authentic situation. Namely the performance of the required behaviour (knowledge, skills and attitudes) in the most various situations of that profession. It is also necessary to have the capability to be able to reflect on own actions, attitude, personal characteristics and with that reflection changing or adapting one's own learning path. This is one of the core elements of evaluation in competence-based learning.

Very important in this model is that knowledge is still the basis of learning the teacher's profession.

Be aware of that this learning will be effective when:

- learners are engaged in solving real-world problems
- existing knowledge in learners is activated as a foundation for new knowledge and skills
- desired knowledge applications and skills are demonstrated for learners
- learners are required to apply new knowledge and skills
- new knowledge and skills are integrated into the learner's world

Make choices in your didactical approach, based on prescribed (students') desired knowledge, skills and attitudes. These choices will have to result in a system where problems are handled adequately and conveniently in the situation.

Your teacher job components are: monitor of the learning and development process; educator; subject expert (sports physiotherapy related); organiser; innovator-researcher; culture participant.

Your teacher job components are: monitor of the learning and development process; educator; subject expert (sports physiotherapy related); organiser; innovator-researcher; culture participant.

### Examples (URLs)

Education in sports physiotherapy programmes, sports physiotherapy competencies and standards and audit tools to measure those competencies and standards. Website of IFSP (International Federation of Sports Physiotherapy and SPA (Sports Physiotherapy for All)

<http://www.ifsp.nl/show-article.php?iRubrikID=2301&iArticleID=6373> and [www.sportsphysiotherapyforall.org](http://www.sportsphysiotherapyforall.org)

Bennell, K. and Webb, G. Educating Australian physiotherapists: striving for excellence in sport and exercise medicine Br J Sports Med 2000; 34:241-243, 2000

<http://bjsm.bmjournals.com/cgi/content/full/34/4/241>

Introduction To Sport Physiotherapy Canada's Post-Graduate Education System

<http://www.sportphysio.ca/education/index.html>

Kordi, R., Dennick, R.D. and Scammell B.E. Developing learning outcomes for an ideal MSc course in sports and exercise medicine, Br J Sports Med 2005;39:20-23, 2005

<http://bjsm.bmjournals.com/cgi/content/full/39/1/20>

Awouters V. Dissertation: Teaching and Learning with ICT, The electronic learning environment, supporting competence-based learning - How were teachers educated until now? The knowledge-transfer-model (2005)

[http://users.pandora.be/valere.awouters/English/part\\_1\\_1.htm](http://users.pandora.be/valere.awouters/English/part_1_1.htm)

[http://homepages.shu.ac.uk/~vawouter/module\\_6/final\\_document\\_en.doc](http://homepages.shu.ac.uk/~vawouter/module_6/final_document_en.doc)

Klep, J., Letscher, J., Thijs, A. Netherlands Institute for Curriculum Development, SLO, Enschede2004, What are we going to learn? Choosing educational content

[http://www.neccs.nl/publications/What\\_are\\_we\\_going\\_to\\_learn.pdf/](http://www.neccs.nl/publications/What_are_we_going_to_learn.pdf/)

Eisner, E W. Those who ignore the past ...: 12 'easy' lessons for the next millennium. In: Journal of Curriculum Studies, 32, 343-357. (2000).

Fullan, M. (2001). The new meaning of educational change. New York: Teachers, College Press.

Walker, D. Fundamentals of curriculum: Passion and professionalism, Mahwah, NJ: Lawrence Erlbaum Ass. (2003)

Verschaffel, L, Entwistle, N, van Merriknboer J, de Corte E. Powerful Learning Environments: Unravelling Basic Components and Dimensions, 1998

#### 4.3.8 Audit Tool for Poster Presentation

 <b>SPA project</b>	<b>Audit tool for Poster Presentation</b>
<b>Definition:</b> A poster is a wall paper or placard, widely used at a scientific conference as a means of disseminating information to a wide audience.	
<b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competency <u>Promotion of a Safe, Active Lifestyle</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Poster Presentation that has to be delivered. The sports physiotherapist has to point out at the start, the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. A poster is simply a static, visual medium (usually of the paper and board variety) that you use to communicate ideas and messages. The difference between poster and oral presentations is that you should let your poster do most of the 'talking'; that is, the material presented should convey the essence of your message. Additional information about the topic presented in the poster can be provided in the form of a pamphlet or some other handout for delegates to take away. Presenters are responsible for the production and display of these. You could consider providing delegates with a small print out of your poster (on A4 paper) so that visitors can take the poster with them.	
<b>References:</b> Thomas M, Poster Presentation at Euromedlab 2005, Department of Clinical Biochemistry, Royal Free Hospital, London (2005) <a href="http://www.glasgow2005.org/poster.html">http://www.glasgow2005.org/poster.html</a> Thom, M. T. Poster Presentation of Research Work, Dept. of Chemical and Process Engineering, University of Newcastle upon Tyne, Newcastle upon Tyne, NE1 7RU, UK (1997) <a href="http://lorien.ncl.ac.uk/ming/dept/Tips/present/posters.htm">http://lorien.ncl.ac.uk/ming/dept/Tips/present/posters.htm</a>	
<b>GUIDELINES</b>	
<b>Content</b>	
<b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no).</b> <b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan)	

## Structure

Convey the message in a concise way, make the message clear

Stimulate interest in your readers, highlight the key points

Prepare a clear and easy to follow sequence:

Consider using the headings given in the guidance for abstracts for research and special interest papers. Simplify this to introduction, methods/materials, results, discussion/conclusions and recommendations. Conclusions are very brief, as the poster covers only a portion of the research.

The title of the poster should be the same as your abstract. The heading should include the authors' names and affiliations

References should be included, if used, but try to keep them to a minimum.

Visually attractive:

A good balance between text and illustrations: approximately 1/3rd text, 1/3rd graphics and 1/3rd empty space

The poster has to be legible from a distance of one metre (further for the title)

Provide information on the poster about where / how you can be contacted.

## Examples

The World Confederation for Physical Therapy (2005)

<http://www.wcpt.org/congress/downloads.php#Posters>

Thom, M. T. Poster Presentation of Research Work, Dept. of Chemical and Process Engineering, University of Newcastle upon Tyne, Newcastle upon Tyne, NE1 7RU, UK (1997)

<http://lorien.ncl.ac.uk/ming/dept/Tips/present/posters.htm>

<http://www.glasgow2005.org/poster.html>

Guidelines prepared by Dr Michael Thomas, Department of Clinical Biochemistry, Royal Free Hospital, Pond Street, Hampstead, London NW3 2QG

Rich Scott, R. PowerPoint – Creating Posters, Manager at Biomedical Communications Unit

<http://www.cmer.wsu.edu/~yonge/ce465/poster.pdf>

Tham, Ming T. Poster Presentation of Research Work - Tips and guidelines, May 1997

<http://lorien.ncl.ac.uk/ming/Dept/Tips/present/posters.htm>

Hess, G.R., Liegel, L.H., NC State University/Oregon State University, Creating Effective Poster Presentations, January 2000, Last Update: January 2004

<http://www.ncsu.edu/project/posters/IndexStart.html>

Miller, L, Johnson, C, Weaver, A. Expanded guidelines for Giving a Poster Presentation Prepared for the American Society of Primatologists by members of the ASP Education Committee, 2002

[http://www.asp.org/education/howto\\_onPosters.html](http://www.asp.org/education/howto_onPosters.html)

Supe, A. N., Sahu, D. R. The art and science of presentation: the poster. J Postgrad Med [serial online] 2000 [cited 2006 Feb 21];46:112-5. <http://www.jpgmonline.com/article.asp?issn=0022-3859;year=2000;volume=46;issue=2;spage=112;epage=5;aulast=Supe>

Gosling, P.J. Scientist's guide to poster presentations, 1999, Kluwer Academic/Plenum Publishers, ISBN 0-306-46076-9

Nichol, A. M., Pexman, P. M., 2003, American Psychological Association, ISBN 1-55798-978-8

#### 4.3.9 Audit Tool for Presentation

 <b>Audit Tool for Presentation</b>
<b>Definition:</b> a show or display of formally presenting a lecture, a speech or something else to sight or hearing, making it publicly available
<b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competency <u>Promotion of a Safe, Active Lifestyle, Research Involvement</u> and <u>Dissemination of Best Practice</u> have been met. This Audit Tool describes guidelines to develop the professional service Presentation that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this service.
<b>References:</b> Audit Tool MSc Physiotherapy University Utrecht, The Netherlands
<b>GUIDELINES</b>
<b>Content</b>
<b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no), a <u>video</u> or written <u>peer review/feedback form</u> from peers present at the presentation, the preparation and/or hand-out materials.</b> <b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain:: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan),

## Structure

Aim of presentation

Introduction

Essence of the presentation, clearness of essence

Ending

Consistency, structure, composition

Changes, switches

Methodological content

Sports physiotherapeutic content

Adapted to the public

Use of examples

Time keeping (time division introduction, essence and ending)

Use Audio-visual media if applicable

Understandable language

Audible and clear pronunciation

Enthusiasm, liveable, movements, position

Contact with the public

Dealing with questions

## Examples (URLs)

<http://www.wcpt.org/common/docs/ISC2007/Documents/CallforAbstracts/AbstractCall.pdf>  
Presentation format, selection criteria and submission guidelines WCPT congress 2007

[http://www.presentationhelper.co.uk/Essential\\_Presentation\\_skills.htm](http://www.presentationhelper.co.uk/Essential_Presentation_skills.htm)

Lee, I., A Research Guide for students, 2002, last update February 2006

<http://www.aresearchguide.com/3tips.html>

How to effectively deliver a [presentation](#). The goal of this education web site is to provide necessary tools for students to conduct research and to present their findings.

#### 4.3.10 Audit Tool for Professional Development Portfolio

 <b>Audit tool for Professional Development Portfolio</b>
<p><b>Definition:</b> A Professional Development Portfolio is a collection of well organised evidence of learning and competence development; it contains development plans and reflection and feedback reports. A professional's development portfolio serves continuous professional development (CPD) or life long learning (LLL) of a person by systematic maintenance, improvement and broadening of knowledge and skill and the development of personal qualities necessary for the execution of professional and technical duties throughout the practitioner's working life.</p> <p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competency <u>Life Long Learning</u> have been met. This Audit Tool describes guidelines to organise and to build up the Professional Development Portfolio that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. Originally a portfolio is a large, flat, thin case for carrying loose papers or drawings or maps used by artists to show their professional performance, a so called a showcase portfolio. Latterly, the education sector adopted a portfolio approach as a useful tool for stimulating and maintaining professional development and competency growth of students. Attaining a professional qualification is not the end of the road and is just one stage in the process of lifelong learning. Sports Physiotherapists need to adapt and develop in order to remain competitive in an evolving professional practice and to deliver high quality evidence based care for the health and safety of their patients and clients. You use a portfolio to collect and organise personal reflections on your behaviour and professional performance, your Personal Development Plan (PDP), your aims, needs and wishes and to collect evidence in the form of professional products and services, also in the form of formal and informal learning. There are different kind of portfolios, such as the professional development portfolio, an assessment portfolio (the Audit Tool Kit for SPA) and the showcase portfolio (used when you are applying for a new job). In a professional development portfolio you can find several different parts like the curriculum vitae, the Professional Development Plan (PDP), the evidence (professional products and services) for being competent and the reflections on personal growth related to the standards and evidence. You can use the audit tools for <u>reflective analysis report</u>, <u>peer review/feedback report</u>, <u>patient feedback questionnaire</u>, <u>360 degree feedback report</u> to assist your reflections.</p>
<p><b>References:</b> Holloway, J. (2000), Advances in Psychiatric Treatment (2000) 6: 467-473 © 2000 The Royal College of Psychiatrists, <a href="http://apt.rcpsych.org/cgi/content/full/6/6/467">http://apt.rcpsych.org/cgi/content/full/6/6/467</a> The Chartered Society of Physiotherapy 2000: CPD/LLL data collection form <a href="http://www.csp.org.uk/uploads/documents/SOPPAudit.pdf">http://www.csp.org.uk/uploads/documents/SOPPAudit.pdf</a></p>

<b>GUIDELINES</b>
<b>Content</b>
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no).</b></p> <p><b>Reflection log:</b>            If you do not meet some of the standards you wanted to achieve, you will have to explain:            Why were these standards not met?            How can you prove you are competent for this competency if these standards are still missing?            What are your new plans for development? (see PDP: Personal Development Plan)</p>
<b>Structure</b>
<p><b>Describe learning needs</b>            Assess and describe learning needs and take account of:</p> <ol style="list-style-type: none"> <li>a. development needs related to the enhancement of an individual's current scope of practice</li> <li>b. feedback from performance data</li> <li>c. mandatory requirements</li> <li>d. new innovations in practice</li> <li>e. the needs of the organisation</li> <li>f. career aspirations</li> </ol> <p><b>Planning CPD/LLL</b>            Describe a plan based on the assessment of learning needs and include:</p> <ol style="list-style-type: none"> <li>a. learning objectives</li> <li>b. activities to achieve the learning objectives</li> </ol> <p><b>Implementing the plan</b>            Describe the evidence that the plan has been implemented            Review the plan at least every six months</p> <p><b>Evaluating the plan</b>            Describe the evidence that the learning objectives have been met            Develop new learning objectives to continue the cycle</p> <p><i>Principles of effective self-regulation</i>            Transparency            Accountability            Targeting            Consistency            Proportionality</p> <p><i>Components of effective adult learning</i>            Assessment Needs            Direct experience of the learning task            Feedback and experience of the results            Review and reflection            Conceptualisation            Testing out in the real world</p>

### *Essentials of a PDP*

Based on assessment needs

Clear learning objectives, which are SMART:

- **S**pecific
- **M**easurable
- **A**ttainable
- **R**esourced
- **T**ime-limited

Allow for discussion and feedback

One method of identifying the SMART objectives and defining the PDP's aims is to ask a series of questions, such as:

1. Where am I now?
2. Where do I want to be in X years' time?
3. How do I get to where I want to be?
4. What resources (government policy, key individuals, training opportunities, etc.) could help me?
5. What is hindering/may hinder me from getting there?

### *Areas to consider in devising a PDP*

Job-specific training and educational requirements: needed to carry out one's job effectively

Continuing development within one's job/role: take into account future developments and changes of role

Personal development needs: may be independent of one's current role

### *Requirements of an effective mentoring relationship*

Mutual commitment and respect

Early negotiation of explicit relationship boundaries

Formally planned, but informally conducted sessions

Absolute confidentiality

Mentees who can and should be mentors for others

Voluntary participation

Mentors who are not the direct line manager of the mentee

Vigilance for signs of a dysfunctional relationship: overdependence, abuse of power, destructive criticism, excessive direction, inappropriate emotional attachment and cross-gender power play

## **Examples**

Cano, V. CPD & LLL links, 2005, <http://www.sportsphysiotherapyforall.org/content/view/147/220/>

Use of Portfolios as a means of Assessing and providing Feedback on Clinical Performance, Queen Margaret University College (QMUC), 1997

[http://www.heacademy.ac.uk/assessment/ASS045D\\_SENLEF\\_UseofPortfolios.doc](http://www.heacademy.ac.uk/assessment/ASS045D_SENLEF_UseofPortfolios.doc)

[http://www.cmlto.com/quality\\_assurance/professional\\_portfolio/pdf/selfcheck.pdf](http://www.cmlto.com/quality_assurance/professional_portfolio/pdf/selfcheck.pdf)

[http://www.cmlto.com/quality\\_assurance/professional\\_portfolio/pdf/Professional\\_Portfolio.pdf](http://www.cmlto.com/quality_assurance/professional_portfolio/pdf/Professional_Portfolio.pdf)

[http://www.cmlto.com/quality\\_assurance/professional\\_portfolio/pdf/handbook.pdf](http://www.cmlto.com/quality_assurance/professional_portfolio/pdf/handbook.pdf)

<http://www.csp.org.uk/director/careersandlearning/continuingprofessionaldevelopment/portfolios.cfm>

<http://www.csp.org.uk/director/careersandlearning/continuingprofessionaldevelopment/reflectivepractice.cfm>

<http://www.csp.org.uk/director/careersandlearning/continuingprofessionaldevelopment/personaldevelopmentplans.cfm>

<http://www.csp.org.uk/uploads/documents/SOPPAudit.pdf>

[http://www.heacademy.ac.uk/assessment/ASS045D\\_SENLEF\\_UseofPortfolios.doc](http://www.heacademy.ac.uk/assessment/ASS045D_SENLEF_UseofPortfolios.doc)

#### 4.3.11 Audit Tool for (Quality) Management Plan

 <p><b>Audit tool for (Quality) Management Plan</b></p>
<p><b>Definition:</b> Quality Management is that aspect of the overall management function that determines and implements the quality policy. Total Quality Management (TQM) is a comprehensive and structured approach to organisational management that seeks to improve the quality of products and services through ongoing refinements in response to continuous feedback. Project planning is a discipline for stating how to complete a project within a certain timeframe, usually with defined stages, and with designated resources.</p> <p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competency <u>Professionalism and Management</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Dissemination/Innovation Project that has to be delivered. The sports physiotherapist has to point out at the start, the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product to be found. TQM requirements may be defined independently for a particular organisation or may be in adherence to established standards, such as the International Organisation for Standardisation's <a href="#">ISO 9000</a> series. TQM can be applied to any type of organisation; it originated in the manufacturing sector and has since been adapted for use in almost every type of organisation imaginable, including schools, highway maintenance, hotel management, and churches. TQM is also based on quality management from the customer's point of view. TQM processes are divided into four sequential categories: plan, do, check, and act (the PDCA cycle). In the 'planning' phase, people define the problem to be addressed, collect relevant data, and ascertain the problem's root cause. In the 'doing' phase, people develop and implement a solution, and decide upon a measurement to gauge its effectiveness. In the 'checking' phase, people confirm the results through before-and-after data comparison. In the 'acting' phase, people document their results, inform others about process changes, and make recommendations for the problem to be addressed in the next PDCA cycle. The plan should be a paper which encompasses a set of tasks or activities having a definable starting point and well defined objectives. Usually each task has a planned completion data (due date) and assigned resources. Project planning is a discipline for stating how to complete a project within a certain timeframe, usually with defined stages, and with designated resources. One view of project planning divides the activity into: Setting objectives (these should be measurable like identifying deliverables), Planning the schedule, and Making supporting plans. Supporting plans may include those related to: human resources, communication methods, and risk management.</p>
<p><b>References:</b></p>

## GUIDELINES

### Content

**Complete these guidelines with the checklist on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no).**

**Reflection log:**

If you do not meet some of the standards you wanted to achieve, you will have to explain:

Why were these standards not met?

How can you prove you are competent for this competency if these standards are still missing?

What are your new plans for development? (see PDP: Personal Development Plan)

### Structure

*General guidelines:*

Make clear the main item and purpose, have a clear vision

Choose an appropriate title

Write an abstract and summary

*Scientific guidelines:*

Clear description of Sports Physiotherapy

Clear description of Sports Physiotherapy every day practice

Clear description of applied science

Clear theoretical framework

Consistency of theoretical framework and research design

List most relevant articles

*Relevance:*

Clear recommendations

Relevant recommendations for the profession of sports physiotherapy

Relevant recommendations for service standards delivery and service standards audit

*Structure/design*

Composition

Scientific writing style

Literature references

Literature list

Coherent structure

Language, spelling, grammar and clarity

General care

*Project phases:*

Initiative phase: The idea

- Determine present-day state of affairs
- Examine global formulation of a problem
- Global definition of the desired result
- Who is going to own, to assess and to use the results
- Global defining of the project
- Defining of the project phases
- Description of the work method
- Draw up project assignment

Definition phase: What?

- More clear defining of the scope and the scale, the final requirements of the end results
- As clear as possible definition of the project results and the activities for the next phase
- Activities: functional and operational requirements, design restrictions, required conditions, appointment of a project leader
- Result: described project programme

Design phase: How?

- What: contents list, competencies
- Activities: communication with actors, creation of bearing surface, finding realisable solutions (education/learning budget, manpower, facilities)
- Who: project team: strategic combination (content, management qualities, reflection of the organisation)
- Result: project design, form and content (model for delivery), meeting the required needs

Preparation phase: How to start and to do?

- What: organisation, acquisition and training of people, development of materials, evaluation, pilot of design on the organisation (everything that has to be done to realise the project outcomes)
- Who: the project team and other involved people
- Results: realisation of the plan

Realisation phase: Do

- What: monitoring of delivery processes, really achieving the goals
- Who: the project leader/ coordinator in cooperation with the team
- Result: realising the goals and a programme for quality care and maintenance

Evaluation phase: Quality care and maintenance

- What: correcting/ adjusting based on monitoring, to minimise complaints and disturbances
- Who: the coordinator and other involved people
- Result: implementation of adjustments/quality care

## Examples

Information about project measurement

<http://www.csp.org.uk/director/effectivepractice/sharingeffectivephysiotherapy/projectmeasurement.cfm>  
([Service Information Checklist](#), [List of Outcome Measures](#))

Nayer, M. Quality Management Program, Evaluation Report, 2003,

[http://www.collegept.org/college/content/pdf/en/QM\\_Evaluation\\_Report.pdf](http://www.collegept.org/college/content/pdf/en/QM_Evaluation_Report.pdf)

College of Physiotherapists of Ontario, 2003

[http://www.collegept.org/college/content/pdf/en/Quality\\_Management\\_Framework\\_English.pdf](http://www.collegept.org/college/content/pdf/en/Quality_Management_Framework_English.pdf)

Example of quality management in physiotherapy: Service standards audit: Service standards audit methodology and Service standards audit data collection form

The Chartered Society of Physiotherapy 2000 <http://www.csp.org.uk/uploads/documents/SOPPAudit.pdf>

Swinkels, I., Ende, van den, Bosch, W. van den, Dekker, J., Wimmers, R. Physiotherapy management of low back pain: Does practice match the Dutch guidelines?

<http://www.nivel.nl/pdf/art-low-back-pain-ilse-swinkels.pdf>

#### 4.3.12 Audit Tool for Reflective Analysis Report

	<b>Audit tool for Reflective Analysis Report</b>
<p><b>Definition:</b> Report with described Reflective Analyses. "Reflection is a process of reviewing an experience of practice in order to describe, analyse, evaluate and so inform learning about practice" (Reid, 1993 p.305).</p>	
<p>"Reflective practice is something more than thoughtful practice. It is that form of practice that seeks to problematise many situations of professional performance so that they can become potential learning situations and so the practitioners can continue to learn, grow and develop in and through practice" (Jarvis 1992 p.180).</p>	
<p>Analysis consists of a series of distinctions clarified with examples and not arguments for or against these.</p>	
<p><b>Description:</b></p>	
<p>This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Acute Intervention</u>, and <u>Life Long Learning</u> have been met. This Audit Tool describes guidelines to get the evidence that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this evidence.</p>	
<p>Reflective thought is "active, persistent, and careful consideration of any belief or supposed form of knowledge, skills and attitude in the light of the grounds that support it and the further conclusion to which it tends" (Dewey J, <u>Experience and Education</u>. New York: Macmillan, 1933. Page 9).</p>	
<p>A reflective analysis is neither a qualitative nor a quantitative research method, but a manner of questioning the basic assumptions. A reflective analysis does not provide a tangible answer to problems based on scientific research, but it enables access to the assumptions behind thinking, doing, behaviour, a project, a statement, a method of research. In other words, reflective analysis will enable you to reveal the hidden motivations behind something and gives the possibility to interpret these. It is nothing more than a deconstructive thinking and interpretation and will thus not provide absolute answers to a specific problem. Rather it will enable us to understand the conditions behind a specific "problem" and make us realise that the essence of that "problem" and its resolution, lie in its assumptions; the very assumptions that enable the existence of that "problem". By enabling us to make these assumptions explicit, reflective analysis aims at allowing us to view the "problem" from a higher stance to gain a comprehensive view of it and ourselves in relation. It is meant to provide a higher awareness of the hidden motivations in others and ourselves and, therefore, enable us to solve concrete "problems" - not by providing unequivocal answers, but by making us ask investigating questions.</p>	
<p>As there is no hard data provided through reflective analysis, the reliability and the validity of one's research/findings depends on the force and logic of one's arguments. Even the best constructed thinking and arguments are subject to their own deconstructive thinking and counter-interpretations. The validity of critical reflective analysis is, therefore, dependent on the quality of the rhetoric. Despite this fact, well-founded arguments remain authoritative over time and have concrete applications.</p>	
<p>Johns describes critical reflection as " a window through which the practitioner can view and focus self within the context of his/her own lived experience in ways that enable him/her to confront, understand and work towards resolving the contradictions within his/her practice between what is desirable and actual practice" (Johns 2000:34).</p>	

To maximise learning through critical reflection we need to explore available theory, knowledge and experiences to understand the process in different ways. Thus Boyd & Fales (1983 p.100) claim that critical reflection “is the core difference between whether a person repeats the same experience several times becoming highly proficient at one behaviour, or learns from experience in such a way that he or she is cognitively or affectively changed”. Critical reflection is thus viewed as transformational learning which according to Baumgartner (2001) can happen either gradually or from a sudden or critical incident and alter the way people see themselves and their world.

It will help to use the audit tools for patient feedback questionnaire, peer review/feedback, professional development portfolio, and also to use tests such as Belbin team roles and Personality Big 5

References: Embree, L. Reflective Analysis in and of Social Psychology. A Model for Interdisciplinary Phenomenology in Essays in Celebration of the Founding of the Organization of Phenomenological Organizations. Web- Published at www.o-p-o.net, 2003.”  
<http://www.o-p-o.net/essays/EmbreeArticle.pdf>

McClure, P. School of Health Sciences, University of Ulster, Making Practice-Based Learning work, Reflection on Practice. [www.practicebasedlearning.org](http://www.practicebasedlearning.org)

## GUIDELINES

### Content

**Complete these guidelines with the checklist on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)**

**You must add your certificate, which needs to be updated every two years.**

**Reflection log:**

If you do not meet some of the standards you wanted to achieve, you will have to explain:

Why were these standards not met?

How can you prove you are competent for this competency if these standards are still missing?

What are your new plans for development? (see PDP: Personal Development Plan)

### Structure

Question thoroughly the basic assumptions behind thinking, doing, behaviour, a project, a statement, a method of research.

- What were your personal learning goals and professional aims?
- Did you achieve them?
- What did you do?
- What made the difference between plans and reality?
- What did you learn?
- What does this mean for your future: which new learning goals do you want to meet?

Reveal the hidden motivations behind behaviour and give yourself the possibility to interpret these.

Use a model to assist your thinking (see URL examples below)

You can use the feedback of other important people involved to your work, like patients (patient feedback record), peers (peer review/feedback report) or supervisors (peer review/feedback report) to reflect on your learning goals, results, gaps between them and reflect on the cooperation with these involved people.

## Examples

UCE Birmingham Faculty of Health, Using a Model of Reflection, 2005. Reflection must relate to situations in your clinical work where you feel you have learnt something that is of value to your practice and future career. It maybe a positive experience where something went well or a negative one where you need to think about what has happened. From each piece of reflection you must identify what you have learned from the experience and how this relates to the theory that you have been taught or researched. To help you with this reflection there are several models that might be useful to help guide your reflection. You can choose any that you feel will help you. You only need to use one model.

<http://www.hcc.uce.ac.uk/CPSU/Placement%20Support/Model%20of%20Reflection.htm#gibbs>

Korthagen, F. A. J. Linking practice and theory: the pedagogy of realistic teacher education, Institute of Education, Utrecht University, The Netherlands, 2001.

<http://educ.queensu.ca/~ar/aera2001/Korthagen2001.pdf>

ALACT-model for reflection, <http://munin.hsh.no/lu/pluto/flu/praksis/ALACT.htm>

McClure, P. School of Health Sciences, University of Ulster, Making Practice-Based Learning work, Reflection on Practice. [www.practicebasedlearning.org](http://www.practicebasedlearning.org)

Belbin team roles to reflect on: <http://www.belbin.com/Downloadable-PDFs/BELBIN-A4-Self-Perception-Inventory-online.pdf>

<http://www.belbin.com/Downloadable-PDFs/BELBIN-A4-Observer-Assessment-online.pdf>

Personality Big 5 tests for free to reflect on: <http://similarminds.com/cgi-bin/big45.pl>

<http://www.outofservice.com/bigfive/>

#### 4.3.13 Audit Tool for Scientific Article

 <b>SPA project</b>	<b>Audit tool for Scientific Article</b>
<b>Definition:</b> Scientific Article is a paper that is published in a scientific journal.	
<b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Research Involvement</u> and <u>Extending Practice Through Innovation</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Scientific Paper/ Article/Evidence Essay that has to be delivered. The sports physiotherapist has to point out at the start, the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. A scientific article contains novel research results or reviews existing results. Such a paper will typically undergo a process of peer review by one or more referees, in order to check that the content of the paper is suitable for publication. Article types include: Meta Analyses, Systematic Reviews, Randomised Clinical Trials, Cohort Studies If you want to publish your article please check the article guidelines for the specific scientific paper you wish to publish in. If you want to review an article please check the reviewer guideline for the specific scientific paper you want to review for. In the URLs below you can find some of these guidelines to start with. Articles can be in the form of research studies, literature reviews, theoretical papers, case studies or descriptive articles. In addition to the requirements listed under Text (see under guidelines for structure), literature reviews should include a description of the scope of the review and the literature searching methods. Descriptive articles involve detailed explanations of interesting clinical, administrative, educational or technological innovations in sports physiotherapy. Single or multiple case studies may be used to illustrate the application of such innovations.	
<b>References:</b> An assortment of materials which are very useful for practitioners of EBM: <a href="http://www.cebm.net/toolbox.asp">http://www.cebm.net/toolbox.asp</a> Uniform requirements for manuscripts submitted to biomedical journals, International Committee of Medical Editors, Blackwell Science Ltd., Medical Education, 1999, 33, 066-078 <a href="http://www.blackwellpublishing.com/products/journals/freepdf/med339.pdf">http://www.blackwellpublishing.com/products/journals/freepdf/med339.pdf</a>	
<b>GUIDELINES</b>	
<b>Content</b>	
<b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)</b> <b>You must add your certificate, which needs to be updated every two years.</b> <b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, you will have to explain: Why were these standards not met? How can you prove you are competent for this competency if these standards are still missing? What are your new plans for development? (see PDP: Personal Development Plan)	

## Structure

### Parts of the manuscript

Manuscripts should be presented in the following order:

title page,

abstract and key words,

text,

acknowledgements,

references,

appendices,

figure legends,

tables (each table complete with title and footnotes) and figures.

Footnotes to the text are not allowed and any such material should be incorporated into the text as parenthetical matter.

#### *Title page*

The title should be short, informative and contain the major key words. Do not use abbreviations in the title. A short running title (less than 40 characters) should also be provided.

The title page should contain (i) the title of the paper, (ii) the full names of the authors and (iii) the addresses of the institutions at which the work was carried out together with (iv) the full postal and email address, plus facsimile and telephone numbers, of the author to whom correspondence about the manuscript should be sent. The present address of any author, if different from that where the work was carried out, should be supplied in a footnote.

#### *Abstract and key words*

The abstract have to clear and concise.

All articles except Viewpoints, In Practice papers, Critically Appraised Papers, Thesis Abstracts and Book Reviews must have a structured abstract that states in 200-250 words or fewer the purpose, basic procedures, main findings and principal conclusions of the study.

Divide the abstract with the headings: Background/Aim, Methods, Results, Conclusions.

The abstract should not contain abbreviations or references.

Five key words, for the purposes of indexing, should be supplied below the abstract, in alphabetical order, and should be taken from those recommended by the US National Library of Medicine's Medical Subject Headings (MeSH) browser list at <http://www.nlm.nih.gov/mesh/meshhome.html>

The synopsis have to be clear and concise.

#### *Text*

Authors should use the following subheadings to divide the sections of their manuscript: Introduction, Methods, Results and Discussion.

All articles should include an *introduction* that provide a background to the article, describes its purpose and outlines its relevance to occupational therapy. References should be made to an established theoretical background and/or background literature. The implications of the work for occupational therapy practice, and further research and/or conceptual development, should be clearly described

All parts have to be of interest otherwise they have to be shortened or removed

The article have to be an asset for the reading public of Medicine and Sport Sciences

The text have to be readable

Correct and acceptable usage of language and terminology

The clinical question and aims have to be described in a clear and focused way

The subject of research has to be of relevant for sports physiotherapy, sports sciences or sports medicine

The methods have to be adequate and there have to be a detailed description to determine the reproducibility.

A thorough search for relevant data using appropriate sources and valid studies.

Unbiased, explicit and appropriate search matched to the question

Awareness of other trials that have to be included

Important parameters (eg setting, population, design) that could effect the study results have to be addressed systematically

The statistical methods have to be correct

The results have to be described clearly, right interpreted and sufficiently discussed and compared with the findings of other research. The clinical questions have to be answered.

Try to retrieve missing information

Consider important parameters in the analysis

Use the subgroup analyses appropriately

Make reasonable decisions concerning whether/how to combine data

Sensitive results to changes in the way analysis was done (eg. Inclusion criteria including participants, interventions and outcomes similar enough to allow combination of the data)

Report the precision of the results.

The discussion have to have to following preferable sequence:

the appropriateness and limitations of the used methods, study and review process, a discussion of the results and in the end a discussion of the physiologic and practical meaning of the results

The conclusions have to be supported by the data reviewed.

The evidence have to be appropriately interpreted as inconclusive (no evidence of effect) or as showing a particular strategy did not work (evidence of no effect)

Important considerations for decisions makers have to be identified, including values and contextual factors that might influence decisions

The implications have to be practical and valid (for practice and research)

*The acknowledgements, figures and tables* have to be self explainable, without needing to read the text.

*All figures and tables* have to be relevant and appropriate

*All cited references* have to be relevant and of a recent date. *All important references* have to be mentioned

*Acknowledgements*

The source of financial grants and other funding must be acknowledged, including a frank declaration of the authors' industrial links and affiliations. The contribution of colleagues or institutions should also be acknowledged. Personal thanks and thanks to anonymous reviewers are not appropriate

## References

The Harvard/American Psychological Association (author, date) system of referencing is used (examples are given below). In the text give the author's name followed by the year in parentheses: Smith (2000). If there are two authors use 'and': Smith and Jones (2001); but if cited within parentheses use '&': (Smith & Jones, 2001). When reference is made to a work by three to five authors, cite all the authors the first time: (Davis, Jones, Wilson, Smith & Lee, 2000); and in subsequent citations, include only the name of the first author followed by et al.: (Davis et al., 2000). When reference is made to a work by six or more authors, the first name followed by et al. should be used in all instances: Law et al. (1997). If several papers by the same author(s) from the same year are cited, a, b, c, etc. should be inserted after the year of publication. Within parentheses, groups of authors should be listed alphabetically). In the reference list, references should be listed in alphabetical order

In the reference list, cite the names of all authors when there are six or fewer; when seven or more, list only the first six followed by et al. Do not use *ibid.* or *op cit.* Reference to unpublished data and personal communications should not appear in the list but should be cited in the text only (e.g. Smith A, 2000, unpublished data). All citations mentioned in the text, tables or figures must be listed in the reference list.

Names of journals should be abbreviated according to the Serial Sources for the Biosis Data Base, available in most libraries or from <http://www.biosis.org>.

Authors are responsible for the accuracy of the references.

Journals: Kortman, B. (1994). The eye of the beholder: Models of occupational therapy. *Australian Occupational Therapy Journal*, 41, 115-122.

Bennett, S. & Bennett, J. W. (2000). The process of evidence-based practice in occupational therapy: Informing clinical decisions. *Australian Occupational Therapy Journal*, 47, 171-180.

Books: Wilcock, A. A. (1998). *An occupational perspective of health*, 2nd ed. Thorofare, NJ: SLACK Inc.

Chapter in a book: Law, M., Cooper, B. A., Strong S., Stewart, D., Rigby P. & Letts, L. (1997). Theoretical context for the practice of occupational therapy. In: C. Christiansen & C. Baum (Eds), *Occupational therapy: Enabling function and well-being*, (2nd ed. pp. 72-102). Thorofare, NJ: SLACK Inc.

Electronic media: OT AUSTRALIA (2003). *Australian Occupational Therapy Journal author guidelines*. Retrieved 5 February, 2003, from <http://www.blackwell-publishing.com/journals/aot/submiss.htm>

## Appendices

These should be placed at the end of the paper, numbered in Roman numerals and referred to in the text. If written by a person other than the author of the main text, the writer's name should be included below the title

## Tables

Tables should be self-contained and complement, but not duplicate, information contained in the text. Number tables consecutively in the text in Arabic numerals. Type tables on a separate sheet with the legend above. Legends should be concise but comprehensive - the table, legend and footnotes must be understandable without reference to the text. Vertical lines should not be used to separate columns. Column headings should be brief, with units of measurement in parentheses; all abbreviations must be defined in footnotes. Footnote symbols: †, ‡, §, ¶, should be used (in that order) and \*, \*\*, \*\*\* should be reserved for P-values. Statistical measures such as SD or SEM should be identified in the headings.

### *Figures*

All illustrations (line drawings and photographs) are classified as figures. Figures should be cited in consecutive order in the text. Each figure should be labelled on the back in very soft marker or chinagraph pencil, indicating name of author(s), figure number and orientation. Do not use adhesive labels as this prohibits electronic scanning. Figures should be sized to fit within the column (80 mm), intermediate (114 mm) or the full text width (171 mm).

Line figures should be supplied as sharp, black and white graphs or diagrams, drawn professionally or with a computer graphics package. Lettering must be included and should be sized to be no larger than the journal text. Photographs should be supplied as sharp, glossy, black-and-white or colour photographic prints and must be unmounted. Individual photographs forming a composite figure should be of equal contrast, to facilitate printing, and should be accurately squared.

Magnifications should be indicated using a scale bar on the illustration.

If supplied electronically, graphics must be supplied as high resolution (at least 300 d.p.i.) files, saved as .eps or .tif. A high-resolution print-out must also be provided. Digital images supplied only as low-resolution print-outs and/or files cannot be used

### *Figure legends*

Type figure legends on a separate sheet. Legends should be concise but comprehensive - the figure and its legend must be understandable without reference to the text. Include definitions of any symbols used and define/explain all abbreviations and units of measurement

### *Style of the manuscript*

*Manuscripts should follow the style of the Publication Manual of the journal, you want to publish in.*

*Spelling:* Use the most up-to-date spelling

*Units:* All measurements must be given in SI or SI-derived units.

*Abbreviations:* Abbreviations should be used sparingly - only where they ease the reader's task by reducing repetition of long, technical terms. Initially use the word in full, followed by the abbreviation in parentheses. Thereafter use the abbreviation only.

## Examples

In this article the elements of scientific style are presented, ranging from the specifics of punctuation and abbreviations through to the flow of ideas in the document; presentation of data, common grammatical errors, and citation of publications also. The guidelines are generally consistent with the style promoted by the American Psychological Association.  
<http://sportsci.org/jour/9901/wghstyle.html>

American Medical Association, Center for Health Evidence, May 2002, [www.usersguides.org](http://www.usersguides.org) or <http://www.cche.net/usersguides/main.asp>

Users' guide appraisal systematic review

Users' manual to EB Clinical Practice and assessment of recommendations

Users' manual appraisal article about diagnostic test results

Users' manual appraisal article about Differential Diagnosis

Users' manual appraisal article about harm

Users' manual appraisal article about Prognosis

Users' manual appraisal article about Therapeutic Interventions

Uniform requirements for manuscripts submitted to biomedical journals, International Committee of Medical Editors, Blackwell Science Ltd., Medical Education, 1999, 33, 066-078

<http://www.blackwellpublishing.com/products/journals/freepdf/med339.pdf>

Criteria PEDro for inclusion of clinical trials:

<http://www.pedro.fhs.usyd.edu.au/criteria.html>

Criteria list for quality assessment of randomised clinical trials for conducting systematic reviews  
Verhagen, A.P., Vet, H.C.W. de, Bie, R.A. de, Kessels, A.G.H., Boers, M., Bouter, L.M., Knipschild, P.G., The Delphi List: A criteria list for quality assessment of randomized clinical trials for conducting systematic reviews developed by Delphi consensus, J Clin Epidemiol. Vol 51, No. 12, pp. 1235-1241, 1998

<http://www.cmh.edu/stats/journal/evidence.asp>

Easy paper about the quality of (statistical) evidence

Lee, I., A Research Guide for students, 2002, last update February 2006

<http://www.aresearchguide.com/1steps.html>

How to write an [A+ research paper](#), How to [format](#) a research or term paper, How to [quote passages](#), How not to [plagiarize](#), How to write [Footnotes and Endnotes](#) with examples on writing [First Footnotes and Endnotes in MLA style](#) plus a [Footnotes Sample Page](#) and an [Endnotes Sample Page](#). The goal of this free, no-frills education Web site is to provide all the necessary tools for students to conduct research and to present their findings

Maloy, S., Guidelines for Writing a Scientific Paper, (2001)

<http://www.sci.sdsu.edu/~smaloy/MicrobialGenetics/topics/scientific-writing.pdf>

Anderson, G., Department of Biology, [Bates College](#), Lewiston, ME 04240, 2004

<http://abacus.bates.edu/~ganderso/biology/resources/writing/HTWtoc.html>

[http://abacus.bates.edu/~ganderso/biology/resources/PEER\\_REVIEW\\_FORM\\_PDF.pdf](http://abacus.bates.edu/~ganderso/biology/resources/PEER_REVIEW_FORM_PDF.pdf)

Guidelines for review of an article

<http://www.med.ualberta.ca/ebm/sysrev.htm> or <http://www.pedro.fhs.usyd.edu.au/criteria.html>

Systematic reviews of clinical trials in physiotherapy will also be archived in PEDro. Systematic reviews (sometimes called meta-analyses, although the term is used inconsistently) are distinguished from traditional ("narrative") reviews by the use of methods to minimise bias. The criteria mentioned are used to distinguish between systematic reviews eligible for inclusion in PEDro and those that are not

Finding and Using Articles about an Economic Analysis

<http://www.med.ualberta.ca/ebm/econ.html>

#### 4.3.14 Audit Tool for Systematic Literature Review

 <b>Audit tool for Systematic Literature Review</b>
<p><b>Definition:</b> A systematic literature review is a systematic, up-to-date summary of reliable evidence of the benefits and risks of healthcare. A review is any attempt to synthesise the results and conclusions of two or more publications on a given topic.</p> <p><b>Description:</b> This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competency <u>Research Involvement</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Literature Review that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this product. A systematic review is a review that strives comprehensively to identify and synthesise all the literature on a given topic (sometimes called an overview). The unit of analysis is the primary study and the same scientific principles and rigour apply as for any study. If a review does not state clearly whether and how all relevant studies were identified and synthesised it is not a systematic review. Reviews are intended to help people make practical decisions. A meta-analysis is a statistical technique for assembling the results of several studies in a review into a single numerical estimate. Many reviews are not systematic but are still valuable and helpful so long as the reader is aware and takes account of the fact. A systematic review can be performed on any type of scientific evidence, both quantitative and qualitative. Consequently not all systematic reviews contain meta-analyses. However a meta-analysis that is not a systematic review is likely to be highly biased and should be used with extreme caution or not at all. Systematic reviews are an increasingly important source of evidence about the effects of health care because: – They help decision makers to cope with the sheer volume of literature by summarising it – They provide ‘new’ information which may not be apparent from individual studies where the effects under investigation are small – The quality of systematic reviews is fast improving due to the efforts of the Cochrane Collaboration and the Centre for Reviews and Dissemination</p>
<p><b>References:</b> Light, K., Self training guide and notes, 2003 Issue 4, Centre for Reviews and Dissemination, University of York <a href="http://www.york.ac.uk/inst/crd/clibsec1.pdf">http://www.york.ac.uk/inst/crd/clibsec1.pdf</a></p>

<b>GUIDELINES</b>
<b>Content</b>
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards and mention which standards you want to demonstrate (click yes/no)</b>  <b>You must add your certificate, which needs to be updated every two years.</b>  <b>Reflection log:</b>  If you do not meet some of the standards you wanted to achieve, you will have to explain:  Why were these standards not met?  How can you prove you are competent for this competency if these standards are still missing?  What are your new plans for development? (see PDP: Personal Development Plan)</p>
<b>Structure</b>
<p>The key characteristics of a systematic review have to be:  Clearly stated title and objectives for the review</p> <p>Comprehensive strategy to search for studies that address the objectives of the review (relevant studies) to include unpublished as well as published studies</p> <p>Explicit and justified criteria for the inclusion or exclusion of any study</p> <p>Comprehensive list of all studies identified</p> <p>Clear presentation of the characteristics of each study included and an analysis of methodological quality</p> <p>Comprehensive list of all studies excluded and justification for exclusion</p> <p>Clear analysis of the results of the eligible studies using statistical synthesis of data (meta-analysis) if appropriate and possible</p> <p>Sensitivity analyses of the synthesised data if appropriate and possible</p> <p>Structured report of the review clearly stating the aims, describing the methods and materials and reporting the results</p> <p>A systematic review should be as well written as possible and include as much of the above information as the publication medium allows. Paper based scientific journals tend to limit the number of tables and figures which emphasises the need for clear and concise writing.</p>

## Examples

Guidelines for systematic reviews

<http://www.pedro.fhs.usyd.edu.au/criteria.html>

<http://www.cche.net/usersguides/main.asp> or <http://www.usersguides.org>

<http://www.med.ualberta.ca/ebm/sysrev.htm>

Criteria list for quality assessment of randomized clinical trials for conducting systematic reviews  
Verhagen, A.P., Vet, H.C.W. de, Bie, R.A. de, Kessels, A.G.H., Boers, M., Bouter, L.M., Knipschild, P.G., The Delphi List: A criteria list for quality assessment of randomized clinical trials for conducting systematic reviews developed by Delphi consensus, J Clin Epidemiol. Vol 51, No. 12, pp. 1235-1241, 1998

Example of systematic review acute and chronic low back pain:

Tulder, M. van, Koes, B. Assendelft, W. Bouter, L., Cochrane Back Group, staff at the NHS Centre for Reviews and Dissemination, University of York. Acute and chronic low back pain. Bulletin on the effectiveness of health service interventions for decision makers, Effective Health Care, nov 2000, vol. 6, n.5, ISSN: 0965-0288

This bulletin summarises the research evidence on the effectiveness of the most common conservative (nonsurgical) treatments for acute and chronic low back pain.

This bulletin is based on systematic reviews from the Cochrane Back Group. Additional information has been taken from three recent overviews of systematic reviews, undertaken by reviewers from the Cochrane Back Group. <http://www.york.ac.uk/inst/crd/ehc65.pdf>

Kelley, G. Dynamic resistance exercise and resting blood pressure in adults: a meta-analysis, Journal of Applied Physiology 1997; 82(5): 1559-1565

<http://144.32.150.197/scripts/WEBC.EXE/nhscrd/expand?saan=0000122842>

Herbert R D, Gabriel M., Effects of stretching before and after exercising on muscle soreness and risk of injury, BMJ 2002; 325: 468-470.

<http://144.32.150.197/scripts/WEBC.EXE/nhscrd/expand?saan=0000278334>

Bleakley C, McDonough S, MacAuley D. The use of ice in the treatment of acute soft-tissue injury: a systematic review of randomized controlled trials, American Journal of Sports Medicine 2004; 32(1): 251-261

<http://144.32.150.197/scripts/WEBC.EXE/nhscrd/expand?saan=0000300048>

Lo, I. K.; Kirkley, A.; Nonweiler, B.; Kumbhare, D. A. Operative versus nonoperative treatment of acute Achilles tendon ruptures: a quantitative review, Clinical Journal of Sport Medicine 1997; 7(3): 207-211

<http://144.32.150.197/scripts/WEBC.EXE/nhscrd/expand?saan=0000122696>

Dedmond, B. T.; Almekinders, L. C. Operative versus nonoperative treatment of knee dislocations: a meta-analysis, American Journal of Knee Surgery 2001; 14(1): 33-38

<http://144.32.150.197/scripts/WEBC.EXE/nhscrd/expand?saan=0000271006>

4.3.15 Audit Tool for Video of Behaviour (Digital Evidence) and Report (optional audit tool)

	<p><b>Audit Tool for Video of Behaviour (Digital Evidence) and Report (optional audit tool)</b></p>
<p><b>Definition:</b> Samples, clips and information, visible pictures of movements, actions, behaviour in colour and with sounds and speech that can be played and replayed</p>	
<p><b>Description:</b>          This Audit Tool has been described by experts in the field of sports physiotherapy and education as the instrument to measure if the minimum thresholds (standards) of competencies <u>Injury Prevention</u>, <u>Acute Intervention</u>, <u>Rehabilitation</u>, and <u>Performance Enhancement</u> have been met. This Audit Tool describes guidelines to produce or develop the professional product Video that has to be delivered. The sports physiotherapist has to point out at the start the standards which they want to demonstrate with this service. At the end of the guidelines there are some URLs to other guidelines or examples of good practice related to this service.          Video emphasises the visual rather than the audio aspects. With a video camera you have to video your treatment of a patient, your behaviour related to injury prevention, acute intervention, rehabilitation and performance enhancement.          If someone uses video as evidence and shows clips of a patient's treatment, the videographer and practitioner have ethical responsibility for the anonymity of the patient /client and need written permission of this patient / client which states how the clip will be used, who will view it etc.</p>	
<p><b>References:</b> Leonhard, J., Audit Tool Video Assessment Professional Master in Paediatric Physiotherapy, University of Professional Education Utrecht, The Netherlands, 2005</p>	
<p><b>GUIDELINES</b></p>	
<p><b>Content</b></p>	
<p><b>Complete these guidelines with the <u>checklist</u> on SPT Competencies and Standards (click <b>yes/no</b>).</b> For competencies Injury Prevention, Acute Intervention, Rehabilitation, Performance Enhancement you have to add <b>a <u>peer review/feedback form</u></b> from peers present at the treatment, the <b><u>patient feedback form</u></b>, the <b><u>patient data collection form</u></b> and the <b>patients' consent</b> (written permission to film). Add a <b>report</b> that gives explanation and clarification (see structure)  <b>Reflection log:</b>          If you do not meet some of the standards you wanted to achieve, you will have to explain:          Why were these standards not met?          How can you prove you are competent for this competency if these standards are still missing?          What are your new plans for development? (see PDP: Personal Development Plan)</p>	

## Structure

Document the patient's consent (see Examples: tips on informed consent). Filmed people have to be asked for written permission, before filming and afterwards again. The permission states how the clip will be used, who will view it etc

The video pictures and report will provide explanation and clarification about:

The competency you want to demonstrate and specific behaviours of this competency (for example Injury Prevention, Rehabilitation, Promotion of a Safe, Active Lifestyle, Promotion of Fair Play and Anti-Doping Practices)

Which standards are shown and proved

The results for the patient

The real interaction is filmed (close up of important people and important action)

Filmed as close as possible (without zoom lens)

Camera held at eye height

Filmed with daylight behind the camera

Teller/time in screen

Fragment of 0.5 - 1 minute maximum (or 2 different fragments have to be shown)

Use Mpeg2

Film camera with distance panel, statue, empty/new tape and an extra microphone, so high quality picture is shown

Film supported by report with detailed information about the scenes, the people, the actions and a timetable.

## Examples

Office for Protection from Research Risks.

<http://www.hhs.gov/ohrp/humansubjects/guidance/ictips.htm>

Tips on informed consent: Informed Consent Checklist - Basic and Additional Elements. Web-Based Instruction on Informed Consent.

<http://www.hhs.gov/ohrp/humansubjects/assurance/consentckls.htm>

<http://www.research.umn.edu/consent/orientation.html>

This site provides information on the informed consent process and also a tool to help you create a consent document.

Ketola, R., Toivonen, R., Luukkonen Esa-Pekka Takala, R., Viikari-Juntura, E.,

Expert assessment of physical ergonomics at video-display unit workstations: repeatability, validity and responsiveness to changes, Int Arch Occup Environ Health (2004) 77: 437–442, DOI 10.1007/s00420-004-0519-0

## Section 5: Review and revision of the Audit Toolkit based on the pilot and other feedback information

The Audit Toolkit was subjected to a rigorous process of internal and external review and revision:

1. The first draft document (Audit Toolkit Users' Manual), procedures and tools provided a basis for a thorough process of internal review and revision by the core group members and the experts of workpackage 2 (participants of the Delphi research),
2. The second draft document and tools provided a basis for a thorough process of external review and revision by the IFSP membership who attended the General Meeting in Birmingham in July 2006 and the IFSP membership who attended the SPA workshop of the IFSP congress in Birmingham in July 2006. The experts received all documents in advance of the meeting to prepare their comments and all were invited to work with the audit toolkit and to give comments and feedback on the audit toolkit.
3. The third draft checklist on competencies and standards is, next to the first and second draft, used in the pilot by Dutch students in SPT in a formal learning setting and by the Bulgarian SPTs in non-formal learning setting.
4. The fourth draft document and tools were presented at the workshops for national board members, educational staff of master programmes in SPT and individual SPTs in Lisbon, Vienna, Oslo and Brussels. The attendees worked with the competencies and standards and the audit toolkit and reflected on the possibilities, how to apply these and their implications. Their feedback has been used for the fifth draft, the last version to be voted upon in Vancouver June 2007 during the WCPT Congress.

Or in more in detail:

### 5.1 Feedback from the experts applied in the Delphi research March-June 2006

Delphi research was employed to define the distinguishing key features, audit tools and reference level to be used in the audit toolkit. We sent the experts 5 feedback reports in total with overviews as well as the results immediately after every round of the Delphi research, describing what we did, the decisions taken and the outcomes of the research. After the research the ATK was developed and we sent the experts all audit tools, the supporting documents and the procedures and instructions to use for SPT, assessors and IFSP as the leading, organising and certifying body.

We asked them:

Is this audit toolkit as developed now (version March 06), the audit toolkit you expected it to be?

Is this audit toolkit the instrument that can measure if a SPT is competent at master's level or not?

We received feedback from 17 of the 31 experts who finished all five rounds of the Delphi research, analysed this and these are the conclusions:

Yes, this is the instrument that will measure if a SPT is competent or not, but it will take a long time to deliver all products as evidence for assessment. Some of the experts had doubts

whether the SPT will find time or take time to do so. They asked if it would be possible to bring back the total amount of products to deliver to a smaller one.

## 5.2 Feedback from the core group in April 06:

The checklist on competencies and standards looks too impressive. We discussed and decided to leave out the behaviours because the standards more precisely describe the behaviour that's required, but the behaviours are still in this checklist. This is confusing and makes the list too long. In the checklist there are also columns for the assessors and this makes the list too broad and therefore not printable. This doesn't work, so the decision was taken to develop 3 different checklists: one for the SPT, one for assessor 1 and one for assessor 2.

## 5.3 Feedback of experts and the membership of IFSP July 2006

These experts came together during the IFSP international congress on SPT in Birmingham in July 2006 in the GM meeting (1/2 day) and workshop (1/1 day).

We sent them all information in advance, the same information as was given to the experts of the Delphi research (version May 06). We asked them to read the documentation, paying extra attention to the audit tools and the procedures and instructions to use for SPT, assessors and IFSP.

At the meeting we explained to them in a theoretical way the process of the Delphi, the outcomes, the development of the ATK, the format of the audit tools and the procedures and instructions for using it. There was a lot of time devoted to feedback and asking questions and they did! We could answer their questions and they liked to work with the ATK as well. Fortunately the workshop was planned for the following day.

We organised the workshop starting with theory followed by practice in sequence and then practice followed by theory. So sometimes they had to listen first and then could try themselves, then first had to try and work out for themselves and then we summarised their experiences and connected these to the theory.

Their experiences were positive and they admired the rigorous methodology of development and outcomes, although they had some doubts about the workability of this version of the ATK. It seems to be too fixed, all audit tools have to be used, there is no room for some personal choices, there is no kind of pathway developed yet. It will take a long time to meet all competencies and standards by developing all products asked for and to finish the self assessments on these products with the checklist on Competencies and Standards. This checklist is rather overwhelming because of the long list of standards that have to be met.

The outcomes of their experiences working with the ATK and their feedback is listed below:

- For official certification by IFSP you have to cover all competences, but IFSP will have to develop a clear development pathway, a kind of staged model (for example bronze, silver, gold)
- One product can prove more than one competency
- Action is not a product, a product is a concrete outcome of this action/behaviour
- IFSP registration procedure: 2 different pathways: Master programme with grandfather clause on SPT Competencies and Standards or just ATK (for starters and non-formal learners)

- One optional product for each competency to make the ATK more flexible
- Decrease the amount of products needed to be delivered per competency to the minimum necessary for validity
- Video as an optional assessment instrument instead of obligatory
- IFSP to develop a practical examination for the role of the manager of the patient/client (so C1-4), although it will be very difficult to develop a practical examination that will assess in a reliable, valid, transparent way, which is not too expensive or difficult to organise and using trained assessors
- IFSP to develop a digital ATK, to make the ATK more user-friendly

They also endorsed the recommendations of the researchers of workpackage 2 and the core group:

- The need for trained and accredited assessors in all countries (criteria are needed but not too heavy a selection/training period)
- Country related assessors, members of the international IFSP network/board (IFSP to develop). IFSP should provide assessors for countries without their own assessors
- The need for mentors for SPT in how to use the ATK, how to develop their products
- Candidate has to do a self assessment first, to visualise the learning needs, to plan their learning pathway (Personal Development Plan) and to reduce the large amount of work for the assessors
- Not only yes/no in checklist but also: not applicable
- Continuation of the pilot of the ATK: By collecting the data of SPT using the ATK, the worth of each product, the ones that demonstrate more standards than other products can be shown. Then advice can be given to SPTs which products are preferable to use
- Continuation of the pilot of the ATK: To get a picture of the 'real' expert as a kind of "golden standard" and comparing face validity, the outcomes of a high standard portfolio and hours of practical examination
- Advice to develop questionnaires to test basic knowledge on Sports Physiotherapy
- The ATK is not a document set in stone.
- Only assess with the audit toolkit: no comment. For re-registration period maybe other evidence will be required.

#### 5.4 Feedback of the core group after the Birmingham meeting and workshop, July 2006

The core group received all documentation in advance of the core group meeting, where they heard a short presentation about the outcomes of the workshop and a saw a review of all materials used and developed during the workshops (flipchart papers put on the walls again).

Their feedback was to implement the changes in line with the feedback from the attendees at the Birmingham workshop.

The core group doesn't recommend that IFSP develop a practical exam although the acceptance would be very high, because the other aspects of utility (validity, reliability, costs and organisation) will make it too hard to develop this method of assessment for many countries.

Each standard should be demonstrated through three audit tools (except for C10, as there is only 1 official product for C10 and 1 optional). It is not permitted to deliver fewer than three products, although the minimum of the standards will already be met by 1 or 2 products.

Straetmans (2001) advocates a mix of methods (products), through which the overlap between the various test forms covers the gaps they have with respect to reliability or validity,

although there is a high correlation between the various test forms (Van der Vleuten 1996) which means that when a person achieves a high score in a practical test, he or she is likely to achieve a high score in a theory test. The research data also show that test results have a predictive value with respect to final performance in the professional setting (Norman 1991) and that there is no evidence for the long-held view of transferable generic skills. For example when a SPT solves one problem, it is no indication of how competent he or she will be solving a second problem in a different context. In other words, knowledge is domain specific (Van der Vleuten 1996). Consequently, in order to make reliable judgments about a person's competence, skills that are more complex (at master's level) must demonstrate this with more than one or two products (Straetmans 2001) because the validity increases by using more different kind of products, all using an different kind of assessing behaviour (for example a case study and a video or a presentation and a discussion report).

All this feedback was implemented in the second week of July 2006. All adaptations were made in the Audit toolkit users' manual and in the Checklist on C&S (version July 2006).

#### 5.5 Feedback from the pilot in Bulgaria (non-formal learning: SPTs working in SPT practice during several years using the ATK) and in the Netherlands (formal learning: students of post-graduate and masters program in SPT using the ATK), October 2006

After a workshop in both Bulgaria (1/1 day) and the Netherlands (2 hours) with basic information about the competencies and standards, the use of the portfolio approach, the tools and a instruction how to use these tools, as well as the assessment procedures the pilot started in March 06. The SPTs and students used some of the tools (most of them used the case study and the poster presentation).

Experiences of the core group partners facilitating the pilot in the Netherlands and Bulgaria during the pilot: The SPTs needed a lot of guidance using the audit tool for case study because most of them had never written a case study before. They could have used other tools but they didn't feel familiar enough with these tools either, nor did the core group partner and researcher from Bulgaria. They didn't use the 360 degree feedback because they thought it would take too much time to organise this and to explain every time again to the persons asked for feedback what this feedback was meant for and how to supply this feedback in a "proper" way.

Feedback of the SPTs and students after the pilot:

- The audit tool for writing a case study describes the requirements and protocol in a very clear way.
- One has to get used to the procedures of the ATK and then it isn't that difficult. Reading, checking, connecting.

Feedback of the assessors after the pilot:

- Products don't need to be split up e.g.: reflective analysis can be within the case study and doesn't need to be a separate product. The SPT has to be able to demonstrate reflective thinking (like in a reflective analysis) in the case study.
- The SPT has to cross-refer from this part of the case study to the standards and vice versa during his self assessment to reduce the amount of work (by searching for evidence in all products) for the assessors so the SPT has to link his evidence immediately to the standards and v.v. (this could be done very easily in a digital version of the ATK).

- The score can be higher, by using trained assessors and by good cross-referrals from part of the products to the standards by the SPT
- The standards have to be read seriously and not holistically. Using this method their scores were almost totally the same.
- Not many differences in assessments between assessors assessing products they were familiar with, but it took a lot of time to read the products and do the assessments in the beginning so trained assessors will be needed. There were more differences in the assessments between the assessors for products they weren't familiar with so again trained assessors will be needed.
- Advice to use only one column to check YES or NO if the standards are met with the developed products, because if you have to check the standards for each single product there will always be one or two parts of a standard that will not be met and then the assessor will have to say: NO (because of the amount of details per standard)
- In the July 06 version the focus is on products and not on the standards. By putting the focus on the standards you just have to say YES/NO and tell the assessors where to find the evidence.
- It gives a clear vision of what will be needed to become a Master SPT, but the procedure is time consuming as is studying for a master program or research for a PhD.
- Advice to develop the checklist on competencies and standards followed by a YES/NO column for SPT, followed by a column in which the SPT tells exactly in which different parts of different products (suggested by Delphi) this particular standard is demonstrated, followed by a column for the YES/NO of ass. 1, a column for comment, followed by the same 2 columns for ass. 2. Different sheets for the SPT, ass. 1 and ass 2. are not workable at all, it takes too much time, which increases the possibility of making mistakes etc.
- Looking at the results of Competency 2 of SPT 1, assessing both behaviours and standards, one could conclude that the scores on the behaviours are much higher than the ones on the standards (double outcome of behaviours compared to standards).
- Looking at the results of the self-assessments and assessments of the assessors there are big differences in the final outcomes (double outcome of SPT compared to the ones of the assessors) so mentoring of SPT working with the ATK will be necessary. The first SPTs using the ATK can be mentors for the ones to follow.

#### 5.6 Feedback of the core group after the end of the pilot, October 2006

Their feedback was to change the excel checklist on C&S in line with the feedback of the assessors, students and SPTs.

This feedback was implemented at the end of October 2006 and the Audit Toolkit Users' manual, the checklist on C&S, the tables with an overview of which audit tools for which competencies and v.v. were adapted to this feedback (version 30 October 2006).

#### 5.7 Feedback from attendees during workshops in several countries (Netherlands March and May 06, Portugal October 06, Austria/Hungary and Norway November 06 and Belgium/Netherlands December 06)

The attendees were given virtually the same workshop presentation as the IFSP membership and board members in Birmingham, except that the people weren't involved that much in

advance and didn't read all the documents in advance, so we had to adapt the level and content of the workshop for the attendees. In the Netherlands we organised a workshop during a Congress for Higher Education in Health Care just for the people who were interested in the subject, and another one for employees of the Faculty of Health Care, Utrecht University of Applied Science (Hogeschool Utrecht) involved in management, innovation and international projects. In Portugal teachers and students of the Bachelor/Master's Programme PT and board members of the Portuguese Physiotherapy Association were present. In Vienna members of the National Boards of Austria and Hungary and representatives of the students of the Master's Programme in SPT of Vienna and in Norway, practitioners attended who are highly involved in the national sports physiotherapy organisation, as well as sports physiotherapists involved in higher education as well as clinical practice. In Belgium the President and Board members of the Belgian Federation of Sports Physiotherapy were present along with professors of 4 Belgian universities and some SPTs.

Conclusions were the same every time:

There were many compliments for all the work that has already been done and compliments for the rigorousness and scientific level of the work.

- The workshop helped to make clear what is needed to deliver products, how to use the audit tools, how the audit tools can help and teach you to write for example a case study or develop a poster for a poster presentation, how to do a self assessment with the checklist on C&S.
- The workshop made clear that using the ATK is possible if you know what you have to do and you make time for this, and you plan your development pathway.
- You will get used to doing these self assessments. It will help if you can ask mentors who are familiar with the ATK for feedback about the level of your self assessment.

But:

- A lot of work has to be done by the SPTs to deliver all products, to self assess all standards and to describe where these standards are demonstrated in the products.
- A lot of work has to be done to implement the ATK (and the C&S) by training assessors, mentoring SPTs, developing a register and certification, developing a clear development pathway for example as previously suggested with a bronze, silver and gold level.

So their comments and advice to IFSP are:

- They agree with the principle of international certification and the need for international tools to evaluate the level of competence
- They find it difficult to understand the meaning of the content of each standard and
- They ask for a more succinct and kind of holistic version of the standards to assess upon in the ATK
- They find the ATK difficult to use as it is today – too extensive, complex, detailed because
  - They are confused by the lack of reference level for a standard (when self-assessing - how do you know whether you have met a standard)
  - They would like to see specific instructions about the process – ways of minimising the effort and being efficient in using audit tools”

## Section 6: Future Directions in the assessment and audit tools development

### 6.1 Recommendations for further development of the audit tools and the ATK

The ATK has been developed during the project. This has resulted in a system which proved to work during a pilot with a small group of people. However, how the ATK will function in the future needs to be proven. Within the duration of the project not everything we have thought about could be developed. Therefore we challenge the ATK to be further developed by the IFSP. In this chapter we gave directions for further development of the ATK.

Our recommendations are:

- I Since the ATK is meant to be used by all different countries we advice to have country related assessors. This will be needed because the evidence will often be in native language (for example video digital evidence, or a presentation).

Feedback GM IFSP 5 and 6 July 2006: The IFSP also wished to add a practical examination to the ATK and advises to use the audit tool for video (digital evidence) and report as optional. It's up to IFSP to develop transparent criteria for this practical examination and to train the assessors.

- II We recommend training the assessors to increase the reliability of the ATK and to accredit these assessors as IFSP assessors for the international IFSP audit committee. This accreditation and registration of assessors is the responsibility of the IFSP.

Feedback GM IFSP 5 and 6 July 2006: The IFSP thinks that transparent criteria, but a light selection procedure will be needed not discouraging potential assessors.

- III The competency model and the standards are set at master's level. Internationally there will be diversity in achieved competencies in sports physiotherapy if IFSP is willing to develop a registration instrument, then develop a model which respects those interindividual and intercultural differences. This model develops a training route and a clear pathway for physiotherapists in their ongoing professional development. A model containing different percentages of achieved standards and stages as bronze, silver, gold and specialist level would help.

Feedback GM IFSP 5 and 6 July 2006: IFSP will take this further.

- IV To test the knowledge of the sports physiotherapist we recommend to develop an item bank for sports physiotherapy. (Recommended by the experts of the Delphi research for Competency 1, 2, 3 and 11: Injury Prevention, Acute Intervention, Rehabilitation and Promotion of Fair Play and Anti-Doping Practices).

Feedback GM IFSP 5 and 6 July 2006: IFSP will take this further.

- V Because of the short period of piloting the ATK during the SPA project we recommend IFSP to continue the pilot of the ATK.

Piloting the audit tools that aren't tested during the SPA pilot and

Piloting the ATK as a whole in an interactive digital environment on the educational portal of the SPA/IFSP website.

Feedback GM IFSP 5 and 6 July 2006: IFSP will take this further. Workshops will be organised to implement, to inform and to teach working with the ATK worldwide.

VI We also recommend to collect the data of the SPTs using the ATK. The data will show which audit tools demonstrate more standards than others. It will be useful to use these audit tools more than others to prevent people from delivering too many products and too much work.

It will also become clear which standards are more discriminating than others. Our advice is to delete the standards that obviously are not that much discriminating (this means that every SPT who uses the checklist on C&S can demonstrate these standards and score these with a YES) to shorten the long list with standards and make it more user-friendly.

VII We recommend IFSP develop a kind of “gold standard”, set by experts, recognised by the field as real experts, working at masters’ level, using the ATK.

Feedback GM IFSP 5 and 6 July 2006: IFSP will take this further.

VIII We recommend IFSP not to use a curriculum vitae, years or level of experience, hours of study or amount of certificates to demonstrate competence but just to assess with the audit tool kit, thus assessing behaviour demonstrated in professional products and services related to practice.

Feedback GM IFSP 5 and 6 July 2006: IFSP will take this further.

## References

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Colletta, N.J. (1996). Formal, non-formal and informal education. In: Tuijnman, A.C. (red.). International Encyclopedia of Adult Education and Training. (pp.22-27). Londen: Pergamon.

See 15 audit tools for other references

## Glossary

See glossary document SPT Competences and Standards (2005) for definitions of:

Accreditation  
Advisers  
Athlete  
Attributes  
Audit Tool  
Benchmark Statement  
Competencies  
Consultant  
Core Group  
Doping  
Exercise  
Expert Group  
Learning Outcomes  
Loadability  
Performance Capacity  
Physical Activity  
Physiotherapy  
Registration  
Specialisation  
Sports Injury  
Standards

## Appendices

Appendix 1: Table 1: A summary of the institutions and individuals who participated in the Sports Physiotherapy for All Project and their roles

<b>Core Group:</b> <b>The core group is responsible for delivering on all outputs of the SPA-Project, including the results and dissemination of results to the wider Physiotherapy community, ensuring that the project has the intended impact described in the project proposal. This group represents countries with well-developed systems and less well-developed systems, and is led by a Project Manager with overall responsibility for the process.</b>	
Ms Brigitte van Barneveld	Hogeschool Utrecht, The Netherlands
Dr Jan Cabri	Faculdade de Motricidade Humana, Technical University of Lisbon; Portugal
Ms Laetitia Dekker, MSM, BSc PT, SPT	International Federation of Sports Physiotherapy, The Netherlands
Dr Marie Donaghy	Queen Margaret University College, UK
Dr Rumiana Tasheva	National Sports Academy, 'Vassil Levski,' Sofia, Bulgaria
Mr Gianni Viardo Vercelli	Facolta di Scienze della Formazione, Universita degli Studi di Genova; Italy
<b>Core Group Supporters:</b> <b>Supporters of the Core Group facilitate the delivery of outputs of the SPA-Project, including the results and dissemination of results to the wider Physiotherapy community, ensuring that the project has the intended impact described in the project proposal.</b>	
Dr Giovanni Adorni	Facolta di Scienze della Formazione, Universita degli Studi di Genova; Italy
Dr Virginia Cano	Queen Margaret University College, UK
Dr Daniela Dasheva	National Sports Academy, 'Vassil Levski,' Sofia, Bulgaria
<b>SPA Project Staff:</b> <b>Employees of the SPA Project, involved in work required for the delivery of work packages.</b>	
Ms Brigitte van Barneveld	Hogeschool Utrecht, The Netherlands
Ms Margaret Brown	Queen Margaret University College; UK
Mr Mauro Coccoli	Facolta di Scienze della Formazione, Universita degli Studi di Genova; Italy
Mr Remco Coppoolse, BSc PT, MSc health science	Hogeschool Utrecht, The Netherlands
Ms Catriona Rasdale, BA (hons) information management	Queen Margaret University College; UK
Mr João Paulo Sousa, MSc PT	Faculdade de Motricidade Humana, Technical University of Lisbon; Portugal

<b>Expert Group:</b> <b>The expert group is composed of high qualified representatives of Sports Physiotherapy and Education from different European regions and also outside Europe. Experts will cooperate in the Delphi Research to develop the contours of the Audit Tool Kit.</b>	
Arni Arnason	Assistant Professor University of Iceland, Department of Physiotherapy, Reykjavik, Iceland
Gül Baltacı	Professor, Hacettepe University, Ankara, Turkey
Marco Barbero, PT	Physiotherapist in private practice, lecturer University of Genoa, Como, Italy
Mario Bizzini, MSc PT, SPT	Sports physiotherapist, Researcher; Switzerland Schulthess Clinic, Zürich, Switzerland
Dr. Jan Cabri	Lecturer, researcher, Technical University Lisbon, Portugal
Dr. Virginia Cano	Lecturer, QMUC, Edinburgh, Scotland, UK
Maria Constantinou	APA Sports Physiotherapist, lecturer, School of Physiotherapy and Exercise Science, Griffith University, Gold Coast Campus, Australia
Dr. Nevin Ergun, PT	Coordinator of post graduate sports physiotherapy programmes, Hacettepe University, School of Physiotherapy, Cal Therapy and Rehabilitation Academy, Ankara, Turkey
José Esteves, MSc PT, SPT	Sports physiotherapist and researcher, senior lecturer, FMH - Universidade Tecnica de Lisboa; Portugal
Peter Glashouwer, BSc PT, SPT, MT	Sports physiotherapist and lecturer (Sports) Physiotherapy Master programme, Hogeschool Utrecht, The Netherlands
Margaret Grant	Chief Executive Officer, Australian Council of Physiotherapy Regulating Authorities; Canberra, Australia
Reka Guti, PT	PT, Head of the Hungarian Sports Physiotherapy Group, Private practice with orthopaedic and sport related problems, Budapest, Hungary
Barb Hoogenboom	Assistant Professor in physical therapy educational programme, Grand Valley State University, Grand Rapids, Michigan, USA
Dr. Wim Hullegie, PT, SPT	Sports physiotherapist in Primary Health Care and Philosopher of Science, Executive Board Member, NVFS, Netherlands
Dr. Henning Langberg, PT	Physiotherapist and lecturer, Institute of Sportsmedicine, Copenhagen, Denmark
Karl Lochner, PT	Physiotherapist in private practice, Wels, Austria
Peter Mc Nair	Professor, University, New Zealand
Dr. Romain Meeusen	Vrije Universiteit Brussel, Belgium, Methodist Sports Medicine Center, Indianapolis, USA
Linda Mitchell	Chartered Physiotherapist, Self-employed Freelance work consists of lecturing, consultancy and clinical expertise, London, England

Godwin Mordi, PT	Physiotherapist, Sports medicine centre, National stadium, Surulere, Lagos, Nigeria
Rob Nijhoff, BSc PT, SPT	Sports physiotherapist private practice, lecturer PT, Coordinator of Master Programme Sports Physiotherapy, Hogeschool Utrecht, the Netherlands
Tara O'Meara	Senior Physiotherapist Chair of CPSM Ireland, Senior Physiotherapist Ireland U21s Rugby Union, Dublin Spine and Sports Physiotherapy Clinic, Ireland
Dr. Nicola Phillips, PhD, MSc, MCSP	Director Postgraduate Studies and Chair ACPSM, Cardiff University and private practice; UK
Jan C.M. Prins, MSc PT, SPT, MT	Lecturer (Sports) Physiotherapy Master programme, Project co worker, Researcher, University Medical Centre Utrecht and University of Professional Education Utrecht, The Netherlands
Tony Schneider	Lecturer, School of Physiotherapy, University of Otago, Dunedin, New Zealand
Jan Smith, PT	Physiotherapist in private practice, Brisbane, Australia
Gisela Sole, BSc PT, MSc (Med) Exercise Science	Lecturer, School of Physiotherapy, University of Otago, Dunedin, New Zealand
Marco Testa, BSc PT, BSc (Sports Sciences)	PT, Private practice, Lecturer and coordinator of a university master Faculty of Medicine and Surgery, University of Genoa, Alassio, Italy
Dr. Erik Witvrouw	University Ghent, Belgium
Dr. Anton de Wijer, PT, SPT, MT	Researcher Utrecht University, Director private office, Utrecht, The Netherlands
Maarten van der Worp, MSc PT, SPT	Sports physiotherapist in private practice, Utrecht, The Netherlands
<b>Advisers:</b> <b>International Sports Physiotherapy representatives who provide a global perspective in their review of draft documentation produced during the SPA Project.</b>	
Jan Prins, MSc PT, SPT, MT	Hogeschool Utrecht, The Netherlands
Eric Stutterheim, MSc PT	Hogeschool Utrecht, The Netherlands
<b>Consultants:</b> <b>An individual who delivers a specific piece of work that is necessary to a work package and cannot be delivered by either the work package team or the expert group. Note: only the consultant who contributed to the development of the audit tool kit is listed here</b>	
Hester van der Wal, BSc information design and management	Hogeschool Utrecht, The Netherlands

Appendix 2: Table 2:

### Audit tools and percentage of standards that should be met

(according to the experts in the Delphi Research of the SPA Project Work package 2, Hogeschool Utrecht)

At least 3 of these Audit tools per competency have to be used by SPT to demonstrate being competent (just 2 for C10 and C11). The evidence/ products have to be uploaded in the repository of the personal portfolio on the educational portal of the SPA website:

<http://www.sportsphysiotherapyforallorg/content/view/270/343/>

In the excel file “checklist on Competencies and Standards for ATK” the links to these particular products has to be added.

**The percentages mentioned form the GOLD STANDARD.**

**IFSP will decide percentages for ‘Silver’ and ‘Bronze’.**

Competencies	Related Audit Tools for use by Professionals in Sports Physiotherapy or by Coordinators of Educational Programs, Courses or Modules.	Percentage of Standards that should be met by evidence & measured using audit tools with the checklist on C&S
<p><b>1 Injury Prevention</b> Sports physiotherapists assess the risks of injury associated with an athlete’s participation in a specific sport or physical activity context; they inform and train athletes and other professionals in a way that reduces the occurrence and recurrence of injuries.</p>	<p>Audio (digital evidence) and Report</p> <hr/> <p>Case Study</p> <hr/> <p>Discussion Report</p> <hr/> <p>Optional: Video (digital evidence) and Report</p> <hr/> <p>Any optional product to provide evidence:.....</p>	<p><b>92%</b></p>
<p><b>2 Acute Intervention</b> Sports physiotherapists respond appropriately to acute injury or illness in both training and competition contexts, using prior communication with other professionals to identify and establish roles and responsibilities</p>	<p>360 Degree Feedback Report</p> <hr/> <p>Case Study</p> <hr/> <p>CPR test and Certificate</p> <hr/> <p>Reflective Analysis</p> <hr/> <p>Optional: Video (digital evidence) and Report</p> <hr/> <p>Any optional product to provide evidence:.....</p>	<p><b>100%</b></p>

Competencies	Related Audit tools for use by Professionals in Sports Physiotherapy or by Coordinators of Educational Programs, Courses or Modules	Percentage of standards that should be met by evidence & measured using audit tools
<p><b>3 Rehabilitation</b> Sports physiotherapists use clinical reasoning and therapeutic skills to assess and diagnose sports-related injuries, and to design, implement, evaluate and modify evidence-based interventions that aim for a safe return to the athlete's optimal level of performance in their specific sport or physical activity</p>	<p>360 Degree Feedback Report</p> <p>Audio (digital evidence) and Report</p> <p>Case Study</p> <p>Discussion Report</p> <p>Optional: Video (digital evidence) and Report</p> <p>Any optional product to provide evidence:.....</p>	<p><b>95.6%</b></p>
<p><b>4 Performance Enhancement</b> Sports physiotherapists contribute to the enhancement of an athlete's performance by evaluating their physical and performance related profile and advising or intervening to optimise conditions for maximal performance in a specific sport, within a multidisciplinary team approach</p>	<p>360 Degree Feedback Report</p> <p>Case Study</p> <p>Optional: Video (digital evidence) and Report</p> <p>Any optional product to provide evidence:.....</p>	<p><b>84%</b></p>
<p><b>5 Promotion of a Safe, Active Lifestyle</b> Sports physiotherapists collaborate with other professionals to promote safe participation in sports and activity for individuals of all abilities; they provide evidence-based advice regarding the optimal activity or sport for specific individuals and the ways in which they can minimise risk of injury and promote health</p>	<p>Education evidence</p> <p>Poster Presentation</p> <p>Presentation</p> <p>Any optional product to provide evidence:.....</p>	<p><b>76%</b></p>

Competencies	Related Audit tools for use by Professionals in Sports Physiotherapy or by Coordinators of Educational Programs, Courses or Modules	Percentage of standards that have should be met by evidence & measured using audit tools
<b>6 Life-Long Learning</b> Sports physiotherapists maintain and improve clinical standards by their critical, reflective and evidence-based approach to practice, and through a continual process of learning and teaching in collaboration with other professionals	Professional Development Portfolio	<b>96%</b>
	Reflective Analysis Report	
	Any optional product to provide evidence:.....	
<b>7 Professionalism and Management</b> Sports physiotherapists manage time, resources and personnel in a professional, legal and ethical manner, and facilitate professional development and excellence	360 Degree Feedback Report	<b>86.6</b>
	Case Study	
	Dissemination / Innovation Project	
	(Quality) Management Plan	
	Any optional product to provide evidence:.....	
<b>8 Research Involvement</b> Sports physiotherapists critically evaluate their practice in relation to new information, identifying questions for further study; they are involved in research that addresses these questions at different levels.	Presentation	<b>80%</b>
	Scientific Article	
	Systematic Literature Review	
	Any optional product to provide evidence:.....	
<b>9 Dissemination of Best Practice</b> Sports physiotherapists disseminate new information and innovations to other professionals and decision-makers through different media.	360 Degree Feedback Report	<b>80%</b>
	Discussion Report	
	Dissemination / Innovation Project	
	Education Evidence	
	Presentation	
	Any optional product to provide evidence:.....	

Competencies	Related Audit tools for use by Professionals in Sports Physiotherapy or by Coordinators of Educational Programs, Courses or Modules	Percentage of standards that have should be met by evidence & measured using audit tools
<b>10 Extending Practice Through Innovation</b> Sports physiotherapists promote the appropriate application of new knowledge and innovations in multidisciplinary practice and decision-making processes, and influence the directions of further research and innovation.	Scientific Article	<b>90%</b>
	Any optional product to provide evidence:.....	
<b>11 Promotion of Fair Play and Anti-Doping Practices</b> Sports physiotherapists participate in and promote professional and ethical sporting practices, emphasising both fair play and their duty of care to the athlete; they adhere to the 'International Sports Physiotherapy Code of Conduct on Doping'	Discussion Report	<b>88.6%</b>
	Audio (digital evidence) and Report	
	Any optional product to provide evidence:.....	

Appendix 3 Table 3 **15 Audit Tools related to the 11 competencies**

<b>Audit tools:</b>	<b>Competencies</b>
360 Degree Feedback Report by supervisor / peer / mentor / athlete / management	2: Acute Intervention 3: Rehabilitation 4: Performance Enhancement 7: Professionalism and Management 9: Dissemination of Best Practice
Audio (digital evidence) and Report	1: Injury Prevention 3: Rehabilitation 11: Promotion of Fair Play and Anti-Doping Practices
Case Study	1: Injury Prevention 2: Acute Intervention 3: Rehabilitation 4: Performance Enhancement 7: Professionalism and Management
CPR Test and Certificate	2: Acute Intervention
Discussion Report	1: Injury Prevention, 3: Rehabilitation 9: Dissemination of Best Practice 11: Promotion of Fair Play and Anti-Doping Practices
Dissemination / Innovation Project	7: Professionalism and Management 9: Dissemination of Best Practice
Education Evidence	5: Promotion of a Safe, Active Lifestyle 9: Dissemination of Best Practice
Poster Presentation	5: Promotion of a Safe, Active Lifestyle
Presentation	5: Promotion of a Safe, Active Lifestyle 8: Research Involvement 9: Dissemination of Best Practice
Professional Development Portfolio	6: Life Long Learning
(Quality) Management Plan	7: Professionalism and Management
Reflective Analysis	2: Acute Intervention 6: Life Long Learning
Scientific Article	8: Research Involvement 10: Extending Practice Through Innovation
Systematic Literature Review	8: Research Involvement
Video and Report of treatment or other relevant behaviour	1: Injury Prevention 2: Acute Intervention 3: Rehabilitation 4: Performance Enhancement

Checklist on Competencies and Standards SPT Competency Profile Part of each Audit Tool (see guidelines for content)	To check content of competencies 1 – 11, but can also be used in or develop educational programmes, courses, modules in sports physiotherapy
Questionnaire (will be recommended to IFSP to develop)	1: Injury Prevention 2: Acute Intervention 3: Rehabilitation 11: Promotion of Fair Play and Anti-Doping Practices
Practical examination (will be not developed now because of international distances, but will be mentioned to IFSP to develop in the future if needed)	1: Injury Prevention 2: Acute Intervention 3: Rehabilitation 4: Performance Enhancement

Appendix 4: Table 4

**Example of Competency 3 of Checklist on Competencies and Standards as referred to under guidelines on content in 15 Audit Tools**

<b>Competency 3: Rehabilitation</b> Sports physiotherapists use clinical reasoning and therapeutic skills to assess and diagnose sports-related injuries, and to design, implement, evaluate and modify evidence-based interventions that aim for a safe return to the athlete's optimal level of performance in their specific sport or physical activity							
<b>Standards Competency 3</b>		<b>Self Assessment SPT and product/ part/paragraph in which the standard is demonstrated</b>	<b>Assessment Assessor 1 and comment if this standard is not demonstrated in one the products</b>		<b>Assessment Assessor 2 and comment if this standard is not demonstrated in one the products</b>		
<b>A foundational knowledge</b> The sports physiotherapist demonstrates the ability to:		<b>Check Yes/No SPT</b>	<b>360 Degree Feedback Report Audio (digital evidence) and Report Case Study Discussion Report Optional: Video and Report Any optional product to provide evidence:.....</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>
3A: 1 recognise sport-specific demands and their potential effects on healing and pain processes, <i>in different sporting contexts</i>							
3A: 2 discuss the impact of co-existing and pre-existing pathologies on the rate and quality of tissue healing							
3A: 3 identify the potential impacts of various factors on recovery, including: • co-existing and pre-existing conditions • the experience of acute or chronic pain • the effects of other medical interventions on different body systems, and • the impact of complications on recovery • psychological, social and cultural influences							
3A: 4 show insight into the biopsychosocial impact of injury on athletes and other professionals <i>in different sporting contexts</i>							
3A: 5 identify clinical and performance-related assessment techniques and protocols that are most appropriate <i>in different sporting contexts</i>							

3A: 6 recognise the relevance of medical investigations and of information collected by other professionals in the multidisciplinary team						
3A: 7 identify current intervention strategies used to promote early safe return to activity and progression to optimal function, including risks associated with their use						
<b>B critique and synthesis</b> The sports physiotherapist demonstrates the ability to:	<b>Check Yes/No SPT</b>	<b>360 Degree Feedback Report Audio (digital evidence) and Report Case Study Discussion Report Optional: Video and Report Any optional product to provide evidence:.....</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>
3B: 1 critically analyse current research into measurement and intervention strategies used in rehabilitation and appropriately integrate new information into practice						
<b>C information collection</b> The sports physiotherapist demonstrates the ability to:	<b>Check Yes/No SPT</b>	<b>Products and their links</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>
3C: 1 collect existing information relating to the athlete's condition, its severity, and implications for their daily life and sport or exercise participation						
3C: 2 obtain a client history using reasoned selection of questions and sensitive communication <i>in different sporting contexts</i> ; the history should incorporate information relating to: <ul style="list-style-type: none"> <li>• the client's priorities and goals</li> <li>• the specific sport or exercise activity and context,</li> <li>• psychosocial influences</li> <li>• co-existing and pre-existing conditions or treatments that might impact on diagnosis or intervention, and</li> <li>• other influences on performance, such as equipment and hydration or nutrition</li> </ul>						
3C: 3 assess the severity and duration of acute and chronic pain						

3C: 4 observe and analyse specific sporting movements required by the athlete on return to participation <i>in different sporting contexts</i> , including <ul style="list-style-type: none"> <li>• activities associated with the original injury, and</li> <li>• movements specific to a team role or position</li> </ul>						
3C: 5 select and apply the most appropriate clinical and performance-related tests to the individual, the injury, and the sport, <i>in different sporting contexts</i> (for example, tests of strength, functional performance, range of motion and flexibility)						
<b>D information processing</b> The sports physiotherapist demonstrates the ability to:	<b>Check Yes/No SPT</b>	<b>360 Degree Feedback Report Audio (digital evidence) and Report Case Study Discussion Report Optional: Video and Report Any optional product to provide evidence:.....</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>
3D: 1 analyse the results of clinical and performance-related tests relative to sport-specific expectations						
3D: 2 interpret assessment results to make a clinical diagnosis of developing or existing pathologies that are unrelated to the sport						
3D: 3 reach a clinical diagnosis and devise a problem list that integrates information from a variety of sources: <ul style="list-style-type: none"> <li>• a critical analysis of best practice,</li> <li>• the results of therapeutic evaluations,</li> <li>• information relating to any previous, or concurrent, injury, illnesses or interventions,</li> <li>• awareness of the psychosocial influences on the athlete, and</li> <li>• sport-, athlete-, and team-specific rehabilitation goals</li> </ul>						
3D: 4 integrate rehabilitation goals with foundational knowledge to devise an individual, research-based, sport-specific programme of intervention strategies						

3D: 5 consider co-existing and pre-existing pathologies in rehabilitation planning, ensuring that strategies have a positive impact on the problems identified						
3D: 6 make professional judgements regarding the appropriate times for progression of participation following illness or injury <i>in different sporting contexts</i>						
<b>E action / intervention</b> The sports physiotherapist demonstrates the ability to:	<b>Check Yes/No SPT</b>	<b>360 Degree Feedback Report Audio (digital evidence) and Report Case Study Discussion Report Optional: Video and Report Any optional product to provide evidence:.....</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>
3E: 1 recognise and act on indications for urgent or non-urgent referral of an athlete for further investigations or intervention by other members of the multidisciplinary team (for example, MRI, ultrasound imaging, X-ray, surgery)						
3E: 2 design and implement evidence-based conditioning, strengthening and stretching exercise programmes, specifically related to a specific individual, injury, and sporting role						
3E: 3 design and implement individualised and evidence-based programmes to increase neuromuscular control, incorporating skill acquisition principles (for example, static, dynamic, reactive or preparatory techniques)						
<b>E action / intervention</b> The sports physiotherapist demonstrates the ability to:	<b>Check Yes/No SPT</b>	<b>Products and their links</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>
3E: 4 skilfully and appropriately carry out massage and manual therapy techniques <i>in different sporting contexts</i> , for example, for warm-up, recovery, and rehabilitation						
3E: 5 use taping in an evidence-based strategy targeted at different treatment aims <i>in different sporting contexts</i> , for example, to promote rest, protection and facilitation of healing						

3E: 6 use intervention strategies or appropriate referral to facilitate an athlete's coping with pain, and reduce its severity and duration where possible						
3E: 7 sensitively communicate with the athlete to promote compliance with advice and rehabilitation, incorporating exercise psychology principles such as goal-setting, pacing and feedback						
3E: 8 design training methods to maintain fitness and function of uninjured parts of the body during the recovery period, e.g. metabolic training, visual imaging techniques						
3E: 9 estimate risks involved in the independent use of equipment or strategies by the athlete or other individuals: • provide guidance regarding situations where the knowledge and skills of the sports physiotherapist are required • educate individuals regarding the appropriate application of the equipment or strategies						
3E: 10 sensitively advise the athlete and other professionals regarding progress and appropriate timing of return to sporting and exercise activities						
3E: 11 sensitively educate the athlete and other individuals regarding principles of post-injury rehabilitation and prevention of re-injury to the athlete and other individuals						
3E: 12 communicate effectively and respectfully in the multidisciplinary team, to ensure a coordinated and effective multidisciplinary approach in collaboration with the athlete						
3E: 13 integrate strategies to ensure privacy and confidentiality for the athlete and sports team, in all communications						
<b>F evaluation and modification</b> The sports physiotherapist demonstrates the ability to:	<b>Check Yes/No SPT</b>	<b>360 Degree Feedback Report Audio (digital evidence) and Report Case Study Discussion Report Optional: Video and Report Any optional product to provide evidence:.....</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>

3F: 1 modify the use of clinical and performance-related testing to provide the most appropriate information at different stages in the rehabilitation process (for example, progressing from tests of functional movements to complex field testing that relates directly to the sporting demands)						
3F: 2 incorporate awareness of the principles of measurement reliability and validity into judgements relating to the interpretation of assessment data						
3F: 3 make appropriate use of intervention outcomes: <ul style="list-style-type: none"> <li>• as biofeedback for the athlete and other professionals</li> <li>• to encourage compliance</li> <li>• to inform advice regarding participation and progression of training, and</li> <li>• to influence team decisions</li> </ul>						
<b>G specific national standards</b>	<b>Check Yes/No SPT</b>	<b>Products and their links</b>	<b>Check Yes/No Ass. 1</b>	<b>Comments</b>	<b>Check Yes/No Ass. 2</b>	<b>Comments</b>
<b>Total percentage standards Competency 3:</b>	<b>0.0%</b>		<b>0.0%</b>		<b>0.0%</b>	
<b>Percentage of standards that have to be demonstrated:</b>	<b>95.6%</b>		<b>95.6%</b>		<b>95.6%</b>	
<b>Reflection log:</b> If you do not meet some of the standards you wanted to achieve, please now explain: 1. Why were these standards not met? 2. How can you prove you are competent for this competency if these standards are still missing? 3. What are your new plans for development? (see PDP: Personal Development Plan)						
<b>Reflection:</b>						

## Appendix 5: **Desirable development of a digital environment in the future**

### 4.1 Basic structure of the ATK

The technical design of this desirable digital environment will take an other project (as concluded by the leader of workpackage 6) and the ideas on how this will look like can be found in the functional design developed by the Hogeschool Utrecht in January 06.

In the digital environment the sports physiotherapists enter the SPA educational portal and click on the Audit Tool Kit. Then they enter the kit itself and click on the competency they want to demonstrate. They then have three options to choose between:

- Audit tool
- Standards
- Evidence/products upload

The audit tools include a definition and description, content (checklist on Competencies and Standards) and structural guidelines. The description refers to the competencies this audit tool could be used for. It's possible to follow the link directly from these competencies to the standards of this competency (in the excel file checklist on Competencies and Standards for SPT). The structural guidelines provide instructions for the design of the evidence requiring collection. There are also links to examples of good practice.

The second option available is to review the standards they wish to demonstrate with this particular evidence in the excel file (checklist on competencies and standards for SPT). The sports physiotherapists tick the standards they want to demonstrate and describe in a reflection log per competency, which standards have not been met and why they haven't been met.

The third option is to upload the evidence. There the SPT has the possibility to add evidence to demonstrate that they meet certain standards.

There should be connections between the standards, audit tools and reflection log per competency, so that, for example, the SPT could decide to jump between uploading evidence and viewing the relationship between competencies and standards.

In the description part of the audit tools references are made to the competencies. These should be linked directly to these competencies.

In the guidelines on content of the audit tools is a reference made to the checklist on competencies and standards. This should be linked directly to the right competency in this checklist.

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