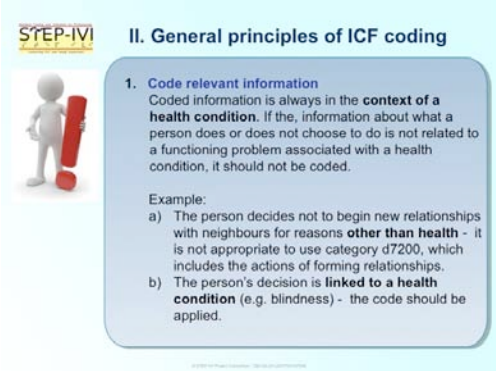
Standard Training and Education for Professionals concerning ICF and Visual Impairment

TUTORIAL 4

"MODULE 4 – ICF ADVANCED 2"



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Lifelong Learning Programme

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2 Module 4

3 ICF

4 Advanced 2

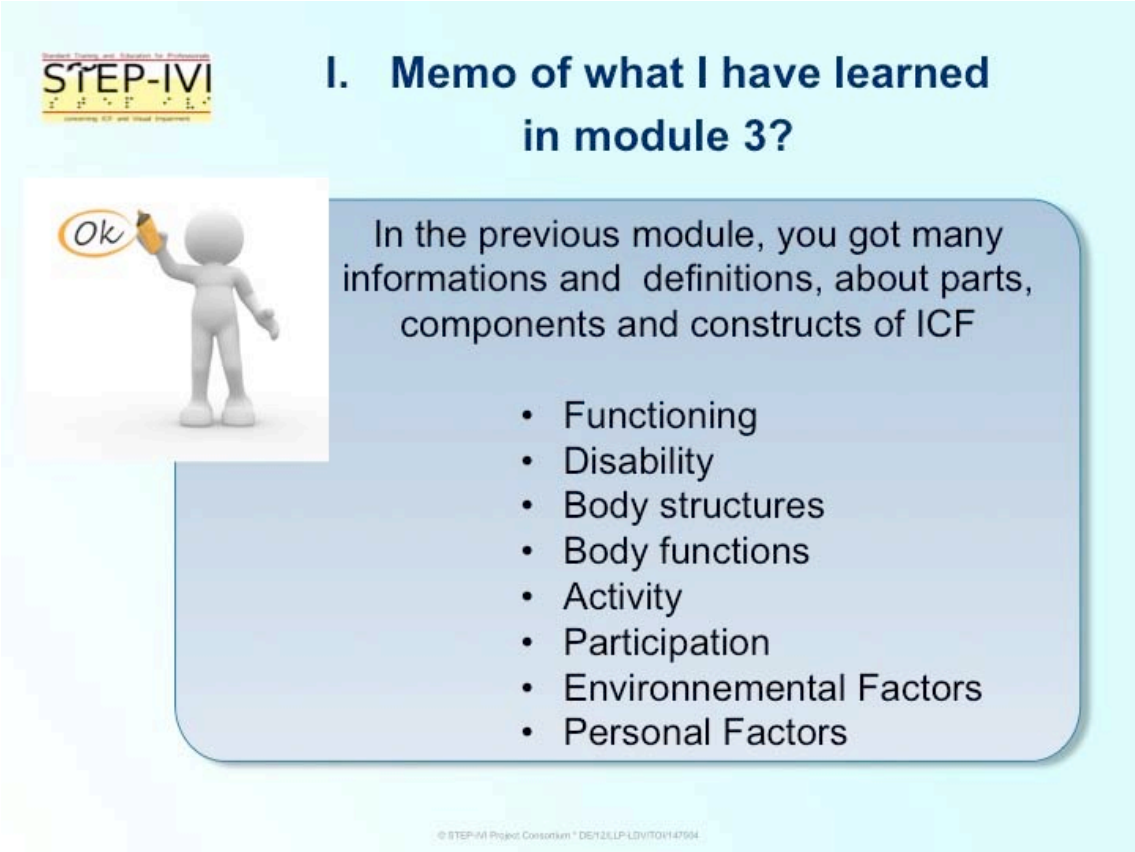
4.1 Structure of this module

I. Memo of what I have learned in module 3
II. General principle of ICF coding
III. Special issues concerning ICF
IV. How to use this model Case Study

4.2 I. Memo of what I have learned in module 3?

In the previous module, you got many informations and definitions, about parts, components and constructs of ICF

- Functioning
- Disability
- Body structures
- Body functions
- Activity
- Participation
- Environnemental Factors
- Personal Factors

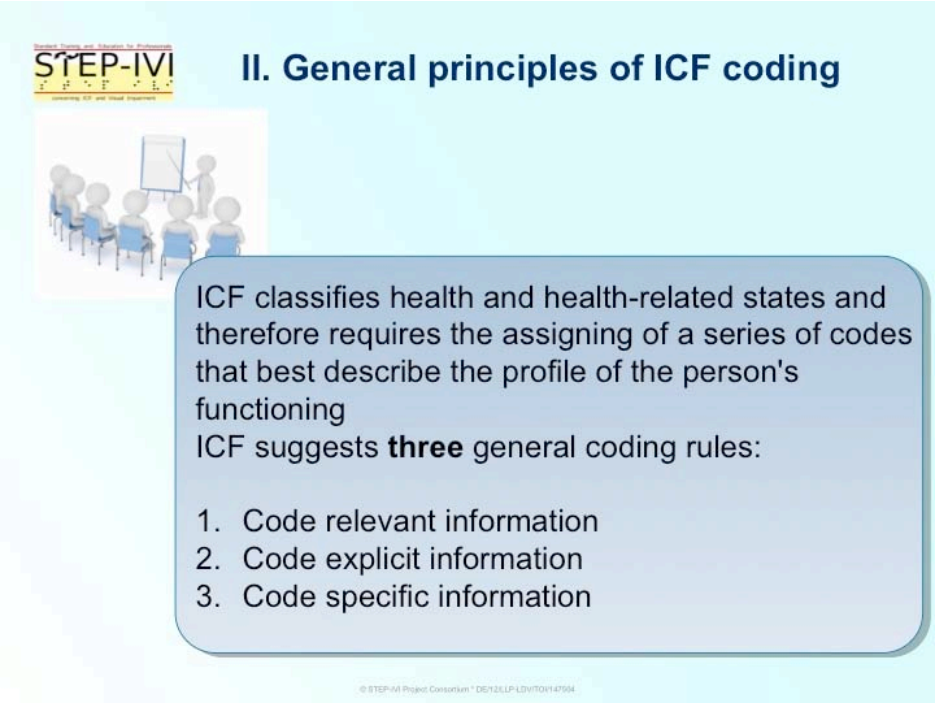


4.3 II. General Principles of ICF coding - The three coding rules

4.3.1 Introduction

ICF classifies health and health-related states and therefore requires the assigning of a series of codes that best describe the profile of the person's functioning
ICF suggests three general coding rules:

1. 1.Code **relevant** information
2. 2.Code **explicit** information
3. 3.Code **specific** informat



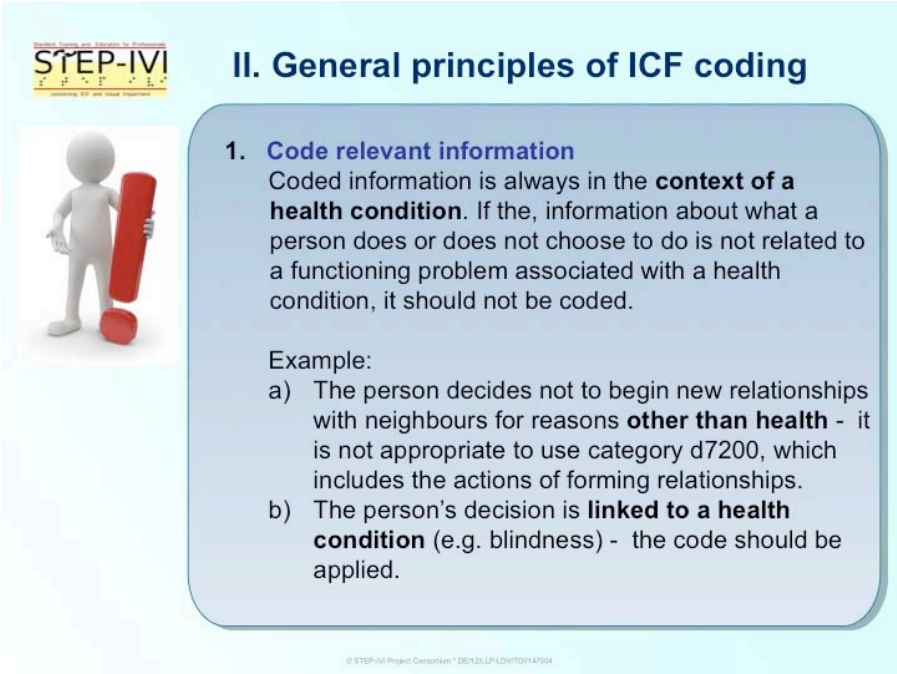
4.3.1.1 Code relevant information

Coded information is always in the ***context of a health condition.*** If the, information about what a person does or does not choose to do is not related to a functioning problem associated with a health condition, it should not be coded.

Example:

a) The person decides not to begin new relationships with neighbours for reasons other than health - it is not appropriate to use category d7200, which includes the actions of forming relationships.
b) The person’s decision is linked to a health condition (e.g. blindness) - the code should be applied.

The coding should be focused on a **determined timeframe.** Aspects which occured in the past and have no influence to the present situation, shouldn't be taken into account of coding.

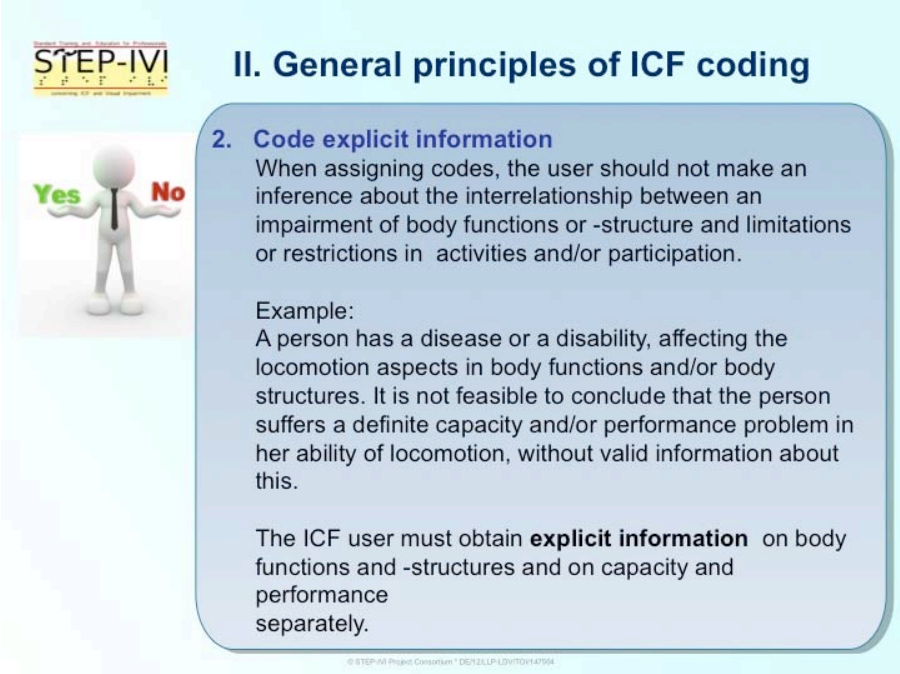


4.3.1.2 Code explicit information

When assigning codes, the user should not make an inference about the interrelationship between an impairment of body functions or -structure and limitations or restrictions in activities and/or participation.

Example:
A person has a disease or a disability, affecting the locomotion aspects in body functions and/or body structures. It is not feasible to conclude that the person suffers a definite capacity and/or performance problem in her ability of locomotion, without valid information about this.

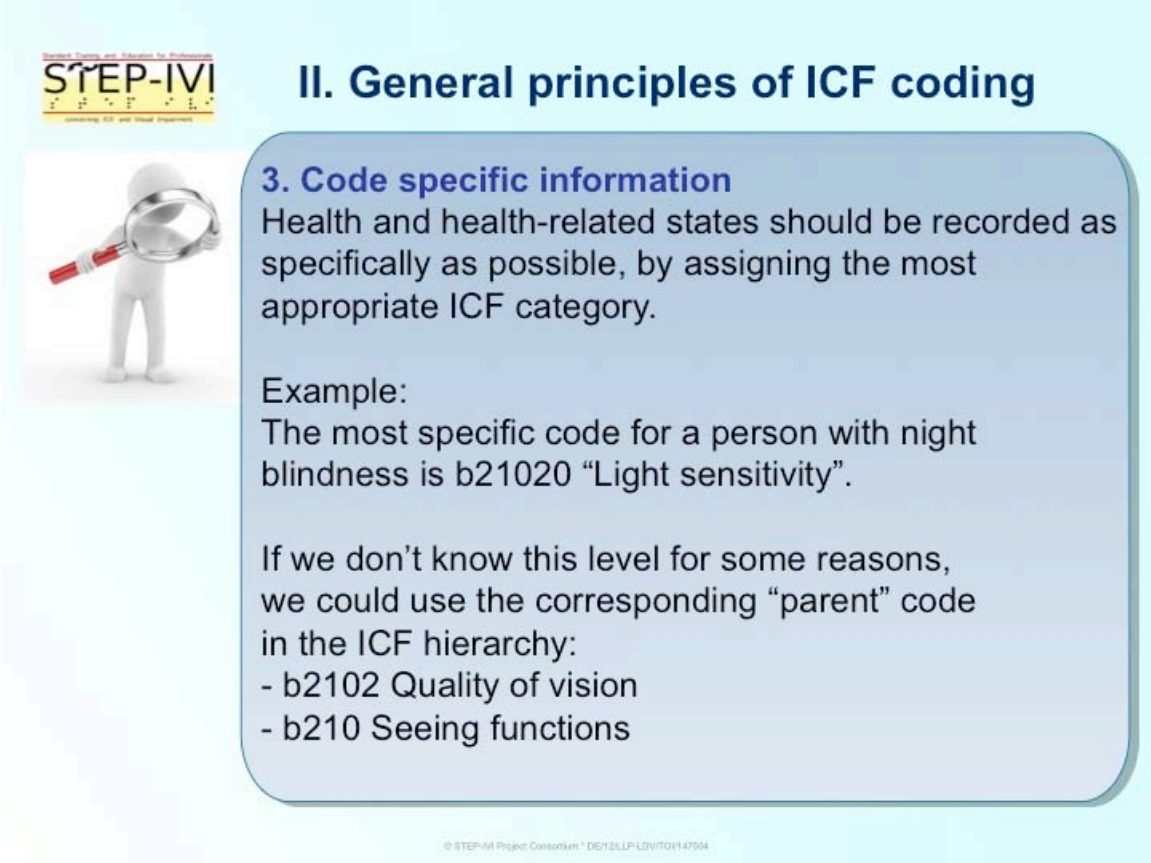
The ICF user must **obtain explicit information** on body functions and -structures and on capacity and performance **separately**.



4.3.1.3 Code specific information

Health and health-related states should be recorded as **specifically as possible**, by assigning the most appropriate ICF category.
Example:
The most specific code for a person with night blindness is b21020 “Light sensitivity”.
If we don’t know this level for some reasons, we could use the corresponding *“parent”* code in the ICF hierarchy:

- b2102 Quality of vision
- b210 Seeing functions
-



4.4 III. Special issues concerning coding - body functions

Reminder

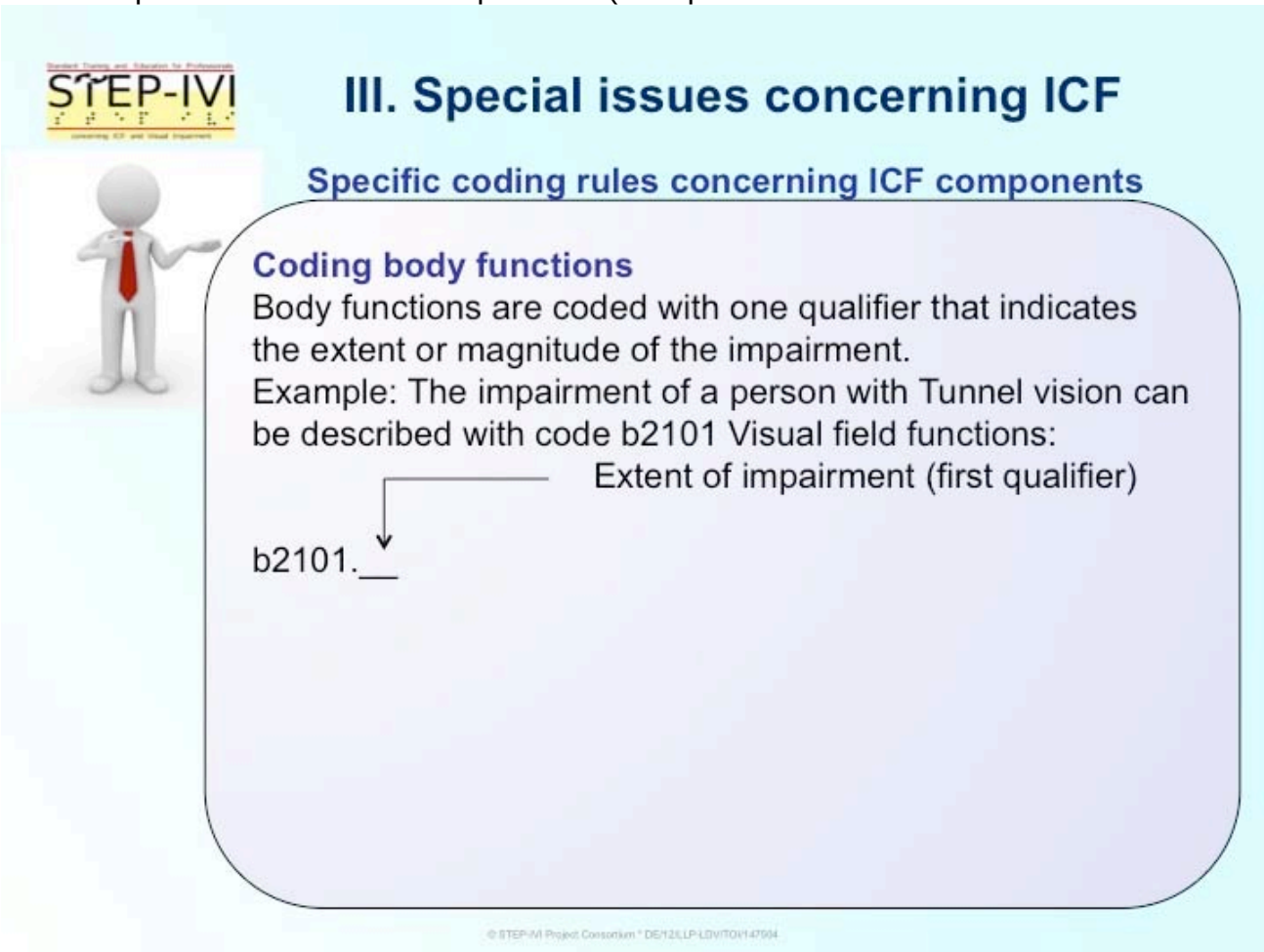
Body functions are the physiological functions of body systems (including psychological functions).
Impairments are problems in body function or structure as a significant deviation or loss.

4.4.1 The position of the qualifier for body functions

Coding body functions

Body functions are coded with one qualifier that indicates the extent or magnitude of the impairment.

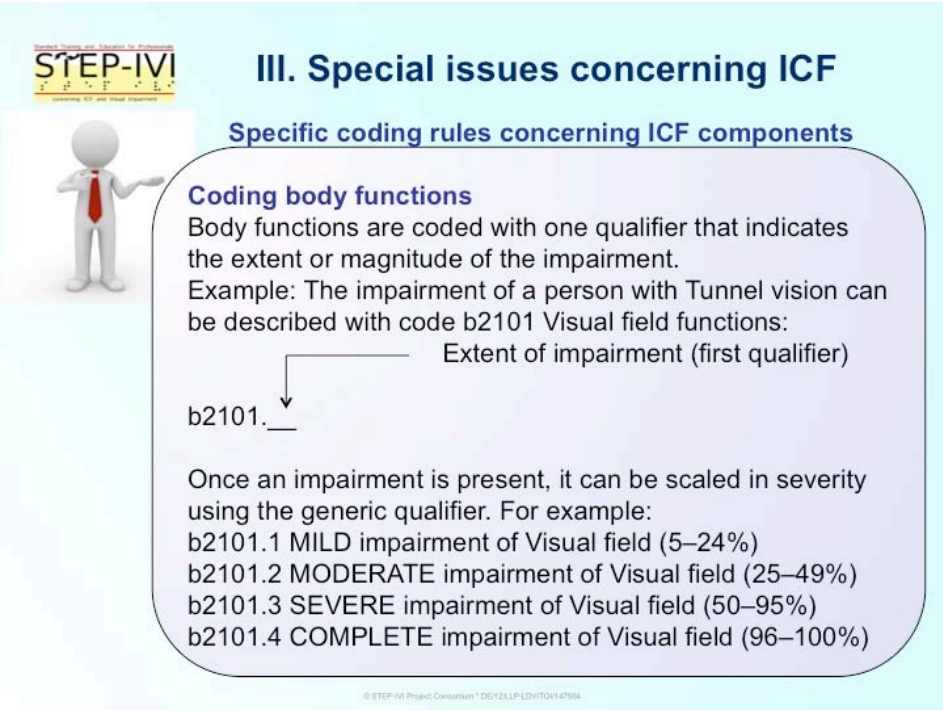
Example: The impairment of a person with Tunnel vision can be described with code b2101 Visual field functions:
b2101.X
Here X represents the extent of impairment (first qualifier



4.4.2 The gradation of the qualifier

Once an impairment is present, it can be scaled in severity using the generic qualifier. For example:

b2101.1 **MILD** impairment of Visual field (5–24%)
b2101.2 **MODERATE** impairment of Visual field (25–49%)
b2101.3 **SEVERE** impairment of Visual field (50–95%)
b2101.4 **COMPLETE** impairment of Visual field (96–100%)



4.4.3 Coding with indifferent information

Coding body functions

The **absence** of an impairment is indicated by the value **“0”** for the generic qualifier.

For example:
b2101.0 = **NO** impairment in Visual field.
If there is **insufficient information** to specify the severity of the impairment, the **value “8”** should be used.

Example:
A person’s health record states that the person has damaged visual field without giving further details - then the following code can be applied:
b2101.8 = Impairment of Visual field, not specified

III. Special issues concerning ICF

Specific coding rules concerning ICF components

Coding body functions

The **absence** of an impairment is indicated by the value “**0**” for the generic qualifier. For example:

b2101.0 NO impairment in Visual field.

If there is **insufficient information** to specify the severity of the impairment, the value “**8**” should be used.

Example: a person’s health record states that the person has damaged visual field without giving further details - then the following code can be applied:

b2101.8 Impairment of Visual field, not specified

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4.5 III. Special issues concerning coding - body structures

Reminder

Body structures are anatomical parts of the body such as organs, limbs and their components.

Impairments are problems in body function or structure as a significant deviation or loss.

4.5.1 The function of the qualifiers

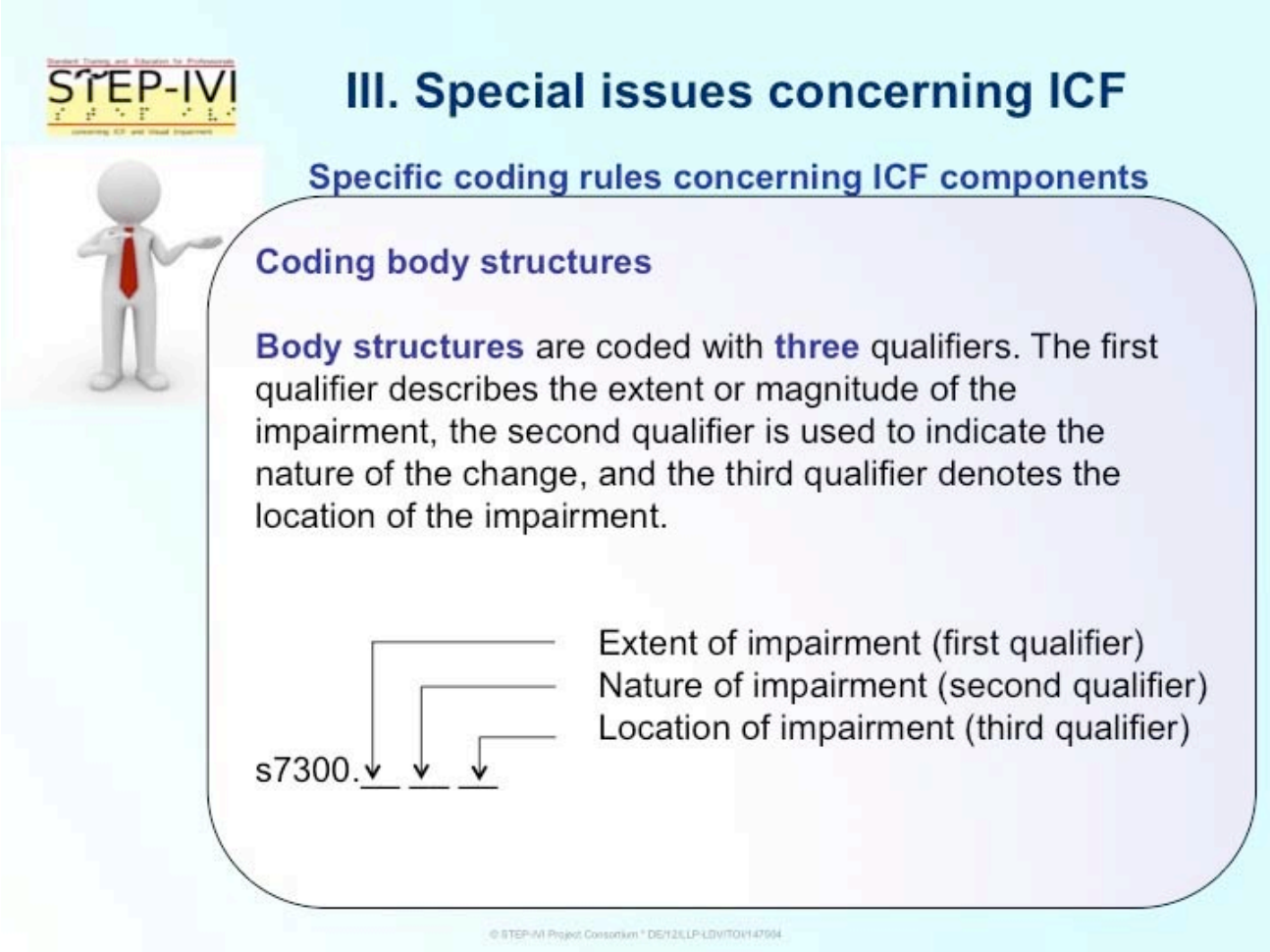
Coding body structures

Body structures are coded with **three** qualifiers. The first qualifier describes the extent or magnitude of the impairment, the second qualifier is used to indicate the nature of the change, and the third qualifier denotes the location of the impairment.

Example:

s7300.XYZ

Explanation: X=Extent of impairment (first qualifier), Y= Nature of impairment (second qualifier), Z= Location of impairment (third qualifier)



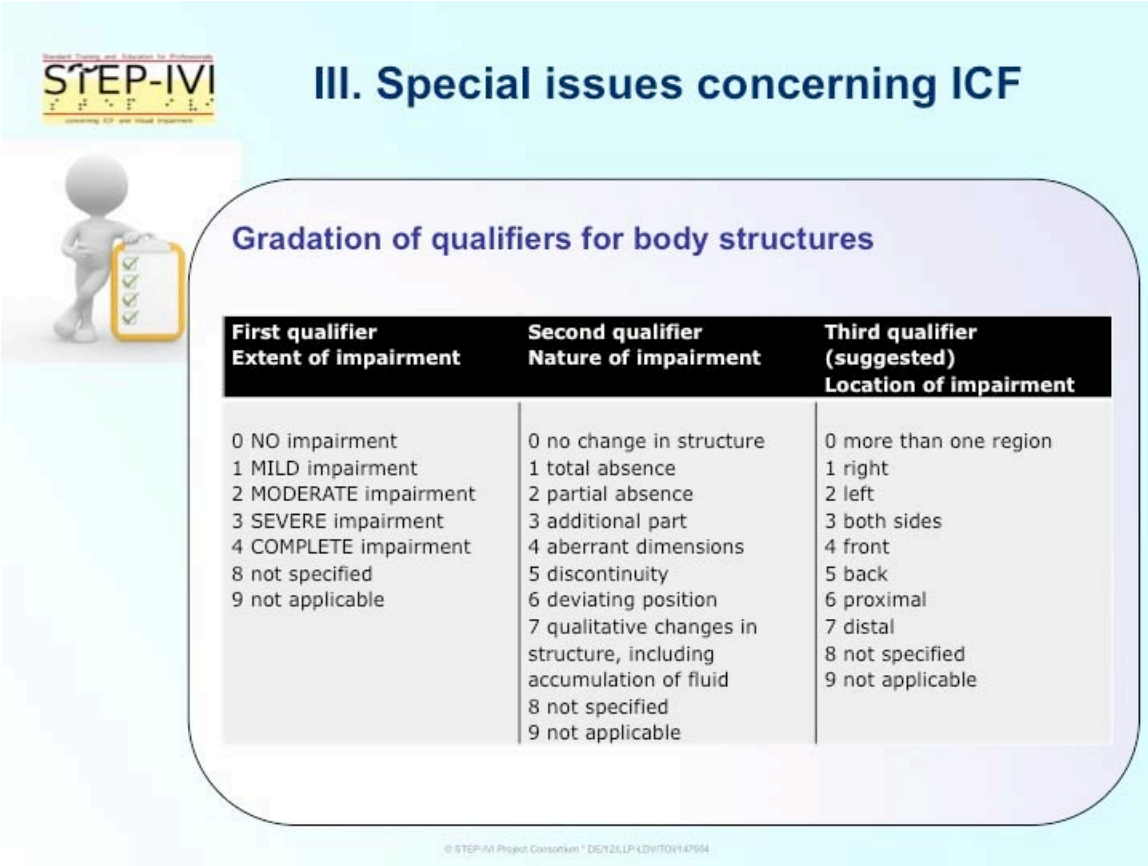
4.5.2 The gradation of the qualifiers

Gradation of qualifiers for body structures

First qualifier = Extent of impairment
0 NO impairment
1 MILD impairment
2 MODERATE impairment
3 SEVERE impairment
4 COMPLETE impairment
8 not specified
9 not applicable

Second qualifier = Nature of impairment
0 no change in structure
1 total absence
2 partial absence
3 additional part
4 aberrant dimensions
5 discontinuity
6 deviating position
7 qualitative changes in structure, including accumulation of fluid
8 not specified
9 not applicable

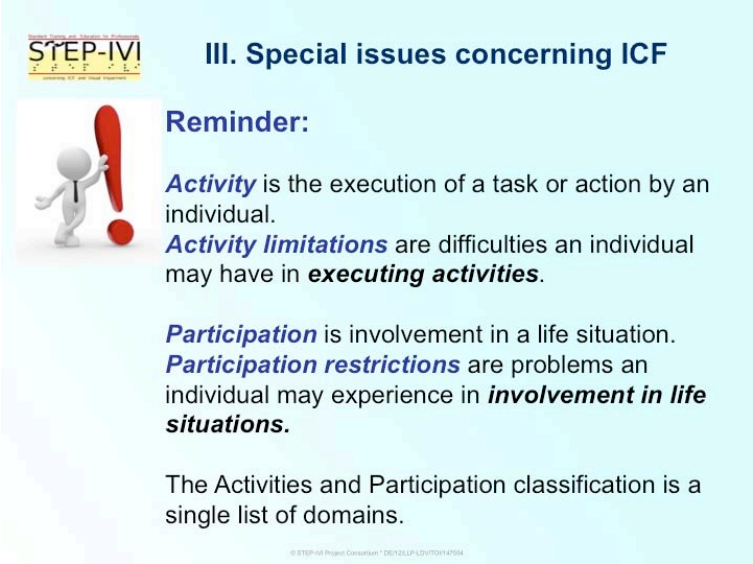
Third qualifier = Location of impairment
0 more than one region
1 right
2 left
3 both sides
4 front
5 back
6 proximal
7 distal
8 not specified
9 not applicable



4.6 III. Special issues concerning coding - activities and participation

4.6.1 Reminder

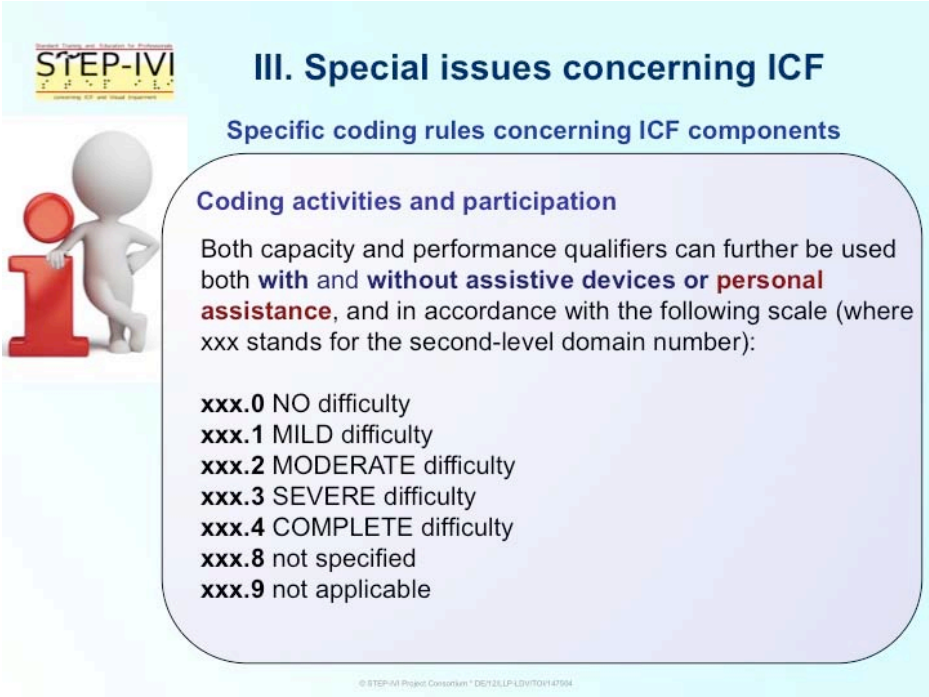
Activity is the execution of a task or action by an individual.
Activity limitations are difficulties an individual may have in executing activities.
Participation is involvement in a life situation.
Participation restrictions are problems an individual may experience in involvement in life situations.
The Activities and Participation classification is a single list of domains.



4.6.2 The gradation of the qualifier

Coding activities and participation

Both capacity and performance qualifiers can further be used both with and without assistive devices or personal assistance, and in accordance with the following scale (where xxx stands for the second-level domain number):
xxx.0 NO difficulty
xxx.1 MILD difficulty
xxx.2 MODERATE difficulty
xxx.3 SEVERE difficulty
xxx.4 COMPLETE difficulty
xxx.8 not specified
xxx.9 not applicable

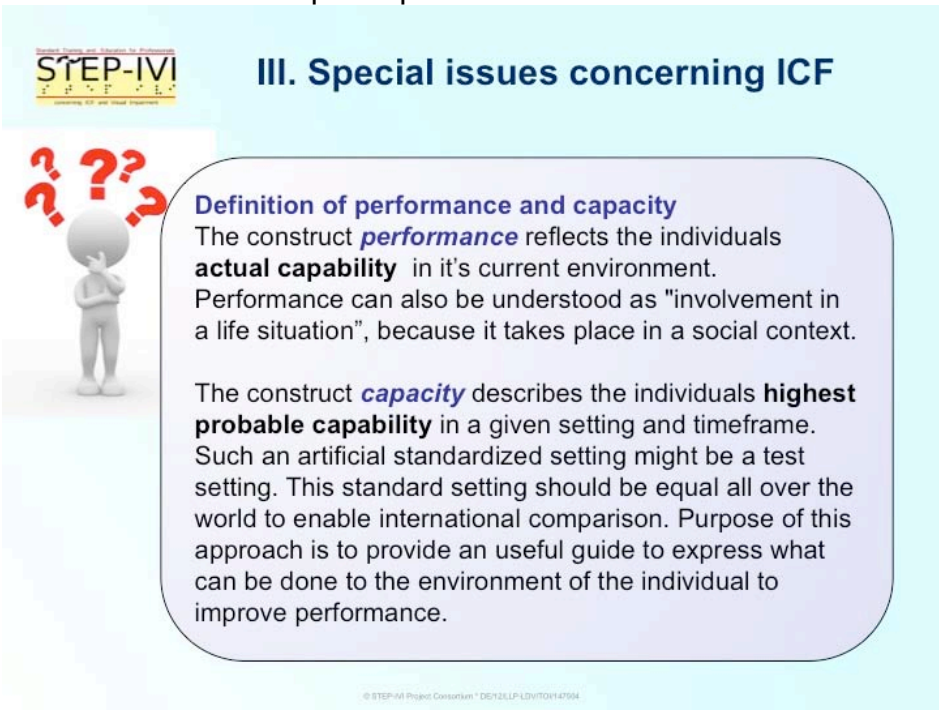


4.6.3 The difference between performance and capacity

Definition of performance and capacity

The construct ***performance*** reflects the individuals **actual capability** in it’s current environment. Performance can also be understood as "involvement in a life situation”, because it takes place in a social context.

The construct ***capacit***y describes the individuals highest **probable capability** in a given setting and timeframe. Such an artificial standardized setting might be a test setting. This standard setting should be equal all over the world to enable international comparison. Purpose of this approach is to provide an useful guide to express what can be done to the environment of the individual to improve performance.



4.6.4 The relevance of the first two qualifiers

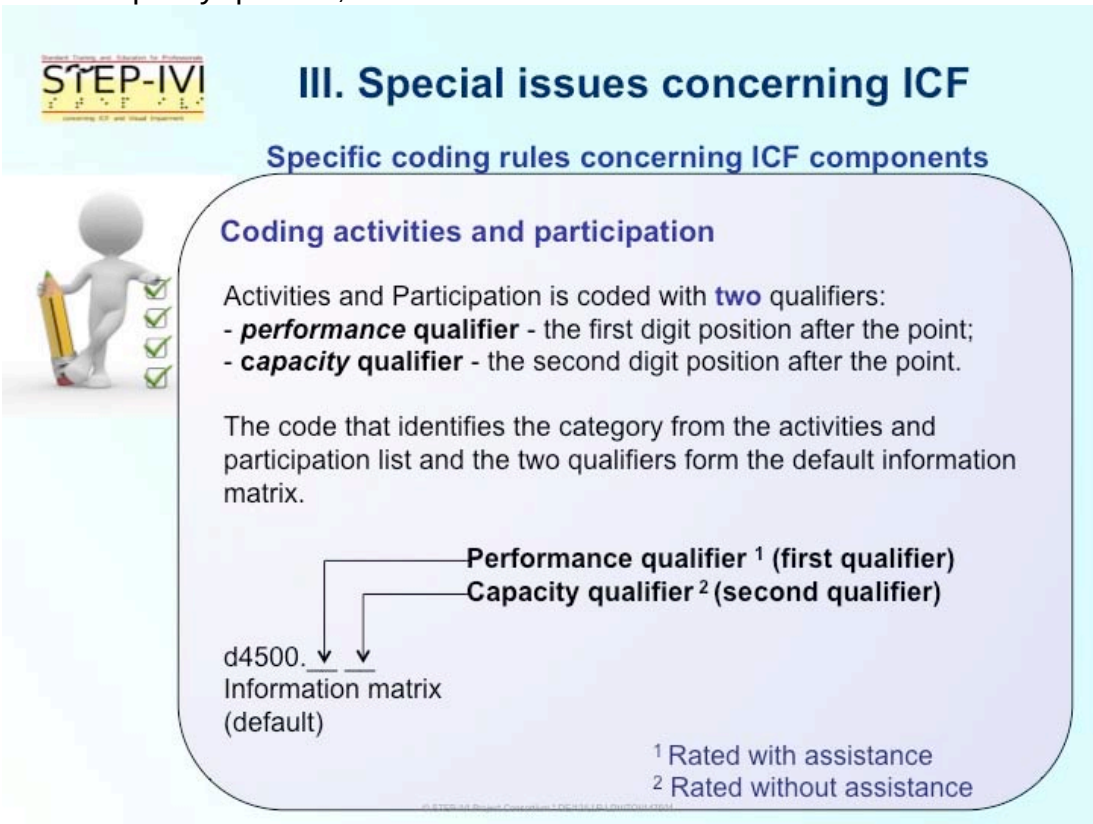
oding activities and participation

Activities and Participation is coded with two qualifiers:
- **performance qualifier** - the first digit position after the point;
- **capacity qualifier** - the second digit position after the point.

The code that identifies the category from the activities and participation list and the two qualifiers form the default information matrix.

Example:
d4500.XY

X represents Performance qualifier, rated with use of assistance
Y represents Capacity qualifier, rated without use of assistance



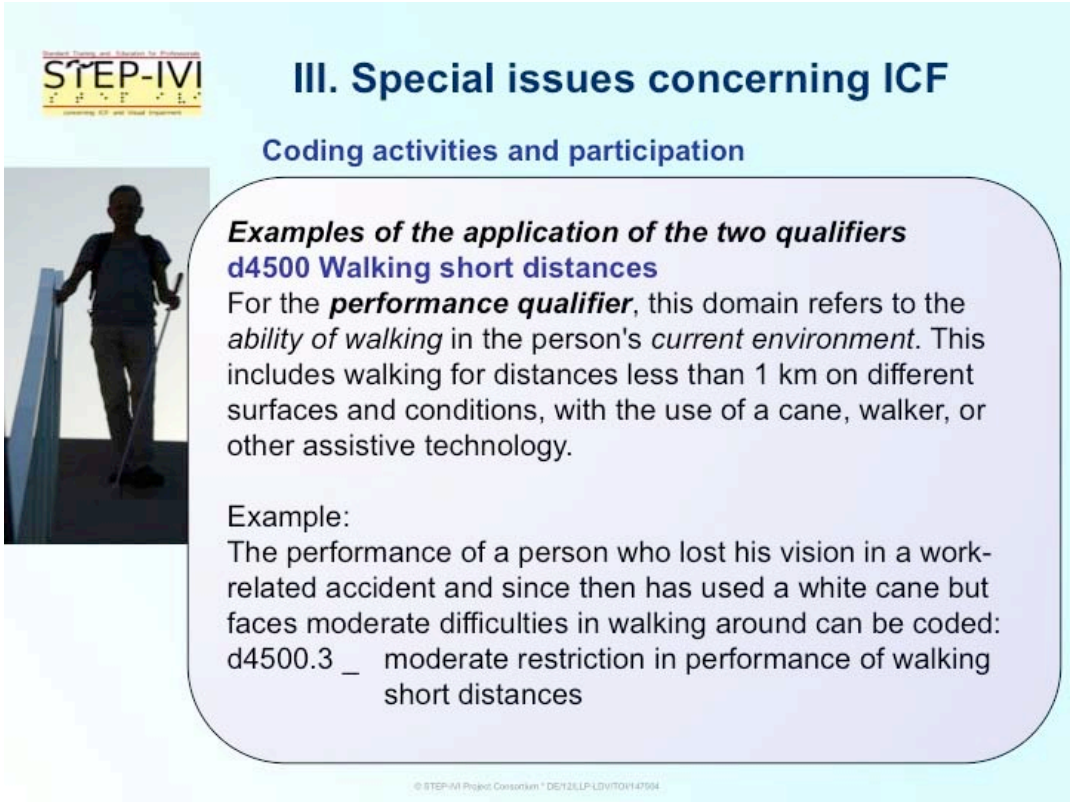
4.6.5 Application of the performance qualifier

Examples of the application of the two qualifiers

d4500 Walking short distances

For the ***performance qualifier***, this domain refers to the ability of walking in the person's *current environment*. This includes walking for distances less than 1 km on different surfaces and conditions, with the use of a cane, walker, or other assistive technology.

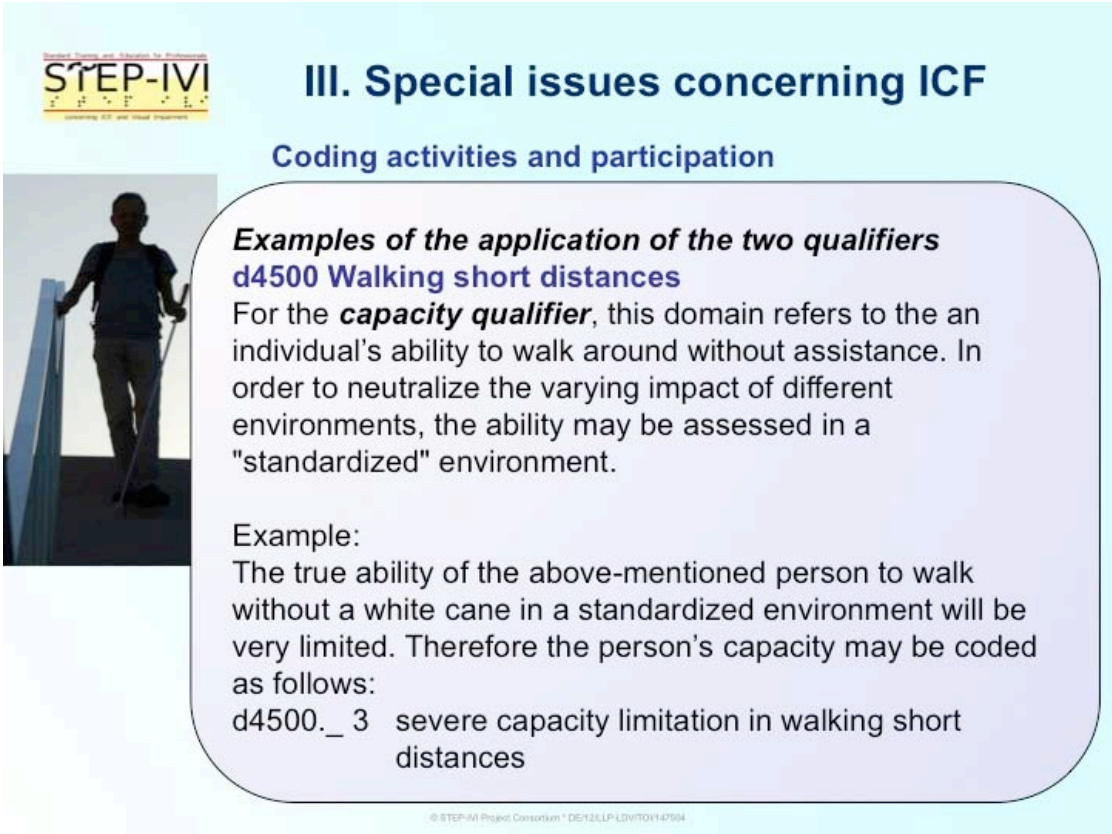
Example:
The performance of a person who lost his vision in a work-related accident and since then has used a white cane but faces moderate difficulties in walking around can be coded:
d4500.3 _ moderate restriction in performance of walking short distances



4.6.6 Application of the capacity qualifier

For the ***capacity qualifier***, this domain refers to the an individual’s ability to walk around without assistance. In order to neutralize the varying impact of different environments, the ability may be assessed in a "standardized" environment.

Example:
The true ability of the above-mentioned person to walk without a white cane in a standardized environment will be very limited. Therefore the person’s capacity may be coded as follows:
d4500._ 3 severe capacity limitation in walking short distances

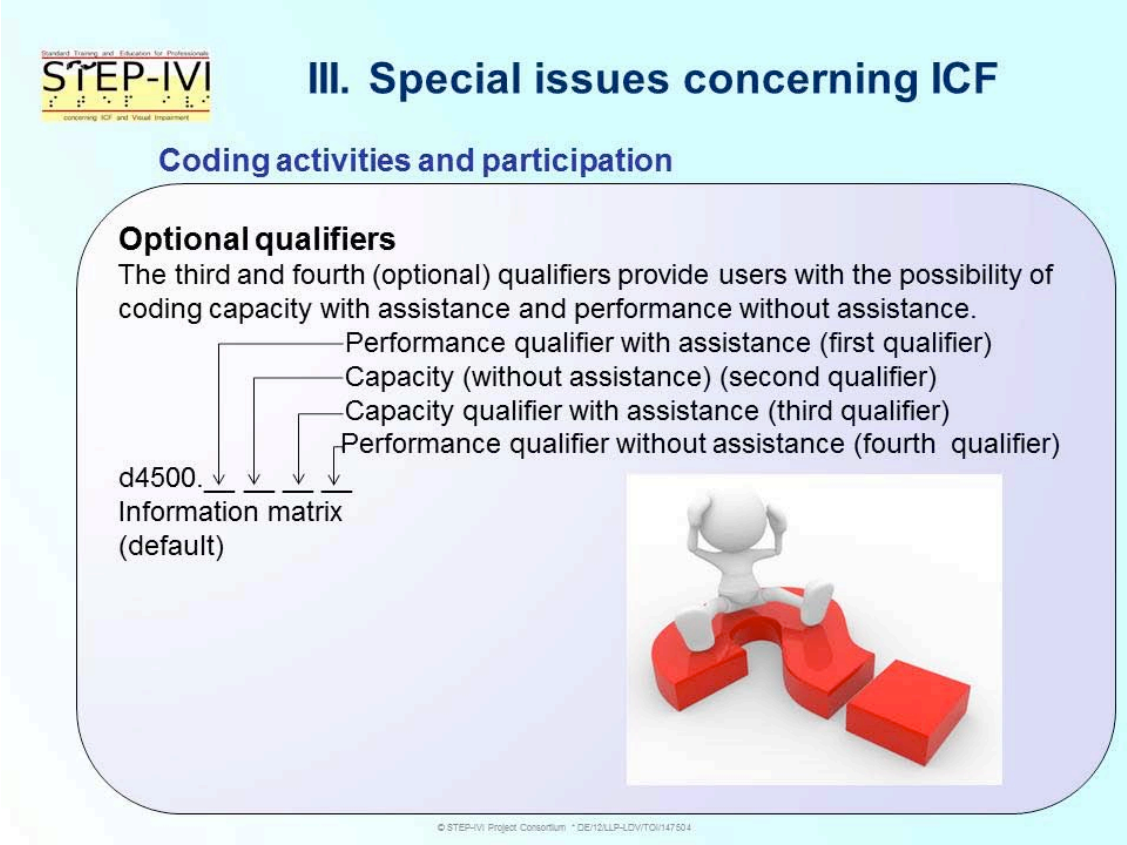


4.6.7 Optional qualifiers

The third and fourth (optional) qualifiers provide users with the possibility of coding capacity with assistance and performance without assistance.

Example:
d4500.ABCD

A represents the Performance qualifier with assistance (first qualifier)
B represents the Capacity (without assistance) (second qualifier)
C represents the Capacity qualifier with assistance (third qualifier)
D represents the Performance qualifier without assistance (fourth qualifier)

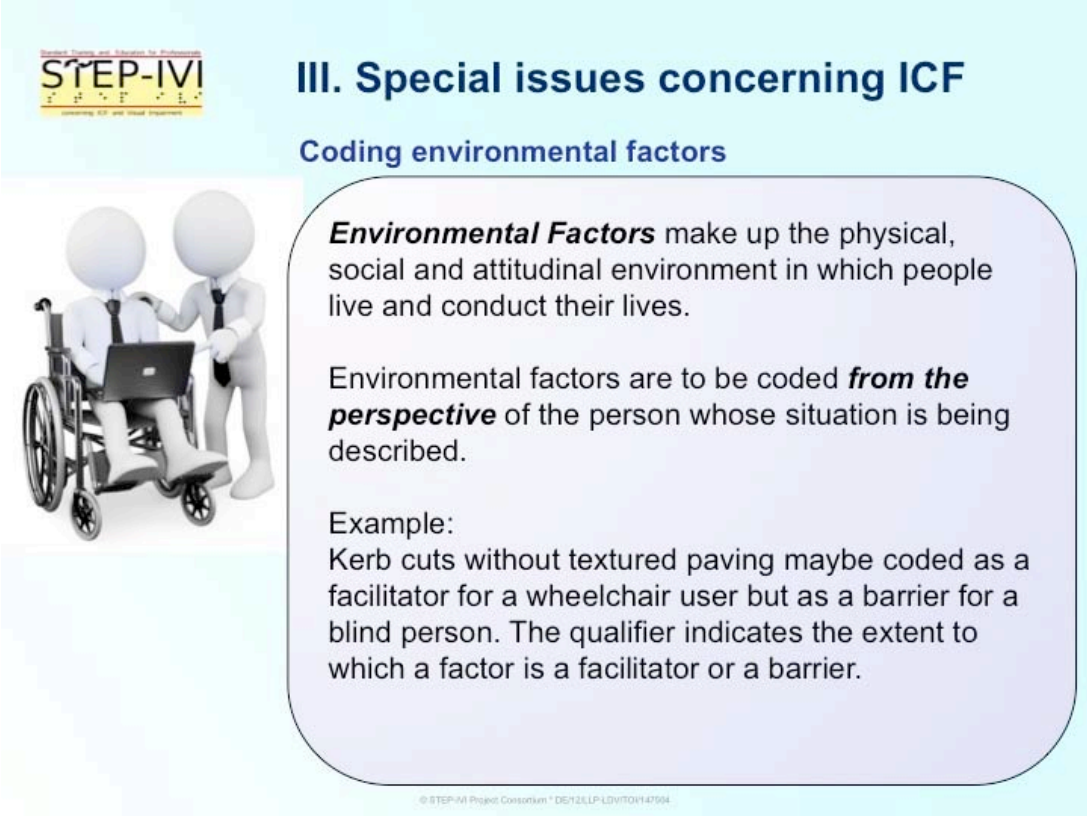


4.7 III. Special issues concerning coding - environmental factors

4.7.1 Application of the first qualifier

Environmental Factors make up the physical, social and attitudinal environment in which people live and conduct their lives.
Environmental factors are to be coded from the ***perspective of the person*** whose situation is being described.

Example:
Kerb cuts without textured paving maybe coded as a facilitator for a wheelchair user but as a barrier for a blind person. The qualifier indicates the extent to which a factor is a facilitator or a barrier.



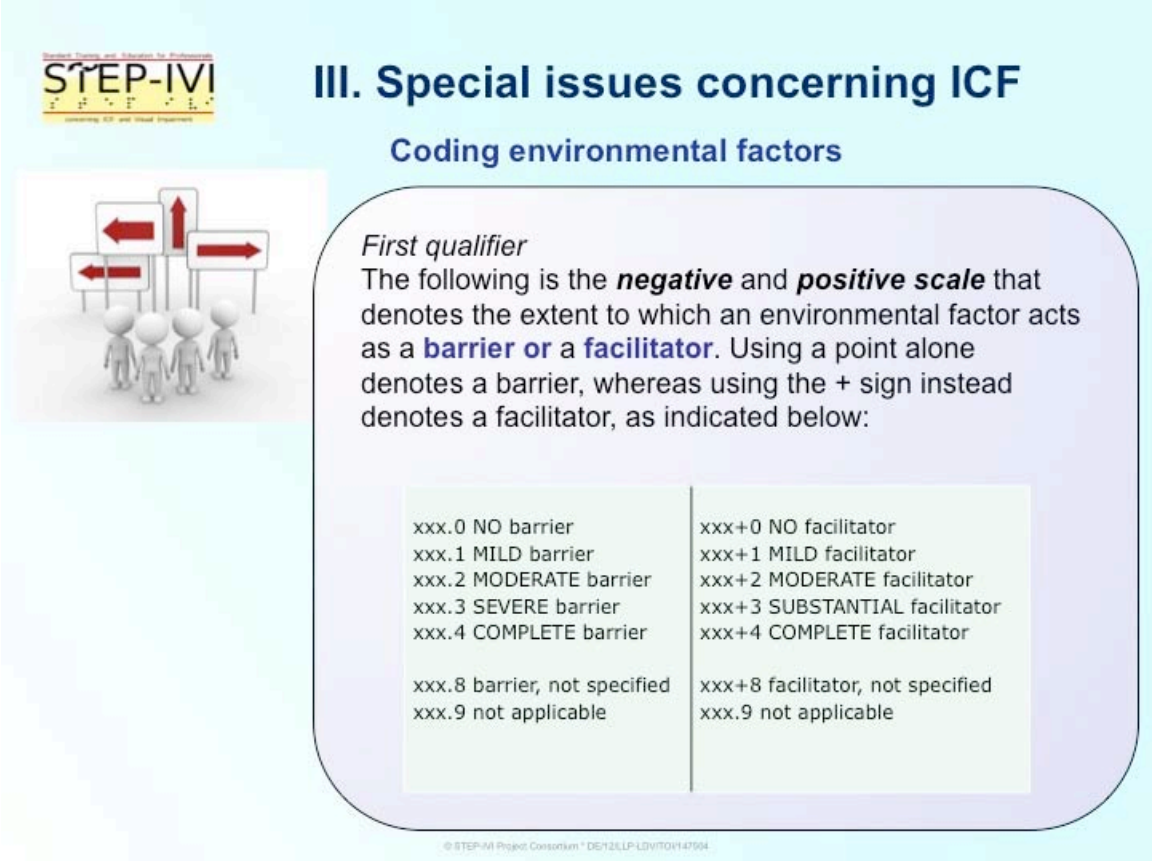
4.7.2 The gradation of the qualifiers

First qualifier

The following is the ***negative*** and ***positive scale*** that denotes the extent to which an environmental factor acts as a barrier or a facilitator. Using a period alone denotes a barrier, whereas using the + sign instead denotes a facilitator, as indicated below:

xxx.0 NO barrier
xxx.1 MILD barrier
xxx.2 MODERATE barrier
xxx.3 SEVERE barrier
xxx.4 COMPLETE barrier
xxx.8 barrier, not specified
xxx.9 not applicable

xxx+0 NO facilitator
xxx+1 MILD facilitator
xxx+2 MODERATE facilitator
xxx+3 SUBSTANTIAL facilitator
xxx+4 COMPLETE facilitator
xxx+8 facilitator, not specified
xxx.9 not applicable

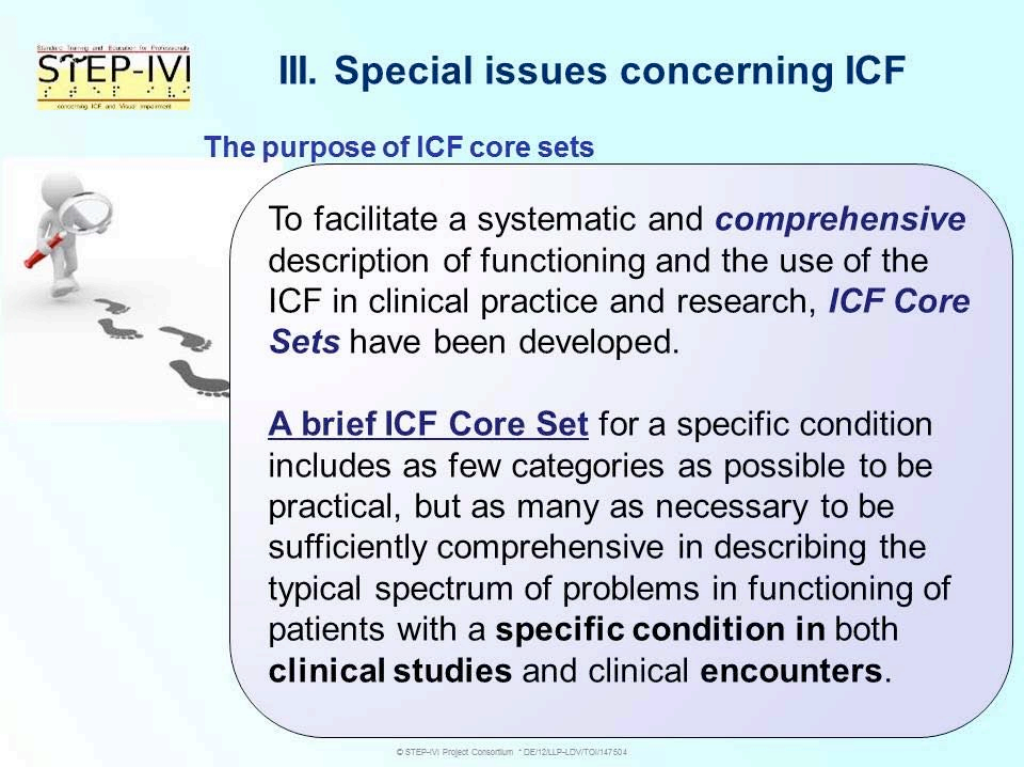


4.8 Core sets

4.8.1 Purpose of core sets - Brief core sets

To facilitate a systematic and ***comprehensive*** description of functioning and the use of the ICF in clinical practice and research, **ICF Core Sets** have been developed.

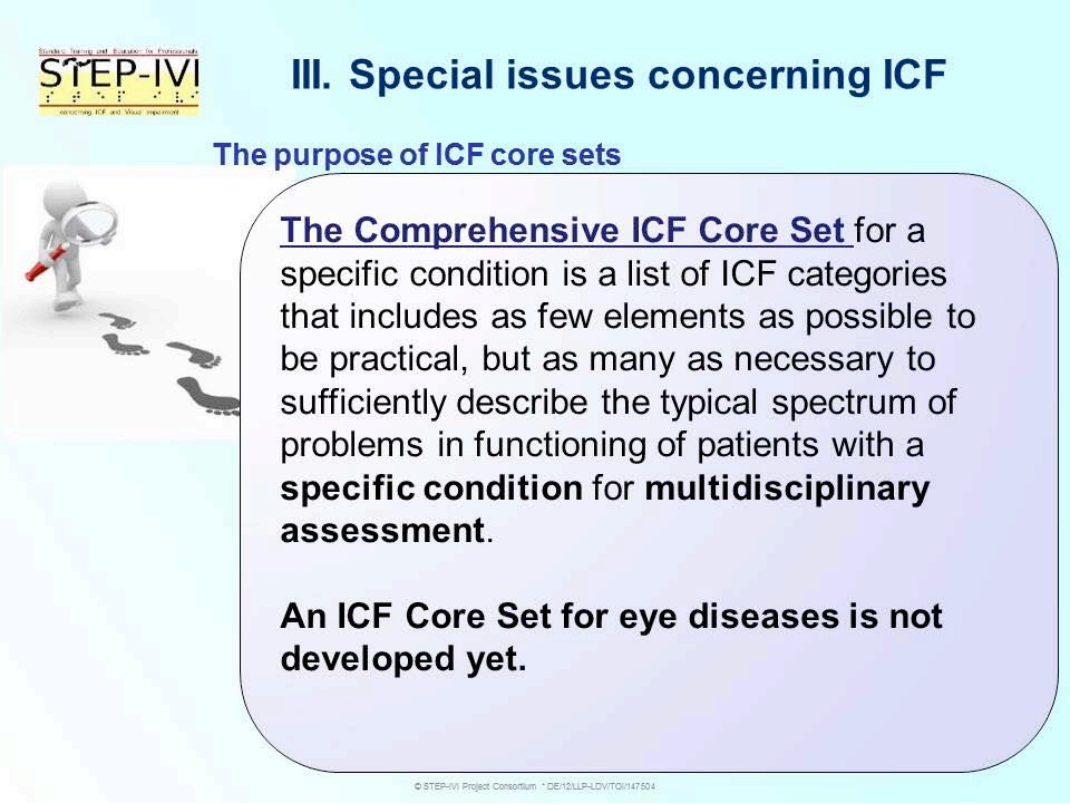
A brief ICF Core Set for a specific condition includes as few categories as possible to be practical, but as many as necessary to be sufficiently comprehensive in describing the typical spectrum of problems in functioning of patients with a specific condition in **both clinical studies and clinical encounters.**



4.8.2 Comprehensive Core Sets

The Comprehensive ICF Core Set for a specific condition is a list of ICF categories that includes as few elements as possible to be practical, but as many as necessary to sufficiently describe the typical spectrum of problems in functioning of patients with a specific condition for **multidisciplinary assessment.**

An ICF Core Set for eye diseases is not developed yet.

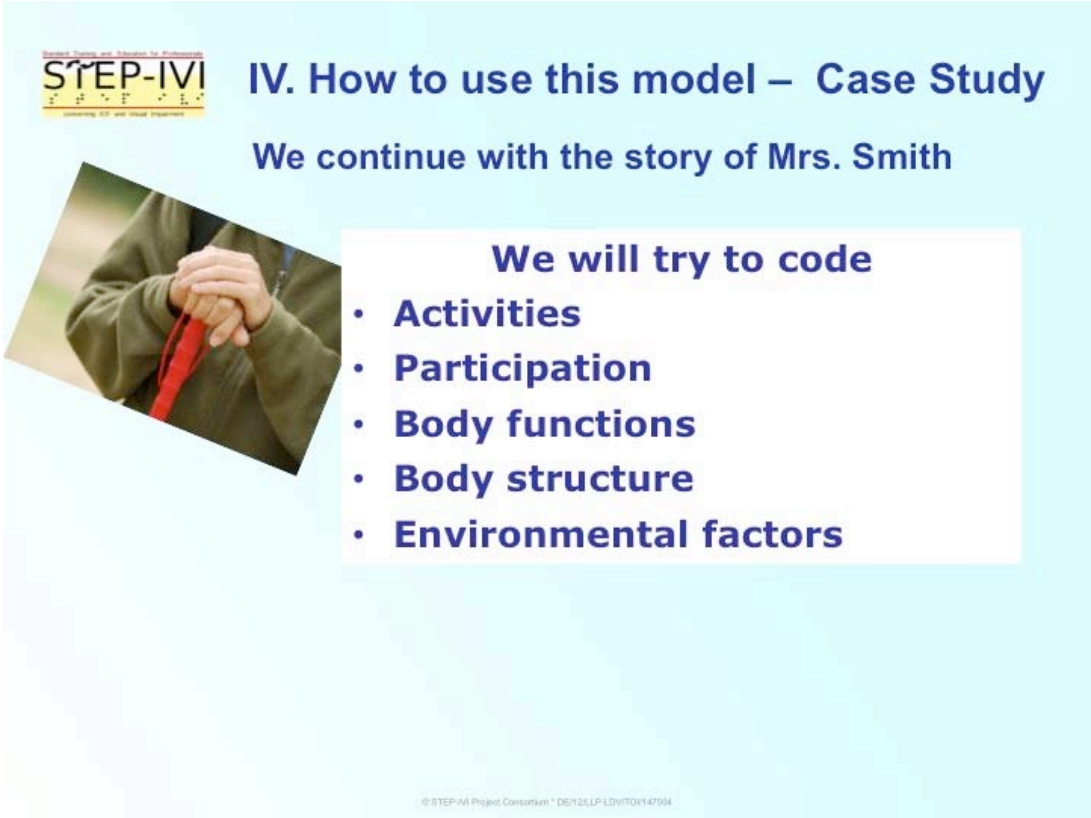


4.9 V. How to use this model – Case Study

4.9.1 Purpose of the Case Study

We continue with the story of Mrs. Smith
We will try to code

- activities
- participation
- body functions
- body structure
- environmental factors



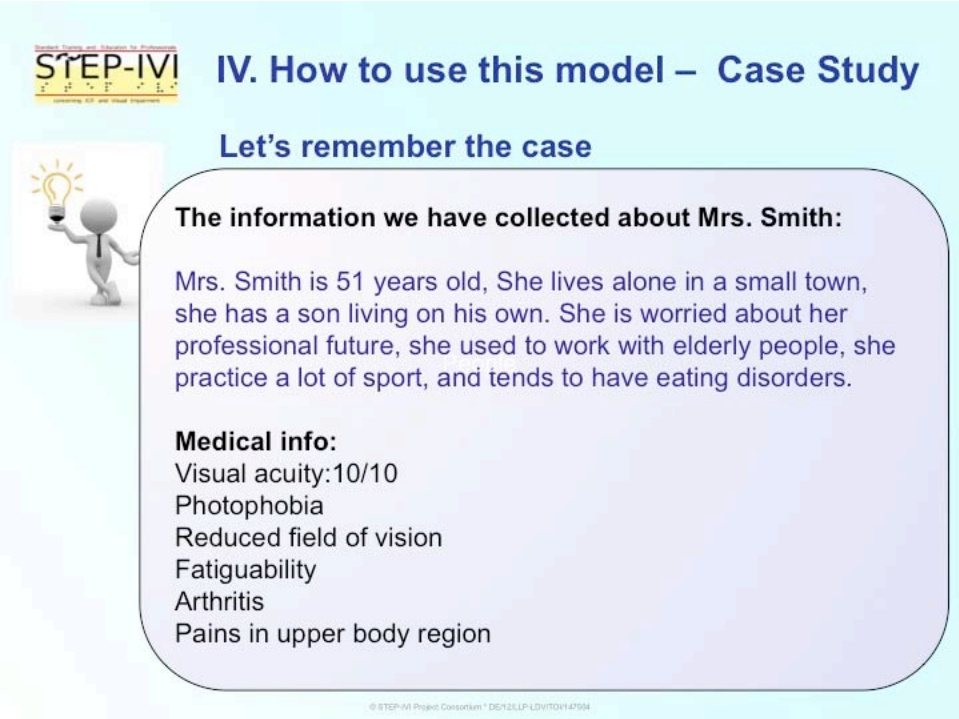
4.9.2 Remembering the facts

The information we have collected about Mrs. Smith

Mrs. Smith is 51 years old, She lives alone in a small town, she has a son living on his own. She is worried about her professional future, she used to work with elderly people, she practice a lot of sport, and tends to have eating disorders.

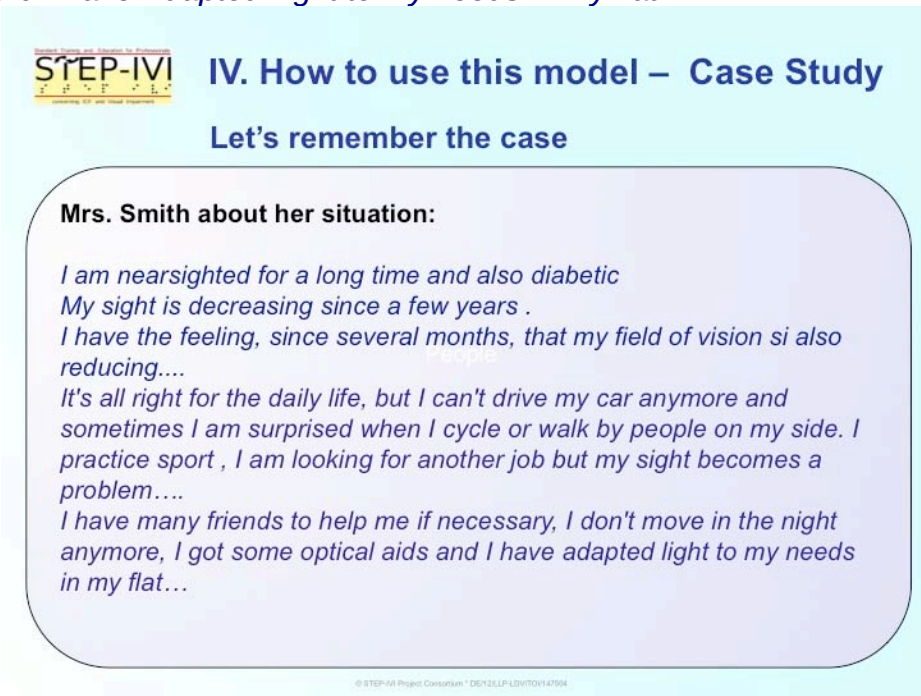
Medical info:

- Visual acuity:10/10
- Photophobia
- Reduced field of vision
- Fatiguability,
- Arthritis, pains in upper body region



4.9.3 Mrs. Smith about her situation

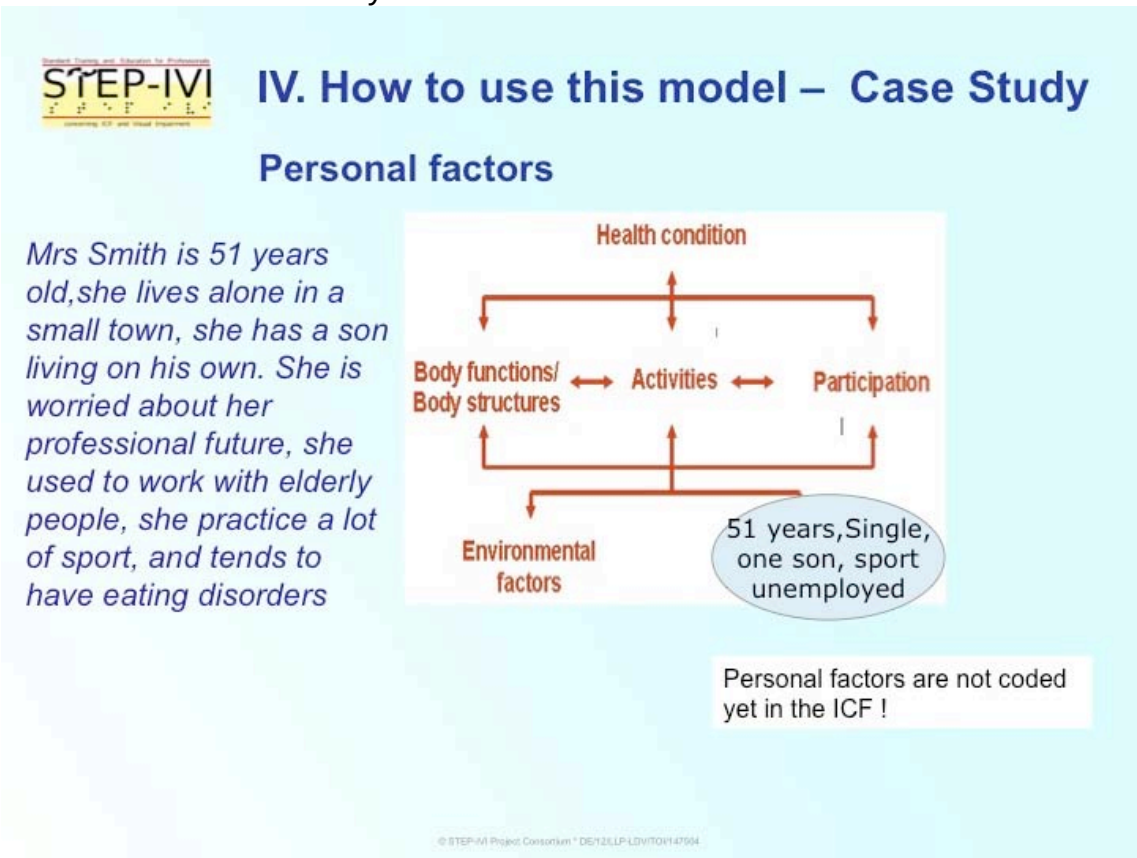
Mrs. Smith about her situation: "I am nearsighted for a long time and also diabetic. My sight is decreasing since a few years .
I have the feeling, since several months, that my field of vision is also reducing....
It's all right for the daily life, but I can't drive my car anymore and sometimes I am surprised when I cycle or walk by people
on my side. I practice sport , I am looking for another job but my sight becomes a problem….
I have many friends to help me if necessary, I don't move in the night anymore, I got some optical aids and I have Adapted light to my needs in my flat…"



4.9.4 Personal factors

Mrs Smith is 51 years old,she lives alone in a small town, she has a son living on his own. She is worried about her professional future, she used to work with elderly people, she practice a lot of sport, and tends to have eating disorders.

Personal factors are not coded yet in the ICF!

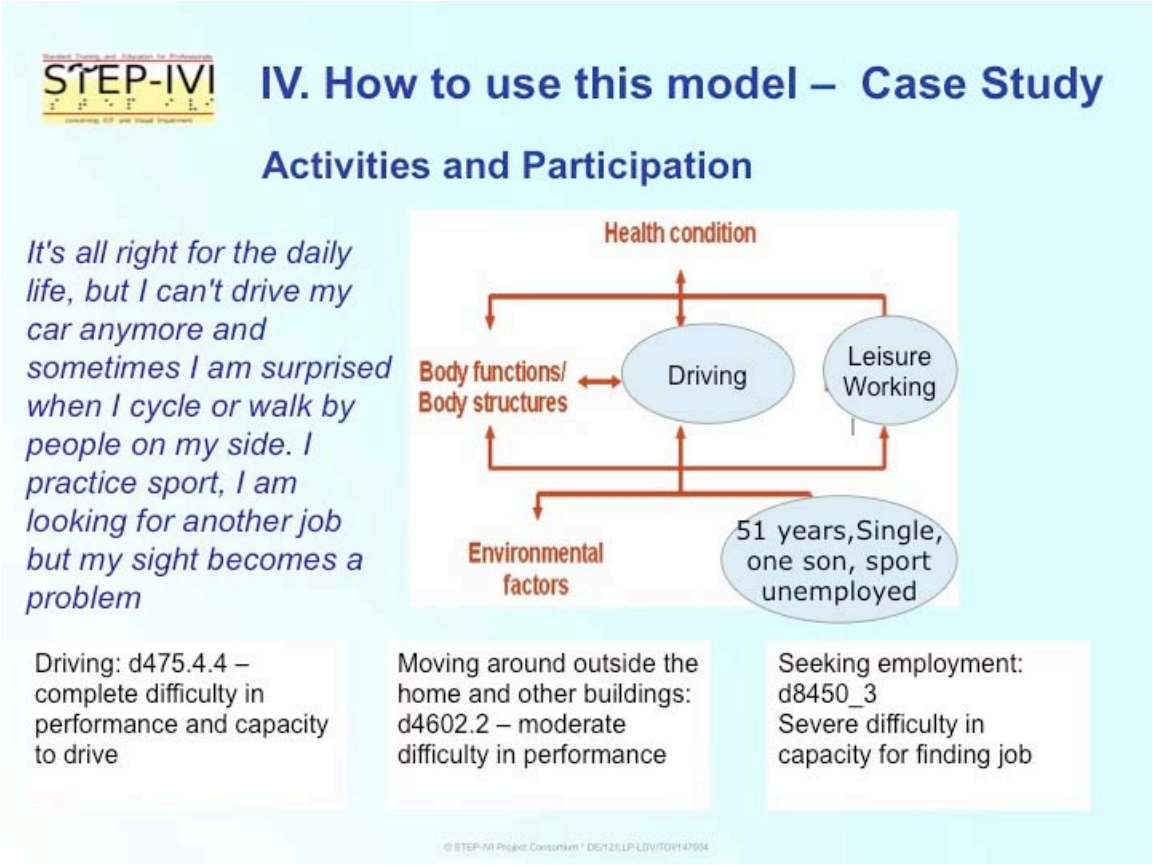


4.9.5 Activities and Participation

The statement of Mrs. Smith

Mrs. Smith: *"It's all right for the daily life, but I can't drive my car anymore and sometimes I am surprised when I cycle or walk by people on my side. I practice sport, I am looking for another job but my sight becomes a problem"*

1. Driving a car is not possible anymore: d475.44 (complete difficulty in performance and capacity to drive)
2. Walking is possible but combined with difficulties: d4602.2 (moderate difficulty in performance, Moving around outside the home and other buildings)
3. Severe difficulty in performance for finding job : d8450.3 (Seeking employment, Severe difficulty in performance for finding job)



4.9.6 Body functions and -structures

4.9.6.1 Visual acuity function

1. **Symptoms/Diagnosis:** Visual acuity : 10/10
2. **Coding:** b2100.2 (moderate impairment of visual acuity – 10/10)

4.9.6.2 Light Sensitivity

1. **Symptoms/Diagnosis:** Photophobia
2. **Coding:** b21020.8 (Photophobia, extent of impairment – not specified)

4.9.6.3 Visual field functions

1. **Symptoms/Diagnosis:** reduced field of vision
2. **Coding:** b2101.8 (reduced field of vision, extent of impairment – not specified)

4.9.6.4 Fatiguability

1. **Symptoms/Diagnosis:** fatiguability
2. **Coding:** b4552.8 Exercise tolerance functions (fatiguability, extent – not specified)

4.9.6.5 Mobility of joint functions

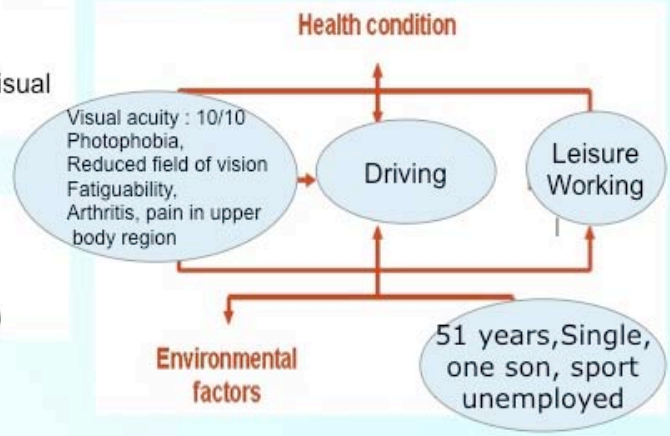
1. Symptoms/Diagnosis: Arthritis
2. Coding: b710.8 Mobility of joint functions (arthritis, extent of impairment – not specified)

IV. How to use this model – Case Study

Body functions, body structures

Visual acuity functions:
b2100.2
(moderate impairment of visual acuity – 10/10)

Light sensitivity:
b21020.8
(Photophobia, extent of impairment – not specified)



Visual field functions:
b2101.8
(reduced field of vision, extent of impairment – not specified)

Exercise tolerance functions: b4552.8
(fatiguability, extent – not specified)

Mobility of joint functions:
b710.8
(arthritis, extent of impairment – not specified)

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4.9.7 Environmental factors

4.9.7.1 The statement of Mrs. Smith

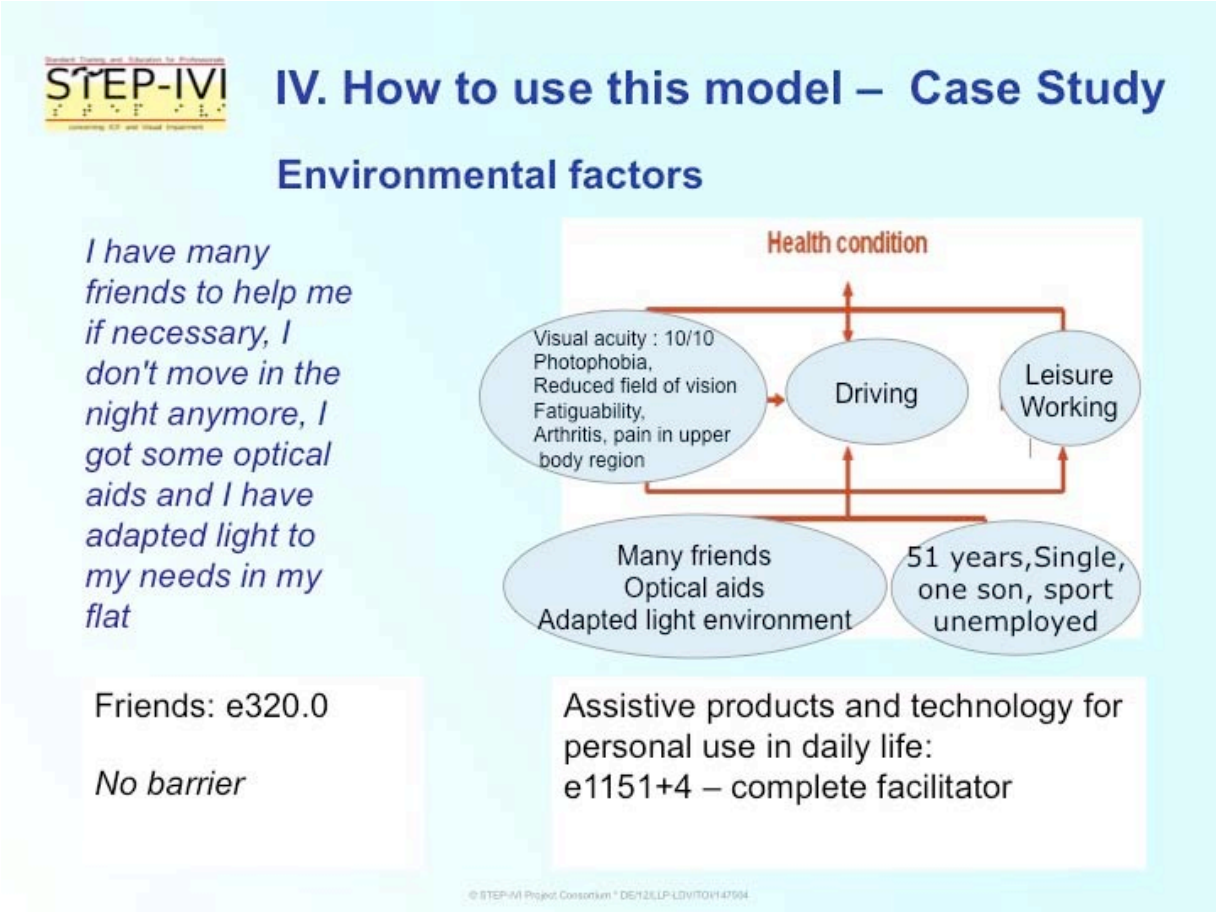
Mrs. Smith: *"I have many friends to help me if necessary, I don't move in the night anymore, I got some optical aids and I have adapted light to my needs in my flat."*

4.9.7.2 Friends

1. Environmental Factors: **Helping friends**
2. Coding: **e320.0 (No barriers)**

4.9.7.3 Assistance and devices

1. Environmental Factors: **Assistive technology available. Personal environment adapted**
2. Coding: **e1151+4 (Complete facilitator)**
3.



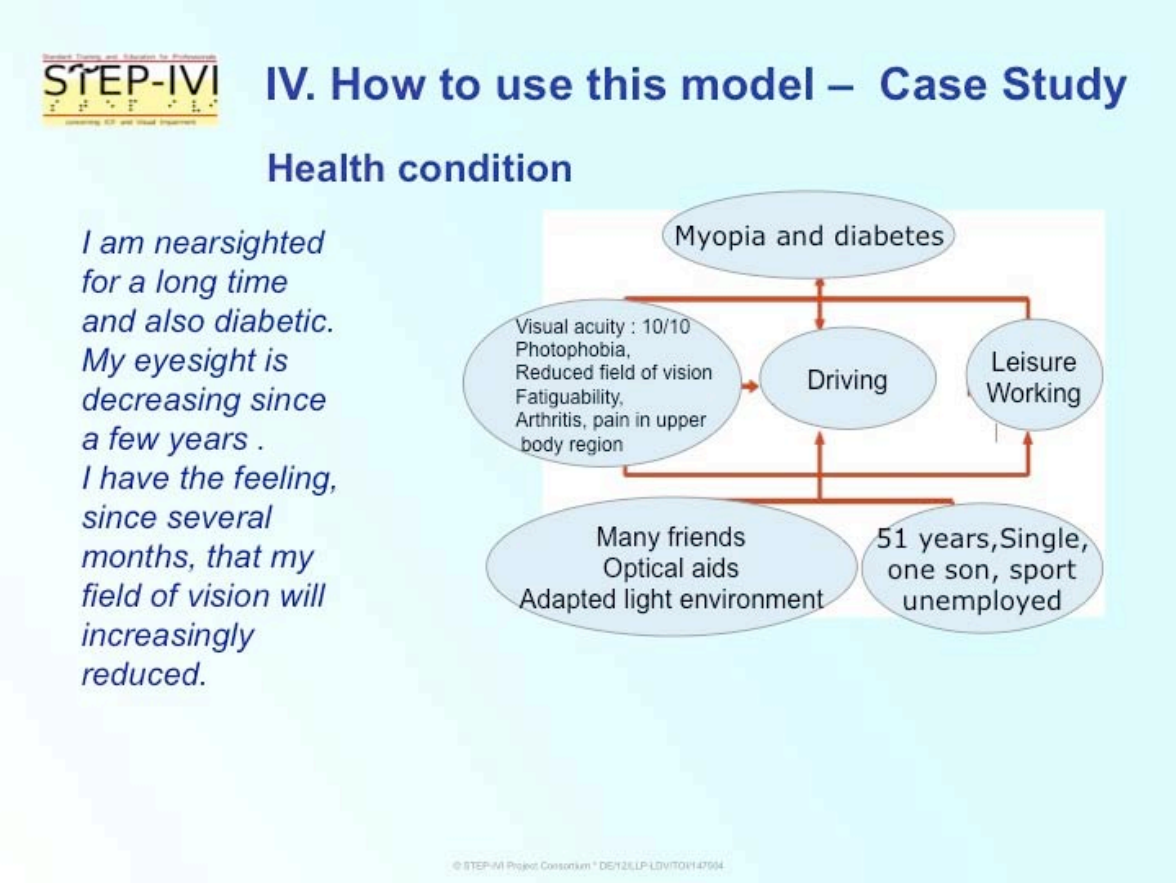
4.9.8 Health condition

4.9.8.1 Relevance of health condition

A health condition is an umbrella term for disease, disorder, injury, trauma.

Mrs. Smith: *"I am nearsighted for a long time and also diabetic. My eyesight is decreasing since a few years.I have the feeling, since several months, that my field of vision will increasingly reduced“*

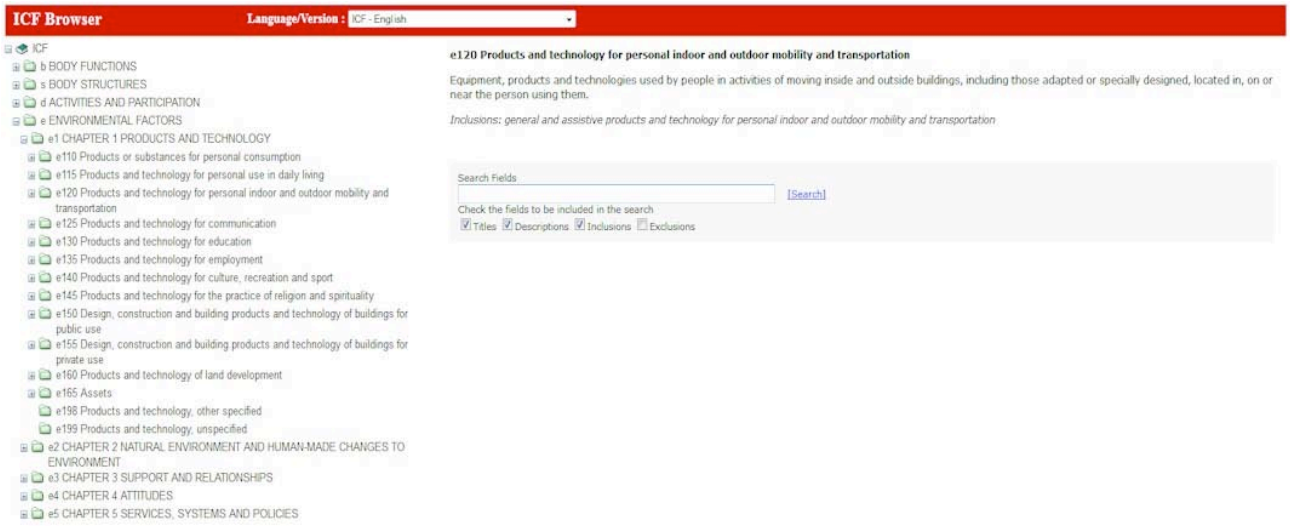
Diagnosis: Myopia and diabetes



4.10 How to use ICF in every day life and How to find the correct coding?

As you can see, the coding follows defined principles and each componet has a specific rule for using the qualifiers.

It is obvious that nobody can learn the terminology and the codes by heart. The WHO itself developed an online tool, which is accessible on the internet. It can be found at the web adress: http://apps.who.int/classifications/icfbrowser/ and offers the research or the view an all items of the ICF.



4.11 Congratulations

Dear participant you finished this module and the complete course. We hope you enjoyed the course and you received enough information, which enables you to work with the ICF in your job.

5 Bibliography

World Health Organization; *International Classification of Functioning, Disability and Health*, Geneva 2001

World Health Organization; *Towards a Common Language for Functioning, Disability and Health,* Geneva 2002