

Development of innovative training solutions in the field of functional evaluation aimed at updating of the curricula of health sciences schools



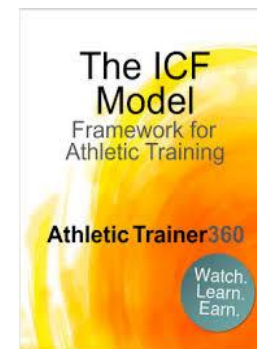
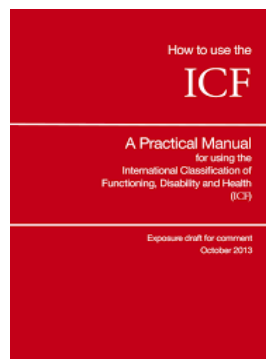
MODULE: EVALUATION: CONCEPT AND METHODOLOGY

Didactic Unit A: CLASSIFICATION OF ACTIVITIES AND FUNCTIONS ACCORDING TO THE ICF SUR



Introduction

The terminology of the International Classification of Disability and Health (ICF) makes it possible to describe the functioning of a person in conjunction with his health problems. It is not the classification of people, but their functioning referred to the human body, human activity as individuals and their participation in society. It does not treat disability and health as merely characterising (or reducing the functioning of the individual), but also takes into account the relationship between the individual and the environment in which it operates [1].



Basic terminology ICF

From the ICF perspective, one can distinguish basic terminology / definition approaches:

- **Functions of the human body** (including mental functions) are physiological processes of individual body systems.
- **The structures of the human body** are its anatomical parts such as organs, limbs and their components.
- **Impairments** are changes in function or structure of the body, such as loss or significant deviation from the normal state.
- **Activity is a person's** execution of a task or taking action.
- **Participation** is the involvement of a person in certain life situations.
- **Activity restrictions** are the difficulties a person may have in taking action.
- **Restrictions on participation** are problems that make it difficult for a person to engage in life situations [2].

Basic terminology ICF

- **Contextual factors** (arising from context): these are products that, taken together, are the full overall context of an individual's life, and includes the basis for disease diseases, are classified in ICF.
- **Personal factors** are a component of contextual factors, relate to an individual, and include characteristics such as age, gender, social status, life experiences [2].
- **Environmental factors** create a physical and social environment and a system of attitudes in which people live. [2].
- **Health states and health domains** - this is the level of functioning within a given health area at the ICF.
- **Health-related states and health-related fields**: The health-related condition is the level of functioning within a given area of health ICF.

Basic terminology ICF

- **Health-related** states and health-related fields: The health-related condition is the level of functioning within a given area of health ICF.
- **A medical condition** is a broad term to cover a disease (acute or chronic), disorder, injury or injury.
- **Functioning** is a broad concept for body function, body structures, activity and participation.
- **Disability** is a broad concept that includes impairment, restriction of activity and restrictions on participation.

[access: 07.02.2020]



Basic terminology ICF

- **Facilitation** are factors in the environment of an individual which, through their presence or lack thereof, improve the functioning and reduce disability.
- **Barriers** are factors in the environment of individuals that limit the functioning and cause disability.
- **Ability** is a term that indicates, as a qualifier, to the highest possible level of functioning that an entity can achieve in the field of the Activity list and participation at any given time.
- **Execution is a concept** that it describes as a qualifier, what people do in their current environment, and thus presents an aspect of each person's involvement in life situations.

[aces: 07.02.2020]



The objectives and characteristics of the ICF

- the creation of a scientific basis for understanding and researching health issues and related states, outcomes and determinants;
- establishing the common language applied to the description of the health and states connected with the health, in order to streamline the intercommunication of different users, like e.g. of health service employees, researchers, decision-makers and the society, including disabled persons;
- to enable the comparison of data from different countries;
- the creation of a structured encoding scheme for information systems in the field of health.



The ICF Classification

The ICF classification primarily determines what should be the subject of a measure, and therefore which areas – in the language of the ICF called "categories", and what are the dependencies between them.



The ICF Classification

ICF categories are organised in two parts:

Part one: the functioning and Disability:

1. Functions and structure of the (construction) of the body,
2. Activity (activity) and Participation

Part two: Contextual Factors:

1. Environmental Factors,
2. Individual Factors

ICF

Classification ICF-justification

Each of the presented parts has two components. For the first part of the “**Functions and structure of the body**” and “**Activity and participation**”. The first component of the human body contains two classifications, one includes the functioning of body systems (actions), and the second structure (construction) of the body. The second component includes a full range of areas concerning the operation both from the perspective of the individual and the society.



Classification ICF-justification

- These areas are related to such qualifiers as ability and execution.
The capacity is the highest possible way to perform the activity in the standardised environment. While the implementation defines the capabilities of the activities by the people in the (current) environment.
- The difference between capacity and implementation illustrates the limitations posed by taking the steps in the current environment, and provides the basis for actions to improve the situation.

ICF

Classification ICF-justification

In the second part of the first component there are "environmental factors", and the second "personal factors". Personal factors are not classified in ICF due to related social and cultural diversity. They include: gender, race, age, physical fitness, lifestyle, habits, way of dealing with the difficulties. If necessary, an assessment of their impact on the field of operation is left to the user.

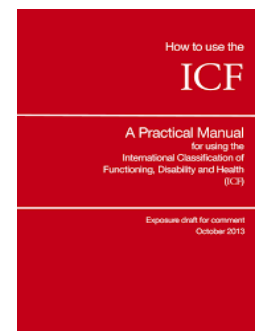


Classification ICF-justification

In the case of environmental factors, the first qualifier may be used both to determine the scope of positive environmental aspects, i.e. facilitations, and to determine the scope of negative effects, i.e. barriers.

Environmental factors can be encoded (a) with respect to each design individually or (b) in general, without reference to a specific design.

Preferce for the first option, as indicating better the effect of the factor.



CLASS ACTIVITY



CLASS ACTIVITY

Problematic questions

The first task we do in groups

Each group will answer two questions about:

- identifying and discussing the objectives of the Classification of ICF
- why use ICF classification to describe human health?

The answer is given by a representative of the group

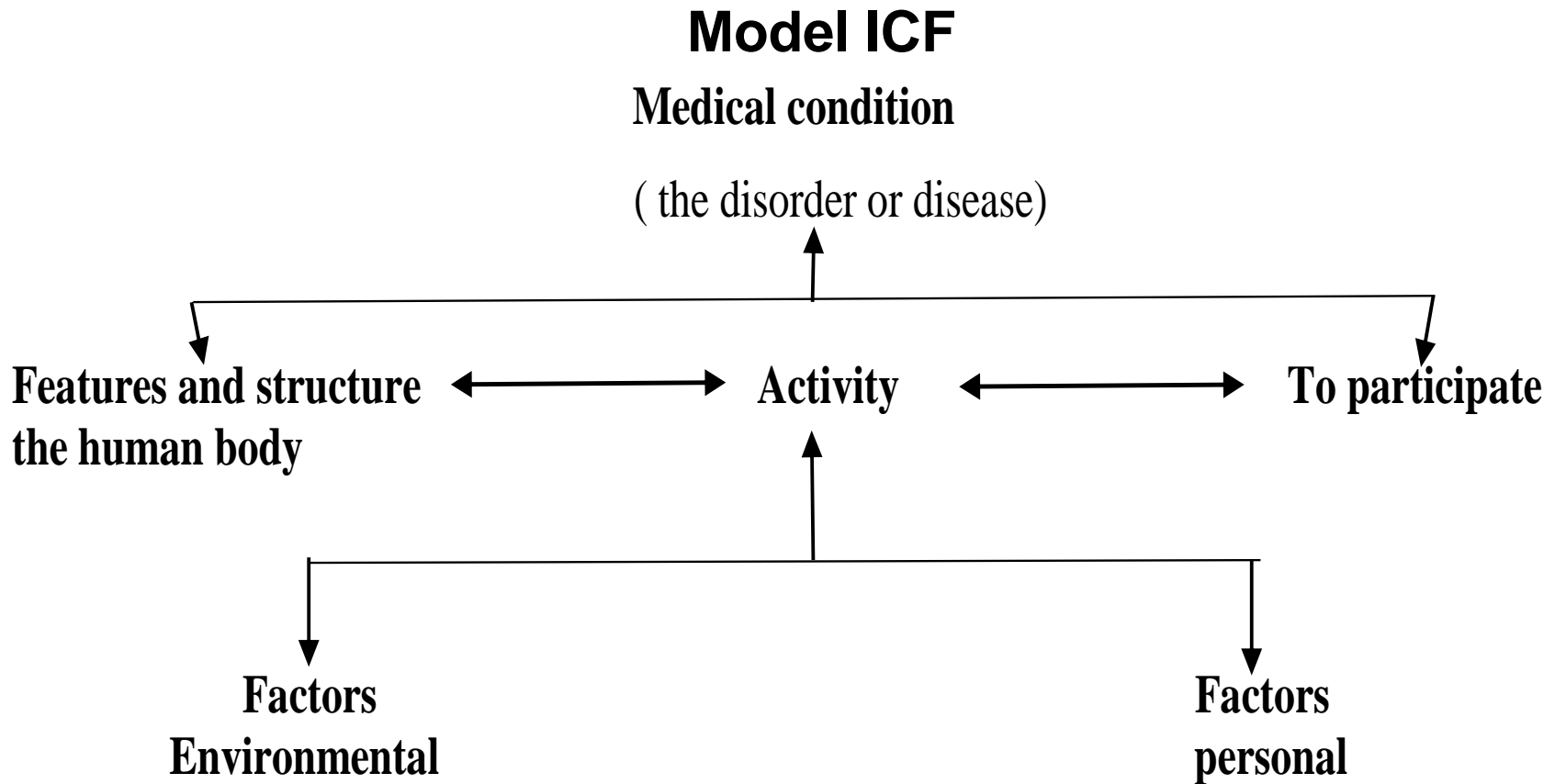


Model ICF



Model ICF

ICF provides a multidimensional approach to classifying functioning and disability as an interactive and evolutionary process. It provides "structural modules" to users who want to create models and explore different aspects of this process. In this sense, ICF can be seen as language: texts that can be created with it depend on users, their creativity and scientific orientation. The following diagram can be helpful in understanding the current meaning of the relationship between the individual components: [2]

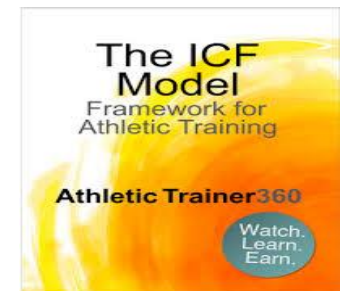


Medical model and disability

The medical model perceives disability as a personal problem, directly caused by illness, injury or other medical condition, requiring medical care in the form of individual treatment provided by professionally prepared persons.

The aim of disability management is to heal or adapt the individual and change his or her behavior.

Medical care is seen as a key issue and at policy level, the main response is to modify or reform health care policies.



Social model and disability

The social model of disability, in turn, sees the issue as a problem created by people and basically as the issue of full social integration.

Disability is not a feature of the unit, but rather a complex set of states, many of which are a result of the social environment.

Therefore, the procedure requires social action, and the society as a whole with its collective responsibility to modify the environment necessary for the full participation of the people with disabilities in all areas of life social.



Medical and social model in the ICF

ICF is based on a combination of these two extreme models.

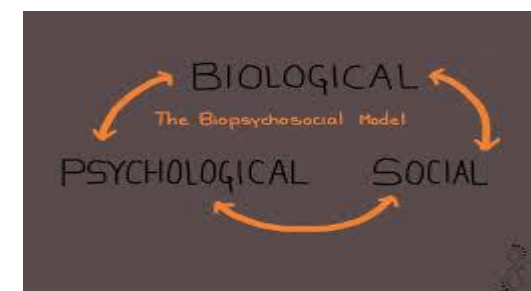
A 'biopsychosocial' approach is used to capture the integration of different dimensions of functioning.

The objective of ICF is, therefore, to produce a synthesis that provides a coherent picture of various dimensions of health at biological, individual and social levels.



Bio-psycho-social model of functioning and disability

Finding the right description, understandable worldwide, of how people with disabilities function seems to be crucial in the light of an ageing population, globalisation and the growing need for healthcare and social systems. The WHO responded to this need. ICF is often described as an inclusive bio-psycho-social model of functioning and disability. This classification provides a standard language and a common framework for describing human health and health problems [3]



The structural characteristics of the ICF classification

ICF provides a standard, operational definitions of health and health-related areas in contrast to the popular definition of health.

These definitions describe the essential characteristics of each discipline (e.g., quality, properties, and relationships) and shall contain information about the area it includes and excludes.

Definitions contain commonly used checkpoints to assess all that you can encode.

The structural characteristics of the ICF classification

The ICF classification is organized hierarchically. It consists of two parts consisting of two components:

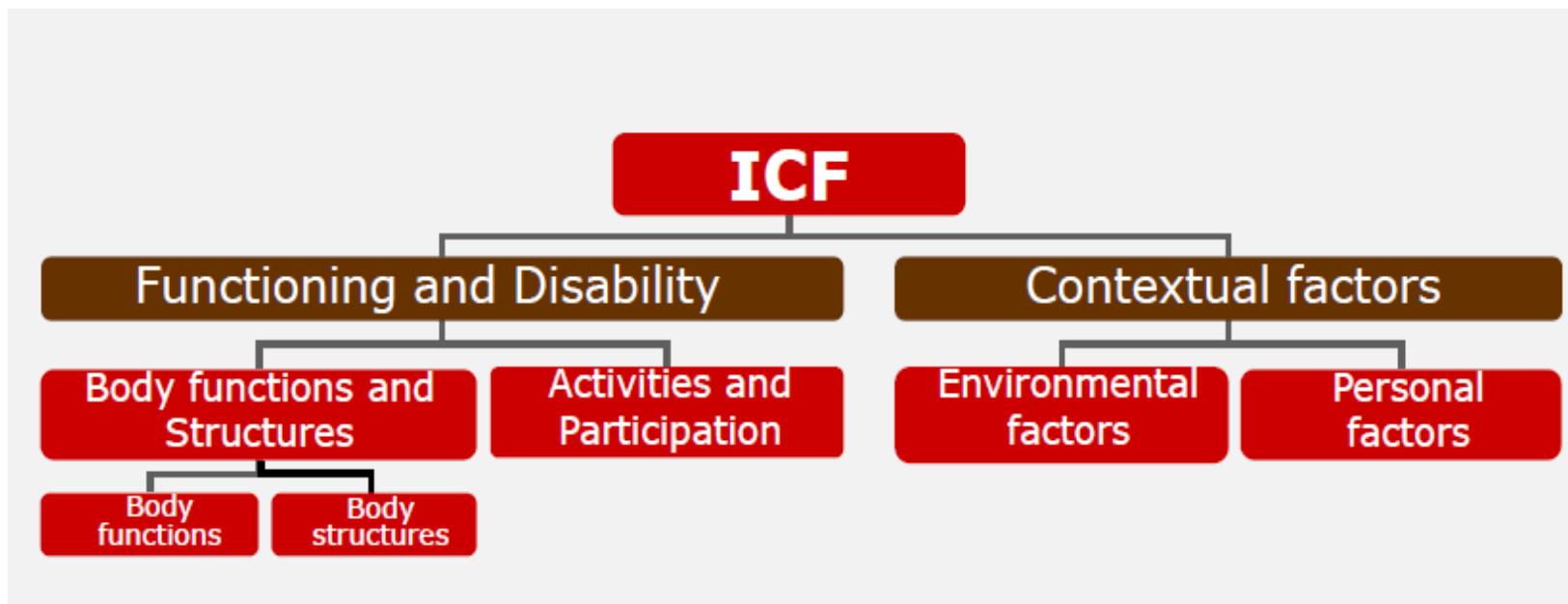
1) Functioning and disability:

- a) Human body functions (code b) and Human body structures (coded s),
- b) Activity and participation (coded d).

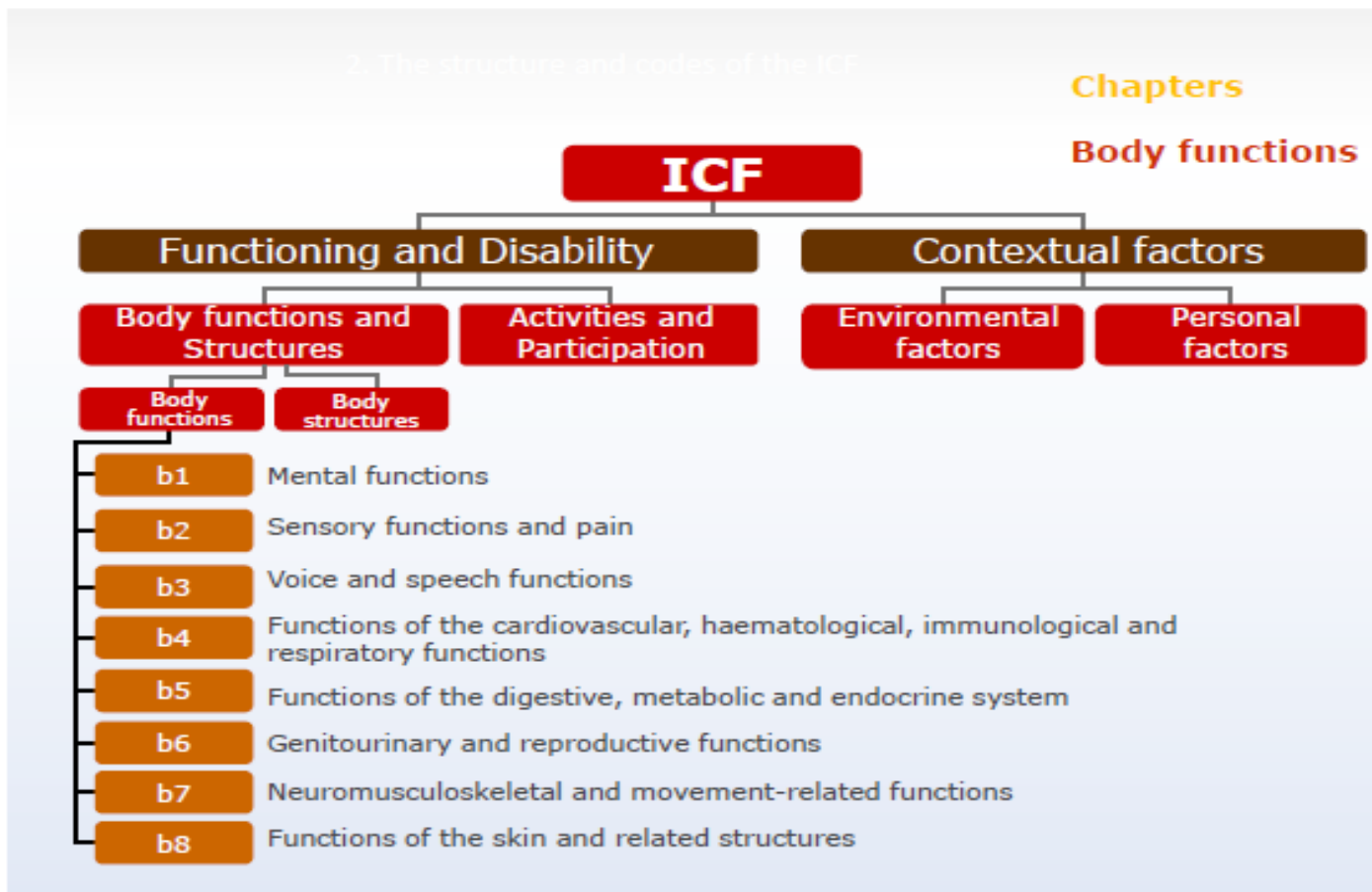
2) Contextual factors:

- a) Environmental factors (code e),
- b) Personal factors – not yet classified in ICF [4,2,3].

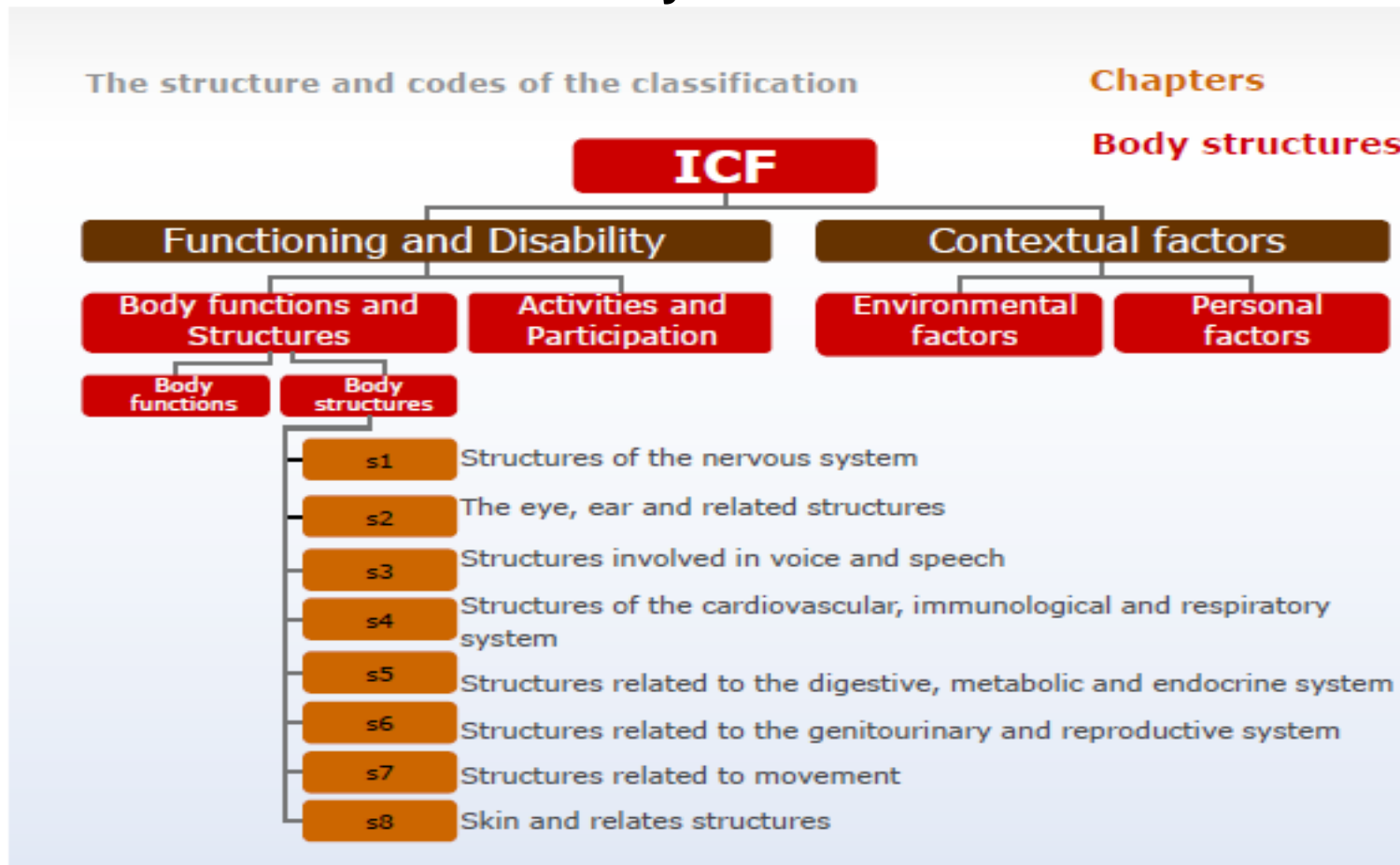
General structure of ICF



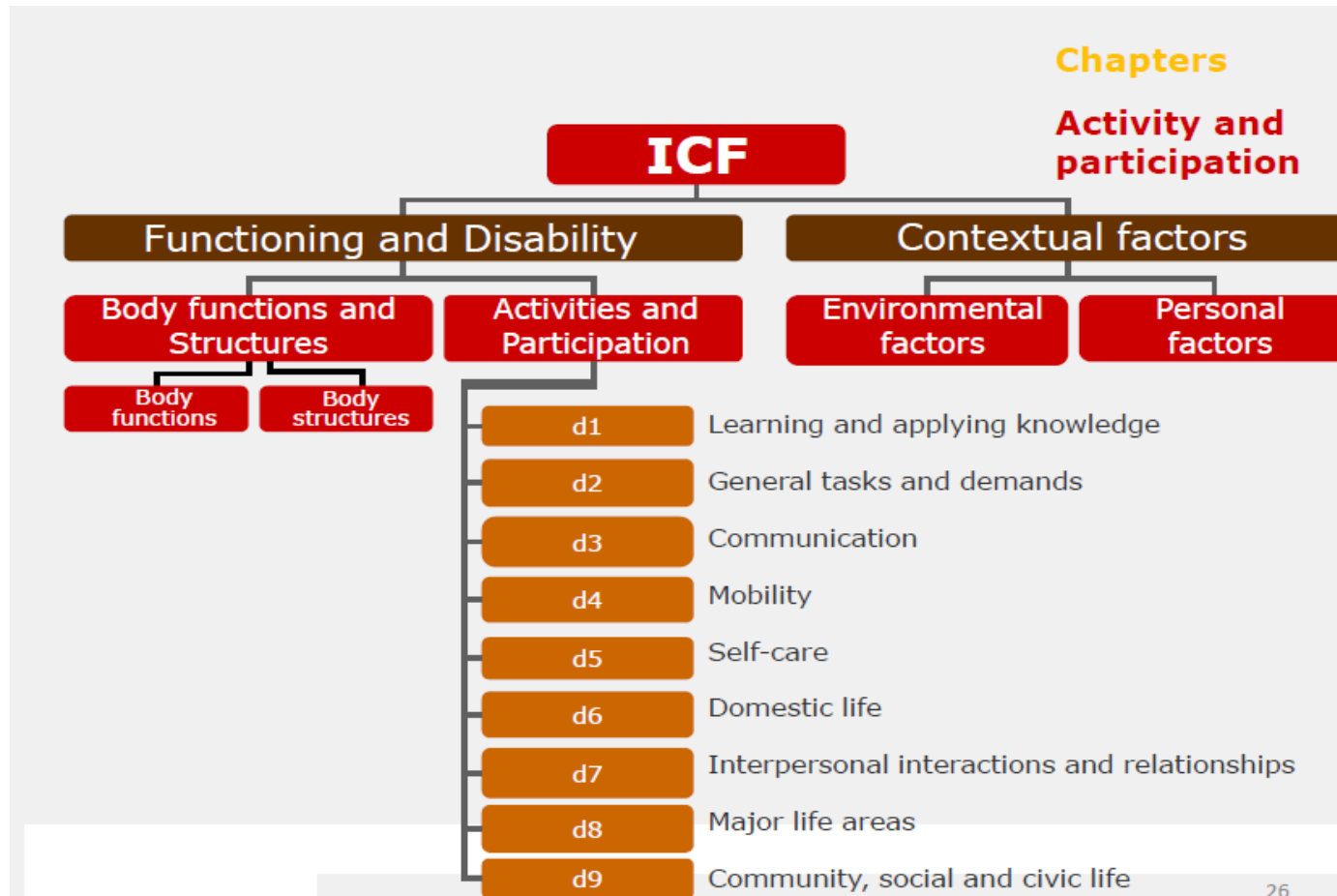
Body functions



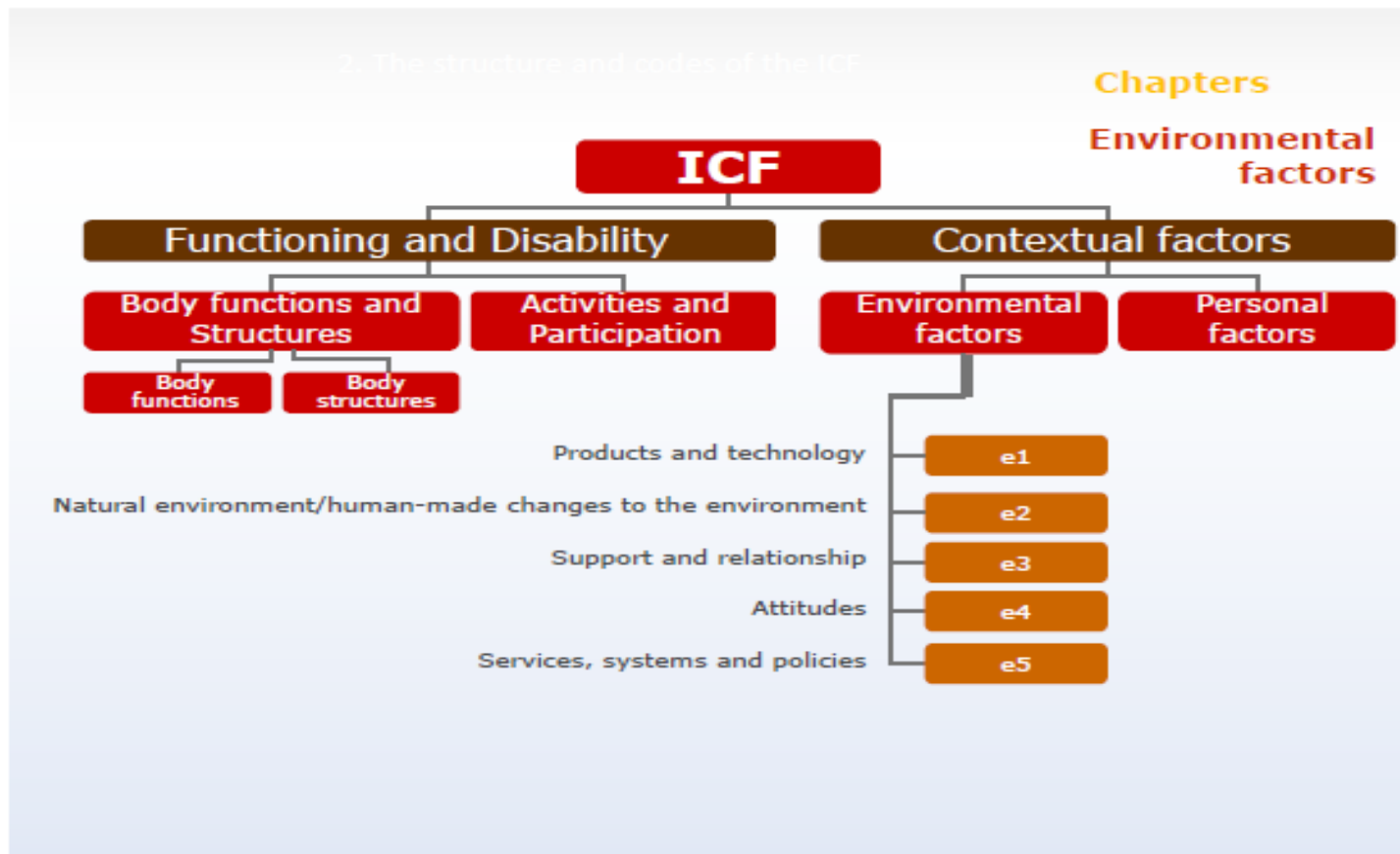
Body structure



Activity and participation in the structure of ICF



Contextual factors by ICF Classification



The structural characteristics of the ICF classification

ICF categories are "nested" so that wider categories contain more specific subcategories (for example, Chapter 4 in part, activity and participation on the topic to move includes separate categories such as state, sitting, walking, moving items etc.).

A short version (Simplified) classification has two levels, while the full version (detailed) includes four levels



ICF - coding



ICF qualifiers.

ICF codes are complete only if they appear together with a qualifier indicating the level of health (e.g. severity of the health problem). Qualifiers are in the form of one, two or more digits after the decimal point (or separator). The use of each code should be accompanied by at least one qualifier. Without qualifiers, the codes are not meaningful.



ICF Code = Prefix + numeric code + ICF qualifiers

The structural characteristics of the ICF classification.

In case of coding "no problem" or "total problem,, the measurement has a margin of error of up to 5%.

While the assessment of "moderate problem" goes back to the middle of the scale, determining the full difficulty. Interest periods must be scaled in individual domains (areas) in relation to the standards of the population such as percentiles.



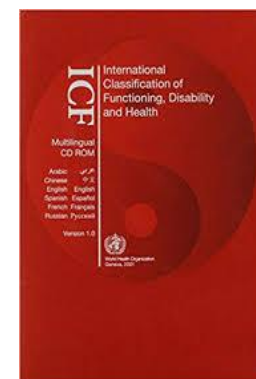
The structural characteristics of the ICF classification.

xxx.0 No problem	(no, absent, irrelevant,...)	0-4 %
xxx.1 Slight problem	(small,...)	5-24 %
xxx.2 Moderate problem	(the average, disputes,...)	25-49 %
xxx.3 Significant problem	(great, strong,...)	50-95 %
xxx.4 Extremely big problem	(complete,...)	96-100 %
xxx.8 not specified		
xxx.9 not applicable		



The structural characteristics of the ICF classification.

- In the ICF health of a person and the items associated with it are determined through a series of codes that include both parts of the classification. Therefore, the maximum number of codes for one person is 34 on the 1-digit level (8 functions of the human body, 8 body structures, 9 for implementation and 9 for capacity).
- Similarly, the second level of the code is 362. For a more detailed classification, the code is 1424.
- In real-world applications ICF set from 3 to 18 codes may be sufficient to describe the case of accuracy to the second level (three digits).



ICF Qualifiers.

The classification of components	First qualifier	Second qualifier
Functions of the body (b)	<p>A single qualifier with negative scale used to determine the degree or the size of the impairment.</p> <p>Example: b 176.3 means strong impairment of specific mental function the use of language</p>	<p>the lack of</p>

ICF Qualifiers.

The classification of components	First qualifier	Second qualifier
<p>The structure of the body (s)</p>	<p>A single qualifier with negative scale used to determine the degree or the size of the impairment.</p> <p>Example: s 730.3 indicates a serious impairment of the upper limb</p>	<p>Used to determine the nature of the changes to the corresponding parts of the body:</p> <ul style="list-style-type: none"> 0 No changes in the structure of the 1 complete lack of 2 No part of the 3 an additional part of the 4 incorrect dimensions 5 the lack of continuity 6 incorrect position 7 qualitative changes in the structure, including the collection of fluid 8 not specified 9 does not apply to <p>Example: s 730.32 means no part of upper limb</p>

ICF Qualifiers.

The classification of components	First qualifier	Second qualifier
Activity and Participation (d)	<p>Execution A single qualifier The problem in the current environment, people</p> <p>Example: (d) 5101.1 _ means a small problem with washing the whole body with the use of assistive devices, available to the person concerned</p>	<p>capability A single qualifier In the absence of the aid restriction</p> <p>Example: d5101 ._2 means moderate problem with washing the whole body; implies a moderate problem in case of inability to use the equipment, or the other person.</p>

ICF Qualifiers.

The classification of components	First qualifier	Second qualifier
Environmental factors (e)	<p>A single qualifier with negative and positive for the determination of sizes appropriate barriers and facilitating</p> <p>Example: e 130.2 means that moderate barrier is access to educational assistance. And vice versa, e130 + 2 means that educational AIDS are moderate ease.</p>	the lack of

Two-stage classification ICF

- **Mental functions-**
 - General mental functions (b110-b139)*
 - Specific mental functions (b140-b189)*
- **Sensory functions and pain - Seeing and related functions (b210-b229)**
 - Hearing and vestibular functions (b230-b249)*
 - Additional features of the sense organs (b250-b 279)*
 - Pain (b280 – b289)*
- **Voice and speech functions – (b310 - b399)**

Two-stage classification ICF

- In order to describe the scope of functioning or level of disability and the extent to which the environmental factor constitutes facilitation or limitation, qualifiers have been introduced into the classification. They constitute a common language that allows comparison of population health at individual level in different regions of the country, at the same and different times.*

ICF

ICF qualifier for body function – a person with joint mobility problem



1. Qualifier = extent of the handicap

b7101.3

- XXX.0** no impairment
- XXX.1** mild impairment
- XXX.2** moderate impairment
- XXX.3** severe impairment
- XXX.4** complete impairment

- XXX.8** not specified
- XXX.9** not applicable

[access: 20.01.2020]

ICF qualifier for body structures – anatomical limitation/hand structure

4. qualifier = Extent of impairment

2. q: Nature of impairment

s7302.423

3. qualifier = Location of impairment



ICF qualifier for body structures – anatomical limitation/hand structure

XXX.0 No impairment	XXX._0 No change in structure	XXX.__0 More than one region
XXX.1 Mild impairment	XXX._1 Total absence	XXX.__1 right
XXX.2 Moderate impairment.	XXX._2 Partial absence	XXX.__2 left
XXX.3 Severe impairment	XXX._3 Additional part	XXX.__3 both sides
XXX.4 Complete impairment	XXX._4 Aberrant dimensions	XXX.__4 front
	XXX._5 Discontinuity	XXX.__5 back
	XXX._6 Deviating position	XXX.__6 proximal
XXX.8 not specifiet	XXX._7 Qualitative changes in structure	XXX.__7 distal
XXX.9 not applicable		
	XXX._8 not specifiet	XXX._8 not specifiet
	XXX._9 not applicable	XXX._9 not applicable

Coding according to ICF classification - example

	Code
Body structure	
Body structure	s
Structure of the nervous system	s1
The eye, the ear and related structures	s2
Structures related to voice and speech	s3
Structure of the cardiovascular, immune and respiratory systems	s4
Structure of the cardiovascular, immune and respiratory systems	s4
Structures related to the digestive system, metabolism and the endocrine system	s5
Urogenital and reproductive system structures	s6
Traffic-related structures	s7
Skin and skin-related structures	s8

CLASS ACTIVITY



FRIST TASK

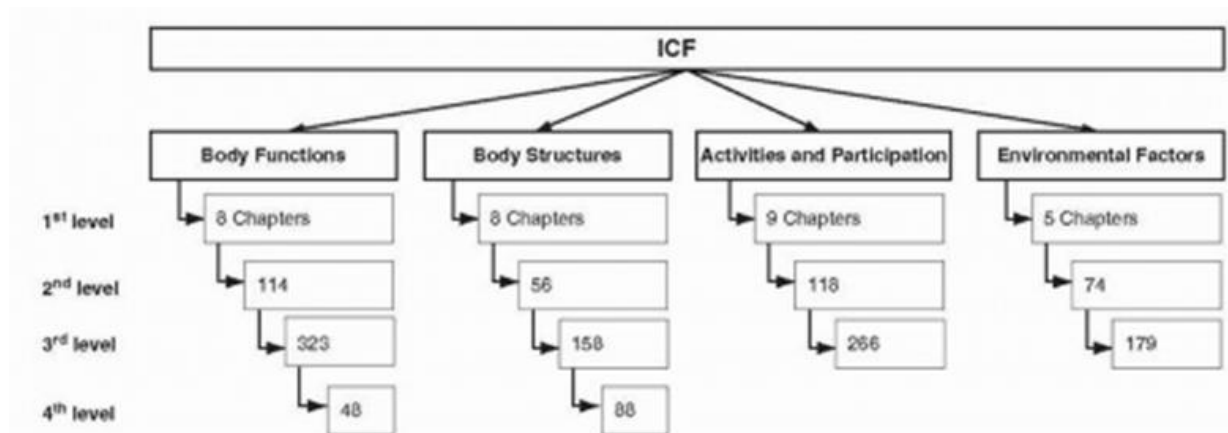
CLASS ACTIVITY - FIRST TASK

First task,

We perform the task in groups

Each group will answer the question:

Why and to what extent ICF codification is a universal language - give an example



CLASS ACTIVITY -coding (second case)

We perform the task in groups

In the course of the task we use the manual

<https://www.who.int/classifications/drafticfpracticalmanual.pdf>

- the first encoding concerns activity and participation for a person with a low level of hand performance,
- the second concerns environmental factors for disabled people (requiring total support)



CLASS ACTIVITY –coding (example)

ICF qualifiers for activities and participation



A. qualifier = **Performance**

d550...../..... B. qualifier = **Capacity**

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

CLASS ACTIVITY –coding (example)

ICF qualifier for environmental factors

1. qualifier = scope of the barrier or facilitator

E310 ...



XXX.0 No barrier

XXX.1 Mild barrier

XXX.2 Moderate barrier

XXX.3 Severe barrier

XXX.4 Complete barrier

XXX.8 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 Not specified

XXX+9 not applicable

CLASS ACTIVITY



Discussion of exercise 1

Discussion of exercise 1

Performance

Describes what an individual does in his current environment. This context includes the environmental factors – all aspects of the physical, social and attitudinal world which can be coded using the environmental factors component.

Capacity

Describes an individual's intrinsic ability to execute a task or an action. This construct indicate the highest probable level of functioning that a person can achieve in a given domain at a given time.

right code d550.23

CLASS ACTIVITY



Discussion of exercise 2

Discussion of exercise 2

Immediate family

Individuals related by birth, marriage or other relationship recognized by the culture as immediate family, such as spouses, partners, parents, siblings, children, foster parents, adoptive parents and grandparents [5, s. 187].

In relation to the presented parts of the classification, it is noted that, contrary to the traditional view that disability concerns only the person affected, this change emphasizes the idea that disability is a social structure based on the interaction of the person and the environment [17, 18].

Right code = E310+04

CONCLUSION

Classification allows you to look at man complementarily by establishing a standard and unified language in the health description and the conditions associated with it. The International Classification of Disability and Health ICF covers all aspects of the functioning of the human unit, as well as some elements of physical and mental well-being that are important for a healthy Human [2, 3].

ICF

On-line materials

From the perspective of practical exercises, specialist literature can be used (among others practical ICF manual):

- <https://www.who.int/classifications/drafticfpracticalmanual.pdf>



On-line materials

An important issue is also the general availability of the worked out examples of individual cases:

Proposals can be found on the: <https://www.icf-casestudies.org/>



On-line materials

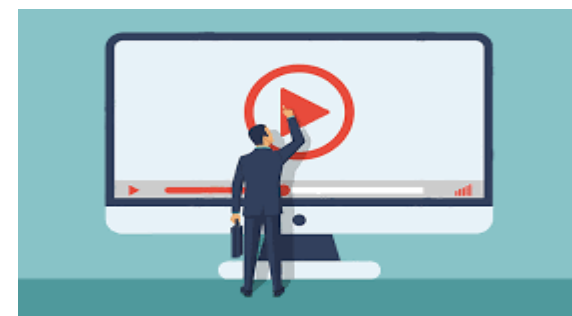
Animated videos are also important teaching aids:

1) Video 1 SA: What is the International Classification of Functioning, Disability and Health (ICF)?

<https://www.youtube.com/watch?v=lwfn6NutlZM>

2) Video 5 NA: How do different parts of the ICF work together?

<https://www.youtube.com/watch?v=Vj7cF63egGU>



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Thank you for your attention





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