Erasmus+ Project SEC4VET Social Emotional Competences for VET

Erasmus+

IO 4 Module 2
Learning disability and ICF
Approaches to a systematic classification of learning disabilities

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Project number: 2017-1-DE02-KA202-004136

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IO 4 advanced training modules for the teachers and professionals involved

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What to expect

- Science
- Why ICF?
- Learning disabilities and ICF
- General meaning of ICF
- Learning disability - learning impairment
- Learning disabilities and ICF
- Practical application example 1
- Practical application example 2: Standardised clarification procedure (SAV) - Switzerland
- Reference: Ignorance

Science

Science

Science is and remains what one writes off from the other - but nevertheless, it is absolutely undisputed that it constantly advances.

Eugen Roth (1895–1976)

Why ICF?

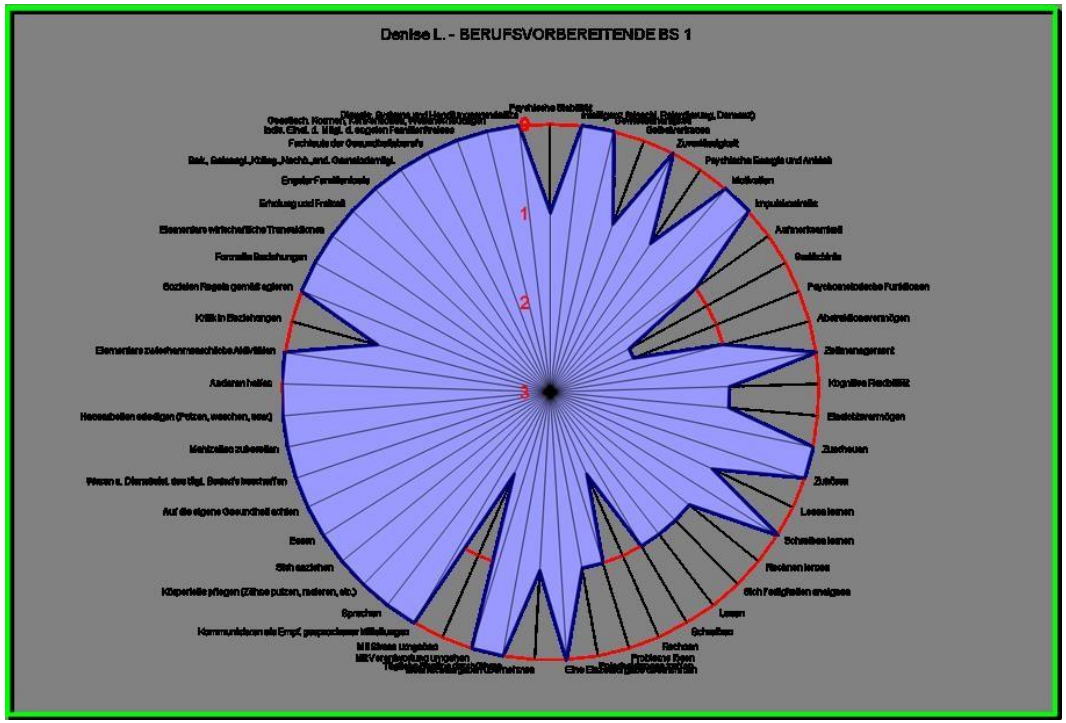
- ICD: International classification of diseases
  - The ICD on the background of its bio-medical model is an internationally recognised and interdisciplinary uniform language system for describing disease phenomena.
  - It does not record functional problems in diseases, i.e. negative impacts on the life of an affected person (impairments e.g. mobility, communication, interaction, employment, self-sufficiency, domestic life)
- ICF: International classification of functionality, disability and health
  - The ICF offers a language system for exactly such functional problems and their management in the social security system, including the necessary interventions.

Learning disabilities and ICF(1)

- ICD: International classification of diseases
  - Learning disability is mainly “hidden” under “borderline intelligence” (R41.83) and “developmental disorder of school skills, unspecified” (F81.9) (see below).
  - Learning impairment is not a term of the ICD.
- ICF: International classification of functionality, disability and health
  - There might be a new generation soon of more complex more functional “definitions” within the meaning of the ICF.
  - The ICF classification “learning disability” must first be scientifically developed! However: By whom? Through which research projects?
  - Pointed: What will not be shown in the ICD and ICF in the future, does not exist (conceptually)!

Learning disabilities and ICF(2)

- Spider diagram: 53 chapters (categories); 16 slight, 4 significant impairments (memory, psychomotor functions, arithmetic, dealing with stress)



General meaning of ICF (1)

- The ICF offers a cross-disciplinary “anti-Babylon” language for the manifestations of functional health and its impairments and leads to an understanding based on language conventions.
- Benefits: The ICF as a multi-purpose classification ...
  - is understandable (hopefully!) beyond professional boundaries.
  - It tries to reflect all the relevant factors interactively that have an impact on the “disability” phenomenon.
  - It is able to represent combinations various influences and so-called multiple disabilities.
  - It is operational due to assignable measurement methods.
  - It enables data comparisons and (interdisciplinary) research.

General meaning of ICF (2)

- Limits: The ICF as a multi-purpose classification ...
  - is not a classification of functional diagnoses. With it, however, taking into account the context, functional symptoms and findings are described and integrated.
  - It is not and does not deliver measurement methods for operationalisation and evaluation of the individual factors and their interaction. They have to be recruited from established systems, e.g. the ICD.
  - It is not an instruction.
  - It is “only” a 5-factorial, deeply graded, person-environment analysis instrument that can be validated, on the basis of which the individual disciplines can communicate and work together to achieve individual goals of participation.
  - With 5 factors it sets high requirements to complex thinking (10 simple dependencies, 10 3rd order interactions):

General meaning of ICF (3)

- When I build using this system / and look at everything together, then I secretly hope, God willing, / that the practice

  will not work.

- It is in the general representation of a health problem, such as learning disability, and can be considered only as good as many evidenced research results, including those with a high degree of resolution, e.g. from neurobiology.
- It is in the specific representation of the health problem of a person with learning disabilities only as good as the operationalised diagnostics recorded, objective, reliable, valid, in individual cases and the theoretically sound integration of the findings to one diagnostic judgementthat justifies appropriate treatment, therapy, support and the like.

General meaning of ICF (4)

- Basic structures of the ICF model

  - Disability is understood ultimately as a restriction of participation opportunities (= dependent variable) from the interaction of several, in principle, equal but individually different obstructive causes in person and (environment-) situation (= independent variables): R = f (P, S)

General meaning of ICF (5)

- ICF = Person-centered system of six elements: a dependent variable (health problem), five independent variables resp. factors (components)
- Multifactorial causality: Simple and complicated (interactive) dependencies of the five components:

  (b ⇔s) ⇔d (+ p) ⇔e ⇔(i) ⇨health

  Explanation: b = body functions, s = body structure, d = (daily) activities {a = activity (performance, capacity) and participation (p = participation)}, e = Environmental factors, (i = Personal factors)
- For comparability of individual cases, the components of the model are divided in chapters and stored with items = atomistic classification hierarchy according to type and degree with up to eight digits, max. 1.424 items.

General meaning of ICF (6)

Digression: “Interaction is the first thing we encounter when we consider the matter as a whole, from the point of view of today’s natural science [up to approx. 1882]. We see a number of forms of movement [variables], (…) all of which (…) merge into one another, mutually condition one another, here cause, there effect, (…) this is how it is confirmed in natural science what Hegel says (e.g. in logic I/2, 240f.) that the interaction is the true causa finalis [ultimate cause] of things. (…) Only from this universal interaction do we come to the real causal relationship. In order to understand the individual phenomena, we have to remove them from the general context, consider them in isolation, and *there* the changing movements appear, one as a cause, the other as an effect. “(Friedrich Engels [1882, 1961]. Dialectics of nature. p. 246f.)

Learning disability - learning impairment (1)

- Definitions of Learning disability ...
  - tried quasi objective specific characteristics for the unequivocal determination and delimitation of the phenomenon above all significant school failure of a person.
  - A descriptive working term, from Kanter (1998) with the features of extensive, serious and long lasting (school) learning and performance failure.
  - However 1: "*Learning disability is a broad and complex border syndrome on the continuum between 'intellectual disability' in the narrower sense and 'normal development', without forming a qualitatively separate, unambiguous and clearly delimited fault category*." - a disability at the second glance"(Eser, 2005)

Learning disability - learning impairment (2)

- However 2: Difficulty learning is not just a personal characteristic or disorder, but is always a development in a specific societal-social context. (Relational disability; Vygotsky (1934): Social, cultural and historical conditions of human consciousness)
  - 1978 Thimm & Funke: approx. 90% of all L-students from “lower class”
  - 1997 Cloerkes: but <10% of all students from “lower class” in School L

Learning disability - learning impairment (3)

- That is why the KMK created in 1994 the term Learning impairment - ultimately a “play on words” (Wittgenstein, 1953): Learning impairment is scientifically recorded as no more exact than learning disability! It conveys ...
  - no clearly defined learning obstacles or a specific appearance.
  - no specific indications for pedagogical or special pedagogical deducible support.
- Digression: The terms “affect”,”impairment”
  - strive ⇨ lat. tractare: “drag around”, plague, torment, ...
    ⇨ make/become a plague or torment: Learning impairments = “State in which learning is (made) a torture”
  - also: Restrict harmony (integrity, salvation), endanger

Learning disability - learning impairment (4)

- Learning impairment is at most a working term, with which a contextual perspective of learning failure should be associated. It includes Werning & Lütje-Klose (2012) people who
  - due to significant [serious] and more diverse [more extensive] difficulties (Nota bene: Which exactly?) are and will be impaired in their learning,
  - often fail at school and
  - due to their mostly considerably more difficult living and development conditions (Nota bene: Which exactly?) need [long-lasting] more competent educational support.

Learning disabilities and ICF(1)

Health problem: Learning disability (according to ICD – 10)

- General: If a health problem leads to an impairment of the person's ability to function at one level - their bodily functions and structures, activities, opportunities to participate - then a functional health impairment exists within the meaning of the ICF.
- Specific: The health problem "Learning disability" is counted according to the "*Participation report of the Federal Government on the living conditions of people with disabilities*" (2013,
  P. 390) among the mental impairments [within the meaning of impairment of psychological functions in general, which in particular also include the cognitive functions, for example perception, learning, memory, thinking, etc.].

Learning disabilities and ICF(2)

- These [mental impairments] include “all intellectual (developmental disorders, learning disability, ...), mental (psychoses, neuroses, behavioural disorders, addictions, ...) and psychological consequences cerebral and physical diseases according to the handicap statistics, which fulfil the definition of SGB IX and BGG (...) and in the context of unfavourable living conditions have become a disability.”

- Classification: Learning disability
  - R41.83 Borderline intelligence (borderline intellectual functioning) with a Below Average IQ (BAIQ) of 70-85
  - F70 Slightly impaired intelligence (mild mental retardation) in an IQ range of 50-69
  - The demarcation of slight intellectual disability and more serious learning disabilities can be problematic.

Learning disabilities and ICF(3)

- Comorbidities: Possible accompanying disorders
  - F80-89 Developmental disorders, in particular F80-83 (specific developmental disorders of speech and language, school skills (F81), motor functions and combined specific developmental disorders)
  - F90-F98 Behavioural and emotional disorders starting in childhood and adolescence
- Explanations
  - The WHO, which is clearly obligated towards the Anglo-American welfare system, does not work in its ICD-10 scale with the term “learning disability”.

Learning disabilities and ICF(4)

Designation according to ICD-10	Intelligence level (IQ) according to ICD-10 (F7) I German degrees		Designation according to German degrees
Borderline Intelligence	70 – 85	80 – 89	Borderline cases
Slight Im (F70)	50 – 69	original: 55 – 85 today: 70 – 85	Learning disability
Moderate Im (F71)	35 – 49	40 – 54	Mental disability
Severe Im (F72)	20 – 34	25 – 39	
High Im (F73)	< 20	< 25	

Learning disabilities and ICF(5)

- The classification R41.83 belongs to the group R00 – R99, more precisely to
  - R40–R46: Symptoms and signs that affect the thinking, the perception
    the emotional status and the behaviour
  - and precise to R41: other symptoms and signs that affect the cognitive functions and the awareness .
- In the USA, in the absence of a vocational rehabilitation system, such as has been known in Germany since 1970 , for this group of people a less comprehensive and ultimately less satisfactory training for employability (not professional ability), is provided for example through supported learning (training-on-the-job) or similar offers.

Learning disabilities and ICF(6)

1. Body functions and structures (b, s) - of humans as biological beings
   - This level concerns medical describable aspects of a learning disorder that may have arisen in different ways, e.g. due to intellectual disability genetic factors, lack of oxygen during childbirth, an illness, an accident or due to a developmental disorder.
   - However, this only applies to a small proportion of young people with learning disabilities. A rough damage (due to chromosome abnormalities, e.g. Klinefelter syndrome, meningitis, hormonal or metabolic disorders) in this sense can only be detected in exceptional cases.
   - However: Learning is carried out on a fineneurological and fineanatomical level, especially in synapses and in the working memory.

Learning disabilities and ICF (7_1)

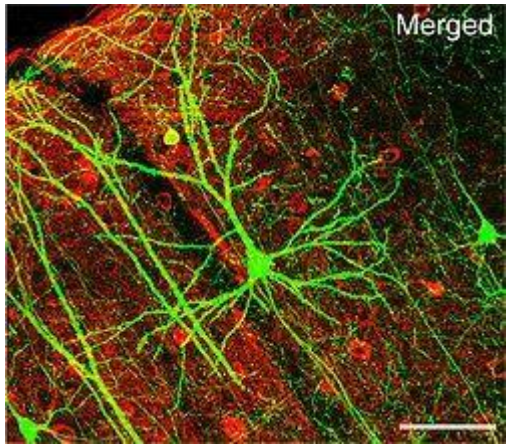
Digression: Neurobiology of learning - intelligence, neural efficiency and working memory (Borkenau et al., 2005)

1. Cognitive Direction: Identification of elementary cognitive processes that contribute to the efficient processing of problem-solving tasks. Two “basic components”:
   - Speed of information processing ⇨ L = relatively slow
   - Working memory capacity ⇨ L = limited memory
2. Neurobiological Direction: Bio-psychological imaging procedures prove:
   - Intelligence is an expression of general brain properties, especially of a good 100 billion neurons and even more synapses (neural efficiency).
   - It may be primarily localisable in certain areas: prefrontal cortex. (Duncan et al., 2000: Frontal lateral cortex in G-factor tasks [“reasoning”; Spearman, 1904] highly activated.

Learning disabilities and ICF (7_2)

- The neural efficiency can be explained by the (physical and bio-chemical) properties of nerve cells (neurons):
  - Number of synapses
  - Synaptic efficiency

  } Learning and forgetting takes place at synapses ! (KZG - Brain<u>activity</u>, LZG - Brain<u>structure</u>)
  - Myelination (shielding) of the axons = susceptibility to short and false circuits
  - Dendritic branching (Density dependent on environmental stimuli / impulses!): What is learned is saved as the <u>interconnection</u> of many nerve cells = LZG!



Learning disabilities and ICF(8)

Classification (Mental functions): Learning disability

- b114 functions of orientation
- b117 functions of intelligence: *General mental functions that are required to understand the various mental functions, including all cognitive functions, to integrate them constructively and to develop them further over the entire lifespan*.

  Incl.: Functions related to intelligence development; intellectual and mental retardation, dementia.

  Excl.: Functions of memory (b144); Functions of thinking (b160); Higher cognitive functions (b164).

Learning disabilities and ICF(9)

- BBW Reken: “Intelligence is an ‘artistic term’ for which there are a number of different definitions (including basic intelligence, fluid intelligence, crystalline intelligence) and which include a number of different abilities (ability to think logically, general knowledge, arithmetic, spatial imagination, vocabulary, ...)."
  - There are special test procedures for measuring intelligence. In order to arrive at comprehensible and transparent statements about the intelligence of rehabilitation patients, it is therefore most useful to use the results of psychological diagnostics and leave other assessments aside. i.e. intelligence is measured and assessed by the psychological-special education pedagogical service.
- b126 functions of temperament and personality
- b130 functions of psychic energy and drive

Learning disabilities and ICF(10)

- b140 functions of Attention
- b144 functions of Memory
- b147 Psychomotor functions
- b152 Emotional functions
- b156 functions of Perception
- b160 functions of Thinking
- b164 Higher cognitive functions
- b167 Cognitive-linguistic functions
- b172 Arithmetic relevant functions
- b176 Execution of complex movements
- b180 Self-awareness and Time perception
- s110 structure of the Brain

Learning disabilities and ICF(11)

2. Activities (d) - the human being as an independently acting subject
   - This describes how the capacity to act may be restricted by a damage or disorder, e.g. the in the case of difficulty with retention to retrieve the 1x1 rows, with restricted graphomotor skills to write down a handwritten class test or with a speech development delay to organise a conversation.
   - Young people with learning problems (and behavioural problems) are impaired in their activities, especially in the areas oflearning and applying knowledge", "communication" or "dealing with tasks and activities of life". And: School and/or training problems result in serious impairment of participation in work and society.

Learning disabilities and ICF(12)

- Classification: Learning disability
  - d1 Learning and application of knowledge
  - d2 General requirements and tasks
  - d3 Communication
  - d4 Mobility
  - d6 Domestic life

Learning disabilities and ICF(13)

3. Participation (p) in areas of life - humans as a subject in society and the environment

- Participation is the involvement of a person in a life situation or an area of life, e.g. in curricular training, in work or at a religious event.
- Impaired bodily functions and structures and activities can lead to restrictions on the level of social participation in situations and living environments that are significant in their culture, for example when participating in class discussions, when participating in leisure activities or when attending regular school and the choice of profession.

Learning disabilities and ICF(14)

- Classification: Learning disability
  - d7 Interpersonal interaction and relationships
    - d710 Elementary interpersonal activities: *Interact with others in a contextually and socially appropriate manner, such as showing the necessary consideration and appreciation or responding to the feelings of others*.

      Incl.: Show respect, warmth, appreciation and tolerance in relationships: react to criticism and social signs in relationships and use appropriate physical contact.

      - d7100 respect and warmth in relationships*: To show consideration and appreciation and to respond to them in a contextually and socially appropriate manner*.
      - …

Learning disabilities and ICF(15)

- d8 Significant areas of life
  - d810 – d839 Upbringing / education
  - d840 – d859 Work and employment
    - d845 Obtain, keep and finish a job
    - d850 Paid activity
    - …
- d9 Community, social and civic life

Learning disabilities and ICF(16)

Context factors - the human being and his/her entire life background

- Context factors (environmentfactors, personrelated factors) can affect functional health positively (support factors) or negatively (barriers).

4. Environmental factors (e)

- These factors mean that material, social or attitude or behavioural environment outside a person on the level of the individual (face-to-face) and on the level of society (framework conditions).

Learning disabilities and ICF(17)

- Classification: Learning disability
  - e3 Support and relationships
  - e4 Attitudes
  - e5 Services, systems and principles of action

  with important topics such as:
  - Social environment (milieu), family
  - Early intervention, early therapy
  - Special educational support opportunities
  - Vocational rehabilitation facility
  - Labour market

Learning disabilities and ICF(18)

5. Personal factors (i)
   - These factors mean properties and attributes within a person that are not part of the health problem .
   - American suggestions, e.g. gender, race, age, other illnesses, fitness, motivation, lifestyle, habits, upbringing, coping styles, social background, education, occupation, past and current experiences (past and simultaneous events in life), general behaviour patterns and character style, individual psychological strengths, genetic dispositions and other characteristics.
   - German suggestion (Grotkamp, 2012): i1 general characteristics of a person (age, sex, genes); i2 physical factors (build, other);

Learning disabilities and ICF(19)

i3 mental factors (personality, intelligence); i4 attitudes, basic skills and behavioural habits; i5 living situation and socio-economic / cultural factors; i6 other health factors.

- Non-classification: Learning disability
  - Age
  - Gender
  - Family bond
  - Upbringing, education
  - Life goals, lifestyle
  - Living situation
  - Mental constitution

Practical application example 1 (1)

Übersichtsbogen Merkmalsbewertungen

Teilnehmer/in: Florian Bühl
Anlass: FPG 1

Umweltfaktoren	BA	SBG	FD	JLS	LW	BBG	TN	FPG	Bemerkung
Bildungs- und Ausbildungswesen (BBW)	3	3		3			3		
Unterstützung durch allgemeine soziale und gesundheitliche (externe) Dienste	8	3		8			3		
Unterstützung durch den Familienkreis	8	4		8					
Unterstützung durch Freunde, Bekannte, Nachbarn und Kollegen	4	4		8			4		
Verfügbarkeit des Transportwesen	3	2		8			1		
Wohnungswesen	8	4		8			5		

BBW Waiblingen - BA = Company, SBG = Social pedagogy, FD = Specialist service, JLS = School, LW = Boarding school, BBG = Educational support, TN = Self-rating of the participant, FPG = Support plan discussion

Practical application example 1 (2)

- e540: Availability of transportation
  - Description: The presence/availability of means of transport from the place of residence in order to ensure punctual access to the educational institution, place of work and leisure opportunities (if there is not enough or a disproportionately long waiting/driving time has to be managed, then 4 or 5).
  - Description in simple terms: There are enough means of transport where I live to get to my apprenticeship or job on time (and also back home on time), without long journeys or waiting times.

Practical application example 1 (3)

- Forms: Numerical definition with regard to the measure or participation objective
  - 1 = distinctive resources: Skills should be particularly emphasised
  - 2 = no restriction/impairment: Sufficient skills are available to achieve the objective of the measure
  - 3 = slight restriction / impairment: Achievement of goals is possible with the support of the MA in the normal workshop / school / living situation and social education

Practical application example 1 (4)

- 4 = considerable restriction/impairment: Help through additional internal and external support offers is necessary, e.g. counselling for FD, anti-aggression training, ADHD training, self-confidence training, support lessons, addiction counselling centre, ...)
- 5 = complete restriction/impairment: In terms of prognosis, the participation goal cannot be achieved even with additional support
- 8 = not specified: The characteristic cannot (yet) be assessed. The information so far is insufficient for an assessment.

Practical application example 2 (1)

Switzerland: Standardised clarification procedure (SAV)

- Available at: http://www.szh.ch/sav-pes [20-05-2014].

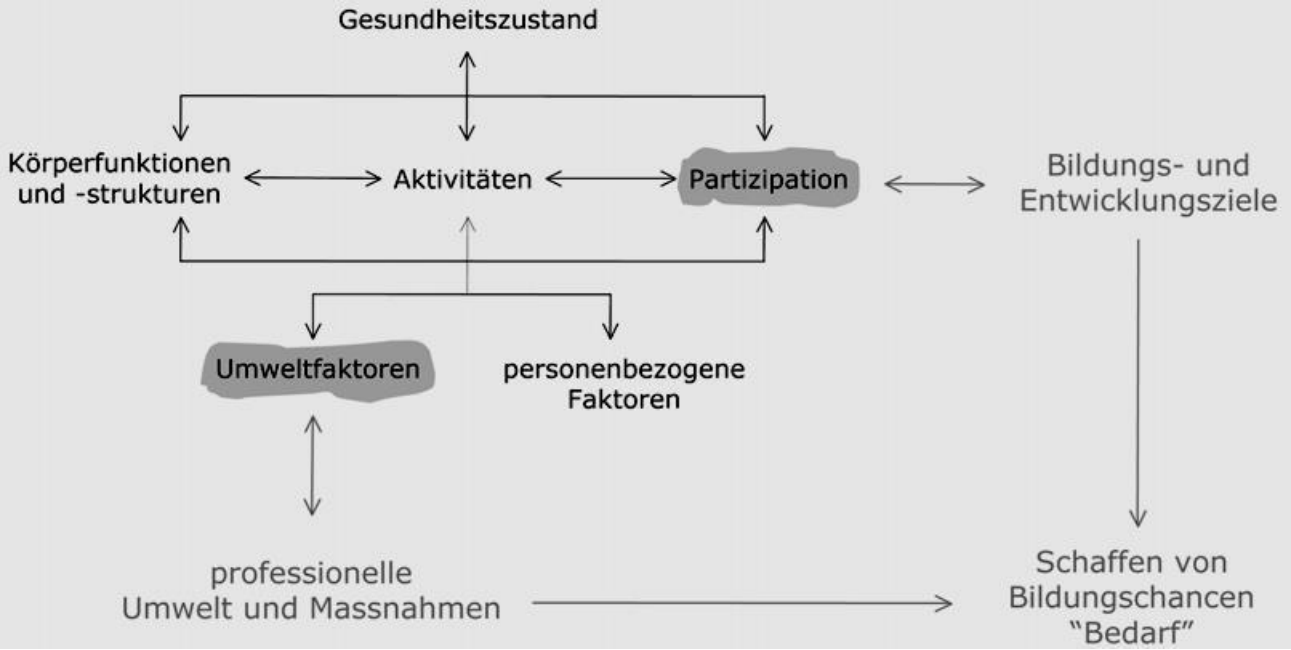
- Assignment
  - At the end of October 2007, the EDK (Swiss Conference of Directors of Education) commissioned Prof. Dr. Judith Hollenweger (PHZH) and Prof. Dr. Peter Lienhard (HfH) with the development of a standardised clarification procedure. The requirements for this process were very extensive:
    - Among other things, this had to enable a summative, but not a formative, assessment, had to be practicable and had to be used for both the early and the school sector.

Practical application example 2 (2)

- Product
  - As a result of this two-year development process in 2010 a manual, a paper version of the procedure and explanations to use the ICF items and their electronic implementation in a web-based tool were produced.
- Objective
  - The procedure is used for the systematic collection of informationthat are relevant for (special) educational needs assessment. The procedure for this is multidimensional. The actual need should be determined with more transparent development and educational goals . The procedure forms an initial basis for targeted support in the intended setting.

Practical application example 2 (3)

- Theoretical bases
  - The procedure is based on the model of ICF, in particular the version for children and adolescents (ICF-CY).



Practical application example 2 (4)

- The concept of functionality forms a bridge between medical-psychological descriptions of a disorder or problem and the description of skills and potential, which is essential for promoting educational and developmental processes.
- The ICF is compatible with the ICD-10 and with skill descriptions such as those used in support or development plans, in curricula or for educational standards.
- By means of the synopsis of restrictions and potential on the background of the present life situation the need can be adequately assessed.

Practical application example 2 (5)

- Process description
  - As part of the clarification process, different information is recorded and incorporated via various information sources. The clarification process consists of two standardised process steps:
  - 1 Baseclarification and 2. Requirementclarification.
  - Each step consists of several elements and collects information on different areas.

Practical application example 2 (6)

1. Basic clarification: Here, the actual status of the child recorded:
   - Personal Information: Child and legal guardian
   - Information on registration and questions
   - Current support environment
   - Family context
   - Recording the functionality: ICF short list with activities/Parti cipation, Body functions
   - Categorical recording: Main and secondary diagnosis, description of the problem

Practical application example 2 (7)

2. Clarification of needs: Here, a Target/actual comparison is carried out, in which the following elements are assessed:
   - Establish development and educationalobjectives
   - Make a needs assessment: Special educational measures, advice and support, care, medical measures
   - Make recommendations: Main support location, measures.

- New manual (with ICF items):
  - Available at: http://www.szh.ch/de/Infoplattform-zur-Heil-und-Sonderpaedagogik-in-der-Schweiz/Standardisiertes-Abklaerungsverfahren-SAV/Schulungsunterlagen/page34389.aspx [20.05.2014].

Reference: Ignorance (1)

Ignorance

A person has been reading for years

The mega catchphrase: Inclusion.

A person is otherwise a spiritually active being and, as he believes, up to now with integrity, and yet does not know how to interpret correctly what seems familiar to all people.

How? people think that would be even nicer:

Why are there lexicons?

And really the person does not look in vain:

“*Participation in real everyday life*”

Reference: Ignorance (2)

As “*equality*”,”*collective system*”
It will be applied, depending.
People now think, much smarter, that they know for life.
But soon they lose all courage:
It is teeming with “*included* …” As soon as the person thinks that something fits, he/she sees it differently.
Instead of worrying about it any further, people simply count themselves as being among the stupid ones.

Based loosely on Eugen Roth (1895–1976)

Imprint

Intellectual output IO 4 Module 2
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Author and authors:

LERNEN FÖRDERN-Bundesverband
zur Förderung von Menschen mit
Lernbehinderungen e.V.
Prof. Karl-Heinz Eser

Contact: LERNEN FOERDERN-Bundesverband e.V. Maybachstr. 27, 71686 Remseck
www.lernen-foerdern.de post@lernen-foerdern.de 0049 7141 9747870