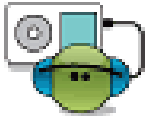
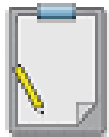


Title**Author****Summary****Objectives**

ICT, - Identity development and critical thinking The COL project

By Neuropsychologist Steen Hilling

Summary:

To be skilled and handle the ICT world with care – the critical thinking has to be developed. But it is difficult for a person with a mental disability to overview the offers at the net. In this article I focus at the thinking process and show connections to the personal identity as critical factors – but this can be changed through training and mediation..

Which development can be facilitated through mediating and dynamic processes? ----- Identity!
How is critical thinking attained?

“Who am I?” is the subjective sense of one’s personality structure and, at the same time, it is based on an internal psychological structure in the core self. But the subjective sense is also a social construction, so the individual constructs himself and wants others to acknowledge the image constructed. The well-developed identity shows itself through the personal core being the same over time and in different situations. You could say that the personal core is a specific one with stable features, limits, needs and a specific life story.

Identity can be defined as

An internal psychological structure and a phenomenological experience – an experience of the individual’s sense of self, subjective experiences and values common with social groups¹.

This definition pays regard to stability over time, but also to adaptation to requirements for action imposed by current surroundings. Requirements which mean that, as a person, one can act differently in different situations. As a person, one will experience a special thread connecting past, present and future. However, it is just as important that personal adaptation in social contexts is built on an understanding of norms, values and ideals.

¹ Psykolog Nyt (“Psychologist News”), no. 9, year 2010, pages 23-24, Professor Carsten René Jørgen, Århus University.

Keywords



Keywords: mentally disabled students, critical thinking, concrete academic thinking, identity, development.

It is suitable to distinguish between at least four identity levels:

- *Self-identity* which is about completely fundamental object relations, e.g. that one's parents as role models, with the acts of love they have shown, become fully integrated parts of one's own personal core. That one can have a realistic notion of oneself and others.
- *Personal identity* with conscious and realistic goals, fundamental values, needs and personality traits.
- *Social identity* which ensures a sense of belonging to other social groups through relations. Awareness of social roles, norms and social status.
- *Collective identity* which is about possible identification with e.g. being a Dane, a Norwegian or from Scandinavia, or having a certain religion.

Often uncertainty regarding identity is created by not sustaining one of the four levels, e.g. sociologists will often say that identity is based on levels 3 and 4, i.e. the social and collective identities, whereas psychoanalytically oriented professionals will base identity on self-identity to a greater extent. Cognitively oriented professionals will use personal identity and include e.g. genetical research as a significant realm for understanding identity.

In this context, an attempt will be made to sustain dynamic perspectives, i.e. how can one create conditions for identity changes with pedagogical models, including learning models?

At the same time, this perspective means to move into multicultural society. Here a form of setting the individual free is attempted, which entails realizing one's own opportunities for "the good life". This requires early norms and values being considered to evaluate whether one, as a person, can see a development of one's own personality – that identity takes shape through the development process from childhood to adulthood.

During an educational course, the adolescent must be able to create a new identity and, at the same time, restore meaning and cohesion. This is considered a comprehensive task for the adolescent and for teachers and social educators supporting such development projects to complete.

If this identity project succeeds, a well-integrated identity is created. If it fails, a wrong development in identity relating to identity disturbance takes place.

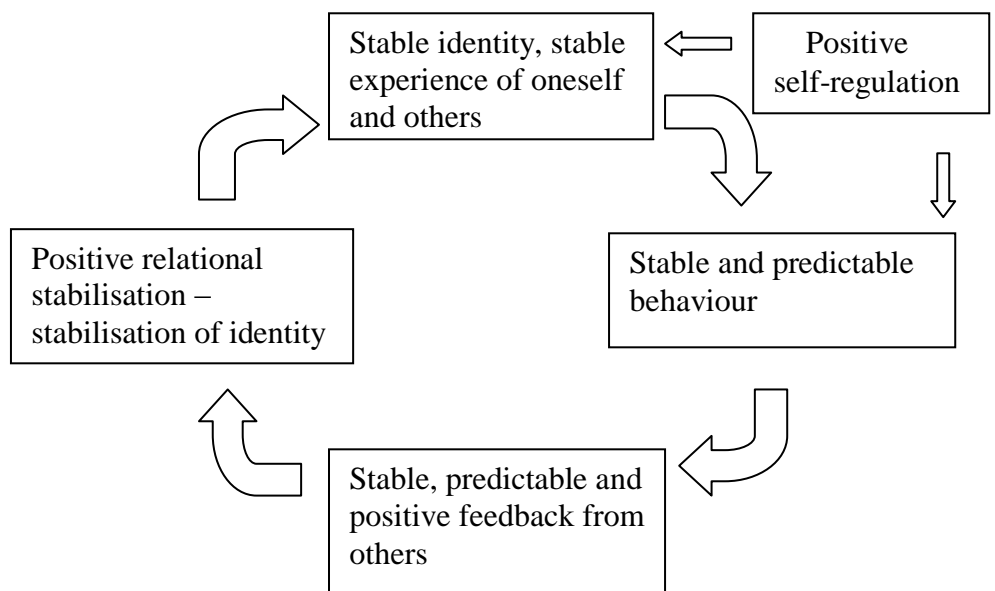
A successful identity development requires:

- stability in relational interaction
- that the basis for the identity is stable conditions in

- relation to meaningful adults
- relevant feedback and reflection of the “you and me” function
- identification of oneself through identification and delimitation in relation to others
- the ability to self-reflect
- seeing oneself from different positions and in different situations
- the ability to function in social contexts
- an understanding of “the other person’s” values and ideals

Briefly and specifically, you can say that feedback and acknowledgement are factors necessary for successful identity development.

In the model below, a positive approach to factors within identity formation² and relations is outlined.



Based on a cognitive neuropsychological realm of understanding, the adolescent’s memory of particularly biographical elements and situations becomes of great and vital importance. It must be emphasized that the adolescent gains a clear understanding of his past, present and experiences seen from a future perspective. The autobiographical understanding must be promoted and be comprehensive. This requires inward-directed

² The figure is a revised illness model by C.R. Jørgensen: *Psykolog Nyt* (“Psychologist News”) no. 9, 2010, page 23.

analyses³, working memory⁴ and precision relating to details and overview (the simultaneous and sequential⁵) to succeed. That new things are stored but also that recollections from the long-term memory can be established. Otherwise, confusion and insecurity arise. Such problems are often seen as lack of self-esteem and confidence in one's own abilities.

The mentalization ability

The mentalization ability must ensure that one can interpret one's own and others' reactions in varied and realistic notions about how these are related to internal mental conditions⁶.

It is the function of the mentalization ability to make meaningfulness appear.

Mentalization conditions are connected to our ability to create metacognition, i.e. to see oneself from the outside in different situations and to notice how one solves different tasks with a high degree of awareness of the process. Three forms of cognition can be used:

- "Thinking of" which is about the very concrete approach and experience creation. Thinking is mastered in the present.
- "Thinking about" which represents more complex constructions conveyed by the outer world into the cognitive system. You can choose between several experiences and act on these. Here experience creation is mastered in the past and present.
- "Considering" which is to display abstract forms of overview.

At this level, one can create one's own internal ideas and, therefore, predict situations. Here experience formation is mastered in the past, present and future.

Thus, "thinking of" is action-oriented thinking prior to putting things into words and/or creating images. It can be argued that precisely concrete thinking is a basic structure for other thinking, and five core actions can be set up, which can be seen in language formations.

The action types which become experience creation are perceived by Vygotsky⁷ as silent knowledge.

The action types can be divided in⁸:

- movement action, which is an action or movement either on the spot, e.g. scratching one's leg, or in the room, e.g. greeting another person.
- action with a time aspect, which can be perceived as an action stretching over time, e.g. the time it takes to write

³ Hilling, Behrend & Howalt (2009) *Informationsanalyser – en håndbog*, Munkholm Forlag (DK: *Information analyses – a handbook*).

⁴ Hilling & Howalt (2008) *Hukommelseshåndbogen*, Munkholm Forlag (DK: *The memory handbook*).

⁵ Hilling, S. (2010) *Strategier – en håndbog*, Munkholm Forlag (DK: *Strategies – a handbook*).

⁶ Psykolog Nyt (Psychologist News), no. 9, year 2010, pages 23-24.

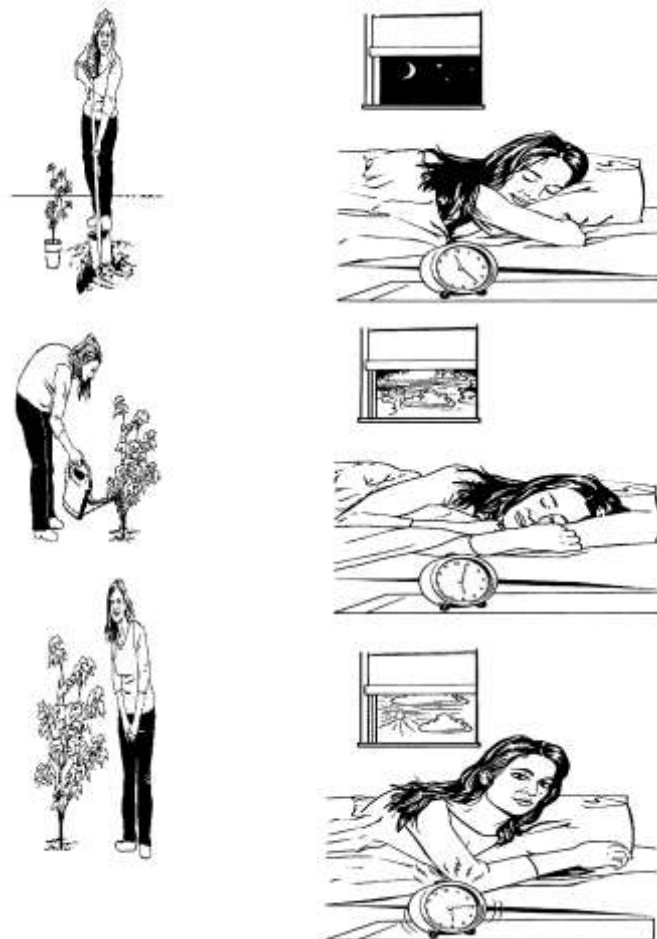
⁷ Hilling & Fioldbjerg (2010) *Den kompenserende specialundervisnings læringsbegreb*, Munkholm forlag (in press) chapter. 1 Aktivitetsteorien (DK: *The learning concept of compensating special education*).

⁸ Dansk Audiologopædi – December 2005, page 13.

one's own name.

- action with a change of state, which means that the current action is changed into another action, e.g. working with clock repairs – characterized by great precision and patience – to assembling a water trap with water running through it – characterized by working very fast and using tools under flowing water, i.e. a change of state from slow precision to fast, immediate action.
- action correlation, which is handling several activities at the same time, e.g. flipping through a newspaper and, at the same time, stirring one's coffee with a spoon.
- action realization, which can be explained by the completion of the action i.e. realization such as flipping through an entire newspaper just to check the headlines.

The action competence in “thinking of” and thinking specifically is seen in actions which are foreseeable with respect to time and rather uniform. Specific thinking is seen in the following two comics:



Self assessment

Please answer the following questions, which will sustain

tasks



concrete thinking:

What do you see in each picture?

Can you tell the story from pictures 1 to 3?

Presumed answers – kept within concrete thinking.

What do you see in each picture?

Series 1: There is a woman digging. A woman watering a plant.
A woman watching a tree.

Series 2: The woman is sleeping. The woman wakes up.

Can you tell the story from pictures 1 to 3?

Series 1: The woman is planting a tree.

Series 2: The woman wakes up – the alarm clock goes off.

As they are presented, the answers are based on concrete thinking and with particular emphasis on four out of five action competences: movement action, actions with a time aspect, actions with a change of state, and action realization. So this is quite a comprehensive context being activated and put into words. Concrete thinking is often sustained in present and, therefore, series 2 will not be put into words in the following way: The alarm clock went off and then the woman woke up. Such a construction requires thinking to be elevated to “thinking about”! The advantage of concrete thinking is the great and simple precision in action or language. Here, precision and effectiveness are targeted. The problematic part of concrete thinking is seen in the rigid contents and lack of sense of the progression.

In IT contexts, all linear programs – with one step following the next – will be easy to work with.

<http://www.on-line-on.eu/>

This program for personal development exists in five languages. The particular feature of this program is its easy language, the fact that information is kept at the lowest level possible and that maximum meaning is ensured on each page.



But with more and more experiences, interplay between the outer world and concrete experiences is created in a way that you attain several meanings from the same thing, e.g. setting a table: - this requires that you can set a time of day, a particular event – birthday from regular everyday life, quality assurance within setting a table, e.g. through the choice of cups and not mugs, silver cutlery and not plastic cutlery. But all the examples given are based on concrete thinking – based on the five action competences with image scenarios and now, through language, advancement is made towards “thinking about”!

”Thinking about” gives a special possibility of including external events in one’s concrete experience. It is particularly interesting that the concept of time is now expanded by past and present. This is apparent from the language, where one now no longer only tells stories in the present tense. At this level of thinking, one is provided with the opportunity to see one’s own experiences as appropriate or inappropriate, e.g. that it is a good experience to know that pouring milk into a small cup requires slow pouring as opposed to pouring milk into a pot for making chocolate milk, which can be done by pouring quite quickly. It is also at this level of thinking that linguistically critical thinking can be developed, so one does not fool oneself. Thinking work can also be done during a long term so e.g. birthday planning has a beginning and an end (view the illustration).

Linguistic "jests" with several meanings and playing with rhymes are some of the competences achieved by "thinking about"!

Subsequently, place the linguistic meanings on the right images:

1. It is enough to turn your hair grey.
2. Saying something tongue in cheek (In Danish: Having a fox behind your ear).
3. Fancying someone (In Danish: Having a good eye for someone).
4. My mouth is closed with seven seals.
5. Having grit (In Danish: Having bones in one's nose).
6. Having eyes on the back of one's neck.



The strength lies in one being able to "think about" and to see the interesting aspects, i.e. to analyze the language itself in relation to given images. For example, it is typical for this type of thinking that you just have to count the seven seals – however, there are only six seals and then the comment will be: "The drawing is wrong!" One is not capable of elevating one's thinking to an explanation of the fact that the purpose of the drawing is just to illustrate the meaning of the statement.

The problem is seen in the fact that no conclusive synthesis is created, which can be an explanation of the linguistic expression in connection with the picture, i.e. having a fox behind your ear has an underlying meaning and understanding in Danish covering the fact that one should stay away from this person and not listen to what he says. This person cannot be trusted!

In the comics shown, it is seen that actions courses must be planned. So the point of reference is concrete thinking, but the analysis of the courses shown requires knowledge of and experience with the planning of a birthday party and a holiday trip. It is seen that the number of images is three or four, which

have been carefully selected as it can be difficult to get analyses in an initial phase higher than three to four units. One simply cannot hold any more information in one's working memory. This capacity limit moves upwards, when one gains experiences with one's language and thinking through putting things into words. An everyday example of this can be observed in birthday cards, in which you can see that the number of images required to make sense is quite often at three to four units.

Try to answer the following questions which now promote "thinking about":

Please explain what is happening in each picture.

Can you explain what is happening in one word?

Do you think that the pictures are from the same day?

Can you tell us about a birthday?

Can you tell us about a holiday?



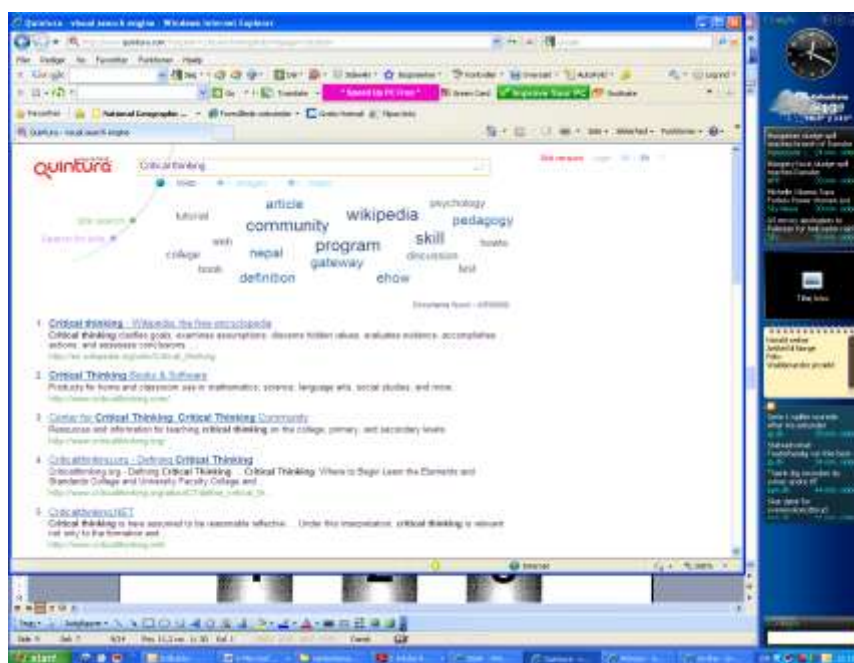
As it appears from the questions, now a time course and connections with one's experiences from one's outer world are created. It is at this point that you attain the first abstract types of thinking. Everyone knows the expression "moving from the concrete to the abstract level", but knowing how this happens is more complicated. But with such illustrations, one can determine whether the thinking is predominantly concrete or abstract – and maybe obtain knowledge of the analyses, limitations, e.g. in the number of units one can work with, and the competences in linguistic connections.

Often there are logics tasks which can also illustrate this way of thinking – "thinking about":

In IT contexts, e.g. bases built on Mind Map systems will be applicable:

Ses

<http://www.quintura.com/?request=Critical+thinking&tab=0&page=1&tabid=>



LOGICS TASK

Here a number of tasks from PAS are presented. Try to solve them.

There are six red balls and three yellow balls.

The balls are distributed so that there is the same number of balls in each box.

There are no yellow balls in box 1, and there is one red ball in box 3.

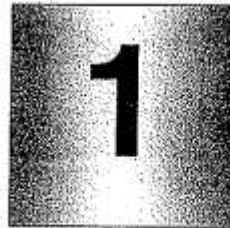
How have the balls been distributed?



LOGIK-OPGAVE

Der er 6 røde kugler og 3 gule kugler.
Kuglerne er fordelt, så der er lige mange i hver kasse.
Der er ingen gule kugler i kasse 1, og der er én rød kugle i kasse 3.

Hvordan er kuglerne fordelt?



The transitions between the three types of thinking described are gradual and, therefore, you must describe all three types as an integrated part of the experience. For example, a mechanic must have many core competences within engine work, but it is not until he implements a newly developed ignition system, that you can determine whether he can implement such new electronic mechanical parts with his existing experience⁹. This adaptability¹⁰ is required between the types of thinking mentioned. With such analyses of adaptability, it can be shown where you are thinking-wise, but also which thinking potential can be worked with. Here dilemma stories or picture series with “sudden” illogical contents can be used.
What would you do?

⁹ This is consistent with Piaget’s concepts: assimilation, accommodation, and adaption <http://da.wikipedia.org/wiki/Piaget-p%C3%A6dagogik> or Piaget (1962), Barnets psykiske udvikling (“the psychological development of the child”).

¹⁰ Professor Per Schultz Jørgensen has determined that three important competencies need to be present to create a good life. A professional competency which should be perceived broadly and which includes knowledge of craft as well as the more traditional school skills. A social competence including social cognition, i.e. “thinking about” and “considering”. A change competence including one’s ability to use experiences from one’s close environment and one’s own experiences as well as inferring which thoughts and actions are the most appropriate. ¹⁰

You have a really good friend, with whom you have spent so much time throughout the years. Then he rather suddenly finds a girlfriend, and you can really sense that she does not like you at all. What will you do now to handle such a problematic situation?

Our humor and understanding is also placed here!

Why is the small comic funny? What does the mouse think, and what does the cat think?

Picture 1:

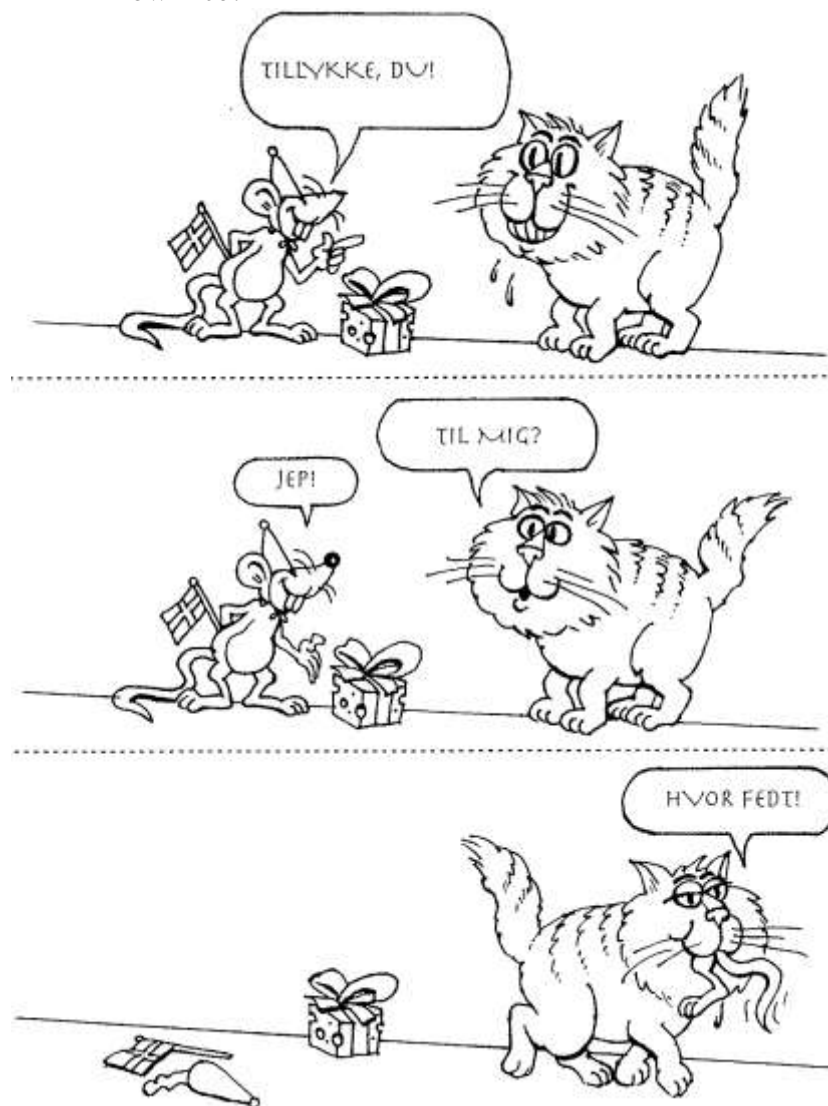
- Congratulations, buddy!

Picture 2:

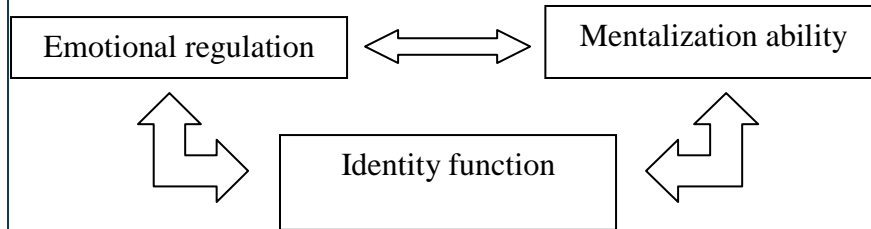
- For me?
- Yep!

Picture 3:

- How nice!



Based on these three levels of recognition and types of thinking, stable management of the many social roles in many different situations is developed. This gives a sense of having control of one's own actions and one's own life. But the mentalization ability is also strongly connected to and, in terms of recognition, part of our emotional reactions and, hereby, emotional regulation. Interplay and development can be illustrated in the following way:



Mentalization logic can be tested by one creating notions. So, now you can time the solution of the subsequent task and, at the same time, attempt to create an awareness of your own strategies for solving the task.

Do you need to draw, write or point to support your thinking?

In IT connections, you can now determine consequences and, hereby, be critical. This means that considerations can be created in relation to using www-pages, which are serious, and then all the non-serious pages.

Therefore, it can be easier to make www-searches do the work for you:

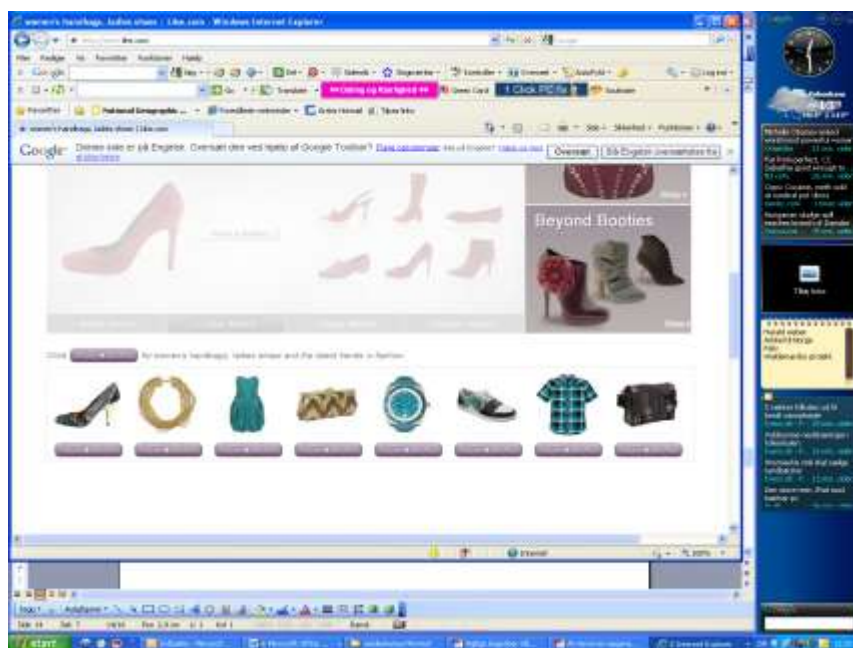
Metasearch Engines

Next we come to the metasearch engines. When you perform a search on Google, the results that you get are all from, well, Google! But metasearch engines have been around for years. They allow you to search not only Google, but a variety of other search engines too - in one fell swoop. Many search engines that can do this, [Dogpile](#), for instance, searches all of the "big four" mentioned above (Google, Yahoo!, MSN, and Ask) simultaneously. You could also try [Zuula](#) or [PlanetSearch](#) - which plows through 16 search engines at a time for you. A very interesting site to watch is [GoshMe](#). Instead of searching an incredible number of Web pages, like conventional search engines, GoshMe searches for search engines (or databases) which each tap into an incredible number of Web pages. As I perceive it, GoshMe is a meta-metasearch engine (still in Beta)!

http://www.readwriteweb.com/archives/top_100_alternative_search_engines.php

After this, select which of the two sites presented you think is serious in relation to wanting to buy and select clothes – and state your reasons why.

You can search for the www-page to have a good look at the design – then, supposedly, it will be easier to assess the quality.



<http://www.like.com/>

Problem page: Help me, my child doesn't want to be dressed!

07-05-10: 08:37



Children and clothing

Question:

Dear Lola,

I have a 3½-year-old son. He is a really great boy, who can do many things. Linguistically, he is at the very top, he can go to the toilet by himself, dress himself and prefers to do everything himself. Two months ago, he had a little sister.

We have a great problem in the form of a clothing crisis. Every morning, we spend 20-50 minutes dressing him with him screaming and yelling. He has an opinion about all his clothes. Then he doesn't want stripes, then he doesn't want jeans and, at the moment, his trousers must not crease (and by this he also means little creases). Every time he puts something on, he becomes hysterical and wants to take it off again. If he finally finds something to be okay, the shirt doesn't match, or the socks don't and so forth. I must add that it is not a matter of him wanting to decide for himself – because we have reached a point now where he can wear anything as long as he gets dressed.

It is very frustrating for both me and my husband, and we often end up sad and/or angry with one another.

We have tried to solve the problem by helping him choose, by choosing for him, by putting out clothes the day before, by leaving him crying (going to the kitchen or the like), by forcing him and, unfortunately, also sometimes by yelling at him. Often we try many of these things on the same morning – it is absolutely awful, and you become enormously tired of listening to yourself.

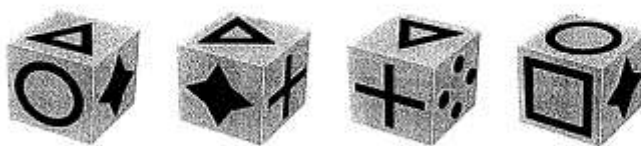
Kind regards,
Rikke

<http://go.tv2.dk/article.php/id-30343877:brevkasse-hj%C3%A6lp-mit-barn-vil-ikke-ha-t%C3%B8j-p%C3%A5.html>

TERNINGOPGAVE

Instruktion

Her ses samme terning fra 4 forskellige sider.



Du skal nu tegne den figur, som befinder sig på bagsiden af den viste terning i felterne 1 til 10.



1	2	3	4	5



6	7	8	9	10

View the solution after this.

Works cited



Litterature

Jørgensen C.R. (2009) *Identitet. Psykologiske og kulturanalytiske perspektiver*¹¹, Copenhagen. Hans Reitzels Forlag.
 Paris J. (1996) Social Factors in the Personality Disorders. A *Biopsychological Approach to Etiology and Treatment*, Cambridge, University Press.

Finished

VISUAL LOGIC – SOLUTION SHEET

¹¹ Translation: *Identity. Psychological and culture analytical perspectives*



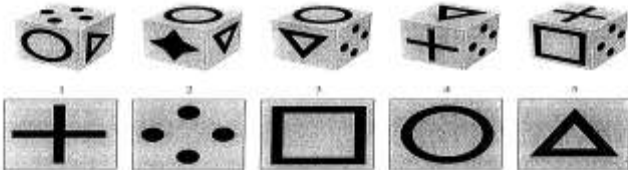
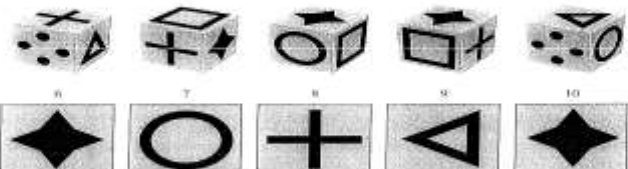
CUBE TASK

Instruction:

Here, the cube is seen from four different angles.

Now you must draw the figure, which is on the back of the cube shown, in fields 1 to 10.

The answers in fields 5 and 9 are correct if there is a triangle. The answers shown in fields 5 and 9 display the correct rotation of the figure.


Opg. 14.7.2.e
VISUEL LOGIK – RETTEARK
TERNINGOPGAVE SVAR
Instruktion
 Her ses samme terning fra 4 forskellige sider.
 Du skal nu tegne den figur, som befinder sig på bagsiden af de viste terninger i feltene 1 til 10.



 Svare i felt 5 og 9 er rigtige såfremt det viser en trekant. Det viste svar i felt 5 og 9 viser den rigtige drejning af figuren.

