Bernhard Ertl (Ed.)

gopredil

Good Practice Guidelines

Part II: Facilitation Methods

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Preface

Science, technology, engineering and mathematics (STEM), these subjects are often accompanied by gender-specific misattributions of the pupils' achievements. Results of the PREDIL study in Germany discover that 78 per cent of the males esteem themselves as more capable in computer use than girls (Helling, Ertl, & Mok, 2010). 28 per cent of the girls surveyed agreed on this and only very few disagreed. Yet, over 80 per cent of both, males and females agreed on the statement that girls are treated better by the teachers in technical subjects. These results are intriguing from two perspectives: On the one hand, males are inclined to overestimate their capabilities in technical subjects. Thereby, they reduce their efforts and operate on an inappropriate achievement level. On the other hand, the perception of being preferred hinders gifted girls to appreciate their achievements and to develop positive self-concept for these subjects.

Considering this, the guidelines do not aim at providing specific didactics for particular contents of STEM subjects. They rather introduce strategies for reflection and support for teachers. Applying them, teachers may discover inequalities but also break up existing stereotypes and give pupils individual support. In this respect, the methods described are not as specific as that they would only be appropriate for STEM subjects. They might be applied in any kind of case in which status inequalities and biased perceptions are an obstacle for equal-status interaction in learning settings. However, we were keen on focusing the phenomena of the STEM subjects in each of the methods and on giving possible variations. In this way, the guidelines are a part of a process that is open for new variations. If you as user would like to suggest refinements or adjustments, we're happy to consider them for one of the following editions.

The guidelines were supported by two research projects and funded by EU and DAAD. The EU funding refers to the project PREDIL that aims at promoting equality for digital literacy and provided funds for the implementation of these guidelines. Additionally, the DAAD project „Comparative study on gender differences in technology enhanced and computer science learning: Promoting equity" has provides several contents for this publication. I would also like to thank the Städtische Robert-Bosch-Fachoberschule für Wirtschaft, Verwaltung und Rechtspflege, particularly Ms. Edith Schaich and principal Johann Denk, who have supported us during the application and implementation of these methods. Furthermore, I would like to give my thanks to all these persons who provided their valuable ideas for these guidelines in several presentations, workshops and discussions: Kathrin Helling, Jim Ridgway, Sean McCusker, Mario Barajas, Regina Civil, Kathy Kikis-Papadakis, Katharina Ebner, Markus Reiserer, and Johanna Vogt and Maciej Piotrowski for dealing with all the financial issues. My special thanks go to Daniela Otto who was able to develop these guidelines from my vague ideas and to Christina Strauß for their support in translation.

Munich, November 2010
Bernhard Ertl

Contents

Introduction

Daniela Otto

Teachers can contribute by means of their behavior both to the hindrance and to the promotion of equal opportunities in school. By means of a reflected handling of gender stereotypes and the employment of gender-sensitive teaching methods, it is possible to contribute to un-doing-gender and for this reason to establish equal opportunities for female and male pupils.

Why Girls in STEM?
Even today, the science/technological sphere is predominately characterized by men, while the socio-scientific and humanistic sphere represents a female domain. This selection of the subjects can be traced back to the school. As early as on secondary level, the girls systematically make their decisions against mathematical and science sectors upon selecting their specialized courses and compulsory optional subjects. This phenomenon gets problematical, if one takes into consideration that along with the expanding employment of new technologies, the job specifications of the labor market are clearly switching in direction of a technical/science profile. Women are thus more frequently hit by unemployment than men and bar themselves from a well-paid occupational sector, whereby gender-specific income gaps are being increased. Even an active participation in the political and social life, characterized by the technical developments and the entailed structural alterations, is thus impeded. So that discriminations will not reproduce themselves this way, it is desirable to make girls and women to a greater extent interested in science and in engineering and to promote them.

How can gender-specific differences in motivation in STEM be explained?
In the pedagogical-psychological literature, two explanatory approaches were discussed controversially until the 80ies:
- Gender-specific differences in motivation are attributed to different abilities of girls and boys.
- Gender-specific differences in motivation are attributed to different socialization conditions of boys and girls.

Representatives of the first-mentioned explanatory approach started from the assumption, that girls would be less gifted in STEM, because they would have a less pronounced ability to reason, they would be endued with an inferior spatial sense or because they would be all in all less intelligent then boys. The gender disparities in the functionality and the structure of both cerebral hemispheres were adduced as a potential cause of the postulated differences (e.g. Harshman, Hampson & Berenbaum, 1983). The results of the individual examinations to verify this hypothesis were very contradictory and thus of impaired significance. Rather might be confirmed that boys have a spatial sense that is superior to the one of the girls (Heller, 1992) and that girls have more pronounced linguistic skills (Hyde and Linn, 1988). Though, even in these areas, the apportionment of capabilities of girls and boys were overlapping very strongly: The disparities within the group of the girls or the boys were numerically to a far greater extent larger than between the genders. Beyond that, studies reveal that located gender disparities have decreased over the course of time (Feingold, 1988). A result, which had not been able to align with the assumption of gender-determined

abilities. It therefore has to be assumed that there are neither in the general intelligence nor in specific capabilities any significant disparities among girls and boys.

Advocates of the second hypothesis are, however, assuming that gender-specific conditions of socialization might be responsible for the diverse motivational disparities between the genders. More recent approaches comprehend socialization in this context as an interactive process between the socializing instances on the one hand and the socialized person on the other. Effects of socialization do in this connection, however, emanate predominantly from the children's and adolescents' psychological parents (e.g. parents, teachers, peers), but as well from the media. This happens via two psychological mechanisms:

- behavior patterns and attitudes are acquired via the imitation of other persons (learning by means of the model)
- behavior patters and attitudes are acquired by social norms (rewards and sanctions)

School as socializing instance

Although the parents do certainly exert the strongest influence upon their children's socialization, it should not be forgotten that the children and adolescents are spending a great deal of their time at school. Here, they are subjected to the influences of the peers and the teaching staff. Teachers constitute relevant model persons having manifold mechanisms of reward and punishment available. "They act on the one hand as "role models", which are imitated by the pupils and, on the other, as "definers of norms and standards", in that they are in a position to reward or punish the behavior of the girls and boys (Hannover & Bettge, 1993). That in spite of equal-opportunity-policy, gender stereotypes are reproduced in school, is demonstrated by the subsequent results (compare Hannover & Bettge, 1993):

- The Pygmalion effect (Rosenthal & Jacobson, 1971) describes the phenomenon, according to which expectations of teachers towards pupils have an impact upon their performances. There are studies available, according to which teachers expect boys to be more interested in science and technical fields and also to render better performances than girls. By these expectative attitudes, the assumptions are reproduced in the manner of a self-fulfilling prophecy.
- In science and technical subjects, boys are paid more attention to on the part of the teachers and they are fostered by those to a greater extent. The same applies to girls in humanistic subjects.
- Girls and boys are provided with different feedbacks by the teachers with respect to their behavior and their performances. Boys are dispraised for lacking motivation and are praised for a high level of intellectual performances. Thereby they hold motivational factors responsible for failures and explain successes on the basis of their aptitude. Girls, in contrast, are predominantly praised for their neatness or diligence and criticized for lacking intellectual abilities. Girls therefore are more inclined to attribute failures to marginal competence and successes to non-intellectual causes.
- The differences in the performance level between female and male pupils substantiated by the preceding effects are furthermore aggravated by the so-called Matthew-effect. This constitutes a principle from the research into the teaching and learning, according to which a person's previous knowledge does exert a considerable influence upon her/his learning success (Schwippert, Bos, & Lankes, 2003). Existing differences in performance levels between girls and boys are thus not being dismantled at school, but further deepened.

Objective of the handout

The objective of this handout is on the one hand, to raise the awareness of the teaching staff for the complex of problems of gender-specific behavior patterns and, on the other hand, to furnish a handout of methods and tools, in order to consolidate the gender competence of the pupils. Focused upon will hereby be the establishment of equal opportunities of pupils in STEM, as well as the generation of a learning climate, which is suitable in equal measure for both genders. The methods are hereby of general nature and may be translated in a modified form also to other contexts (e.g. for the promotion of pupils with migration background). As reflection techniques in the context presented here, they serve the development of an awareness of and the understanding of gender and sex and are inspiring to make initial steps in the direction of an alteration of the gender ratios. The subsequent dimensions are hereby taken into account:

- The gender-determined access to resources
- Gender-specific expectations, values and norms and the involved consequences
- Gender-related proportions of power and mechanisms of discrimination.
- Attribution patterns and their consequences upon the performance.
- Medial representation of women and men and the involved effects.

Presented methods

Short movies and videos:	A method to foster the media competence of pupils and to analyze and reflect upon gender-specific role patterns.
3R Method:	An instrument of the gender analysis to reconstruct the distribution of resources (time, money, space) among the genders and to provide them with impulses for the alteration of gender-specific structures and unequal distributions.
Anti-Bias approach:	An approach, which serves the analysis of discrimination. Experiences of discrimination that are made by oneself or by other persons are reflected in an experience-orientated manner on an interpersonal, institutional and social level and action alternatives are being developed.
Story Telling:	A method with its origins in knowledge management. Interviews do hereby constitute the foundation to reconstruct and structure explicit as well as implicit knowledge and to put it on record in an experiential document.
Concept Mapping:	Complex contents are hereby represented in a structured visual manner and thereby processes of structuring and retaining in memory are supported.
Reattribution training:	A training, which serves the enhancement of the performance motivation and the correct assessment of the action competences of pupils.
Coaching:	A method to support the self-directed enhancement of the pupils' perception, experience and behavior. The individual resources of the pupils are hereby in particular taken into consideration.

Short films and videos

Daniela Otto

Pedagogical Objective
It is the objective of this method to foster the media literacy of pupils, in the sense of technical competence, as well as a reflected dealing with media. Beyond that, gender-specific role patterns are analyzed and are thus being made accessible to a reflected dealing with them.

Target group
Pupils from secondary level onwards

Context of application
The employment of the method is in particular suitable for the IT lessons and media subjects

Time Duration
Approximately 45 min (animation programs)

Resources
Video camera or computer with internet access

Introduction
In the postmodern society movies are part of the most important mass media and fulfill thus different basic functions.

Informational function:	Mass media import knowledge and (secondary-) experiences
Socialization function:	Via mass media, action patterns, role behaviors, norms and social values are communicated.
Political function:	Mass media serve to establish a political public. On the one hand, they impart the knowledge for the forming of political will and, on the other they represent an expression of the public opinion.
Economic function:	Mass media represent an engine of the economic circuit, in which they accelerate the merchandise-cash-cycle by means of notifications and advertising spots.
Authority function:	Mass media contribute to the legitimization of social organizing principles, thus exercising an authority-supporting function.

Theoretical and scientific background
Bandura et al. introduced in 1965 the so-called „Bobo doll study", by means of which they investigated sequences of learning, which are determined by an observation of ideals. In the course of this, four-year-old children were shown a movie, in which an adult named „Rocky" behaves very aggressively towards the doll „Bobo" (beating, kicking, swearwords, …). In the experimental group, Rocky's behavior was rewarded at the end of the movie, whereas in the comparison group, Rocky's behavior was punished and in the control group, his behavior did not entail any consequences. It showed that on the condition that Rocky was praised in the movie before, his behavior has been imitated rather by the children to a more considerable extent than this was the case in the control or comparison group.

Reflection

The different functions, which are ascribed to movies and videos in the Modern Age, can be reflected upon by means of this method. Of particular importance is in this connection the socializational function by means of which the norms, values and assignments of roles are transported. The "male" and "female" attributes included in the movies are being reflected and discussed. Thus, the sensibility towards the individual interpretation patterns can be enhanced and processes of autonomization and individualization can be initiated.

Implementation

1) Creation of a video (via camera or an animation program)
2) The analysis should include all three levels:
   - Portrayal of the character: Age, attribution of the character, height, physical structure, skin type, interests, gender particulars, anxieties, facial features, values, morals, view of the world, growth of hair, hair color, hairstyle, cosmetics, apparel, voice, gestures, facial expressions, control of the body, distinctive features, specific characteristics, contradictions.
   - Interaction or action, respectively: Interaction with other characters, psychological parents, actions of the character, dialogue, glance, dramaturgical development of the character.
   - Context: psychological parents, friends, family, school, location, living space.

   Central questions of the analysis
   - How are women and men or girls and boys, respectively, represented in the video – which attributes are in each case affiliated with them?
3) It should be argued in the discussion, whether the represented gender-specific assignments could not also be different and whether they are based upon the social construction of gender role and ratios.

Method

Discussion, video

Tools

Video camera or computer programs for the creation of animated short films. The freeware programs in this sector, which are available in the net, include inter alia http://www.digitalfilms.com/ and http://www.xtranormal.com/.

Exemplary videos at Xtranormal, generated by 14-year-old persons on the topic of ICT-professionals:[1]

http://www.xtranormal.com/watch/6666427/
http://www.xtranormal.com/watch/6666097/
http://www.xtranormal.com/watch/6666097/
http://www.xtranormal.com/watch/6666425/
http://www.xtranormal.com/watch/6666423/
http://www.xtranormal.com/watch/6666419/
http://www.xtranormal.com/watch/6666417/
http://www.xtranormal.com/watch/6666127/
http://www.xtranormal.com/watch/6666121/
http://www.xtranormal.com/watch/6666101/

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[1] According to University Durham: http://www.dur.ac.uk/smart.centre1/predil/activities.htm

http://www.xtranormal.com/watch/6666091/
http://www.xtranormal.com/watch/6666087/
http://www.xtranormal.com/watch/6666081/

Pitfalls

In the case of videos that have been created by means of animation programs, it has be to taken into consideration when analyzing the portrayal of the characters, that the characters can merely be individualized to a limited extent and that they are determined to a great extent by the pre-selection of male or female characters. It is thus meaningful to discuss this aspect separately and to query, why female and male characters are represented within the framework of the program in a stereotypizating manner and which impact this has.

Example

Assign the task of creating a video on the topic of "Women and computer" (if possible in groups of two – a boy and a girl together) to your pupils.

Briefly discuss with your pupils, how the teamwork in the groups of two has turned out to be: How have the controversies been resolved, who had the final say in case of doubt? Who has more intensively been involved in the work? Have there been any gender differences?

Now ask the pupils to exchange the videos among each other and to analyze the videos (the groups of two persist):
- How are the women and men represented in the movies?
  - Character: dominant, in need of help, competent,…
  - Optic: long- or short-haired, pairs of trousers or skirt, rouged or without make-up…
- How do men and women interact with each other?
- As far as there are any humorous elements included in the movies – what do they consist in?

Collect the results in the whole class and discuss the results together:
- Are there any stereotypizating representations of the genders to be found?
- How can they be explained?
- Which social or economic functions can such stereotypes serve?
- How are such stereotypes conveyed?

Variants, transfer, application

Show short films, in which gender stereotype are reversed, to your pupils. Take the humorous effects as a basis for a discussion on the issue, what constitutes "masculinity" and "femininity".

Exemplary videos:
http://www.politicalremixvideo.com/2010/04/20/buffy-vs-edward-nominated-for-a-webby/
http://www.politicalremixvideo.com/category/remix-styles/tv-commercial/

3R Method

Daniela Otto

Pedagogical Objective
The 3R-Method serves the sensitisation and reflection of gender role stereotypes. In the long term, pupils are hereby being encouraged to mature on the basis of their individual potentials and to pursue their interests and capabilities devoid of role assignments. Beyond that, the analytical faculty of thought will be fostered via the 3R-Method by means of the reconstruction of correlations and their interpretation.

Target Group
Pupils from the secondary school level onwards.

Context of Application
Within the framework of the lessons, the 3R Method lends itself above all to broach the issue of social structures and individual behavior in the light of gender-specific role patterns. In particular is its employment suitable for the conception and evaluation of school reforms.

Time Duration
Approximately 45 minutes

Resources
Statistics taking the gender distribution and the access to resources into account (for instance via gainful employment as well as wages and salaries).

Theoretical and scientific background
The 3R-Method was tested in Sweden in nine municipalities within the framework of the project JÄMKOM. Committees tested various subject areas (municipal decision-making processes, spatial planning, school, culture and leisure-time etc.). Diverse variables have been ascertained (frequency of visitors, contact lists, time tables, pyramids of salaries) and by means of different ways, causes and explanations have been searched (interviews, panel discussions and the like). By dealing with the topic intensively, the participants were able to discern gender-specific structures, which encouraged discussions about the equality of treatment within the respective spheres and essential transformations.

Introduction
The 3R-Method is an instrument for the gender analysis. It can be implemented as an instrument for the appraisal and evaluation of gender ratios or for the initial analytical step at the conception of projects for promoting equality of treatment of the genders.

Reflection
By means of the 3R Method, the gender distribution in certain contexts and the involved gender-specific access to resources such as e.g. money, time and space is being reflected. Subsequent to certain correlations having been reconstructed in that manner, the causes underlying the correlations are enquired about in a further step.

Implementation

The three R stand for representation, resources and reality. The term of representation refers to the numerical representation of women and men or girls and boys, respectively: Who makes decisions? Who carries them out? Who is the user? Under the topos of the resources, questions are asked about for instance, how money, time and space are distributed between women and men or girls and boys, respectively. Within the framework of the third step, reality, the conditions and causes of the ascertained correlations are being enquired about.

Representation:

How large is the share of women and men in certain contexts? (Quantitative specifications)
- E.g. occupational groups, specialized courses and compulsory optional subjects at school, teaching materials

Resources:

How are the resources (funds, space and time) distributed between women and men within the various contexts? (Quantitative specifications)
- E.g. salaries, subsidizations, budgetary funds, frequency and duration of oral presentations

Reality:

Which causes are underlying the ascertained correlations? (qualitative specifications)

On the basis of the two preceding steps, the following questions are for example being analyzed:
- Who receives what on which conditions?
- Why is it that girls and boys or women and men, respectively, are being treated, evaluated, and included, in a different manner?
- Which norms and values are underlying the various activities?
- Will the interests of both genders be taken into account to an equal extent?

Method

Group discussion

Tools

Gender-specific statistics for the sphere of ICT (Germany, Greece, Spain, France, Poland, Slovakia, England, Switzerland) may for instance be looked into on the website http://predil.iacm.forth.gr/outputs.php under the heading of National Reports.

Pitfalls

It is of significance to elaborate on the aspect of doing-gender and to emphasize the convertibility of role patterns, so that gender-specific differences are not interpreted in a naturalistic manner. It may in this case be of avail to adduce longitudinal section studies on gender distributions in different spheres and to discuss the reasons for the transformations.

Example

Representation

Employees (Classification 774: data professionals and computer scientists)				
Year	**Total**	**Men**	**Women**	**Women in %**
1999	363.248	287.329	75.919	20,09
2000	395.985	314.808	81.177	20,5
2001	425.430	338.642	86.788	20,4
2002	440.284	350.906	89.378	20,3
2003	440.456	350.603	89.853	20,4
2004	443.000	353.514	89.486	20,2
2005	448.383	359.630	88.780	19,8
2006	-	-	-	-
2007	469.880	376.844	93.036	19,1

Percentage of women employed in professions of the classification 774 in Germany. (IAP zit. according to Helling & Ertl, 2009)

- The number of employees in the IT sector in Germany has increased between 1999 and 2007 by 12.94 % (from 363.248 to 469.880).
- The number of the female employees has increased within this period of time from 75.919 to 93.036 employees, denoting an increase by 12.54%.
- The proportion of female employees in the IT sector in Germany held between 1999 and 2007 on average a relatively stable position at approximately 20.1%. The tendency is slightly declining.

Resources

	Male IT experts			Female IT experts		
Year	2006	2007	2008	2006	2007	2008
Gross income in €	48.600	49.000	51.200	42.600	41.300	44.800
Growth rate in %	1,9	0,8	4,3	3,1	-3,1	7,8

Annual gross income (including special payments) of male and female IT experts in Germany (Apfelbaum, 2007; 2008; 2009).

- Male IT experts have earned on average 15.67 % more then female IT experts over the years 2006 through 2008 in Germany.
- The average salary growth rate ranged among the female IT experts with 2,6 % higher over the years 2006 through 2008, than among their male colleagues with 2,33 %.

Reality

Discuss the following questions:
- Why is the proportion of the employment of women in the IT sector so low, although it represents a well-paid sector of employment?
- Why is the proportion of employment of women in the IT sector descending?
- According to which criteria do young men and women make their career choices (salary, gender-specific role patterns, tendencies, success feedbacks)

- Why do female IT experts receive a lower payment than their male colleagues? (Glass ceiling, frugality at salary negotiations)?
- Which consequences arise from the phenomenon that women are underrepresented in the IT sector and receive a lower payment than men?

Variants, Transfer, Application
a) Preparation of a gender-specific statistics on the class and subsequent analysis.
Representations: e.g. (desired field to work in, favorite subject, etc.)
Resources: e.g. of which significance is an accomplishment in a certain subject evaluated to be, how much money does one expect to earn in the profession?
Reality: Which causes are underlying the correlations (education, general principles, etc.)?
b) Course materials of certain groups of subjects are examined with respect to the aspect, whether they appeal to the pupils in a gender-specific manner (is it predominantly girls or boys, who are represented therein, are gender-stereotypical examples made use of, etc.)

Expansion: Step 4 – how to convert the current state into the target state?

Anti-Bias Approach

Daniela Otto

Pedagogical Objective

The Anti-Bias Approach serves the examination of discrimination experiences incurred by oneself or different persons. It is the pedagogical objective to reflect upon one's own entanglement with institutionalized ideologies and the accruing prejudices and discrimination mechanisms. Values such as tolerance, dignity and respect for others as well as abilities such as co-operation, critical thinking and the defending of one's own rights and the rights of others are meant to be strengthened by means of this approach.

Target group

The Anti-Bias-Approach addresses all people, since it is started from the assumption that everybody has once discriminated against somebody and has as well been discriminated against.

Context of application

The utilization of the Anti-Bias Approach does in particular lend itself in the case of groups with a highly intercultural composition.

Time Duration

Approximately 30 – 60 Minutes

Resources

None.

Introduction

The term ‚bias´ means as much as being prejudiced against someone or contorted perception, thus referring to the origin-specific background of the discrimination. Anti-Bias now understands itself as an activating approach, prompting to analyze any forms of oppression and discrimination and to counter them. The approach comprehends itself as an experience-orientated method relating to the participants' concrete realm of experience. Starting from the assumption of the personal, interpersonal experiences and attitudes, the interconnection of individual and social discriminating structures shall be disclosed and in a further step, non-discriminating structures of interaction and communication shall be developed and practiced.

Theoretical and scientific background

The Anti-Bias-Approach was developed by Louise Derman-Sparks and Carol Brunson-Phillips in the United States of America in the 80ies and has been implemented there in particular in the context of the Pedagogy of Infants. The approach has been further developed first and foremost in South Africa after the termination of the Apartheid and came from there to Europe in the middle of the 90ies by means of the exchange of specialists. Since then, the approach is gaining an increasing extent of acceptance and distribution.

Reflection
Within the framework of the Anti-Bias Approach, power structures and mechanisms of discrimination are reflected upon on an interpersonal, institutional and cultural/social level, as well as the individual integration in these structures.

Implementation
The Anti-Bias-Approach is endued with a broad spectrum of methods and it is not canonized uniformly. Most exercises, however, are configured in three steps:
 1) Self-reflection of the individual backgrounds, experiences and feelings
2) Encouragement of the exchange with others
3) Development of action alternatives

The different levels, discrimination may be located at, are reflected upon via three phases (compare Herdel):

Interpersonal level:	Practices of discrimination towards other people or groups within the framework of interaction and communication processes.
Institutional level:	Laws and structures, which are characterized by a social, judicial, political and/or economic power.
Cultural/social level:	Norms, values, ideals as well as discourses, which are recognized by the dominant majority as self-evident and are reproduced consciously and unconsciously.

Method
Group exercises and group discussion

Tools
None.

Pitfalls
The Anti-Bias-Approach lives on a trustful and appreciative atmosphere, initially facilitating an intensive exchange. For such an atmosphere to be able to develop, on the one hand, the structural setting and on the other, the authenticity of the individual person should be paid heed to.
Structural Setting:
- Discretion: Making an arrangement with the pupils, so that no reports of individual persons are passed on to the outside or that individual persons are not reported on.
- Freedom from value judgments: Address the topic of assessments and advert to the concept that within the framework of the exercises and discussions there is no „correct" or „incorrect" in the classical meaning.
- Voluntariness: Emphasizing the voluntariness of the participation in the exercises and discussions.
Attitude:
- Self-reflection: The individual entanglement in discriminating structures should be reflected upon and the individual prejudices should be looked into.
- Selection of the methods: The concrete exercises and methods should be selected by taking not only of the concrete composition of the groups into consideration, but also according to the individual aptitudes.

Example The exercise „Me – Not me"[2]

Tables and chairs are positioned in the corners of the class room and on the right- and left-hand side of the room, a signboard with the label "Me" or "Not-Me" is each installed. In response to the respective questions asked by the teacher, the pupils assembled in the middle of the class room assign themselves to the signboard "Me" or "Not-Me" and they head for the appropriate half of the room.

General questions
- Who has once sat on a horse?
- Who likes to play football?
- Who has brothers and sisters?
- Who is capable of playing an instrument?
- Who has good friends with a different religious affiliation?
- Who attaches great importance to her/her appearance?
- Who likes to paint?
- Whose parents live together?
- Who is in love right now?
- Who likes to write stories?
- Who has once been class representative?
- Who has once lied?
- Who has once scuffled?

Specific questions
- Who likes Mathematics?
- Who likes to chat?
- Who has downloaded music from the internet?
- Who is registered by Facebook, SchülerVZ or anything like that?
- Who is writing a software program?
- Who is doing photography?
- Who likes to edit and to upload pictures in the internet?
- Who likes to play online games?

The questions have to be answered clearly by an appropriate assignment – the possibility of positioning oneself between both poles "Me" and "Not-Me" is out of the question (However, questions, one does not feel comfortable with, may be answered incorrectly „in case of an emergency")
According to the individual questions, it is important to allow the groups, which constantly re-constitute themselves, to persist for a while. The pupils should be prompted from time to time to envision, who, in each case, is in their group, who is standing vis-à-vis and how this feels in each case.
In the end, the pupils themselves are given the opportunity to ask questions for the others to answer; they are, however, advised to select them carefully and sensibly.

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[2] Variation of the exercise "Me – not me" by Oliver Trisch (2007).

The exercise will be concluded with a plenum, in which the subsequent questions can be discussed:

- How was it like, to stand alone on one side?
- How was it like, to stand on the side with many others?
- What has attracted your attention?
- What has surprised you?
- How was it like, to ask questions yourselves?
- Were all of the questions of the same significance to your life?
- Are there assignments, which have (not) been used in the exercise, on the basis of which you feel especially affiliated to other people /groups? Which assignments are those?
- Why are those assignments to affiliations to other people/groups of relevance to you?
- Do those differ in your opinion from the assignments generally construed in society?

Story Telling

Daniela Otto

Pedagogical Objective

Story Telling is aimed at the enhancing of implicit contents of knowledge in the form of experiential documents. By the method of the qualitative content analysis, motives, emotions and interpersonal dynamics are thereby being revealed and are thus approachable to a critical examination. Moreover, Story Telling may give the impetus to a cultural change in an organization and render a contribution to confidence-building and the forming of a group identity.

Target group

Pupils of any age group.

Context of application

The employment of Story Telling is in particular suitable prior to or at the point in time, respectively, of the pupils' making their career choices.

Time Duration

Developing of hypotheses and devising of a questionnaire approximately 45 minutes
Conducting of an interview approximately 10 minutes
Analysis and discussion approximately 45 minutes

Resources

Dictaphone or paper and pencil for taking a protocol of the interviews.

Introduction

Story Telling, which means as much as the narrating of tales, is a method with origins in knowledge management and supports the communication of experiences. It is employed in organizations for enhancing implicit knowledge (inter alia also values and norms) and explicit know-how with respect to important occurrences, and it is then used as a starting point for resuming the reflection and discussion. The great excellence of this approach lies in its pictorial and analogous character. By means of a vivid narrative style, concrete associations are evoked at the listener, which are resuming on the rational, as well as the emotional level.

Scientific background

The presented Method of Story Telling is based upon the method of „Learning in Histories", which has been developed at the Center of Organizational Learning of the MIT by Art Kleiner und George Roth. The approach has been modified and optimized furthermore regarding its efficiency with respect to the rendering of implicit knowledge manageable by Andrea Neubauer, Christine Erlach und Karin Thier.

Reflections

Un- and pre-conscious motives, emotions and attitudes may be revealed by means of the method of Story Telling. The experiential document constitutes the point, from the start of which a well-directed, critical analysis and reflection of values and norms becomes feasible.

Implementation

Within the framework of Story Telling, six consecutive phases may be distinguished between, which are delineated subsequently on the basis of Neubauer, Erlach and Thier (2004):

Planning: Clarification of the objective, which is to be pursued by the experiential document. Afterwards, a prominent incidence is looked for, on the basis of which the story shall be constructed.

Interviewing: Participants and persons concerned are questioned with respect to the selected incidence, about their personal experiences, impressions and opinions. For this purpose, a combination of narrative and semi-structured interviews is employed. The semi-structured portions resume the pursed objective target with concrete questions, the narrative portions, on the other hand, give the participants an opportunity to bring in new aspects and the scope for a personal statement

Extracting: In dependence upon the procedure of the qualitative content analysis, main topics are elaborated and substantiated by means of quotations from different perspectives. Descriptions and incidences, which have again and again been taken up by the interviewees, thus being of central significance to them, can be regarded as the main topics.

Writing: The main topics are now brought together for an emotionally-marked and conclusive story. The experiential document consists of several short stories. Each short story should be provided with a preferably interesting title; a short abstract ensues, explaining, what it is about. Everything else is retained in the form of two columns. In the right column, the verbatim quotations of the interviewees are being covered. The left column, however, serves the commenting on the quotations by the author – provocative questions, declarative elucidations etc.

Validating: The initial draft of the experiential document is returned to all participants requesting them to verify the quotations, make modifications or to adduce addenda.

Distributing: The content of the experiential document is distributed within the organization in a well-directed manner through workshops. Participants are hereby getting together and they may exchange their opinions and theories. The theories and insights, which are arrived at by means of the method of Story Telling, are thus made usable for other contexts. Within the framework of the workshops, conversations are meant to be encouraged, the results are intended to be reflected, in order thus to initiate learning processes

Method

Narration, interviews, discussion

Tools

Interview Guideline

Pitfalls

Since people do not frankly give an account of their experiences and do not expound their opinions, until they confide in their counterpart, Story Telling presumes one the one hand the participants' frankness and willingness of participating in the process and, on the other hand, the certainty that also critical comments are being accepted and that no subsequent

sanctions will follow. Therefore it is important to render the quotations in the experiential document to the greatest possible extent anonymous and to give the interviewees the opportunity, not to answer certain questions in the interview „in case of emergency".

Example

A Computer Corporation has been introduced in school. Many pupils have enrolled in the compulsory optional subject; however, merely relatively few girls are among them.

Assign the task of ascertaining the reasons for the unequal distribution to your pupils. The method of Story Telling should be employed for this purpose. Briefly induct your pupils into the method of Story Telling and familiarize them with the individual steps of work:

1) The pupils are meant to deliberate in two-person-teams on the issue, which possible causes might underlie the unequal distribution in the Computer Corporation.
2) The deliberations conducted by the group of two persons will be discussed and written on the blackboard.
3) Now, the pupils are intended to develop interview questions that are in a position to support or fail to provide support for the formulated hypotheses. These as well shall be assigned to the hypotheses and written on the blackboard. In addition, two to three questions, which are kept on a very general level, are to be formulated, enabling the persons questioned to bring in new aspects and their individual views.
4) Now, the questions and hypotheses will be subjected to a mutual choice-making process. The selection criterion for the hypotheses is the universality and the explanatory power with respect to the formulation of the question. The questions will be selected according to their suitability for the hypotheses. The choice is now put on record in a questionnaire (approximately 10-12 questions).
5) In the course of one week, the pupils are now intended to conduct an interview with a girl and a boy at school, utilizing the guideline. The interview shall be conducted in pairs: one person is conducting the interview, while the other person is recording the answers in writing.
6) The task of evaluating their own interviews in pairs of two will now be assigned to the pupils:
   - It shall be verified, whether the hypotheses that have been elaborated on, are correct.
   - The interviews shall be looked through with respect to hitherto unconsidered aspects and based upon this, further hypotheses shall be formulated.
   - The interviews shall be examined with regard to the issue, whether any differences in the answer patterns of boys and girls can be ascertained.
7) The results are collected among the whole class and made a note of. Based upon this protocol, measures are to be developed and discussed, how girls could be motivated for the Computer Corporation and promoted.

Variants, Transfer, Application

Now, assign the task of examining career developments within the ICT sphere and of interviewing persons from this field on the topic of the „occupational career" to your pupils.

Concept Mapping

Bernhard Ertl, Sog-Yee Mok & Daniela Otto

Pedagogical Objective
The central objective of the Concept Mapping is to represent the concepts and their complex interrelations in a structured manner. Moreover, it serves to support the pupils' structuring and remembering processes with respect to a new subject-matter.

Target group
Pupils from the secondary school level onwards

Context of application
The method of Concept Mapping is suitable in particular for contexts of learning with complex subject-matters. This means that pupils are capable of representing and comprehending complex topics better by means of this method. Simultaneously, by the creation of Concepts Maps in ICT lessons, the perception of both genders can be sensibilized with respect to stereotypes and can be discussed among the whole class.

Time Duration
Approximately 45 minutes

Resources
Paper and colored crayons or computer

Introduction
The Concept Mapping is a method of the stepwise visualized representation of concepts and their complex relations. Since knowledge is often presented in linear manner in the form of a text and since this may exacerbate the comprehension of correlations, the technique of the „Concept Mapping" lends itself as a structuring aid and method of learning (Tergan, 2005). It facilitates the visual representation of concepts and their correlations, thus rendering subject-matter-specific relations and conclusions salient.

Theoretical and Scientific Background
The method of Concept Mapping was developed in 1972 by Joseph D. Nowak, in order to capture the changing knowledge of kindergarten children. Since the mid 1990ies, the expatiating upon expertise in the context of enterprises has been focused on (Nowak, 1984). Two fundamental ideas are central in Concept Mapping:

- The active creation of concepts in the course of the Concept Mapping process may support pupils in learning better

- By means of Concept Mapping, pupils can link fresh knowledge with previous knowledge

Reflection
By means of the Concept Mapping method, complex issues of the matter and their correlations are being reflected. By the visualization of causes, effects and interdependencies, it lends itself brilliantly to the representation of gender analyses.

Implementation

A Concept Map can (according to Reinmann & Eppler, 2008) be created in the subsequent *steps*:

1) Focus question: Formulate a focus question, the Concept Map is intended to answer. With this question, the pupils are developing their own maps. The question is positioned as the main concept (yellow) into the centre of the Concept Map and it is abbreviated, when appropriate.
2) Prompt the pupils to write the most important concepts for answering the questions on a Din A4 paper as nodes. The concepts can be divided up according to positive (green) and negative (red) aspects.
3) The concepts that have been arrived at shall be categorized as general concepts, so that these general concepts constitute a higher level of structuring for the individual concepts.
4) Now, prompt the pupils to transfer the concepts to a Concept Map. The pupils are meant to transfer the focus question as the central concept into the center of a new sheet of paper (Din A3). From there, the pupils are intended to commence to adopt the neutral, general concepts (blue).
5) The further concepts or concrete examples, respectively, pertaining to the respective general categories are arranged in their proximity and now related to the arrows.
6) The width of the connecting arrows can in this process reflect the intensity of the relation between two arrows and is entered by the pupils into the concept map.
7) Prompt the pupils to enter possible cross-links. This can also take place via various strings of Concept Maps.

Explanation

The following rules are adjuvant for the creation of a Concept Map (according to Reinmann & Eppler, 2008):

1) A Concept Map consists of nodal points and connecting arrows linking various nodes.
2) The nodes in each case represent a concept, i.e. they are represented in the form of nouns or substantives.
3) The connecting arrows are directed. By the connection of boxes by means of the arrows, assertions with regard to the relations between two concepts are emerging.
4) The structure of the Concept Map commences with the main topic, this is positioned in the centre of the Concept Map, it then proceeds to the neutral superior categories and in most of the cases concludes in concrete (positive and negative) examples with respect to a concept.
5) If one follows the connecting arrows from the centre of the Concept Map to one end of a connection, one should thus be in a position to establish reasonable relations.
6) A Concept Map should contain cross references or connecting arrows, respectively, between various concepts from different connection strings. This way, pupils shall be encouraged to establish links between pieces of information.
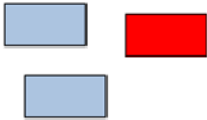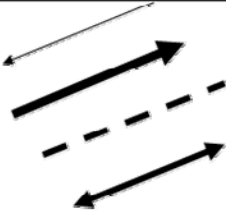
Method

Visualization, brainstorming, discussion

Tools

The central *concept (topic)* is represented visually by *a* „Concept Map". This can be a graphic display of positive and negative terms of the concept as well as their correlation or as well a detailed display of different concepts of a sphere of knowledge Concepts are represented as *nodes* (Tergan, 2005).

The connections between two nodal points are displayed as *connecting lines* or *arrows* representing the relation of two concepts. Similar concepts or concepts that relate to each other are linked via these connecting lines with one another. The shape and color of the nodes can be chosen arbitrarily, they should, however, be ascertained uniformly at the beginning of the Concept Mapping. By the width of the lines, the intensity of the relation between the individual concepts can be expressed.

name	graph	content / visualization	variation
nodal points		various categories of the main topic / the concepts	shape, color, Schraffur
connections		type and direction of the relations; intensity of the correlations between the nodes	arrows, lines, width

Pitfalls

Attention should be paid to the idea that the Concept Map is created step by step (compare the implementation), so that the individual dimensions of Concept Mapping can be taken into consideration attentively and holistically (generalization, evaluation, revelation of relations, etc.)

Example

„Of which significance are women in the subjects of Science, Technology, Engineering, and Mathematics (STEM)?"

Ask your pupils this question. Prompt your pupils to prepare Concept Maps with all of their associations /attitudes with respect to the topic of "Women in STEM" and then collect them (duration: 10-15 minutes).

After creating the Concept Maps, the maps can be exchanged between a pair of pupils (a girls and a boy each). In a concerted manner, the respective pair shall discuss the subject-matters of the Concept Map. Subsequently, the results are compared and discussed in the lessons (duration: 15 minutes).

What are the similarities in the perception?

What are the differences in the perception?

Are there any stereotypes in the perception?
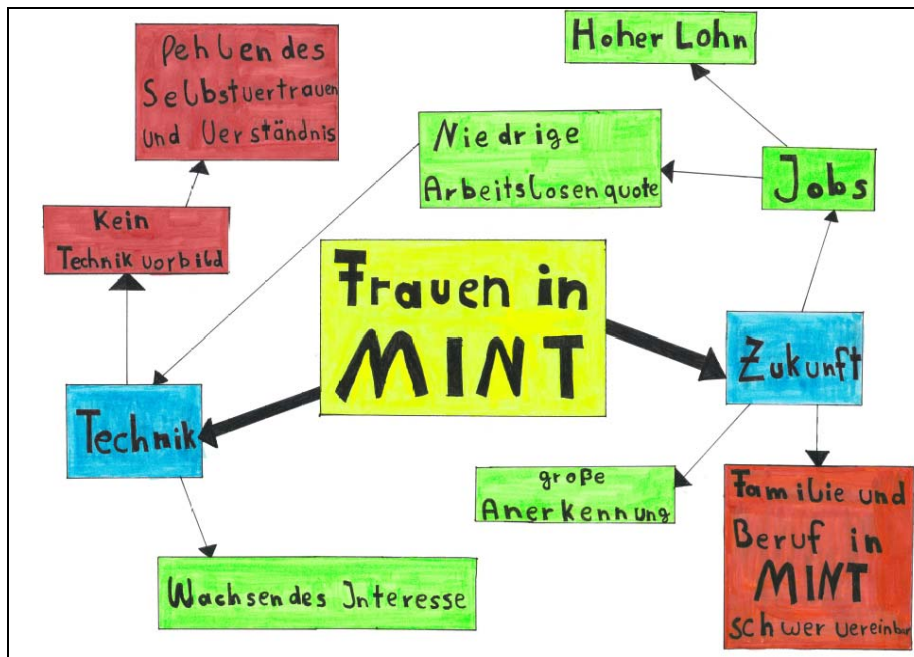
Example 1: Concept Map of a female pupil – Women in STEM (MINT)

Variants, Transfer, Application

There are different forms of the graphic representation of Concept Maps. The configuration of the concepts is effected in most of the cases in the form of a net of in the manner of „clusters" (accumulated). At the beginning of the method, a type of graphic rendition should be agreed upon and the form and color of the nodes and their meaning should be determined.
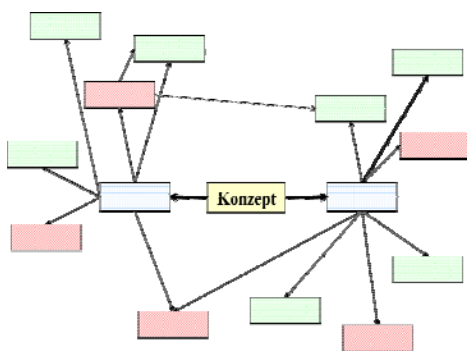

This type of graphic rendition combines the different concepts with one another in the form of a net. In this process, the cross-links become clearly apparent and can be retained in memory at greater ease.
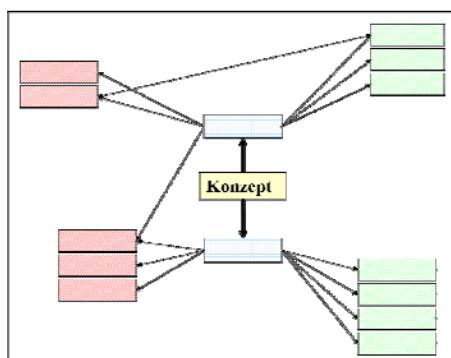
Diagram 1: Net-like concept map

By means of the accumulation, concepts pertaining to each other e.g. positive and negative concepts can be represented clearly in the cluster-representation of a concept map. Concepts that are similar with regard to their contents are positioned in a closer proximity.

Diagram 2: Cluster-like concept map

Attribution and Reattribution Training

Daniela Otto

Pedagogical Objective
The pedagogical objective is the enhancement of the performance motivation and the correct assessment of action competences.

Target group
Individual pupils of any age group.

Context of application
The method serves to render assistance with regard to the interpretation of performance outcomes e.g. at the passing back of tests

Time Duration
Test approximately 5 minutes
Evaluation approximately 30 minutes
Counseling interview approximately 15 minutes

Resources
None

Introduction
How the pupils comport themselves during lessons and in which form they are taking advantage of the scope of lessons greatly depends on which causes they attribute their school performances to. According to Heider's Theory of attribution (compare Heider, 1977), two dimensions "locality" and "stability" and four resulting attribution patterns are to be distinguished between. The dimension "locality" refers to the place of the attribution of causes – it may either be attributed internally to the individual person or externally to certain environmental factors. The dimension "stability", however, refers to the convertibility and controllability of the cause – it may be regarded either as temporally stable ("is always like this") or temporally variable ("may be different next time"). Which cause-attributions are possible on these both dimensions, illustrates the subsequent table, in which the cause-attribution is represented exemplarily for a bad result in a written examination.

Scheme of classification of the determinants of the performance behavior according to Weiner (1971)

		Locality	
		Internal	**External**
Stability	**Stable**	Ability/talent	Difficulty of the task
	Variable	Endeavor	Coincidence

According to Ziegler et. al. (2001), the following assumptions may be formulated with respect to a favorable attribution behavior. The rule of thumb is: It is advantageous to explain successes internally and failures variably.
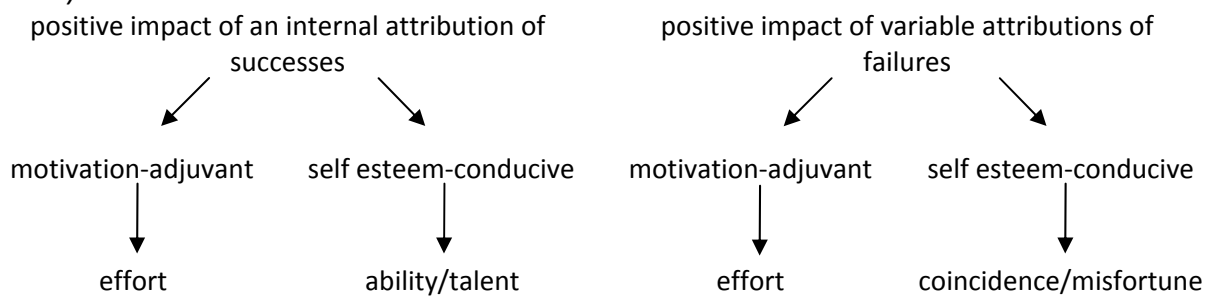
Motivation-adjuvant attributions:

- If success is attributed internally upon the endeavors made and the commitment shown, this has a favorable impact upon the performance motivation. The person is motivated to continue to make an effort and to assume performance-related activities.
- If failure is attributed variably to a humble commitment, this has a favorable effect on the performance motivation. The person knows that if she/he worked harder, better results would be possible.

Self esteem-conducive attributions:

- If success is attributed internally to one's own abilities, this has a favorable effect upon a persons' self-esteem. The person experiences her-/himself as an effective agent, the acquiring of the appropriate competences seems to her/him to be fundamentally possible.
- If success is attributed variably to coincidence or misfortune, this has a favorable effect on a person's self-esteem. The person knows that on different conditions, enhanced results would be possible.

Self esteem-conducive and motivation-adjuvant attributions according to Ziegler et. al. (2001):

positive impact of an internal attribution of successes		positive impact of variable attributions of failures	
motivation-adjuvant	self esteem-conducive	motivation-adjuvant	self esteem-conducive
effort	ability/talent	effort	coincidence/misfortune

Theoretical and scientific background

Ziegler et. al. (1998) developed a method on the basis of the theory of attribution, by means of which pupils are learning to apply favorable patterns of attribution to their performance behavior. The method, he referred to as "re-attribution training", has been tested at pupils in the physics lessons of the 8th grade of a secondary school. It turned out that the pupils, who participated in the training, attributed more favorably and that they were better motivated and more interested than pupils in the comparison group.

Reflection

The cause attributions for successes and failures are reflected upon. The method helps teachers to recognize, who of the pupils are attributing rather favorably or less favorably, in order to respond to them more intensively in a further step. Since girls show a stronger tendency than boys towards an unfavorable attribution behavior, it is likewise important to take the issue into consideration, which gender dynamics prevails in the class community. Beyond that, within the framework of the method, an incentive is given to reflect upon the employed didactics, in particular the performance feedback behavior.

Implementation
1) Ascertainment: Ascertain the attribution behavior of the pupils by means of a questionnaire (compare the example further below)
2) Evaluation and reflection: Ask the following questions
   - Are there any structural patterns in the answers?
   - Are there gender-specific differences at some of these structural patterns?
   - Are some of them related to the levels of performance?
   - If your pupils are grouped according to performance principles, how does this seem to affect their answers?
   - Have you been surprised about the answers of some individuals?
   - If this applies, which of your assumptions on the individuals were concerned?
   - Can you think of three things you are doing in your course, which might elucidate the results of the questionnaire?
3) Intervention: Ask the following questions
   - How will you be able to respond to a greater extent to your pupils with an unfavorable attribution behavior and to encourage them to demonstrate a more favorable attribution behavior?
   - What will you be able to change about your course in general, in order to foster a favorable attribution behavior in the whole class?
   - Which type of performance feedback should you give to your pupils, so that they experience themselves as an effective agent and demonstrate a greater level of motivation and willingness to perform?
   - How can you influence the dynamics in the whole class, so that a favorable attribution behavior will be fostered?
4) Performance feedback (according to Ziegler et. al. 2001):
   Should you gain the impression that a pupil overestimates her/his performance potential, it is advisable to provide first and foremost motivation-adjuvant feedbacks. In the case of a realistic assessment, well-balanced motivation-adjuvant und self esteem-conducive feedbacks should be given. Merely in the case of very self-esteem-unassertive pupils, who strongly underestimate their performance potentials, it is advisable to comment on performance outcomes primarily in a self esteem-conducive manner.

Method
Analysis, reflection, counseling interview

Tools
Questionnaire

Pitfalls
In the case of the feedbacks, attention should be paid to the aspect that no excessive expectations are raised and that unrealistic attributions are avoided.

Example
Prepare a questionnaire for your class, in order to find out, what your class is thinking in the ICT-teaching. You might take advantage of the subsequently denoted key messages and have the class check them on a scale with the categories "applicable", "not applicable" or "neither nor".

If I *score well* in STEM *,* this is due to …
1) the fact that I have been excited
2) other factors
3) the tasks
4) the fact that I have made an effort
5) my abilities
6) the fact that I have concentrated
7) coincidence or good luck
8) I do not know

If I *score poorly* in STEM, this is due to …
1) the fact that I have not been excited
2) other factors
3) the tasks
4) the fact that I have not made an effort
5) the fact that I have not concentrated
6) my lacking abilities
7) coincidence
8) I do not know

Feedback:[3]
- *Success feedback – focus upon self-esteem:*
  You are very appreciative of this question.
  You have mastered the task superbly this time as well, you have it under control.
  Do you see, which abilities you are endowed with?
- *Success feedback –focus upon motivation:*
  You have learnt this matter really well.
  You have learnt adroitly.
  You see, if you pay attention and if you concentrate, you will manage to do it.
- *Failure feedback – focus upon self-esteem:*
  The task has this time really been difficult and has been a problem for many.
  You have been unlucky this time.
  You have probably had a bad day.
- *Failure feedback –focus upon motivation:*
  You have given in too rapidly, you know how to do it in actual.
  You have calculated too hastily this time.
  If you have a closer look at it, it certainly will work out fine next time.

Variants, transfer, application
Create a statistics from the data set illustrating the response behavior of boys and girls. Take this as a basis for a discussion in the lessons.

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[3] Examples for the feedback: Ziegler et. al., 2001

Coaching

Daniela Otto

Pedagogical Objective
Generally speaking, coaching serves the self-directed enhancement of perception, of experience and behavior of the coachee. In the context of the lessons, it is primarily employed to enhance the learning- and performance-orientated behavior of the coachee by taking her/his individual resources in particular into consideration.

Target group
Pupils of any age group

Context of application
Promotion of individual pupils

Time Duration
One-on-one interview approximately 5 – 10 minutes

Resources
None

Introduction
The English term of „coach" signifies in the original sense a medium, which serves to getting from one place to another. Coaching may therefore be understood as a means of transport for meta-knowledge: the coach does not provide her/his coachee with specifications regarding the objective or the solution of her/his approach, but he/she accompanies her/him along the way, supporting and motivating her/him in the further development. In the case of a gender-specific application of the coaching, the coach is considering the different interests and life situations of boys and girls and tries to counteract destructive gender-specific behavior patterns (e.g. unfavorable patterns of attribution) in the conversations.

Theoretical and scientific background
Coaching is a form of counseling, which has developed from the practice. Coaching measures have thus no explicit theoretical background, a certain model or a specific theory may be assigned to. From a model-theoretical point of view, coaching verges on the process counseling and the supervision as a person-orientated form of counseling.

Reflection
The individual objectives are in a first step consciously reflected upon in the course of the coaching process. In a second step, starting from the concrete resources of the coachee, the different means are analyzed, in order to achieve the objectives. The task unclosing and sensibilizing the coachee's view for a wide spectrum of potential means and their effects is thus assigned to the coach.

Implementation
Formulation of a coaching offer:

The coach makes a dialogue-orientated offer of relationship – this implies the possibility for the coachee to decline this, if necessary.

Order of the preferences
The coach helps to elaborate on individual objectives and preferences and induces to classify them. Even inconsistencies between individual wishes can be revealed and elaborated on here.

Amplification of the perception of options of acting:
The coach assists in the developing of an appropriate action strategy and encourages the dealing with potential consequences and impacts of the individual acting. In this context, the coach takes the individual resources of the adolescents and their embedding in a social system (rules, norms, values, expectations).

Feedback:
The feedback can refer to the behavior and the experience in a concrete situation or to immediate experiences in the coaching-situation and their impact. In any case, the compliance with a constructive feedback should apply.
Delegation: The pupils themselves assume the responsibility for the organization of the individual steps, which are necessary to pursue the objective.

Elucidation
An essential prerequisite for a successful coaching is the voluntariness of the coachee with respect to the participation in the working alliance. A coach endeavors to establish a relationship, which is characterized by esteem, empathy and acceptance. She/he does not interpret and condemn, but is in a position to convey her/his position or feedback, respectively, transparently.

Method
One-in-one interview

Tools
The Coaching has a rich repertoire of tools and methods, some central methods are enlisted subsequently:

Active listening:	Empathic and open attitude in the conversation, authentic demeanor and comprehensive acceptance of the other person.
Breaks:	Breaks in the conversation, but also a "caesura" in the counseling.
Change of perspective:	Positioning the problem within a new frame. The new frame can refer to the context or the meaning
Analogies:	Finding connections with and/or similarities to the problem and scrutinizing, whether the offered solution may be transferred to the concrete situation.
Visualization:	Internally envisaging the problem and possible strategies of solution.

Constructive Feedback: The feedback should be formulated as an "I-Message". A feedback should comprise the perception, impact and a desire or proposal.

Pitfalls

The form of the internal coaching and the adoption of the role of the coach as a teacher has to overcome two essential obstacles: On the one hand, the notion of a control of the coaching objectives by the school or the teacher is contradictory to the notion of a coaching process that is self-directed by the coachee, which is orientated towards her/his individual needs. On the other hand, the teacher has to balance out the role conflict, which ensues from her/his role as a coach (i.e. the neutral tutor) and her/his role as a teacher (with a concrete teaching assignment and the appropriate power to impose sanctions).

Example

Person	Subject-matter	Tool
Teacher	How do you cope with the subject-matter in the IT-lessons at the moment	Offer of relationship, expression of empathy
Female pupil	Not so well	
Teacher	What is the reason for this in your opinion?	Signalize the willingness to communicate, open-end question, clarify, what it is about
Female pupil	I simply don't know how to do it	
Teacher	Why do you think that you don't know how to do it?	Open-end question, clarify, how the problem expresses itself concretely
Female pupil	I never have done well in IT, you will have noticed this with respect to my written examinations	
Teacher	As far as I know, your first written examinations have been quite good. What did you do differently then?	Resource-orientated course of action, distend analogies
Female pupil	Well, in the beginning, it has also been quite easy to follow the subject-matter. In addition, these have been things, I can use later on.	
Teacher	The subject-matter seems to you not to be of avail for your future tasks. If I feel certain things not to be reasonable, it is difficult for me, too, to motivate myself for this. What would you like to do after school?	Paraphrasing, empathy
Female pupil	I would like to pursue an apprenticeship as an administrative assistant	

Teacher	You have got an interesting objective ahead of you. To my knowledge, IT skills are become more and more important in this area, too. Would this not be an incentive to look into IT more intensively again?	Constructive feedback, take up a position
Female pupil	Well,… maybe…	
Teacher	With which tasks might IT help you as an administrative assistant?	Encourage a change of the perspectives
Female Pupil	With text processing in any case and maybe as well with the spreadsheet analysis.	
Teacher	How could you best proceed, in order to deepen your knowledge in these spheres?	Emphasizing of the personal responsibility
Female pupil	Franzi is quite good at it, she definitely is able to explain some things to me.	
Teacher	That's a good idea. Can I support you in any way?	Constructive feedback, offer to provide support
Female pupil	No, but thank you	
Teacher	Then I wish you first of all success in the coaching with Franzi. I would be happy, if you told me, whether it works and how your first conjoint steps are proceeding.	Summing up and scrutinizing, commitment
Female pupil	That's what I will do. Thank you	
Teacher	All the best and we will see each other then in the next lesson.	Empathic conclusion of the conversation

Variants, transfer, applications
Group coaching, external coaching, self-coaching, online-coaching

Conclusion

Daniela Otto

The objective of a gender-sensitive didactics of teaching is a methodical structuring of seminars, which reacts in a differentiated manner within the teaching processes upon various ways of communication and interaction of the genders and enables both genders to contribute appropriately in accordance with their learning requirements. The present report provides a representation of different gender-sensitive teaching methods, which are tailored to the STEM sector and which take in particular account of the promotion of girls. The presented methods inspire the reflection upon gender-relevant topics and aspects and are in a position to augment the gender competence of the pupils, but also of the teaching staff. It is of significance in this respect, to take into consideration that the techniques are merely able to unfold their full potential, if the structural framework conditions are in accord with them: The prerequisite of the majority of the methods is an authentic and confiding interaction with one another. A central role in the generation of such an atmosphere is attributed to the teachers.

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