COMPETENCY MODEL AND STANDARDS FOR MEDIA EDUCATION

Modelo de competencias y estándares para la educación en los medios

Modèle de compétences et de normes pour l'éducation aux médias

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RESUMEN: En Alemania, las normas educativas de los temas clave de la escuela se han desarrollado como consecuencia de los resultados de los estudios comparativos internacionales como PISA. Posteriormente, los partidarios de campos interdisciplinarios, tales como educación para los medios, también han comenzado a llamar a los objetivos modelos de competencias y estándares. Al hacerlo, el desarrollo de un modelo de competencias y la formulación de normas se describe por consiguiente como un proceso de toma de decisiones. En este proceso, las decisiones se tienen que tomar en áreas y aspectos de competencia para estructurar

el modelo, en criterios para diferenciar ciertos niveles de competencia, en el número de niveles de competencia, en el nivel de abstracción de las formulaciones y en las tareas para comprobar las normas. Se demuestra que la discusión sobre la educación en medios, así como en las competencias y las normas ofrece diferentes posibilidades de estructuración, destacando y diseñando un modelo estándar de competencia. En este contexto se describen y razonan nuestras decisiones y nuestro modelo estándar de competencias. Al mismo tiempo, nuestra contribución pretende iniciar nuevos avances, pruebas y discusiones.

Palabras clave: competencia en medios, educación en medios, estándares educativos, alfabetización mediática.

SUMMARY: In Germany, educational standards for key school subjects have been developed as a consequence of the results of international comparative studies like PISA. Subsequently, supporters of interdisciplinary fields such as media education have also started calling for goals in the form of competency models and standards. In this context a competency standard model for media education will be developed with regard to the discussion about media competence and media education. In doing so the development of a competency model and the formulation of standards is described consequently as a decision making process. In this process decisions have to be made on competence areas and competence aspects to structure the model, on criteria to differentiate certain levels of competence, on the number of competence levels, on the abstraction level of standard formulations and on the tasks to test the standards. It is shown that the discussion on media education as well as on competencies and standards provides different possibilities of structuring, emphasizing and designing a competence standard model. Against this background we describe and give reasons for our decisions and our competency standards model. At the same time our contribution is meant to initiate further developments, testing and discussion.

Key words: media competence, media education, educational standards, media literacy.

RÉSUMÉ: En Allemagne, des normes éducatives pour les matières scolaires importantes ont été développées comme une conséquence des résultats de la comparaison internationale d'études comme PISA. Plus tard, les partisans de domaines interdisciplinaires tels que l'éducation aux médias ont également commencé à appeler les objectifs sous la forme de modèles de compétences et des normes. Dans ce contexte, une modèle de normes de compétence pour l'éducation aux médias sera développée en ce qui concerne la discussion sur média compétence et l'éducation aux médias. Donc le développement d'un modèle de compétences et la formulation de normes est décrite par suite comme un processus de décision. Dans ce processus, des décisions doivent être prises sur domaines et aspects de compétences pour structurer le modèle sur des critères pour différencier certains niveaux de compétence, sur le nombre de niveaux de compétences, sur le niveau d'abstraction

des formulations standards et sur les tâches de vérifier les normes. Il est montré que la discussion sur l'éducation aux médias ainsi que sur les compétences et les normes offrant différentes possibilités de structuration mis en évidence, et la conception d'un modèle standard de compétence. Nous décrivons les raisons de nos décisions et notre modèle de normes de compétences. Au même temps notre contribution est destinée à lancer d'autres développements, les tâches et la discussion.

Mots clés: la concurrence dans les médias, l'éducation aux médias, les normes éducatives, d'alphabétisation aux médias.

1. INTRODUCTION

The current discussion about school curricula in Germany is –among other things– determined by the goal to develop standards for different subjects in school. These developments were mainly triggered by the dissatisfying results of international large scale assessment studies regarding German students' reading, mathematical and scientific competences (see Deutsches PISA-Konsortium, 2001). Such empirical studies as well as the following consequences gave certain subjects –despite or even because of the measured weak achievements– special significance. The risk in concentrating on certain subjects is that other fields of study in school might get less public attention and become less important to teachers and headmasters. Thus it is not surprising that media education has called for standards in its own field (cf. for instance the articles in Computer + Unterricht 2006, volume 63). However, the call for standards was not exclusively determined by the concern to fall behind in public and school debates. By the same token media educators in school and educational administration demanded to describe the goals for media education more precisely. Against this background a few drafts for competency models and media education standards have been developed by German-speaking media educators (cf. for instance Moser, 2006; Tulodziecki, 2007; Tulodziecki *et al.*, 2010). Moreover, expert groups of the different German states discussed the question of necessary competences in the context of media or in an information and knowledge society (cf. for example LKM, 2008 and BMBF, 2010).

In this context the term «competence» is understood in terms of the theory of action according to the educational psychology discussion in Germany (and not on linguistic grounds): Competence is the acquisition of knowledge, abilities and readiness (including value orientations), which are considered as dispositions for autonomous judgement and action. The dispositions include factual, motivational respectively self-regulated and social-communicative components. They can be acquired in educational processes and allow a reflective coping with variable tasks and situations (cf. Weinert, 2001; Klieme y Hartig, 2007; Tulodziecki, 2011). In a similar way the term competence is understood in other contexts, e.g. with regard

to the concept of emotional intelligence (cf. Golemann, 2009; The Consortium for Research on Emotional Intelligence in Organisations, n.d.).

In contrast the term «standard» describes concrete requirements for teaching and learning. In this context performance standards, content standards and opportunity-to-learn-standards can be differentiated. In the following we use the term in the sense of performance standards and refer to expected and desired learning goals of educational activities (cf. Klieme, 2004: 727-629).

However, that does not mean that the development of competency models and standards only meets acceptance, but there are also points of criticism in the debate about competence expectations and standards (cf. Tulodziecki & Grafe, 2006). For example, the compilation of competence expectations and standards bears the risk that they are formulated with the goal of a possible evaluation, so that some –hard to verify yet significant– guiding principles for education only find insufficient attention. Implementing standards can cause an overemphasis on targeted learning control while neglecting desirable educational process qualities. Thereby, uniform requirements could dominate and the individual learning support and competence development could become less important. In addition, some competence expectations and standards are formulated without an explicitly justified and transparent competency model so that they could convey the impression to be eclectic collections. This risk is particulary given at sets of competence expectations or standards of working groups, which have to strike compromises due to different perspectives (cf. for example the position paper of the state conference media and education: lkm, 2008). Considering such problems, in the following, we will design an explicit competency model based on theoretical approaches to media competence and media education with respect to central ideas for education. For the implementation we understand competence expectations and standards especially as tools for reflection and guidance of learning processes (and not mainly as instruments of learning control). Thereby, the diagnostic function as a basis for the promotion of individual competence development is especially important to us.

2. MEDIA COMPETENCE AND MEDIA EDUCATION AS A REFERENCE FRAMEWORK FOR THE DEVELOPMENT OF A COMPETENCY MODEL

In the German discussion about media competence and media education at least three levels can be distinguished:

The *first level* is about the frame from which questions or leading ideas of media competence are developed for media education. For example, Baacke (1996) chooses the discussion about communicative competence as a frame and defines media competence as an «ability to use all kinds of media for the communication and action repertoire of people» (p. 8, own translation). Wagner (2004) adopts a historical perspective and describes media as «tools to learning about and understanding the world» as well as their meaning for cultural and social

development. In his opinion media competence aims «at the ability to criticise and analyse and should also include the development of expression and of the capacity for experience» (p. 3, own translation). Another possibility is to take general leading ideas for education as a starting point. In doing so, media competence is placed in the context of the central idea of a culturally and socially acting subject and is defined as the ability and willingness to deal with media in a skilled, autonomous, creative and socially responsible way (cf. for instance Tulodziecki, 1997: 116; Hurrelmann, 2002: 112).

On a *second level* one has to decide about how to differentiate media competence in a reasonable way and how to structure curricular considerations. Here arise three different ways which are also connected with each other in single concepts.

- Structuring according to fields or areas of media competence:

Baacke (1996: 8), for example, distinguishes four fields: media criticism, media knowledge, media use and media creation. In another approach two fields of activity (distinguishing and using appropriate types of media for a variety of purposes/ creating and disseminating own media messages) and three content areas relevant for action and reflection are described (understanding and evaluating the design of media messages/becoming aware of and dealing with media influences/identifying and evaluating conditions of media production and media dissemination), so that a total of five task areas of media education emerge which also contain sub tasks (see below, also Tulodziecki, 1997: 142 ff.).

- Structuring according to dimensions:

Aufenanger (2001: 119 f.), for example, defines six dimensions of media competence: he distinguishes a cognitive, a moral, a social, an affective and an aesthetic dimension as well as an action dimension.

- Structuring according to sub competences:

Moser (2006: 49) differentiates within his competence model among others between subject competences, methological competences and social competences. According to such a differentiation, in principle other sub competences could also be taken into account, e.g. emotional competences according to Goleman (cf. The Consortium for Research on Emotional Intelligence in Organizations, n.d.).

- Structuring according to different kinds of media:

Spanhel (1999: 173), for example, names various «leading media» for the integration of media education in different forms: pictures for form 5; TV, video and films for form 6; audio media for form 7; newspapers and magazines for form 8; multimedia, CD-Rom, internet for form 9. To test the consequences for the formulation of standards, Tulodziecki (2007: 27 ff.) differentiates between print media (photo/picture, newspaper/magazine, book/brochure), audiovisual media

(radio/audio recordings, film/video/television) and computer/Internet (tools, computer-based offers, environments).

Apart from these two levels, reflections about media education are on a *third level* determined by different aspects of teaching media education units or projects in school. Almost all German media educators favour an action-oriented approach, partly linked with other principles like communication, situation, experience, need –and development– orientation (cf. Tulodziecki, 1997: 140 f.).

Whereas the first one of the outlined levels describes a possible frame for a competency model, the second level, in particular, contains suggestions on how to structure a competency standard model. The third level rather aims at questions of possible implementations and process standards of media education.

3. DEVELOPMENT OF A COMPETENCY STANDARD MODEL FOR MEDIA EDUCATION

When developing a competency standard model for media education, the following questions are important:

– By which competence fields and competence aspects should the competency model be structured?
– Which criteria should be used for differentiating levels?
– For how many levels should standards be developed?
– At which level of abstraction should the standards be formulated?
– Which tasks could be developed to test the standards?

These questions illustrate that the development of a competency standard model is a multistage decision-making process. During this process decisions could be taken according to different reasons.

3.1. *Definition of fields and aspects of competence for media education*

Taking important aspects of the discussion about media competence and media education into account, the following ways to define fields and aspects of competence emerge (cf. section 1): Fields or areas of media competence, dimensions, sub competences and different kinds of media. Different advantages and problems are connected with each of these four possibilities (cf. Tulodziecki, 2007: 16):

– A classification according to fields or areas of media competence has two advantages: a cross-media access and an illustration of the complexity of the media landscape. As an exemplary approach is suggested, the number of standards to be formulated can be limited. The problem in such a structure is the fact that the implementation in schools has high demands for school-based curricular considerations as well as in-school development processes.

– A classification according to dimensions offers the advantage that the development of various dimensions can be easily described with reference to general theories of development. However, there is the danger of diminishing value of specific media content because it could be considered as secondary in the school curriculum.

– A classification according to sub competences offers the advantage to be easily connected with the general discussions about competences, e.g. with the discussion about emotional intelligence (Goleman, 2009). However, there is the danger –similar to the classification according to dimensions– that the specifics of media competence are not being taken into account sufficiently.

– A classification according to types of media offers the advantage to take into account the specifics of individual media types and to allow a gradual development of complexity. At the same time it is compatible with an intuitive approach of teachers to media issues as well as with various professional curriculum formulations, e.g. concerning the newspaper or audiovisual texts. However, there is the danger of losing sight of relevant media and interdisciplinary aspects –particularly with regard to future developments– and of getting a relatively large number of standards.

Considering these advantages and disadvantages we decide to define fields or areas of media competence as subordinate competence fields, being aware of certain problems connected with this decision. In doing so, we use the already mentioned five task areas because they have been validated in a research and development project with 15 schools in two federal states and because of their integrative character (cf. Tulodziecki *et al.*, 1998).

In this frame different kinds of media can be chosen to a certain extent as competence aspects. They can be mentioned in an exemplary way in some standard formulations to ease the access to media questions for learners and teachers at school. Dimensions of media competence should be implemented to receive suggestions about criteria for differentiating distinct levels.

Before describing corresponding considerations, we will comment on the chosen fields of competence because of their general importance. The core assumption that underlies the five mentioned task areas (see section 2) is that the different ways of dealing with media can be reduced to two basic forms or characterised by two fundamental ways:

• Choosing and making use of existing media, e.g. the reception of newspapers, radio, TV, web sites and other computer-based products for information, learning, entertainment or the use of media as instruments for communication, cooperation or simulation.

• Creating and disseminating own media messages, e.g. creating a newspaper, a video clip or a web site as well as writing an email or creating a blog or a podcast and disseminating their content.

The examples refer to the fact that these two basic forms can appear in separate as well as in a connected manner or that they can overlap. Different levels of media competence are on the one hand determined by knowledge and abilities concerning the two basic forms of dealing with media and on the other by knowledge, analysis and power of judgement in three content areas:

- Design of media messages: from a written text to an animated cartoon, from a headline of a newspaper to computer menu- and window techniques, from a documentary scene to a fictional scene, from an audio play to computer-generated virtual environments.

- Media influences: from individual influences on feelings, behaviour and values to the impact of mass and individual communication for public opinion and political views.

- Media production and media distribution: from youth protection to personal conditions of a broadcasting company, from economic conditions of media use to economical interests of the computer industry, from legal regulations of data privacy and copyright protection to further societal regulations of the media landscape.

The structure and reciprocal connections between the basic forms of dealing with media and the content areas are summarized in Figure 1.

FIGURE 1
Structure of the concept of media competence
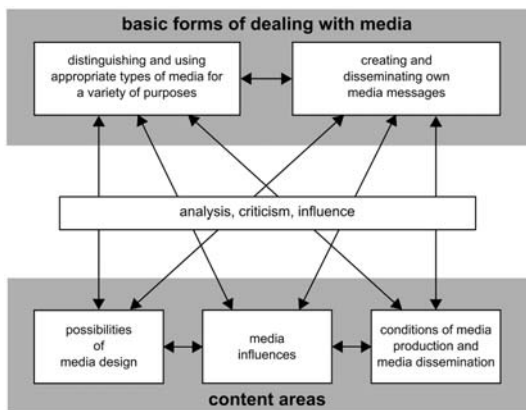
By combining the two basic forms of dealing with media and the three content areas we differentiate between five task areas, which have already been mentioned in section 1.

In those five task areas knowledge, abilities, analysis and criticism should be connected with reference to action. The task areas should not be considered as isolated or separated. They are in fact –as pointed out above– linked in multiple ways. For example, if pupils create a website in a media education classroom they should at the same time deal with possibilities of website design. Thus they can gain competencies with regard to «creating and disseminating own media messages» as well as in the content area «understanding and evaluating the design of media messages». With these clarifications our competency standard model can be summarized in the following way (see Table 1).

TABLE 1
The competency standard model

Field of competence	Distinguishing and using appropriate types of media for a variety of purposes				
Competence expectation	Different media and possibilities not involving media can be used with regard to intended functions (information and learning, entertainment and game, exchange and cooperation, analysis and simulation). Pupils are able to compare and evaluate them with regard to chosen criteria. They can choose them according to a certain situation with giving reasons and use them with regard to social and societal responsibility.				
Differentiation of level	Aspects and levels of development with regard to affective-motivational, intellectual and social-moral dimensions of media competence				
Aspects of competence	information	learning	entertainment and game	exchange and cooperation	analysis and simulation
Standards of level X					
Field of competence	Creating and disseminating own media messages				
Competence expectation	Pupils are able to create media messages using a reasonably chosen scope for design of pictures, print media, audio media, video contributions and interactive media. They can use the respective technique in an appropriate way. They are able to plan and create own media messages with regard to social and societal responsibility and to disseminate them to individuals, certain groups and in public.				

Aspects of competence	pictures/photos	print media	audio media	video contributions	interactive media
Standards of level X					
Field of competence	Understanding and evaluating the design of media messages				
Competence expectation	Pupils know, that media messages can be designed in different possible ways, e.g. representational systems, techniques of design, types of programmes, structure of course and types of media. They are able to illustrate different possibilities of media design with regard to different criteria. They can analyse and reflect the different means of design with regard to media and own media messages. They are able to estimate their relevance for media messages and to evaluate the relationship between form, content and other aspects.				
Aspects of competence	representational systems	techniques of design	types of programmes	structure of course	types of media
Standards of level X					
Field of competence	Becoming aware of and dealing with media influences				
Competence expectation	Pupils can describe, that media messages influence emotions, concepts and beliefs, behaviour patterns and value orientations as well as social contexts. They know different consequences and are able to describe and evaluate the different influences and possible consequences using different criteria. They can analyse problematic influences of using media and creating own media messages, review them in appropriate ways and take countermeasures.				
Aspects of competence	emotions	concepts and beliefs	behaviour patterns	value orientation	social contexts
Standards of level X					
Field of competence	Identifying and evaluating conditions of media production and media dissemination				
Competence expectation	Pupils are able to explain different technical, economic, legal, personal and other institutional, political and other societal conditions of media production and media dissemination. They can connect such conditions with different media and their use. They are able to evaluate the conditions with regard to desirable conditions for society and can describe and make use of ways to influence them by their own media use.				
Aspects of competence	technical conditions	economic conditions	legal conditions	personal and other institutional conditions	political and other societal conditions
Standards of level X					

3.2. *Determining criteria for distinguishing different levels of media competence*

The reflections about dimensions of media competence refer to the fact that various aspects can play a role in developing a model of media competence. Thus different developmental theories can be used to distinguish different levels of media competence, e.g. psychomotor, affective-motivational, intellectual, psychosocial or moral theories.

For media education three theory complexes are of special significance:

- Theories of need and motivation which are concerned with the affective-motivational development.
- Theoretical approaches to cognitive complexity which deal with questions of intellectual development.
- Theoretical perspectives on social-moral judgement development that aim particularly at the development of social value orientations.

For example, the affective-motivational development is described in different theoretical concepts of needs and emotions (e.g. Maslow, 1981; Deci & Ryan, 1993; Bischof-Köhler, 2000). Following these approaches and with reference to the media use of children and adolescents the following groups of needs can be differentiated:

- safety and arousal needs (example: a child nestles up against a parent while watching a exciting adventure film, especially during «dangerous situations»);
- orientation needs (example: a girls observes behaviour patterns of female characters in a daily TV show to get to know expectations about her gender role);
- needs of love and belonging (example: a teenager watches video clips of a certain band to have a say in this matter);
- needs of esteem and competence (example: a teenager tries to achieve a certain level of a computer game to impress others);
- needs of autonomy and self-actualization (example: a teenager refuses to tolerate the attempt of somebody suggesting which computer games he should watch or how he should create a video clip).

The respective motivations of children and adolescents are dependent on the level of satisfaction or dissatisfaction of these basic needs. In this context one can assume that the motives are being developed in a parallel way, but that for each age group certain motives are dominant. For children in primary school, for example, the need of love and belonging is assumed to be dominant. Thus it would be inadequate to expect as a standard at the end of primary school that children of this age use media in a self-determined way without considering the media use of theirs peers. A self-determined media use can only be achieved on a later.

Concerning the intellectual development one can distinguish between five levels of cognitive complexity:

–   «fixed thinking» (in a situation only one option to take action is seen, e.g. only reading yellow press to be informed about certain topics),
–   «general-isolated thinking» (other options to action are known, but they are evaluated in an isolated and general way, e.g. general appreciation or depreciation of certain sources of information),
–   «specific-differentiating thinking» (reflecting on the advantages and disadvantages of possible ways of action, e.g. giving reasons for media use by referring to apparent advantages in comparison to disadvantages),
–   «systematic-criterion-oriented thinking» (different options for taking action are evaluated according to conscious criteria, e.g. evaluate different media sources according to design, information content and reliability),
–   «critical-reflective thinking» (criteria to judge different options for taking action are reflected self-critically, e.g. information content versus the design of a medium).

Against this background, for example, pupils of form 6 can only be expected to name different advantages and disadvantages when evaluating a medium, but a «systematic-criterion-oriented» evaluation would normally be too much to ask for (cf. Tulodziecki, 1997: 130 ff.).

With regard to social-moral development five different levels, which are e.g. relevant for media use and media analysis and reflection, can be distinguished, too (cf. Kohlberg, 1977; Gilligan, 1983; Tulodziecki, 1997: 135 ff.).

–   «egocentric fixation on own needs with avoidance of punishment» (e.g. playing a violent computer game with friends as long as nobody finds out, although the parents forbid to play the game),
–   «orientation towards own needs with regard to the interests of others» (e.g. offering the parents to help in the kitchen if that enables to go to the cinema in the evening),
–   «orientation towards the expectations of significant others» (e.g. watching a TV-show because friends would be disappointed if one could not talk about it the next day),
–   «social system orientation with conscious acceptance of justified obligations» (to refrain from making, distributing or using unauthorized copies of licensed software, because it would be copyright infringement),
–   «individual right orientation and their critical judgement under the claim of human community» (e.g. renunciation of playing an indicated computer game because the human dignity is injured by the representations).

With regard to these stages of development of children and teenagers, media education standards should take into account that pupils in form 4 (end of primary school in Germany) can only be expected to perform at the third level and pupils at secondary schools (form 9 or 10) can be expected to perform on the fourth level (cf. Kohlberg, 1977; Tulodziecki, 1997: 135 ff.).

These considerations show that developmental theories can be used to develop standards according to the development stage of children and adolescents. At the same time one can avoid to develop standards which cannot be reached at a particular age.

3.3. *Determining the number of levels*

Basically it is possible to formulate standards for all forms at school. However, such a strong focus on standards implies a relatively strong predetermination which could prevent a flexible implementation of media education activities in school. Furthermore it could be under certain conditions negated that the development of competences takes considerable time and cannot be expected within shorter intervals. Against this background we suggest to formulate standards for three levels of media competence: for the end of forms 4, 6 and 9.

The rationales for this suggestion are:

- primary schools end in many German federal states with form 4 and till this age some important aspects of media competence should have been developed,
- at the end of form 6 important basics of media competence are essential in order to realise media education activities in forms 7 till 9 without repeatedly spending time on the basics, and
- at the end of class 9 –which is the graduation class in secondary modern schools in many federal states in Germany– a level should be achieved, that enables the adolescents to act in an adequate, self-determined, creative and socially responsible way in a media-saturated world.

As a result, a complete competency standard model should contain three levels in our opinion. Standards for three levels with respect to all competence fields are described in Tables 2, 3 and 4.

3.4. *Degree of abstraction*

Standards can be formulated with different degrees of abstraction. In doing so, one has to consider, that formulations of more abstract standards on the one hand will lead to reduced numbers of standards. But these are more vague with regard to testing and have to be completed by additional indicators if necessary. On the other hand, very concrete formulations of educational standards are relatively easy to test but result in considerably long lists.

For our competency standard model we have chosen a level of medium degree of abstraction.

With regard to Table 1, the two following standards of the competence area «distinguishing and using appropriate types of media for a variety of purposes» and

the competence aspect «entertainment and game» for level 3 (end of form 9, cf. Table 4) serve as an example:

- To be able to use different criteria in order to compare and evaluate various media offers and non-media possibilities for entertainment and game.
- To be able to choose possibilities for entertainment and game based on the situation and to be able to use them in a responsible way.

One important criterion for the formulation of standards is that it becomes clear how tasks could look like that test the standards, without explaining them in detail.

Finally –when formulating standards– it is important to decide whether the standards should be understood as minimum–, regular- or maximum standards. For example, the standards described above are meant to be regular standards. According to them minimum and –maybe– maximal standards could be developed. At the same time there is also the possibility to modify the standards according to the specific situations or groups.

In Tables 2, 3 and 4 standards with an appropriate level of abstraction for the three specified levels are formulated. The labels used, for example A1.01, denote each a standard. The letter stands for the competence field, the first digit for the level and the number after the point for the numbering within the competence fields and levels.

TABLE 2
Level 1 standards (End of form 4)

Field of competence	Distinguishing and using appropriate types of media for a variety of purposes
Level 1 Standards	A1.01/A1.02/A1.03: To describe various media and non-media opportunities for information (A1.01)/learning (A1.02)/entertainment and game (A1.03) with respect to differences. A1.04/A1.05/A1.06: To select and properly use options for information (A1.04)/learning (A1.05)/entertainment and game (A1.06) with respect to individual situations.
Field of competence	Creating and disseminating own media messages
Level 1 Standards	B1.01/B1.02/B1.03: To describe and appropriately use technical aids for the design and presentation of pictures/photos (B1.01)/written texts (B1.02)/audio media (B1.03). B01.04/B1.05/B1.06: To develop and use a plan for the design and presentation of pictures/photos (B1.04)/print media (B1.05)/audio media (B1.06) with help.
Field of competence	Understanding and evaluating the design of media messages

Level 1 Standards	C1.01/C1.02: To describe representational systems (C1.01)/techniques of design (C1.02) with respect to differences. C1.03/C1.04: To consider representational systems (C1.03)/techniques of design (C1.04) when dealing with media texts.
Field of competence	Becoming aware of and dealing with media influences
Level 1 Standards	D1.01/D1.02: To describe examples of emotions (D1.01)/concepts and beliefs (D1.02) that can be caused by media use. D1.03/D1.04: Using examples to illustrate what can be done about media-related unpleasant emotions (D1.03)/misleading notions about reality (D1.04).
Field of competence	Identifying and evaluating conditions of media production and media dissemination
Level 1 Standards	E1.01/E1.02: To be able to describe the technical requirements (E1.01)/costs for selected media products and services (E1.02). E1.03: To compare different media products and services regarding the cost-benefit ratio (E1.03).

TABLE 3
Level 2 standards (End of form 6)

Field of competence	Distinguishing and using appropriate types of media for a variety of purposes
Level 2 Standards	A2.01/A2.02/A2.03/A2.04: To be able to explain advantages and problems of selected non-media products and media opportunities for information (A2.01)/learning (A2.02)/entertainment and game (A2.03)/exchange and cooperation (A2.04). A2.05/A2.06/A2.07/A2.08: To be able to select and use possibilities of information (A2.05)/learning (A2.06)/entertainment and game (A2.07)/exchange and cooperation (A2.08).
Field of competence	Creating and disseminating own media messages
Level 2 Standards	B2.01/B2.02/B2.03/B2.04: To be able to describe and properly handle technical aids for the preparation and dissemination of pictures/photos (B2.01)/print media (B2.02)/audio media (B2.03)/video contributions (B2.04). B2.05/B2.06/B2.07/B2.08: To be able to select in a group types of media for own pictures/photos (B2.05)/own print media (B2.6)/own audio media (B2.07)/own video contributions (B2.08) and to develop and run a plan for the preparation and dissemination of these products, considering advantages and problems of different options.
Field of competence	Understanding and evaluating the design of media messages

Level 2 Standards	C2.01/C2.02/C2.03: To be able to explain differences between different forms of representation (C2.01)/design techniques (C2.02)/types of programmes (C2.03) and to outline examples of use. C2.04/C2.05/C2.06: To be able to explain –with respect to content issues– the advantages and problems of various forms of representation (C2.04)/ design techniques (C2.05)/types of programmes (C2.06) for existing media or own media contributions.
Field of competence	Becoming aware of and dealing with media influences
Level 2 Standards	D2.01/D2.02/D2.03: To be able to explain examples of media-related emotions (D2.01)/concepts and beliefs (D2.02)/behaviour patterns (D2.03) and possible positive or negative effects. D2.04/D2.05/D2.06: To be able to outline how one can counteract possible negative consequences in the range of emotions (D2.04)/concepts and beliefs (D2.05)/behaviour patterns (D2.06) when using existing media and designing own media contributions.
Field of competence	Identifying and evaluating conditions of media production and media dissemination
Level 2 Standards	E2.01/E2.02/E2.03: To be able to give examples of technical conditions (E2.01)/economic conditions (E2.02)/legal conditions (E2.03) of media production, media distribution and media use. E2.04/E2.05/E2.06: To be able to explain advantages and problems of selected technical conditions (E2.04)/economic conditions (E2.5)/legal conditions (E2.06) of media production and media distribution for media products or for media use.

TABLE 4
Level 3 standards (End of form 9)

Field of competence	Distinguishing and using appropriate types of media for a variety of purposes
Level 3 Standards	A3.01/A3.02/A3.03/A3.04/A3.05: To be able to compare and evaluate various media and non-media opportunities for information (A3.01)/learning (A3.02)/entertainment and game (A3.03)/analysis and simulation (A3.04)/ exchange and cooperation (A3.05) according to different criteria. A3.06/A3.07/A3.08/A3.09/A3.10: To be able to appropriately select, properly handle and responsibly use different options for information (A3.06)/learning (A3.07)/entertainment and game (A3.08)/exchange and cooperation (A3.09)/ analysis and simulation (A3.10).

Field of competence	Creating and disseminating own media messages
Level 3 Standards	B3.01/B3.02/B3.03/B3.04/B3.05: To be able to use technology appropriately and responsibly based on choices on design options in pictures/photos (B3.01)/print media (B3.02)/audio media (B3.03)/video contributions (B3.04)/interactive media (B3.05) in order to make own statements. B3.06/B3.07/B3.08/B3.09/B3.10: To be able to spread own pictures/photos (B3.06), print media (B3.07)/audio media (B3.08)/video contributions (B3.09)/interactive media (B3.10) in a responsible and appropriate technological manner to individuals, specific groups or public.
Field of competence	Understanding and evaluating the design of media messages
Level 3 Standards	C3.01/C3.02/C3.03/C3.04/C3.05: To be able to explain representational systems (C3.01)/techniques of design (C3.02)/types of programmes (C3.03)/structure of course (C3.04)/types of media (C3.05) with regard to different criteria. C3.06/C3.07/C3.08/C3.09/C3.10: To be able to analyse and consider the importance of representational systems (C3.06)/techniques of design (C3.07)/types of programmes (C3.08)/structure of course (C3.09)/types of media (C3.10) for media messages and to be able to evaluate the relationship between form, content and other criteria.
Field of competence	Becoming aware of and dealing with media influences
Level 3 Standards	D3.01/D3.02/D3.03/D3.04/D3.05: To be able to explain and evaluate influences of media on emotions (D3.01)/concepts and beliefs (D3.02)/behaviour patterns (D3.03)/value orientations (D3.04)/social contexts (D3.05) and possible consequences considering different aspects. D3.06/D3.07/D3.08/D3.09/D3.10: To be able to realise, analyse and counteract possible problems of media influences on emotions (D3.06)/concepts and beliefs (D3.07)/behaviour patterns (D3.08)/value orientations (D3.09)/social contexts (D3.10) when using and creating media.
Field of competence	Identifying and evaluating conditions of media production and media dissemination
Level 3 Standards	E3.01/E3.02/E3.03/E3.04/E3.05: To be able to explain selected technical conditions (E3.01)/economic conditions (E3.02)/legal conditions (E3.03)/personal or institutional conditions (E3.04) and political or societal conditions (E3.05) of media production and media distribution and to be able to establish links between such conditions, media products and their use. E3.06/E3.07/E3.08/E3.09/E3.10: To be able to judge selected technical conditions (E3.06)/economic conditions (E3.07)/legal conditions (E3.08)/personal and other institutional conditions (E3.09)/political and other societal conditions (E3.10) of media production and media distribution according to what is socially desirable. E3.11: To describe and use selected possibilities of intervention on conditions of media production and media distribution in own media actions.

3.5. *Development of tasks for testing standards*

If one wants to test whether pupils have reached the expected standards according to the competency standard model described above one can use estimate scales, tests with different tasks, showcases, documentation or process portfolios or a combination of these assessment techniques. In all cases self-assessment and/or external assessment is possible.

When using estimate scales, the standards themselves or certain indicators can be used to estimate whether a standard has been reached or not yet. When using a test, suitable tasks must be developed (see below). When working with a portfolio, the pupils can collect and reflect on their own media products as well as other pupils' work as an outcome of media analysis and production or use (cf. for instance Hauf-Tulodziecki, 2003). Each of these forms has certain advantages and disadvantages. Working with scales is a relatively small effort but with uncertainties in its results. Using tests ensures greater objectivity and reliability. But their quality is dependent on the quality of the tasks, and the development of high quality tasks is time-consuming process. Developing and evaluating a portfolio is time-consuming, too, but provides insight into the development of competence. However, if the goal is to measure the competence level underlying the standard formulations, further considerations with regard to competency testing and diagnostic tests are necessary (cf. Klieme y Hartig, 2007: 24 ff.).

Due to the particular challenge of developing a competency test we finish this article with concluding remarks about criteria for tasks in the sense of our competency standard model. First of all, the answer or solution to a task should naturally indicate whether a certain aspect of the standard has been reached or not. In addition, the tasks should be meaningful for the pupils (i.e. to attract the interest of test participants), they should be situated in meaningful contexts (i.e. linked to pupils' lives) and they should be relevant to their current or future actions. Thereby the answer or solution to a task should contain relevant information about how a teacher can help pupils to achieve their learning goals. For instance, the following everyday situation could be presented to pupils:

Thorsten is an outsider in his class. So he is really happy and agrees when Sebastian, one of the most popular pupils in his class, wants to meet with him one afternoon. When Thorsten tells his parents that he goes to Sebastian's house, they are worried because they know that Sebastian gets banned computer games from his older brother and enjoys playing these. However, Thorsten promises them not to play illegal games. When Thorsten arrives at Sebastian's house, he wants Thorsten to play a new banned computer game. Thorsten hesitates, Sebastian urges him to start playing. How do you think Thorsten should react in this situation?

The following questions could be added to the description of this situation:

a) What might be reasons for playing the banned computer game for Thorsten? Which might be reasons against it?

b) What would you do if you were in Thorsten's situation? Please explain your opinion.
c) What other possibilities can you think of? What are arguments for and against these possibilities?

A task like this can be used to test the standards described in section 2.4. In terms of a responsible choice and use of media it is an important criterion that youth protection is discussed (also critically) as an obligatory rule for society in the argumentation. If this is not the case, the answers would show which kind of support is needed for the pupils to achieve their learning goals in future (cf. Tulodziecki, 1997; Herzig, 1998).

Besides tasks like this (in which pupils have to find arguments for a certain decision) there are three other kinds of tasks that are useful to test standards and to promote media education in an action-oriented approach: tasks in which pupils have to solve problems, judge a situation or create a product. These tasks are at the same time a means to initiate support for pupils if necessary (cf. Tulodziecki, 1997: 239-262).

4. CONCLUSION

In this article the development of a competency standard model for media education has been described. Against the background of the discussion about media literacy and media education, five competence fields were defined and used to structure the competency standard model. A differentiation was made by the establishment of five fields of competence for the individual areas of competence. Furthermore, the decision was made to formulate standards with a mean level of abstraction as standards for three levels. Consequently, the developed competency standard model is the result of a complex decision making process. Decisions taken in this process are rationalized. Principally, different decisions could be taken to structure and design the model. It should be understood as a possible basis for the reflection of media education activities and its conception. If the model is used for evaluation, the outlined and exemplary ideas on developing appropriate tasks according to the mentioned criteria will have to be carried forward.

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