1. Progress of the Project   ID 475

Please provide details of the progress of the project (maximum 500 words):

The starting point of the project was based on the assumption that nowadays the ideal aim of the development of spatial representation should not just embrace the Euclidian model, as has been done hitherto in children's drawing theories, but an appreciation and encouragement of a variety of spatial representation in drawings. This insight is based on the parallel existence of spatial representation in drawings today, and the growing importance of these in a globalised and visualised world (An example is Google Earth, designing virtual spaces at different stages or intercultural competences). If various spatial representations in drawings are essential, we must consider them and be aware of them (Partial Aim 1). If you want to develop all of these, it is necessary to be able to recognize the various levels of competence. (Partial Aim 2). Children's education should not aim at one target (the Euclidian model) but provide the differentiated possibilities to practise and consolidate at leisure the various spatial representations in drawings (Partial Aim 3).

The procedure in the project so far corresponds with the process planned, taking into account the delayed start (March 07 instead of January 06).
After optimising the research plan, based on the results of the pilot phase, the main investigation took place in a structured series of tasks in art classes of two 5th year classes of level 5 from August to November 07 and the verification in a 4th and 6th year class from January to April 08. At the center of the teaching project were problems of visual spatial perception and representation in the context of possible aesthetic experiences, without offering the children any clues at how to solve a task or hints at possibilities of representation. In order to better understand the process of drawing, and unlike in traditional children's drawing research, not only the resulting drawing has been studied, but also the actual process of drawing (by means of video recordings) as well as the reflections of the child drawing (by means of narrative focused guided interviews).

The qualitative empirical investigation is based on the principle of "Grounded Theory" (Glaser/Strauss 1967, Strauss/Cobin 1996, Strübing 2004). By means of this procedure object related theory aspects have been developed resulting from a rather limited number of data. Since aesthetic experience processes are not only revealed by the act of drawing but their reflective aspect can also above all be verbalised (Mattenklott/Rora 2004; Peez 2005), research has been focusing on age groups whose ability to express themselves verbally is already advanced (about 10 to 13 year old children). This selection also makes sense with regard to the fact that at this point the foundations are laid for school levels at which the discussion of teaching standards is more and more important. The selection of case studies has been methodically controlled and is therefore part of the evaluation. The children have been selected according to different perceptive and productive strategies as well as their willingness to communicate. During the schooling phases three different forms of data in four cases: drawing, drawing process and interview have been used as a rule. The four cases have been completed by four further cases for which two different data have been used (drawing and interview). The team started in May 08 to compare the eight cases mentioned. In order to guarantee the width of variation in the research further variations of representation forms and concepts of entire classes are included along the documentation .

Data enquiries have been prepared for documentary purposes (cf chapter „Methoden" at http://www.fhnw.ch/ph/ip/forschung/abravikobb-raeumlich-visuelle-kompetenzen) and form the basis of this presentation.

2. Goals

Please describe what the goals for this period where, and whether you have accomplished them (if not, please state when and how you intend to achieve them) (maximum 200 words):

The aim of the first project phase (März 07 to August 08) was the planning and realisation of the first investigation, including its verification in the context of lessons of 4th – 6th year classes, as well as the collection, the editing and a first interpretation of the data. The aim has been to identify and group empirically founded characteristics (Kluge 2000) of spatial representation in drawings and the processing strategies based on individual cases. Based on this procedure different types of spatial-visual perception and representation, their classification and the differentiation according to levels can be gradually achieved in a later phase of the project. The aim of the first project phase has been reached.

3. Main Interim Findings

Please detail interim findings of the project, and why they are important (maximum 800 words)

The types of interpretation of the data at hand are varied according to the object within the context of the „Grounded Theory" (Glaser/Strauss 1967; Strauss/Cobin 1996, Strübing 2004) depending on the kind of material (drawing, interview, video) and have led to the following interim results:

In order to ensure the results – varying the assumptions of the „Grounded Theory" and following the procedure outlined in the grant application - the analyses of the children's drawings are based on the repertoire and terminology of the cognition psychology oriented children's drawing research (among others Reiss 1996 und Richter 1997). Different categories (Bohnsack 1999, S.158ff.) tested against the material and contrasted or connected.

It is striking that very often mixed forms occur in addition to conventional forms of spatial representation. The frequency of mixed forms in the drawings of 83 children is significant and will be considered in the later phases of investigation.

In task S4, Enia (4th year) e.g. shows a combination of a „multiple baseline drawing" based on orthogonal principles and a ceiling based on „central perspective". This concept is reflected in the representation of floor, bed and carpet as well as that of the table, sailor's trunk etc in front of the panneled wall in the middle. The middle section shows orthogonal elements and standline oriented.

A second interim result ist the fact that a child does not rely on a single mental spatial concept but has recourse to a variety of spatial representation forms which belong to his / her repertoire or are combined or changed situatively.
This is clearly illustrated when you compare all the drawings of a child of a schooling phase, as can be seen in two drwaings of Markus (5th year). In the cases so far investigated a connection between the task set / arranged situation of perception and the process of drawing is obvious.

Left: Before drawing, Markus blindly *felt* things in the box in order to „draw them up in an inventory" in simple one-dimensional pictograms.
Right: For this picture he *observed* through a spy-hole the scene on a ship. What he perceived visually is represented three-dimensionally and in a spatially clear arrangement.

These interim results confirm the team's intention, described in detail at the outset, to become aware of different forms of representing space existing side by side (Partial Aim 1) and to find exoplanations for their development and use for the pupils tested. The recourse to different mental spatial concepts and forms of representation resp is obviously related to the perceptive situation and the didactic arrangement (Partial Aim 3) (Cf below).

The data of the videotaped drawing processes serve to check and complement the results based on the analysis and the interviews. The video recordings also allow the reconstruction of the creative process by observing the spatial concept to which recourse is taken or how moments of crisis are mastered, which lead to something new and show changes of concept. By means of video material interim results concerning spatial types of representation can be empirically supported and extended, and made plausible.

For *the narratively focused guided interviews* the coding procedure of the Grounded Theory have been applied. (Strübing 2004) with the aim to generate questions, to find key categories and to achieve conceptual density by integrating several analyses. The method of interviewing children after the process of drawing has so far been used but scantily in qualitative children's drawing research, primarily in media reception research (Neuss 1999a; Neuss 1999b). In the present project it is for the first time triangulated with the other methods (drawing and video recordings).

In the interview the children reconstruct and reflect verbally what they did and thought during the lesson, allowing us to understand how children see their own drawings and judge the drawing act. Emotional aspects are strongly expressed and the children also comment on their motivation. The evaluation so far has made possible a first categorization. It shows that there are different forms of processing behind the forms of spatial representation,

> The examples of Markus and Matz suggest that the same form of presentation could result from different forms of processing, i.e. the „artists" might differ in respect to aesthetic judgement, motivation, problem solving, attitude, imagination etc.

left:
Markus, 5th year

right:
Matz, 5th year
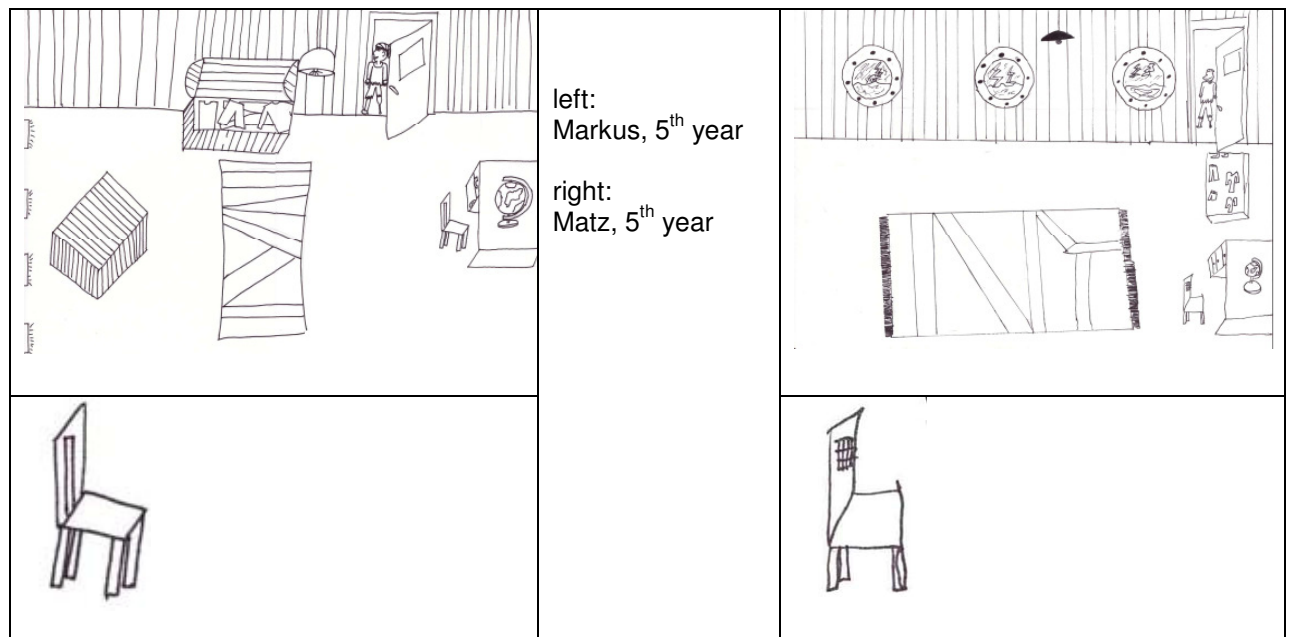
.
> For example in both drawings we can see Euclidian oriented forms of representation (table, chair, trunk). Markus's drawing on the left, however, is rather more appropriate and differenciated than Matz's. Based on the interview the team was able to recognize that Markus had cognitively understood the Euclidian based forms, whereas Matz had taken them over from Markus and only partly understood (e.g. chair).

If the analyses of the second investigation confirm and expand these results the interim results will play an important, innovative role in the classification of the levels (Partial Aim 2) and in Partial Aim 3, when setting tasks. It is only with the combination of forms of representation and processing that a real child oriented and differentiated teaching strategy can be achieved on the basis of the empirically gained results.

4. Timetable

Please illustrate your adherence to the timetable set in the application:

In the second phase we shall carry out a second empirical phase between October 2008 and April 2009. The research material will be gained by the same means (drawings, videos, interviews). The analysis of the material from the second phase will focus on the initiation and density of the situations of aesthetic experiences and on whether these result in differentiations of the representation of spatial visual phenomena or an improvement of the level and in how far this applies in different ways for the individual types of representation. The basis will be provided by the theoretically and empirically won structural characteristics of aesthetic experience (Peez 2005, S. 14f.). It will be necessary to investigate a correspondence between improvements in the verbal explanations or the drawings of spatial visual phenomena and previous aesthetic experiences. Furthermore a closer look at the phenomenon of level differences within a spatial visual type of representation will be required, in order to make definite statements relating to them. The aim is the empirical determination of levels within certain types of representation.

A third phase, which will be based on material already collected, may lead to at least partial propositions for the development of test tasks enabling the classification of types and levels that can later be used in output and longitudinal oriented tests within effect research.

5. Difficulties Encountered

Please describe the difficulties encountered, and whether they have had an impact on the results of the project (maximum 500 words):

The change of project leader required by the board of directors of the Institute (decision of January 07) has proved to be difficult, as the members of the team were loaded beside their teaching assignments with extra work due to the structural developments at Pädagogische Hochschule Nordwestschweiz. Although the former project leader is willing and – due to retirement – above all able to invest the necessary time, the director of Pädagogische Hochschule insisted on a change of project leader, which was effected on 1 September. The new project leader is Ludwig Diehl.
The former project leader and author of this report will continue to participate in the project and present its results at congresses (cf 8 Publications).

6. Financial Report

Please provide an interim financial report. You may use printouts from your organisation's accounting/controlling system

 Cf attachement

7. Additional Comments

Bibliography

Bohnsack, Ralf (1999): Reconstructive Social Research / Rekonstruktive Sozialforschung. Opladen (Leske + Budrich) [3]
Glaser, Barney G./ Strauss, Anselm (1967): The Discovery of Grounded Theory. Strategies for Qualitative Research. Chicago (Aldine)
Kluge, Susanne (2000): Empirisch begründete Typenbildung in der qualitativen Sozialforschung. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research (On-line Journal), 1 (1) Verfügbar über: http://qualitative-research.net/fqs Zugriff 21.08.08
Neuss, Norbert (Hg.) **(1999):** Ästhetik der Kinder. Interdisziplinäre Beiträge zur ästhetischen Erfahrung von Kindern. Frankfurt a.M. (GEP)
Neuss, Norbert (1999): Methoden und Perspektiven qualitativer Kinderzeichnungsforschung. In: Pierangelo Maset (Hg.): Pädagogische und psychologische Aspekte der Medienästhetik. Beiträge vom Kongreß der DGfE 1998 "Medien-Generationen[3]. Opladen (Leske + Budrich), S. 49-74
Peez, Georg (2005): Evaluation ästhetischer Erfahrungs- und Bildungsprozesse. Beispiele zu ihrer empirischen Erforschung. München (kopaed). S.13-17
Reiss, Wolfgang (1996): Kinderzeichnungen. Wege zum Kind durch seine Zeichnung. Berlin (Luchterhand). S.7f, 107-136
Richter, Hans-Günther (1997): Die Kinderzeichnung. Entwicklung – Interpretation - Ästhetik. Berlin (Cornelsen)
Strauss, Anselm/ Corbin, Juliet (1997): Grounded Theory. Grundlagen qualitativer Sozialforschung. Weinheim (Beltz/ Psychology Publishers Union)
Strübing, Jörg (2004): Grounded Theory. Zur sozialtheoretischen und epistemologischen Fundierung des Verfahrens der empirisch begründeten Theoriebildung. Wiesbaden (VS Publishers)

8. Publications Related to the Project, Supporting Documents

Please attach publications related to the project or other supporting documents (if possible as pdf)

Lectures: (Edith Glaser - Henzer)
- 22.-25.10.2009 Anfrage für die Leitung einer Sektion am Bundeskongress der Kunstpädagogik, Düsseldorf (D)
- 22./23.10.09 Anfrage für die Gestaltung eines Kolloquiums am 3. BDK-Forschungstag für den wissenschaftlichen Nachwuchs in der Kunstpädagogik im Rahmen des Bundeskongresses der Kunstpädagogik, Düsseldorf. Dieses Kolloquium wird im Team durchgeführt von Prof. Edith Glaser (bisherige Projektleiterin), Ludwig Diehl (neuer Projektleiter) und Prof. Dr. Georg Peez, Universität Duisburg-Essen (wissenschaftlicher Berater im Projekt raviko)
- 16./17.01.09 Referat „Räumlich-visuelle Vorstellungsbildung" am Kinder- und Jugendkulturkongress, Augsburg
- 29.01.08 Referat „Projekt raviko". Verband Lehrerinnen und Lehrer für Bildnerische Gestaltung & Kunst Schweiz (LBG), Jahresversammlung, Ortsgruppe Basel
- 24.03.07 Hinweis auf das Forschungsprojekt raviko im Zusammenhang eines Referates zum Vorgängerprojekt „Förderung der visuell-räumlichen Begabung" im Rahmen „Nationale Versammlung" des Verbandes der Lehrerinnen und Lehrer für Bildnerische Gestaltung & Kunst Schweiz, Zürich

Publications: (Edith Glaser-Henzer)
- **(2008)** Forschungsprojekt ‚raviko'. In: *Schulblatt Kantone AG/SO, (voraussichtlich Heft 19 und 20, Okt.08)*
- **(2008)** Kunstunterricht / Bildnerisches Gestalten: Bildungsstandards als Chance? In: *Publikation des Verbandes der Lehrerinnen und Lehrer für Bildnerische Gestaltung Schweiz (LBG-EAV). Verlag Pestalozzianum an der Pädagogischen Hochschule Zürich, Heft 01*
- **(2007)** Verstecken und Verdecken. Bildnerisch-räumliches Darstellen lernen. In: *Kunibert Bering, Rolf Niehoff (Hrsg.): Impulse. Kunstdidaktik. Athena-Verlag, 2 / November 2007 S.22-2*
- **(2007)** Körpererfahrung und Kinderzeichnung. In: *A. Büchler/ E. Karrer/ J. Jaberg (Hrsg.): Schule muss schön sein: Facetten des ästhetischen Bildungsauftrages. München (kopaed) 2007. S.126-13*
- **(2007)** Kunstunterricht: Bildungsstandards als Chance? In: *Labudde, Peter (Hrsg.): Bildungsstandards im Gymnasium: Korsett oder Katalysator? h.e.p. Verlag AG Ott Verlag Bern*
- **(2006)** Vorstellungsbildung im Unterricht. *BDK Mitteilungen, Zeitschrift des Bundes Deutscher Kunsterzieher, BDK Fachverband für Kunstpädagogik, Hannover, 42.Jg. Nr. 4/06*

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Place and Date: Liestal, 25.09.2008

Translation: Dr. Jörg Berger