Global Learning in a Geography Course Using the Mystery Method as an Approach to Complex Issues

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Abstract

In the study which is the foundation of this essay, the question is examined of whether the complexity of global issues can be solved at the level of teaching methodology. In this context, the first qualitative and constructive study was carried out which researches the Mystery Method using the Thinking-Through-Geography approach (David Leat, 1998). The research tool used was the Documentary Method as applied by Ralf Bohnsack (2006), which is detailed enough to evaluate both explicit and implicit student knowledge levels within complex teaching/learning frameworks. The study results demonstrate that the purely cognitive research approaches are not able to reflect the complexity of the student interactions at a teaching method level. In the research project it could be reconstructed that the youths prefer complex teaching methods with a cooperative design when dealing with phenomena of globalization as a result of the experiences in the Treatment (Applis, 2012).

Keywords: global learning, mystery-method, thinking-through-geography, cognition-centered research, qualitative-reconstructive research, documentary method, secondary school, the textile industry

Introduction

The Research Field: Global Learning and Value-Oriented Geography Teaching

For the last few years in Germany, the international debates on possibilities and limits of Global Learning (see Pike, 2008; Pike & Selby, 1998) have taken place within the intersection of political education, geographical teaching and the teaching of religion. The topic is the aim to "enable learners to understand globalization, to put themselves, their skills and potential, into the context of a network of wide-reaching interdependencies and to base their individual as well as social life on clear values that are to be reflected" (Schreiber 1999).

Global Learning and development for sustainability are listed in the German National Educational Standard Geography (DGfG 2012) as reference systems: human

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intervention in the environment is to be evaluated according to its ecological, social, political and economic compatibility. Accordingly, students should be enabled to judge actions in a global context from multiple and value-led points of view. This rising potential readiness to act should be created by the teaching of a judging/evaluating and acting capability, which leads to a renewed focus on value-oriented education in geography teaching (compare in the Anglo-American area socio-scientific issues or socio-scientific decision making, Sadler & Zeidler, 2004; Chang & Rundgren, 2010; see Main elements or components for defining geographical competences for sustainable development; Sanchez, 2011, 164).

According to Scheunpflug/Schröck, the viewpoint of Global Learning is intended particularly for the acquisition of the following capabilities, in order "to enable young people to be able to lead (their) lives in a world full of contradictions" (Scheunpflug & Schröck, 2002, 16)

- Dealing with knowledge and lack of knowledge (factual aspect),
- Dealing with insecurity and vagueness (time aspect)
- Dealing with social and cultural differences (social aspect)

Studies from the field of evolutionary teaching from a global point of view (Asbrand, 2009) demonstrate that the call to action is higher in students who have strategies for the reduction of complexity. For teaching, this means that opportunities for constructive discursive discussion have to be created. A differentiation of capabilities in systematic thought should be aimed for, and receptiveness for the recognition of situations should be encouraged, in which the inclusion of ethical values is relevant. The communication of knowledge of ethical values could be complemented by confidence in dealing with philosophical argument tropes of individual ethical concepts (e.g. utilitarian arguments in environmental and economic ethics, fairness in political ethics, responsibility ethics – comp. Rawls, 2001; Singer, 2010; Sandel, 2013). In the following it will be shown to what extent the Mystery Method Method from the Thinking Through Geography approach by David Leat (Leat, 1998; Nichols, Kinninment & Leat, 2001) appears to be suitable for encouraging the achievement of the aspects of Global Learning listed above.

This study examines students' orientations with regard to questions on the implementation of justice in global production structures of the global textile industry. The teaching unit that was investigated took place in four German classes in one Gymnasium (highest German secondary school with a strong emphasis on academic learning comparable to British grammar schools and U.S. preparatory high schools) in the south of Germany, Bavaria, near Nuremberg. Afterwards, 16 group discussions of 45 to 60 minutes with groups of four to five youths each were held and transcribed entirely. With reconstructive interpretation and the help of the documentary method explicit narrations were compared to implicit orientations given expression to find answers to among others the following questions:

- How does learning take place in the teaching methods employed (in the focus of analysis: Mystery Method by David Leat, see Leat, 1998; Van der Schee, Leat & Vankan, 2006)?

- Which habitual attitudes can be reconstructed on the part of the students relating to specific versions or requirement structures of the class (self-constructing, peer-oriented and discursive learning with respect to normative questions)?

- How do youths integrate normative problematizations of their view of the world (for example ideas of justice, everyday practices such as shopping behavior) and options offered for action, for example from a global or environmental perspective, into their view of the world?

- Which conclusions with regard to content and method can be drawn from the findings for value-oriented geography instruction?

Regarding the connection of study subject and research method

Here an interconnected learning structure is put in place for Global Learning in the subject of geography (topic building blocks: processes of globalization, global fashion industry; eating global/local), which stimulates the acquisition of complex factual, political, personal and social capabilities. Subsequently the students' attitudes are examined using a qualitative sociological research approach, with a reconstructive description and analysis of meanings, which the learners themselves assign to their learning processes and the opportunities for action that arise from these. An approximate guide to the study of the statements can be derived from the following capabilities, which could describe capacity for action in world history (see Asbrand, 2009, 245): reflective capacity, the capacity to acquire and evaluate information, the capacity to take a point of view in the context of issues of abstract social concepts, and the capacity to handle insecurity productively. *Group debates* were held with students in years 9 and 10 (age 15-16), who took part in the study during geography classes. The empirical material was interpreted using the qualitative sociological research method of *Documentary Method* according to Bohnsack (comp. inter alia Bohnsack, 2003; Loos & Schäffer, 2001).

The association of study subject with research method will be described briefly in the following: in Global Learning and value-orientated geography teaching, the goal is the communication/discussion/reflection of opinions or attitudes towards fellow human beings and the environment. These are defined in sociological terms as orientation pattern, orientation framework or habitus. In the didactic theory of geography, the theory is posited that these opinions or attitudes can be addressed through teaching intervention. This means that an association between knowledge and action is assumed.

For the interpretation of descriptions, stories, opinions, evaluations or value judgments expressed in texts, such as transcriptions of group interviews, the knowledge sociology of Mannheim (1964; 1980; on the sociology of knowledge see Loader & Kettler, 2001; Mija & Stehr, 1990) provides the differentiation between explicit and implicit knowledge bases. Implicit knowledge is knowledge which people command in their everyday actions, without normally displaying or explaining it. It is also defined as knowledge of conjunctive experience because it connects people who apply it in a similar way.

For this geographical didactic evaluation study, this means differentiating between what the students taking part communicate in terms of descriptions, evaluations or value

judgments from theoretical knowledge stores in their discourse or narratives (e.g. common-sense judgments, basic principles of sustainable production, concepts of responsible consumption etc.) and the underlying implicit value judgments. The same applies to student statements on the teaching method deployed. The underlying orientations, which come from the shared experience fields of school, class, peer environment etc., are to be reconstructed using the research method.

In the approach of the Documentary Method according to Bohnsack, "group discussions are understood by actual groups as 'representative process structures', in which patterns become evident, […] [which] point to collectively shared 'existential backgrounds' of the groups" (Loos & Schäffer, 2001, 21) to the extent that the resulting descriptions, opinions and orientations represent overarching structures. The orientation of the students (with reference to for example learning experiences in treatment, learning experiences in general, theories about learning, student-teacher relationships, geographical facts, curriculum demands of teaching content etc.) are documented in the debate text in positive and negative opposing sides (for example in the contrasting of learning experiences) and are reconstructed using the Documentary Method. Within the framework of reflecting interpretation, a *reconstruction of the discourse structure* is made, i.e. the manner in which the speakers relate to each other, is analyzed. The foundation is Mangold's theory that group opinions are "presented in a division of labor. The speakers confirm, complete, correct each other, their statements build on each other; one could sometimes think that only one person is speaking, so closely does one debate contribution resemble another. A dissection of the collective process of stating opinions into views of individual speakers is often impossible. The group opinion is not a 'sum' of individual opinions, but rather the product of collective interactions" (Mangold, 1960, 49). The discourse structure is therefore a collective practice and as such gives insight into the action practice of the participants.

School learning is here understood to be a reciprocal and interconnected behavior of persons and groups, using shared symbols, in which the expectations of the actors dictate the outcome – to this extent, students are seen as active participants in the shaping of learning processes. During the group discussions process as an evaluation tool, they participate as experts participating in the learning process (compare response evaluation, Stake, 2004; Patton, 2000, 427).

Results of the study: recognizing and reducing complexity as the effects of working with the Mystery Method

A coherent learning structure was created in the style of a project for secondary school stage II (age 15 to 16) in the subject of Geography (topic building blocks: processes of globalization; global fashion industry), which is intended to encourage the acquisition of complex political, personal and social skills, as expressed by the current central theories on teaching of Global Learning and on value-oriented geography teaching:

- Cooperative and self-constructed learning methods stimulate the process of indication (e.g. naming, researching) and of interpretation (e.g. reflecting, evaluating) of meanings and encourage the examination of social principles (values, standards, motives).

- Understanding of systemic associations in human social coexistence (economic systems, social systems, ecological systems etc.)

- Examination of systems, creating storylines and debating storylines created affinity with orientation processes

- Reflective creation of storylines and production of relative agreement in voting processes supports the capacity to handle insecurity productively

In the following, excerpts from the group discussions (the groups are labeled with abbreviations, the speaker anonymized as Am, Bf etc.) are briefly presented and interpreted, in which experiences of the work with the Mystery Method are made explicit by the discussion participants.

In the Mystery Method (Leat, 1998; Van der Schee, Leat & Vankan, 2006), stories which end in key questions are used to lead into the presentation of a problem or question. In small groups, the students try to resolve these questions, by gathering together index cards with uncategorized information (e.g. text cards, statistics, pictures, maps) into a case study. Thus effect associations are portrayed in the examined subject areas with cards and arrows. Depending on student group, choice of point of view and the emphasis of individual aspects, various different results are possible. The recognition of this is one of the main goals, and is viewed as a skill acquisition. In all sub-phases of the development, the aim is the application of geography-specific working practices and skills.

Figure 1.
Students working with the Mystery Method

In the following statement from the opening passage of the group discussion of *HB1_Group2(f),* the work in Mystery is briefly described; here the constructive approach of the working method becomes evident.

```
A(f): I thought it was very interesting, how we connected it all
      together. We made these different posters with the separate bits
      like for example cotton production and then at the end of it the
      big producers, the clothing manufacturers and then connected all
      the issues with each other and what it's all connected with.
      //hm//
```

In a subsequent passage of the same group discussion, the participants focus on the discursive debate amongst themselves, as this enabled them to each form their own opinions by debating with each other, which is clearly seen as a great asset by the young people. This is supported by the realization that there can be no fixed opinion for such a subject, and that therefore the working style in Mystery was appropriate.

```
E(f): Yes. Well I thought the open working was actually quite nice,
      because you could discuss much more in the group and could
      really make your own mind up about the topic, because I don't
      think it's a topic where there's an opinion and where you can
      say anything definite about it and that's why I thought the free
      working was quite suitable (.) yes (.) "I think it's good".
B(f):                                                  L     And
      above all I think that you could get much more interested and
      enthusiastic about it, because otherwise you're just sitting in
      the room and the teacher is standing up front and talking, and
      you think: yeah, and when's the lesson over? (.) And there you
      could exchange opinions with others and erm (.) so I think it's
      much better than just lessons (.) you're not always sitting in
      those strict lines and (1) we were always in small groups and
      that was actually better.
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The students are therefore aware of the multiple viewpoints of the connections being analyzed. Additionally it is mentioned as an important factor that this type of working is enjoyable, in contrast to front-facing teaching styles.

In the group discussion of the group *10christian2(m)*, the same aspects are emphasized – while the Mystery Method is included by the group in the description of free work. It is particularly stressed that it was clear from the start that different solutions were possible, that there was "no ideal solution" and that everything would "come out right somehow". The explaining of the point of view that had been worked out by the student, is emphasized, as well as the discussion of "how the others thought about the topic".

```
A(f): Just free work. That – that – it wasn't said – these is an ideal
      solution. He also uh said it straightaway, Mr. Z, there are
      individual solutions. //mhm// so every-: everything somehow
      turns out right. Either the poster-. Or the (.) other. //mhm//
      But they would work uh differently, the posters. I think anyway.
      //ok//
D(m): And then we explained it to each other and that was kind of cool
      to see how the others were working
B(m):                                   L  or how the others thought
      about the topic. And then you think-: then you think, er, that's
      how you can see it from the other side. And not just from the
      side of the-: that we looked at.
```

Similar findings can be seen in the statements of the group *HB_1_Group2 (f)* in the following passage, in which the discussion partners also refer to the work with the Mystery Method.

```
F(f): So I think mostly the independent working and debating
      something-: I remember in the first hour we got these cards or
      something and I really looked at the cards I thought to myself-:
      huh is there supposed to be some kind of connection there?
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B(f):                                              L  What
     was written on it?
F(f):                    L yes with cotton production.
B(f):                                        L  oh  that  one  with
     the-:
?(f):      L America China connection.
F(f): And I think-: yeah and I think that-: at the beginning that was
     really  such  a  big  task  and  then  at  some  point  you  started  and
     then  something  developed  and  stuff.  And  I  thought  it  was  really
     cool  that  you  could  work  so  independently  and  learned  something
     with it.
G(f): Yes we kind of pulled something together @.@ and I thought that
     was pretty good too
B(f):                    L And we learn a lot with it too.
```

The students of their own accord select the following *central aspects of the Mystery Method as a teaching method* in different passages and point out the qualities of the dilemma debate:

- The methods allow the examination, analysis and discussion of complex systems of worldly phenomena,

- In the manner of speaking to each other and the manner of taking into account information, system associations, partial aspects of the systems and the whole system, meanings are assigned,

- Meanings come about in the debate with each other and can remain with the subject as the respective individual opinions,

- The recognition, that a whole system can be coherent in itself despite different viewpoints, is enabled,

- The acquisition of own opinions creates opinion and judgment reference points for complex systems of worldly phenomena,

- Social forms of learning support learning processes, if they favor individual participation and enjoyment in the exchange,

- Content and methodology are connected by an association of meaning.

In the following, passages are selected from other groups, in which partial aspects of the above-mentioned points are developed more discerningly, reconstructed and interpreted more accurately.

F(f) introduces a topic that had been brought up repeatedly at other points during the discussion: *independent examination of a topic leads to increased knowledge.* Independent learning, the intensive „dealing…with something" was „the most [useful] ".

```
B(f): Yeah so what I thought was good too: when we were in the smaller
     groups,  then  you  could  say  more  yourself,  because  if  there's  the
     class  with  the  teacher  then  you  put  your  hand  up  maybe  once  or
     twice  and  that's  it  and  (2)  like  this  you  can  stand  up  for  your
     opinion more strongly.
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D(f):  I think that meant we were just involved more in the topic and
       it was easier to understand as well (2)
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C(f):  Yeah and there was no single solution for the problems, rather
       it was uh I mean everything was, where you had to think about
       it, it was nice uh (.) right. How we did that. But there were
       different options uh with these posters as well how to connect
       that. Because there were two different groups on the topic and
       they did it differently (1) yeah. (2)
```

As an example, in a description the work with the cards in Mystery is listed. It had elicited questions. The initial confusion in the face of the task, establishing causal associations and correlations between the cards, is expressed in the strong reproduction of their own thoughts expressed in the first person at that point in time. F(f) expands on the topic, by starting from the narrative style opening ("and then I thought kind of-: huh"). The tasks of putting the cards into a sense association appeared to be "a huge task", which was addressed by starting at some point, and that "[then] something came out of that". That had been "cool" that they „learnt something as well." G(f) qualifies the description of F(f) in a kind of conclusion: That they had „got through it somehow together", was good. B(f) completes the conclusion ("and we learnt a lot there as well"), which G(f) agrees with, confirming and completing the learning experience again, that "the debate was pretty good too […] because […] it was just put together quite well".

In the following passage Y's group is focused on the problem of openness in the task formats and the methodical working format encouraging theoretical thought about it: „is it […] helpful or less helpful [,] that the instructions are not quite clear?"

```
Y:     Is it more helpful or less helpful that the instructions are not
       quite clear?
```

```
B(m):  Well I thought it was helpful that we could think about it a bit
       more
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```
C(m):      L that you made up your own mind about it. So
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```
B(m):                                       L It is always
       difficult if it's really divided up into two parts than the
       directions that you thought
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```
A(m):                             L Yeah but like that you are forced to
       think about it
```

```
E(m):            L Yeah I think so too
```

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B(m):                                 L That makes it interesting.
```

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E(m):  I think the debate encourages the topic more
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A(m):                                         L yeah.
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E(m):  although I'm not sure now I mean from the timeframe – we did
       that in a double period and worked really fast and concentrated.
       I don't know if that would always be doable. But in itself it
       was more (.) I mean it did really produce good stuff.
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A(m):  Yeah.
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B(m):  It's more interesting as well if you work it out yourself and
       don't just get told.
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A(m):  Yeah exactly. If you can do it yourself.
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B(m) begins with a suggestion in the form of an explanation: the openness improves to opportunities to analyze the issues being presented. In an interactively very close form, this is confirmed on the one hand by the group, as one is thereby „actually forced to analyze it" and „the debate […] tends to encourage the topic more" and made it "interesting". On the other hand it is also worked out that the discursive form of analysis is not easy, because in the case of differences of opinion („if it's really divided into two parts […] the directions which you think") a shared agreement has to be reached, because either the group is not large enough for a simple majority vote or there is no third party who can facilitate a decision. Concluding the topic however, B(m) states that it „ [is] more interesting if you have developed it yourself and it's not just dictated", which is confirmed by A(m). This means that no divisions appear in the analysis between the debating students, the learning experiences are consensually seen as positive.

In all the passages described here, the class experiences are constructed by the partcipants together and by content to each other, so that one can speak of shared learning experiences, which were enacted by methodical and content demand structure in lesson treatment. In summary, it can be determined that in all group a connection between the positive discursive learning experiences and the methodology of hte learning structure is created: the *Working in Mystery,* starting from the initial story, was said to be challenging. the success of the debates is also assigned to the methodical composition. As an additional aspect, it may be relevant what is expressed in some of the other passages of the group and also in other groups: the assessment that being taken seriously and being valued by the teacher is expressed in the working practices.

Conclusion and Suggestions

Currently in the German and international debate about educational standards and skill paradigms, it can be observed that the cognition-centered research approaches are favored (compare scientific reasoning), conceived as phase models and embedded within a long-running research tradition; the fact that its limitations have also been discussed for more than three decades within psychology, pedagogy and philosophy, is however willingly overlooked in the current German output-oriented debate (compare biology didactics e.g. socioscientific issues, Sadler & Zeidler, 2004; Hößle, 2001; Eggert & Bögeholz, 2010; Gresch, Hasselhorn & Bögeholz, 2011).

In the research project on which this article is based it could be reconstructed in all cases that the youths prefer complex teaching methods with a cooperative design – such as the Mystery Method and – not being discussed here - dilemma discussion (see for geography didactics Rhode-Jüchtern, 1995; Wilhelmi, 2010; Bascom, 2011; in generell Kohlberg, 1976; 1986; Prehn, 2013) - when dealing with phenomena of globalization as a result of the experiences in the Treatment (see Applis, 2012, 245, 279).

In fact, it should be emphasized more clearly, that spheres of activity in social learning are complicated and their breakdown into testable partial skill areas is problematic from a theoretical and practical point of view (compare Rubin, Bukowski & Parker, 2006 and Rose-Krasnor, 1997 as authors of integrative models of social skills). There are many indications that in the encouragement of opinions (or of social, moral and democratic skills) in subject classes, attention should be paid to the creation of learning environments in class and in schools, so to environments that are centered on

their application. These are primarily environments of social, moral and democratic learning within and outside of school, and not the separated encouragement of social, moral or ethical judgment capability or judgment skill (Althof & Berkowitz, 2006; Kerr, 2003; Prehn, 2013). The Mystery Method represents such a sphere of activity, through which opportunities can be created in subject classes for constructive discursive analysis (compare results of Van der Schee, Leat & Vankan, 2002; Vankan, 2003). In addition, the aim should be the distinction of morally relevant skills and the sensitization for the recognition of situations where the inclusion of ethical values is relevant (compare Nowak, Schrader & Zizek, 2013). The evaluation of such areas requires suitable qualitative sociological research methods, as quantitative tools do not adequately reveal attitudes. The Documentary Method is suitable for such a research method, but must be further modified with respect to its theoretical and practical foundations before applied to subject teaching research.

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Biographical statement

Dr. Stefan Applis's research profile: Research priorities in the fields of didactics of philosophy and ethics education, global education, intercultural learning, geography education standards in the areas of judgment / evaluation and empowerment; Development of stages models and innovative teaching / learning concepts related to all school levels (P, SI, SII), focus

on empirical teaching / learning research, experience in quantitative and qualitative research methods.

Research quality: research-related third-party projects and raising funds for (German Research Foundation, pilot projects in the Quality Initiative Teacher Education of the GWK at FAU, funded by the Academy for Teacher Education), reported essays and lectures, awarded the Best Dissertation Award of the Association of University Professors of Geography and its Didactics (HGD).