The Principle of a Problem-Based Approach and Its Consequences for Teaching Philosophy and ‘Ethik’

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Introduction

The problem-based approach in teaching is a central concept of general didactics and technical didactics. It is a substantial principle and not one of those fashionable terms in didactics that are unjustifiably overrated. The discipline of didactics of philosophy can claim that it developed the problem-based approach first. Early in dialogic-pragmatic didactics of philosophy, Ekkehard Martens already understood philosophy as a “problem-based process of communication.”¹ In the following, I would like to discuss the problem-based approach in teaching regarding three aspects:

• The problem-based approach as a philosophical immanence
• The problem-based approach as a historical imperative
• The problem-based approach as a didactical consequence

The last aspect is further subdivided into three levels, the theoretical-conceptual level, the methodical-practical level and the empirical-critical level.²

The Problem-Based Approach as a Philosophical Immanence

All scientific research is based on “the problem.” The problem’s verbal form is “the question.” The idea of clothing originated from the problem of chilliness. The question was, “What can we do to stop being cold?” Soon, the cause for scientific progression went far beyond a purely functional connection. Today, we are able to articulate and investigate questions and problems whose solutions do not seem to be of any concrete value for us. We can ask how black holes accrue; we can ask if time is an entity in itself; and we can ask if the universals of language are based on ideal being, on pure imagination or on practiced language-games. The problem behind these questions is that we want to understand things that we have not been able to understand so far. Sometimes we just try to understand why we cannot understand, but even then we want to understand. Hence, every science is orientated on questions.

In the course of time, all sciences have collected a stock of traditions whose maintenance and archiving is left to specialized historians. Whoever argues that these historians are scientists who do not work with a problem-based approach, is mistaken.

The mistake is not that historians of all disciplines are scientists; the mistake is to believe that their work is not problem-based. Surely, a historian could impose only descriptive tasks. He could catalogue the date and time...
of all medieval royal crowning ceremonies, for example. But the question behind this task will be, if there are any peculiarities or conspicuous features in the list. We call this exploratory research and the scientist’s problem is that he does not know if there will be any peculiarities beforehand. When a philosophical historian asks, if Descartes’ “cogito” influenced Kant’s “Transcendental Apperception,” the problem behind the question is that he simply does not know its answer.

The pure maintenance of a canon can be understood in terms of teaching, but not as research. Science cannot exist without research. This goes especially for philosophy because if philosophy is understood as the teaching of a canon without any research, it loses its identity and turns into the history of ideas.

This is exactly what Kant means when he claims that not philosophy, only philosophizing can be taught. He also divides philosophy into four categories of questions and answers, rather than dividing it by historical criteria or authors. The nature of philosophy and its teaching is immanently problem-based. This potential has been nourished by a tension between esotericism and exotericism as well as by the discrepancy between Enlightenment and science since the dialogues of Socrates.

Ottfried Höffe says that philosophy is a science that is “open for the practice in both ways. It learns from the practice and it tries to teach the practice something about itself and thereby tries to improve it.” Ekkehard Martens and Herbert Schnädelbach say that philosophy as a science is characterized by its object orientation and result orientation. Philosophy as Enlightenment is characterized by its subject orientation and process orientation.

Understood as a <pure> type, ‘philosophy as a science’ is philosophy that is close to the object. It tries to understand its structure and its determining laws in a manner of absent-minded fascination. ‘Philosophy as Enlightenment’ means that the philosophizing person is concerned with him- or herself in an analysing, interpreting and realising manner. The difference between Enlightenment and science is that Enlightenment involves a self-reference of the subject. Therefore, Enlightenment is more than mere absorption and accumulation of information. Not someone who knows everything is enlightened but a person who is capable of relating the information to him- or herself.

A similar dialectic structure can be found in the relationship between esotericism and exotericism within philosophy. Ivory Tower and market place, elementary philosophy and world-class science, philosophizing with children and academic dispute are two faces of philosophy. Both faces belong to the same head and share one brain in respect to method and contents. What they have in common is their problem-based, critical use of reason.

Of course research does not take place in a vacuum. Kant says that “one cannot become a philosopher without knowledge...but never will knowledge alone determine the quality of a philosopher.” “All systems of philosophy,” says Kant, “are only to be seen as histories of the use of reason and should only be used to practice one’s own skills.” Kant also explains, “A true philosopher has to make use of his reason in a free and self-determined way, rather than using it in a slavish and imitative way.” “Sapere aude,” problem-orientated thinking, is therefore immanent to every form of philosophy that creates identity.
The Problem-Based Approach as a Historical Necessity

Since the modern age, certainly not later than the post-modern age, life is strongly affected by two kinds of problem-orientation. Huge practical problems ask for decisions, but the theoretical foundation of these problems is problematic in itself. Hence, during the modern age, theoretic and normative orientation has a practical necessity, but it is theoretically problematic because modern man lives in a scientific-technical risk society. Today’s expansive technical options affect the whole world and all generations. They urge modern man to make more decisions than in former times. The pressure to make decisions has already increased in the last century. Examples are Günther Anders’ theses on the age of nuclear power and Weizsäcker’s declarations on the scientific-technical age. Anders’ model of the end of hypothetical questions emphasises the special quality of our age. Socrates could have asked the hypothetical question whether humans may be cloned, or whether black-out bombs are legitimate, or whether humanity itself should exist. Today these questions are reality and the answers to these questions have real concrete consequences. This problem is amplified by the fact that the global world is increasingly interdependent. Not only the quality of what we are technically capable of, but also the mere quantity of our kind and the density of our co-existence force us to find an agreement. Modern urbanity and communication combined with small space and time unite people of different cultures and lifestyles. Furthermore, examples like global warming and the international financial crisis show that people on the other side of the world and even unborn generations are strongly affected by our actions. At the same time, theoretical and normative orientations are extremely problematic in the modern age.

From a historical perspective, the modern age, at latest the post-modern age, stands for an era of an explosive quantity of knowledge alongside with a simultaneous lack of qualitative categories. The ever-growing flood of knowledge, mostly freely accessible, is both a blessing and a cause of great disorientation. Today, no one is neither in a position to claim comprehensive knowledge for him or herself, nor is it possible to define a necessary or sufficient canon of elementary, middle or higher education. There is a lack of categories such as necessary and sufficient, right and wrong, good and bad. Herbert Schnädelbach says that modern culture is completely "reflexive, profane and pluralistic." With this conception, the Enlightenment has freed mankind from many dogmas. Still, full reflexivity turns against the premises of the Enlightenment itself. The pure practical, but also the pure theoretical reason, is a regulative idea, not a proven fact. This results in a deficit of legitimacy which is particularly noticeable in normative discourse. Resorting to the concepts of Karl Otto Apel, Jürgen Habermas and Vittorio Hösle, the stated loss of a final justification can be challenged. Postmodern thinkers like Lyotard and Zygmund Bauman, however, have shown that the post-modern knowledge and postmodern ethics are based on meta-narratives that cannot be finally justified by them. This also applies to the discourse that is legitimized in the form of being effective in practice, but not in the form of a normative requirement. Modernity, thus, throws the individual and the collective back to individual discernment and, at the same time, destroys the hope of a final, universal solution.

Sociologically speaking, authors like Ulrich Beck and Henry W. Fischer have worked out that modern humanity has to make necessary decisions, without having sufficient theoretical and normative knowledge. It is therefore a problem-oriented consideration of risks.

The Problem-Based Approach as a Didactical Consequence

The didactic of philosophy is a theoretical-conceptional, a methodical-practical and an empirical-critical science. The consequences of the problem-based approach can be made clear on three levels.

Consequences of the Problem-Based Approach on the Theoretical-Conceptional Level

First of all, I want to note that on a theoretical-conceptional level, the debate between Martens and Rehfus
on the advantages and disadvantages of canon-orientation versus problem-orientation had a positive impact on special didactics. Already in the nineteen twenties, educational reformers like Leonard Nelson and Gustav Heckmann declared the orientation towards concrete problems as the main principle of the Socratic method.\textsuperscript{16} Kohlberg’s model of moral development is based on analyzing problem-oriented discussions of dilemmas.\textsuperscript{17}

Philosophizing with children emphasizes a problem-based perspective. Lipman’s idea of a community of inquiry is nothing else than a collective argument around a problem.\textsuperscript{18} Gereth Matthews’ seldomly uses this term. He focuses on the individual’s reflectiveness.\textsuperscript{19} There are differences in the methodical approach. Lipman follows the logical-analytic tradition, whereas Matthews chooses a Socratic dialogue-based approach. These approaches never came to conflict over whether children should be led to the problems of philosophy or whether philosophy is merely a tool to solve children’s problems. This is unlike what happened in German-speaking countries during the eighties, with the so called Martens-Rehfus debate, which took on the status of philosophy head on.

In Martens’ opinion philosophy is “not practiced for its own sake, but for our own sake.”\textsuperscript{20} In the shape of teaching, it had to be performed in form of a dialogue with a real-world problem-orientation. He has an understanding of philosophy that is based on competence. Philosophical authorities are only heard if they contribute directly to the process of problem-solving.

Rehfus criticized Martens for ‘abandoning’ traditional knowledge and genesis.\textsuperscript{21} The problem-orientation that can be found with Rehfus maintains a historical mentality. The existential crisis and the individual crisis of modern man in general, and especially of children, should be overcome by understanding and relating to the history of ideas. Basically, the difference between the problem-based teaching approaches, according to Martens or Rehfus, can be caricatured as follows:

Martens enters a classroom and says, “Since we had a discussion on the question whether or not one can speak of God in a scientific context last week, I decided to give you an extract from Kant’s ‘Critique of Pure Reason.’ Let’s see what you think about Kant’s problem-analysis.”

Rehfus enters a classroom and says, “I brought you the ‘Critique of Pure Reason.’ Now you have a problem!”

Of course this scenario is not quite fair. Also, Rehfus argues for a “phase of entering the problem” during which the children’s interest for a topic is awoken and Martens has always supported the involvement of traditional knowledge in order to ban the risk of self-adulation. In the practice of teaching, the two concepts of Martens and Rehfus may have been closer to each other than in theory. Both have declared that cultivating autonomous power of judgment is their highest educational aim. On the way to achieving this aim, Rehfus focuses on the knowledge of the history of ideas; Martens, on the other hand, focuses on the training of free thinking. Classical works from the history of ideas are welcome for Martens but only as possible dialogue partners; for Rehfus they are a necessity. Vice versa, Rehfus welcomes the dialogue as a teaching method; for Martens it is indispensable. Rehfus says that the problem-opening phase should be used to awaken the interest for a problem belonging to the history of ideas and to commence with an already prepared teaching unit. On the contrary, Martens sees the problem-opening phase as the right time to awaken the children’s awareness for problems, to let them grasp and verbalize problems. Only then can the planning of a teaching unit begin because it has to be built on the verbalized interests of perception. Already in the eighties, this discrepancy between Martens’ and Rehfus’ opinions has had a positive effect on the didactics of philosophy.

Today, the didactics of philosophy are mostly skill-oriented, without having been reduced to a narrow concept of methodological expertise or a competence grid. Philosophizing is therefore an intellectual orientation technique.\textsuperscript{22} This understanding also underlies the immanent problem-orientation.
Already in Kant's short work, “What Does It Mean to Orient Oneself in Thinking,” the term orientation is not understood as an acquisition of preset positions or as a Platonic show of absolute truths, but as an autonomous act of discernment. The term orientation also makes clear that it is more than just self-activism. Orientation is determining one’s location as well as one’s distinct coordinates in order to make a reasoned decision on whereabouts or movement. Hence, the knowledge of coordinates, the ability to navigate and the willingness to make use of both, are necessary.

The categories of knowledge, skills and attitude that were established by Martens can be understood as three components of a competency concept coined by Weinert. According to Weinert, competencies are “the individual’s available or learnable cognitive skills to solve specific problems as well as the associated motivational, volitional and social readiness and ability to use these solutions in a variety of situations successfully and responsibly.” The category of knowledge, therefore, stands for those skills that are necessary to capture the complexity of an issue or problem. The category of skill, therefore, stands for the ability to assess a situation or a problem, and analyze, present, and shape it. The category of attitude, therefore, stands for the willingness to make use of the knowledge and for the capability to solve a problem.

Training how to philosophize as an intellectual orientation technique is matched by the educational concepts of Volker Steenblock and Ekkehard Martens. Steenblock objects to the adoption of a conservative, humanistic education canon. In addition to a “metaphysical disarmament,” Steenblock demands an analytical differentiation of the educational concept and proposes a distinction between educational objects, educational entities and educational processes. Philosophy, Steenblock says, “should therefore not think itself too good for claiming its share of categories and contents in which people can express and unfold themselves.” The didactic self-understanding of the philosophical education process is therefore an exchange structure between study subjects and the curricula. This mediation is successful only when educational content is not seen as an end in itself, which is presented to the learner as a kind of “hot type” or “self-referential” specification of the past. On the other hand, the learning subject and the educational process should not be understood as an ahistorical act: “Educational contents evolve from certain contexts and therefore each content has to be up to date in respect to new approaches and new self-understanding processes: That is exactly what education needs.”

The educational process Steenblock clearly understands in a Socratic tradition as “working on the Logos.” Steenblock’s understanding of philosophy as a self-understanding process is in line with Ekkehard Martens’ thesis of philosophy as an elementary cultural technique of the human conduct of life. Philosophy or philosophizing is a cultural technique, since it is a feature of human culture in general and the Greek-European culture in particular. Cultural technique is philosophy as “craftsmanship or skill” as well as “material science” or “topics of relevant factors and patterns of interpretation.” Together, Martens and Steenblock primarily understand philosophy as an act of intellectual orientation. For teaching philosophy, this means the primacy of self-trained and problem-oriented thinking versus propositions about philosophy.

Consequences of Problem-Orientation for the Methodological and Practical Level

The teacher, however, has to legitimize not only general principles of teaching; he must also explicate methods of their realization. Just like the question is the linguistic form of the problem in general, the central question is the didactic form of problem-oriented teaching. The central question is nothing other than the verbal expression of the problem, the conceptual fixation of a substantial problem and the associated cognitive interest. If this step has been successful, it is followed by an educational program that is used by several authors that have given it different names including “problem loop,” “method snake,” or “candy model.” The inherent problem-orientation can therefore be viewed as a didactic consensus. After pinpointing the problem:
...first an intuitive problem-solving phase is following and second, the consultation of experts, which means the consultation of philosophical texts that offer a conceptual-discursive solution to the problem. This solution is developed and the acquired understanding of the text consolidated to be subsequently deepened in a transfer. The outcome is a critical evaluation of the solution, maybe even an own opinion on the problem, which is no longer intuitively, but arguing with reference to the developed solution.  

During the lessons, the central question functions as the thread, the anchor or the Archimedean point of problem-oriented education. Thus, it is also the condition for the possibility that classes will become a research community, a community of inquiry.  

Unfortunately, central questions do not appear from nowhere. Nor can they be set by an authority without leading the advantages mentioned above to absurdity. In the following, I will present three ways of starting a lesson that demonstrate how problem-orientation can lead to the formulation of a central question. I will distinguish between open starts, starts with a thematic direction and starts with a material specification. Generally, each problem-oriented start follows the so called coffee filter model.

The Coffee Filter Model:
Hence, before the central question drips like coffee cream out of the filter, one has to go through three phases. In the first phase, a problem space is opened or discovered. The necessary impulse must not necessarily come from the teacher. Then, in the second phase, problem interpretations, cognitive interest and preliminary rulings are formulated. Finally, in the third phase, the common problem-orientation is defined and put into words in the form of one or more central questions.

The open start is the ideal-typical model of problem-orientation. In phase one, the children have an almost unlimited amount of choices. Typical tasks in this phase are, “Bring newspaper clippings, novels, passages, songs, lyrics, pictures, letters, quotes, etc., from which you believe that they express a philosophical problem.” In phase two, a selection is made, “Choose one of the suggestions. Put into words the philosophical problem you think it deals with. How do you currently rate the problem or question? Try to express your own research interest in a question.” In the third phase, it is especially important to reduce the quantity of issues and to focus the research interest. Possible steps could include, “Present your questions and your research interest to one another. Whoever is interested in someone else’s question, can join his or her proposal. If you have a similar question as someone else, try to find a common expression for both, with which both of you can identify.” Typically, this process leads to a significant reduction, but not to a clear decision of the entire class. In this case, it is advisable to perform something like an election campaign: “Now, the representatives of the remaining question have ten minutes. During this time you can prepare a stump speech for your election campaign. The performance time for each group is five minutes maximum. The stump speech should pinpoint the proposed problem as clearly as possible and arouse the interest of as many class members as possible.” At the end of the campaign, a simple election is held. The “inferior” topics are not lost, the questions and themes are put into question-memory-storage and can be re-proposed after completion of the teaching unit.

The advantage of this method lies in its briefness. In general, all three phases, including the resolution of the central question, can be realized within a double lesson. But much more important, the process itself is inherently philosophical. The children work on concepts and formulations; they articulate first interpretations and judgments; and they practice speaking, answering and arguing. In short, together they philosophize about the quality of their problem-orientation.

However desirable and convincing open starts are, they are very rare. The vast majority of German curricula have long omitted a fixed canon of texts. Nevertheless, mandatory topic fields are listed, which are to be dealt with in the course of schooling. These requirements seem sensible to avoid a reduction of the spectrum of topics. Anyhow, the participation of children and the joint formulation of central questions must not be abandoned. The procedure remains the same, only the width of the offer will be reduced from the start. An according task could be, “Bring newspaper clippings, novel passages, song lyrics, pictures, letters, quotes, etc., from those you believe that they express an epistemological (or even ethical, anthropological or metaphysical) problem.” Children can be “allured” by using well-directed impulses on relevant fields such as thought experiments, quotes, pictures, etc. It is important that everything is transparent. The teacher should reveal the curricular topic at which the impulses are aimed. Within the given field, the central questions can be developed following the coffee filter model.

For lessons with material guidelines, it is by far the most difficult to realize problem-orientation. However, these guidelines are not always avoidable. For example, central examination requirements can require the knowledge of specific texts. Also, there are still curricula in some states or schools that contain a specific canon of texts, Plato’s Cave Allegory and Kant’s treatise ‘What is Enlightenment?’ are especially compulsory in many curricula. Current regulations can require a particular item, too. There are numerous Albert Schweitzer schools in Germany. It would be interesting to know how many of their teachers are obliged to teach Schweitzer’s popular philosophy in class or during project weeks. Nevertheless, even under such strict guidelines, a certain degree of problem-orientation can be sustained. An example is Plato’s Cave Allegory, which I mentioned before as a clas-
sic of curricular requirements. It is possible to work through the text and then continue with Plato’s Allegory of the Sun and the Allegory of the Lines. The allegory, though, can be used as a stimulus for problem-orientation. The following steps are possible: First, the Cave Allegory will be staged up to the point where they exit the cave. Two or three students are placed as prisoners against the wall, the overhead projector can serve as a light source to simulate fire and the shadows can be generated for example by means of little toy figures. The question “Should one free the prisoners?” targets the normative level of the Cave Allegory and triggers a discussion. The epistemological level can be touched upon by introducing a thought experiment. The class is divided into three groups, each of which takes over the responsibility for a former prisoner. The task is, “Try to prove to the liberated prisoner that our world is more real than the world of shadows.” This task is very demanding if you consider that more complex does not automatically mean more real. Advanced courses can find this very difficult, while fourth-graders usually find a solution quickly. They suggest touching the figure in the dark or to rotate it in front of the light, so that the three dimensional nature of the figure becomes obvious. It is argued that if the figure can exist without the shadow, but the shadow cannot exist without a figure, then the figure must have a higher degree of realness. From the relationship between these two images, one can derive the whole Platonic doctrine of ideas. Continuing in this way would most probably mean that one has aroused the students’ interest. A problem-oriented development of key questions, however, has not taken place. But this is still possible. A corresponding task or homework assignment might be:

Glaucon: “You are describing a strange scene, Socrates, and strange prisoners.”

Socrates: “They are very similar to us.”

1. Do you agree with Socrates?

2. Try to put your ideas and thoughts concerning the Cave Allegory in words by formulating one or more questions.

Then the coffee filter method can be used again.

Consequences of the Problem-Based Approach for the Empirical-Critical Level

Of course, the impact of the problem-oriented approach on philosophy classes and ‘Ethik’ classes can be examined empirically. For example, one could examine the prognosis that problem-oriented teaching statistically enables more students to think critically than a canon-oriented schooling. First studies in this field have been conducted. Georg Lind was able to prove that if dilemma-discussions were held on a regular basis, a higher score in the ability of moral judgment was achieved. Marie-France Daniel could show that philosophizing with children has a positive effect on their language skills and on their ability to take part in discussions. Quantitatively, one could count the number of teaching units that are guided by a central question. Qualitatively, one could measure the degree to which students are capable of making a connection between the curricular material and the central questions.

Summary

In conclusion, I would like to draw attention to an interesting phenomenon. If you ask children what they have done in school, they usually give a clear answer. But if you ask them why it was taught, they usually do not know. If, however, they give you a good answer to this question, then the chances are high that the children are receiving problem-oriented and thus good philosophy or ‘Ethik’ classes.
Endnotes

28. Ibid. 21.
29. Volker Steenblock verweist ausdrücklich auf die Nähe der beiden Theorien. cf.: Ibid. 19, 24.
31. Ibid.


References


Frankfurt am Main.


