Activating methods for university teaching

"Tell me - and I will forget. Show it to me - and I will remember. Let me do it - and I will remember." Confucius

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Activating methods for teaching

In these participant documents, you will be introduced to methods for the various phases of teaching events, which are intended to promote the activity of the participants and to stimulate a successful learning process. The possible applications of the methods depend on the learning objectives, the size of the group, the time available, the topic and, most importantly, on whether you "stand behind" their use.

1 Methods for Phase 1: Warm-up

Didactic function of the methods of this phase

With the help of the activating methods in this phase, the participants get to know each other, which has a positive effect on the learning atmosphere. In addition, they speak in front of the whole group right at the beginning of the seminar, which has the effect of a "free speech". As a consequence, this increases the chance that they will actively participate in the further course of the event.

1.1 Triangle of commonalities

In groups of three, participants identify similarities and differences and then present them.

Procedure:

Form groups of three or, if the number of participants does not allow it, a group of two or four. Each group is given a flip chart sheet to place on a table or pinboard and draw a triangle on it.

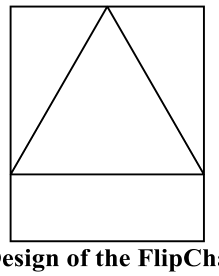


Fig.: Design of the FlipCharts

Now the group members have the task of identifying three aspects that they have in common and writing them inside the triangle. In each of the three areas outside the triangle, one person is to write down his or her name and, underneath, three aspects that distinguish him or her from the other group members.

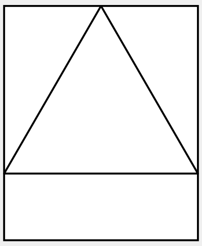
Once this work is done, all groups introduce themselves one after the other. If there are up to 12 participants, each group should briefly present one thing they have in common and also the three aspects that distinguish them from the others. In case of a larger number of participants, it makes sense for reasons of time that each group appoints a spokesperson who presents all the results of his/her groups collected on the chart.

Suitable group size: up to6 participants30

Example of a work assignment: "Triangle of commonalities".

In a group of three, design a flip chart with which you will introduce yourself to all participants of the seminar and to the seminar leader.

- Draw a large triangle on the poster.



- In your group, find out three aspects that they have in common and write them in the middle of the triangle.
- In the three spaces outside the triangle, please write one of you his name and below each three aspects that distinguish him from the other two.
- Designate one person in the group to introduce all group members. Preparation

time: 10 min

Presentation: max. min3

1.2 Written presentation according to guiding questions

The participants introduce themselves with the help of written answers to guiding questions provided by you.

Procedure:

The participants are given the task of writing their answers to three to four guiding questions, which are noted as headings on a pin board, on moderation cards. For each answer, they are to describe one card. Ask them to write neatly and large enough so that the pinned cards are easy to read from a distance. Afterwards, everyone pins their cards one after the other and briefly introduces themselves verbally.

Examples of guiding questions:

- *What is my name?*
- *Where do I come from?*
- *What previous experience do I have with the subject?*

If you plan to carry out group work in the seminar, it makes sense to additionally ask about personal aspects, so that getting to know each other can also take place on the relationship level:

- *What book tip do I have for the other participants?*
- What *film tip do I have for the other participants?*
- *What tip do I have for the summer vacation?*

Suitable group size: up to6 participants12

1.3 Oral presentation according to guiding questions

Participants introduce themselves orally based on guiding questions.

Procedure:

The same guiding questions can be used that are presented in the method "Written presentation according to guiding questions" (see above). These questions should be written on a board or pinboard for all to see.

After participants have thought about their answers for about 30 seconds, they briefly introduce themselves one by one with their answers to the questions.

Suitable group size: up to6 participants30

1.4 Presentation with keychain

Creative way of a round of introductions using participants' keychains. Procedure:

All participants are asked to take out their bunch of keys and tell something about themselves using up to a maximum 3of 4 keys.

An example: *"This is my car key, I drive an older model Golf. This key is from my parents' house, which is in Dresden. This is my office key, I work ..."*.

If a key ring is available, something can be said about it in addition. If a participant does not have a key ring or has only one key, he/she should briefly report on the keys that he/she normally uses in everyday life.

The keys serve as a common thread for the participants through their presentation. They have something familiar in their hands that gives them a bit of security during the presentation.

Suitable group size: up to6 participants18

2 Methods for Phase 2: Transparency

<u>Didactic function of the methods of this phase</u>

Adults - although individually different - have a need for orientation. They want to know something about the goals of the event, the content and the procedure. Transparency about this gives them security and promotes a positive atmosphere.

2.1 Conventional option

On poster/slide/PowerPoint screen you prepare the information about the course and the organizational aspects (break times, documents, examination criteria, ...) and present them at the beginning of the event.

2.2 Alternative possibility "program booklet

This is a DinA-4 sheet folded in the middle. The title page contains the topic of the seminar. The inside contains information about the course of the seminar and its organization. On the back you can leave free space for the participants to make their own written additions.

3 Methods for phase 3: Introduction to the topic

Didactic function of the methods of this phase

With the help of the methods in this phase, the participants activate their prior knowledge of the subject matter. This has a positive effect on their willingness to actively engage with the seminar content. In addition, you can tie in the content of the subsequent seminar phases to the previous knowledge, i.e. pick up the participants where they are with their knowledge.

3.1 Beehive to simple questions

In this method, participants share their prior knowledge in small groups.

Procedure:

Present a brief overview of the topic of the following lesson. Now form small groups of 3-5 people. The groups are given the task of exchanging their prior knowledge about the topic. Afterwards, one speaker designated by the group is to present a brief summary of the results of the discussion.

Suitable group size: up to6 participants30

3.2 Ball bearing (also known as method onion)

The participants exchange ideas on given questions with alternating discussion partners.

Procedure:

Divide the group into two subgroups by counting them off. Have the members of the first group stand up, stand side by side shoulder to shoulder, and form a circle facing outward. The second group forms an outer circle around the circle, facing the inner circle. For each participant in the inner group, there is one from the outer group facing him/her. If there is an uneven number of participants, two participants together take a position in the outer circle and face one person of the inner circle.

Now give the pairs a topic to talk about for two minutes. Hang up the corresponding question for all to see.

Suggestions for topics of conversation:

- *What do you already know about the topic of this event?*
- *Please share the following question together, for example: "What experiences have you had with the use of activating methods in teaching?"*
- *Discuss the pro of the topic, for example, "What is the case for using activist methods in teaching?"*
- *Discuss the contra of the topic, for example, "What is the argument against using activating methods in teaching?"*

After the pairs have spoken for 90 seconds, announce that the conversation time will end in half a minute. Then ask the people in the inner circle to move one position to the right. In this way, new conversation pairs are formed. Another round of conversation, either on the same topic or on a new topic, follows.

After two or three rounds of discussion, end the ball camp. After the participants have sat down again, have them call out answers to one or two of the questions discussed in the ball camp. Write them down on a board or flip chart. You can use these aspects as an introduction to the lesson topic and refer to them again and again in the subsequent information phase.

Suitable group size: up to6 participants30

3.3 MindMapping

Mind mapping is also a kind of brainstorming. Spontaneous thoughts, ideas and suggestions for solutions are collected in writing around a key concept on the blackboard or a poster. A great advantage of this method is that despite the spontaneous, creative and associative way of working, structured results are produced. The name of the method comes from the fact that a "map of the brain" is created (MindMap).

Implementation:

1. Each participant receives a sheet of paper (DIN A3 or DIN A4) and pens of different colors and is asked to write the term or topic in the center of the sheet and circle it in color.
2. The participants are now given the task of drawing lines starting from the central word and noting on them terms that they associate with the topic. Drawings and symbols can supplement the explanations. Connections between terms can be represented by lines or arrows. The added terms can be accompanied by the following

sub-topics can also be found and noted down. Different subtopics can be designed in different colors.
3. After about a minute5, the different MindMaps are briefly presented in plenary.
4. Optionally, you can create a common MindMap from the many individual MindMaps.

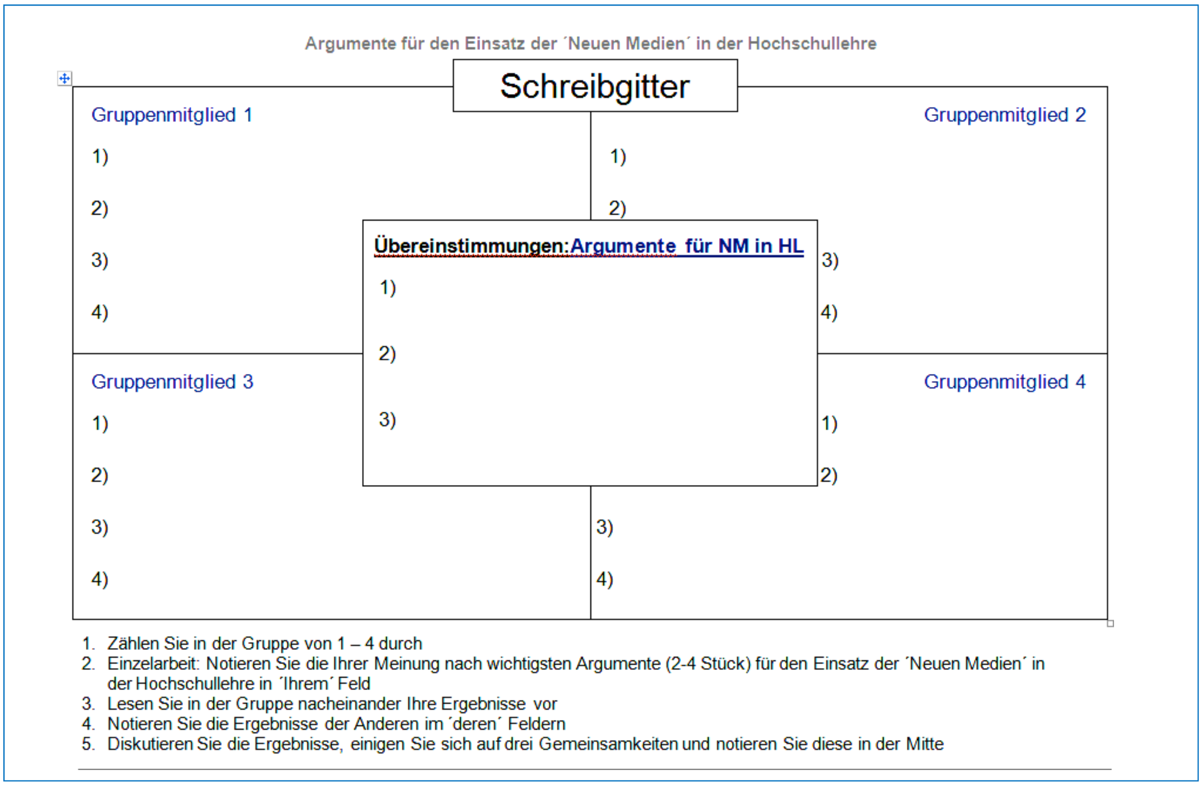
3.4 Knowledge pool

The knowledge pool is also a kind of brainstorming. Spontaneous thoughts, ideas and suggestions for solutions are collected in writing around a key term on the board or a poster.
Procedure:
The participants are given the task of associating and calling out terms based on a central word, e.g. the new teaching topic, which is noted down on a teaching medium. The term should not be too abstract and the task can be announced as follows: "*What content do you associate with our new topic yx?*" Lines are drawn from the central term and the called out terms are noted on them by you, so that the aspects line up in a star shape around the central term. In contrast to the previously presented method of mind mapping, there is no structuring of the terms, which saves time.
If no more ideas are mentioned after 2-3 minutes, you can enrich the knowledge pool with important terms still missing from the topic. In the further course of the teaching unit, you can always refer thematically to the knowledge pool.

Suitable group size: up to6 about participants30

3.5 Writing grid

In groups of three or four, the participants work on a question. First, they answer the question in one of the four fields. Then the group members exchange their answers and write down the answers of the others in the other fields. Finally, the group discusses which answers they will write together in the middle box. These are then presented in the plenary.



Suitable group size: up to6 participants30

3.6 Take a stand

Write various statements (theses) about the event topic on cards (provocative statements are also suitable). Each participant draws a card face down. After a short period of reflection (approx. 30 seconds), everyone presents their drawn statements one after the other and briefly expresses their opinion.

You can add your comment directly, but you can also leave the participants' statement as it is if you do not want to add anything at this point. In this phase of the event, avoid the emergence of fundamental discussions, the main goal is a brief mental introduction to the topic.

This method can also be used for repetition purposes at the beginning of the next session.

Suitable group size: up to6 participants18

4 Methods for Phase 4: Information Phase

Didactic function of the methods of this phase

With the help of the activating methods of this phase, the participants work out the learning material independently. This leads to a more intensive examination of the content than if it were taught purely by you.

4.1 Expert interview

When using this method, a subject matter expert is invited to a course session to briefly introduce his/her field of expertise and then be available to answer the participants' prepared questions.

Procedure:

An expert is invited for an interview session. In preparation for this, the participants should work on questions individually or in small groups. This can be done in a session before the interview or as "homework". Through this task, the group already deals with the topic mentally before the interview is conducted.

Ask the expert in advance to keep his or her answers as brief as possible and to allow questions, since this is an expert interview and not an expert lecture. In the session, the participants ask the expert the prepared questions. All participants can spontaneously contribute further questions. At the end of the interview, you summarize the most important aspects of the interview.

Thanks to the Internet, expert interviews can nowadays also be conducted in the form of a video conference. The expert can then be interviewed at his or her workplace, no matter where it is located, via video transmission.

Suitable group size: up to12 about participants100

Question: **Is this method suitable for your teaching?**

If yes, please give a concrete example of how you can use this method:

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4.2 Group puzzle

(also called Jigsaw method after the English word for puzzle).

All participants first acquire knowledge, which they are then supposed to pass on to the other learners.

Procedure:

In preparation, select a lesson topic and divide it into four equally sized information units (A, B, C, D). For each of these four units, write a so-called expert sheet with the information on the respective aspect.

1. Step of the group puzzle

During the implementation, the first step is to divide the participants into so-called "core groups", also called "base groups". These should consist of four people each. If the number of participants does not allow it, you can also form a group of three or five. Each of these groups now receives an expert sheet on the topics A, B, C and D, with which one participant in each group is to deal intensively. In this phase, however, there is no exchange of content in the core group.

2. Step of the group puzzle

In the second step, "expert groups" are formed, each consisting of the members of each core group who have worked on the same sub-topic. The "experts" now discuss their topic intensively together and try to clarify any ambiguities. If necessary, they can also turn to you.

3. Step of the group puzzle

In the final step, the experts return to their home group. There, they each present their topic to the other group members in such a way that they understand it well. The fact that all four sub-topics are presented means that they fit together like puzzle pieces to form a whole.

Tip for grouping:

Label four different colored cards with the letter A, then four different colored cards with B, then four with C and four with D. In the parent groups, the four people are together with the same colors, in the following expert group all those with the same letters.

Sense of the group puzzle

A group puzzle promotes the activity of the participants in different ways. They have to familiarize themselves with a topic in order to be able to present it to the other members of the core group afterwards. A disadvantage of this method is the time required to complete it, which can take several hours for complex topics.

This approach is suitable for topics that can be easily divided into subtopics and can be grasped and reproduced relatively quickly by the participants.

Suitable group size: 16 participants, with freer design of the method 12 to 30 participants

Question: **Is this method suitable for your teaching?**

If yes, please give a concrete example of how you can use this method:

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4.3 Learning tempoduet

The participants are divided into two groups, each of which receives a different text. They read the text at their own reading speed and answer guiding questions. These questions are formulated along the lines of a short case study in order to establish a practical relevance. The person who has finished working on the text looks for a partner from the other group who has already finished his or her task. This takes into account the individual reading and processing speed that is necessary for understanding the text. Now the students explain to each other in partner work and with the help of the guiding questions what they have read. If there is still time, the students can read their partner's part of the text.

When all the participants have completed their tasks, the results are secured - the guiding questions are discussed together in the plenary session. All participants are encouraged to take notes or to add to their answers.
Suitable group size: up to6 participants30

Question: **Is this method suitable for your teaching?**

If yes, please give a concrete example of how you can use this method:

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4.4 Pro-Contra Debate

The participants are divided into a pro and a con group and are asked to argue their position.
Procedure:
The entire group is divided into a pro and a contra group. Either the participants assign themselves to a position, whereby you have to make sure that there are equal numbers of people for both sides. Or you assign the participants randomly in equal numbers to the two positions. The random assignment strengthens the exercise character of this method.
Now all participants are given five minutes to think of arguments for their position in their groups. Both groups must come up with enough arguments for each member to contribute to the discussion. The two groups then stand or sit opposite each other.
The debate starts with a member of the pro group presenting his argument. A member of the contra group now has the task of refuting the argument if possible and presenting a contra argument in turn. This is now to be refuted again by a member of the pro group, and so on. The debate can then move into an open discussion where participants are allowed to give up their predetermined pro or con stance. Alternatively, you can have the participants change sides. To do this, they also change their standing or sitting position and must now continue the debate from the opposite position.
This method is suitable for topics where there is no clear yes or no. An example question would be: "Should all those who work in university teaching have a didacti-

training program?" There are enough arguments for and against this, but no clear answer.

Special sense of the pro-contra debate

In contrast to a free discussion, in which usually only part of the group participates, here everyone becomes active and practices arguing.

Suitable group size: 12 to 30 participants Question: **Is this method suitable for your teaching?**

If yes, please give a concrete example of how you can use this method:

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4.5 Pro-Contra text

Many social and political issues are the subject of controversial discussions. These controversies should also be made visible in educational work. One way to do this is to juxtapose concise pro-contra texts. In this way, they make it possible to deal directly with the arguments of both (or several) sides.

The texts are read together and then pored over for their argumentation. Where do I agree? Where do I disagree and why? The "pro" or "con" position can also be adopted by individual participants and developed further in an argument.
Pro-contra texts can easily be taken from the daily press. A special type of pro-contra statements are advertising statements and their confrontation with reality.
Suitable group size: up to participants30

For example: Are genetic engineering processes safe?

Per	contra
Genetically engineered processes are safe; genetically engineered foods, additives or adjuvants are not inherently unsafe or pose different or higher risks than conventionally derived foods. Genetic engineering represents the logical further development of traditional breeding and uses the scientific findings of biology and genetic engineering for the targeted modification of animals, plants and microorganisms. Unlike in In addition to classical breeding, genetic engineering allows a	According to the current state of science, it is not possible to predict what effects these novel foods will have on the human organism. No one can rule out the possibility that genetically modified microorganisms, plants or animals, as undesirable "by-products", may form substances that are harmful to health or promote allergies. Other possible side effects may only become apparent after years or decades. Consumers, all of us become the guinea pigs of a new

The genetic engineering of plants can be used to cross species boundaries, e.g. genetic material from plants can be introduced into bacteria. Genetic engineering processes are safe, as shown by millions of experiments and more than 1,000 releases of genetically modified organisms. The potential risks of genetic engineering, related to the recombination of genetic material, are neither to be assessed nor handled in a fundamentally different way than in classical breeding. However, special attention must be paid to the newly introduced Hereditary information.	technology - without our knowledge, because there is no provision anywhere for labeling the laboratory food. But there are also risks for the environment, which is already under excessive strain. The manipulated microorganisms used, for example, to obtain additives or armor substances, may be released into the environment from production facilities of the lowest safety level without prior inactivation. The ecological consequences of a - in principle possible - transfer of the new genes to wild microorganisms cannot be assessed.
Prof. Dr. Klaus Dieter Jany, Head of the Molecular Bio- logisches Zentrum der Bundesforschungsanstalt für Ernährung, Karlsruhe. In: Barmer 3/93, p11	*Karin Focke, graduate biologist and employee at the Gen-ethischen Netzwerk e.V. Berlin. In: Barmer 3/93, p 12*

Source: Gugel 96

4.6 Sandwich method

The participants should familiarize themselves with a subject by alternating between theory and application. Through active phases between (shorter) theory units, a greater learning gain is made possible than with purely frontal "sound reinforcement".

Procedure:

A sandwich consists of a base, lid and topping. What does this mean when applied to the method?

- The **floor** is created by briefly suggesting a task or a practical case with the request to the participants to think about how the task could be solved or which methods and tools are needed for the solution. Since the topic is new, and the theory follows afterwards, the first step is just to think about possible approaches, not perfect solutions. Then call on the participants' ideas - in very large groups only randomly.
- The **topping** now consists in the theory to the concrete case. You start with the question "Do you now want to know how to approach the issue in practice?" and explain the working methods, calculation procedures or other basics about it, i.e. all the necessary background information needed to solve the case.
- With this, the **lid** can now be put on as the culmination of the composition: It consists of the participants applying the knowledge they have just acquired to solve the case or task.

The advantage of this system is, on the one hand, a high motivation of the participants resulting from the tension of the beginning *("How could this possibly work?").* On the other hand, the application at the end promotes the transfer of the initially theoretical knowledge into an actual competence.

A sandwich can be designed with more than one intermediate layer. The alternation between (group) work and input will be repeated several times, each time the participants delve a little deeper into the material.

Variant:
For the design of the self-study time, either the "floor" or the "cover" is worked on by the participants outside of the attendance time.
Suitable group size: Up to 40 participants can be supervised in direct contact if the room is suitably equipped, so that even more difficult tasks can be worked on by groups of up to six people. The method can also be used with very large groups, but then only in groups of two or three, for which no change of location is necessary.
Source: Waldherr, Franz/ Walter Claudia (2009): Didaktisch und praktisch. Ideas and methods for university teaching.

Question: **Is this method suitable for your teaching?**

If yes, please give a concrete example of how you can use this method:

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4.7 Vernissage

The participants deal with information that is prepared on learning posters.
Procedure:
You will create several posters at least the size of a FlipCharts by handwriting or with the help of a computer and a large format printer. The content should be presented in such a way that it is self-explanatory. The posters are hung up in different places in the semi room, for example on pin boards or directly on the walls of the room, if this is allowed. The participants are given the task to look at the "exhibition".

and think about what is shown. If an aspect is unclear to them, they should write a question mark on a self-adhesive piece of paper and also a keyword on the back of the question. They stick the piece of paper to the corresponding place on the poster.

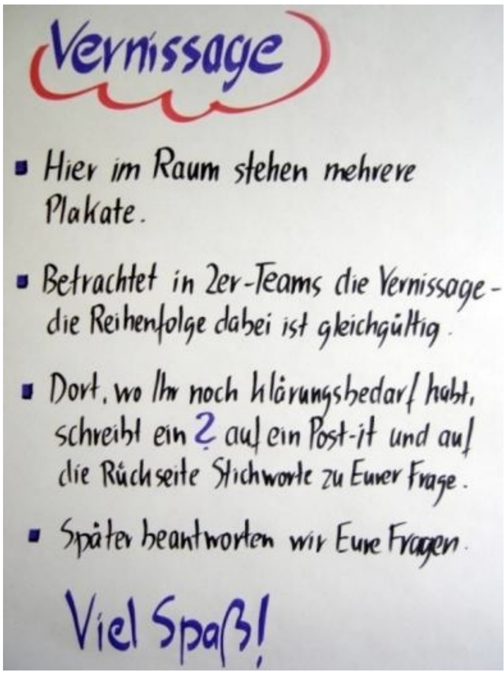

Figure: Work order for the visit of the vernissage

While participants are looking at the "works of art," you should be in the room or in the immediate vicinity, but you should not initially answer any questions about the content.

The participants should pass the posters alone or in pairs. Teamwork has the advantage that the partners can possibly answer certain questions for each other.

After all "exhibition visitors" have completed their tour, you only address the questions pinned to them. They do not need to address the other aspects of the information presented, since no questions were asked about them.

<u>Tips for using this method:</u>

- The number of posters should correspond to the number of participants divided by two so that the viewers do not block each other's view. With 12 participants, six visualizations are useful. However, if you only want to create three posters on the topic, you can also double the posters and hang them on the front and back of a pin board.
- Before you design the posters, you should first prepare the information as a template on a DinA4 sheet. Ask your colleagues to check whether the content is clear and detailed enough.

- Before you start answering the pinned questions, it is a good idea to hand out A4 printouts of the posters to your participants. They can make notes on these as they answer the questions. Creating the posters is relatively time-consuming. However, if they are used again and again in events over the course of time, the creation effort is put into perspective.

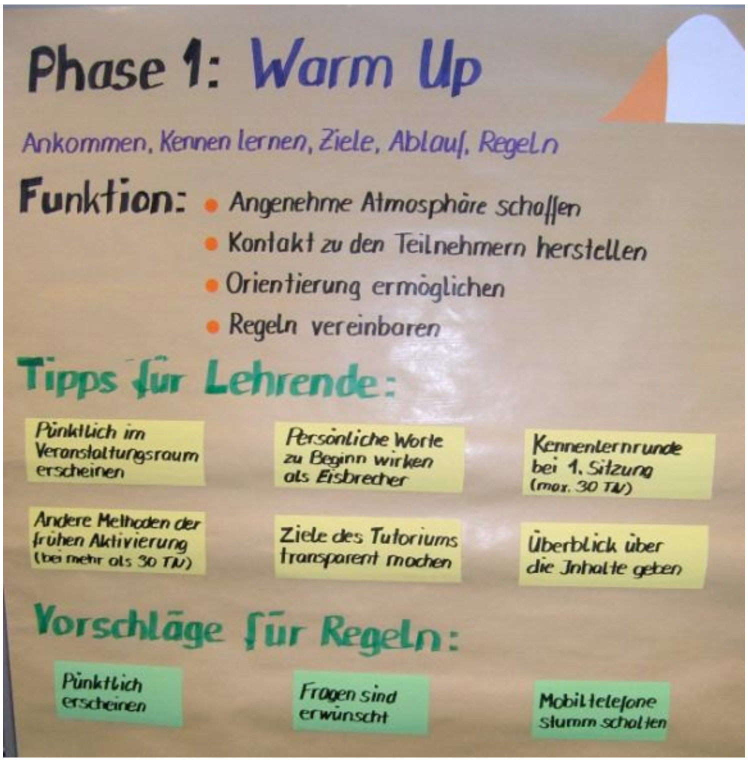

Illustration: Vernissage poster example

Question: **Is this method suitable for your teaching?**

If yes, please give a concrete example of how you can use this method:

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Variation of the method Vernissage: Participants create posters themselves

The whole group is divided into several small groups, each of which is given the task of designing a poster on a given topic. After everyone has completed the task, the results are "exhibited". Now the participants look at the posters of the other groups and attach sticky notes with a question on them to the places where something is unclear to them. The questions are then answered by the authors of the posters for the entire group.

The time required to create the posters depends on the topic and the commitment of the group members and is generally difficult to estimate. An alternative is to have the participants create the posters in preparation for a session.

Suitable group size: up to6 about participants30

4.8 Snowballing

Participants perform methodical analysis of tasks, find solutions, argue and learn to assert themselves.

Implementation:

Snowballing is, so to speak, the doubled marble group: Give the participants a (quite complex) problem or hand out different learning texts. Let them analyze and solve them in groups of two for 20 to 30 minutes. To organize the self-study time, this part can be done as homework. However, explain the following methodical procedure to the participants right away.

Now form two groups of two into a group of four. Allow a further 20 to 30 minutes for the mutual presentation of the solutions developed and a discussion about the differences in the group work results. The goal is for both groups to agree on a common solution.

This is followed by a presentation of the group work results in the plenum. Afterwards, you can have written elaborations prepared on the common solution of the two original groups. In this paper, the reasons why this solution is better than the original solutions should be explained.

The methodology can also be extended by merging two groups of four into a group of eight.

Number of participants

Up to 40 participants can be served in direct contact if the room is suitably equipped.

Time required

A double lesson. The time given should be seen in relation to the content: If the task is simple, you can also give only five minutes (group of two) or plus ten minutes (group of four) to solve the problem, followed by a plenary session.

Source: Waldherr, Franz/ Walter Claudia (2009): Didaktisch und praktisch. Ideas and methods for high school teaching. Stuttgart: Schäffer-Poeschel Verlag. Pp. 22-25; 53f.

5 Methods for Phase 5: Processing Phase

Didactic function of the methods of this phase

By using the activating methods of this phase, the participants actively deal with the contents that were previously presented to them or that they have worked out themselves. This supports individual knowledge retention. On the other hand, direct questioning of knowledge would prove to be less effective.

5.1 A-Z method (also known as ABC method)

For each letter of the alphabet, the participants should find a term that has something to do with the previously presented lesson topic.

Procedure:

Create a poster on which you write all the letters of the alpha in their order in two vertical rows. The letters X, Y and Z should be written directly next to each other so that only one term has to be found for them. Now give the participants the task of writing down a term for each letter that has something directly to do with the topic of the event. Once this is done, read all the terms aloud and comment on those that you think are particularly important.

As an alternative to writing on a poster, you can write the letters of the alphabet on small round moderation cards and place them in order on the floor. The group is divided into two subgroups. Both receive different colored moderation cards and have the task of writing terms for all letters on moderation cards as quickly as possible and placing them face down next to the matching letter. The group that finishes first is the winner. Both groups then reveal their cards and briefly present the terms.

Alternatively also suitable for repeating content

All participants receive a worksheet with a table prepared by you (alternatively, small groups work on one worksheet each). First, everyone should write down a word for each letter that belongs to the topic to be repeated. After about five minutes, the plenary phase begins, in which you have the group call out words that go with each letter. In the longer version you write down the words on a poster. In the maximum version, you then ask questions about the most important terms mentioned, e.g.: What is the concrete procedure for the disin- fection of ...".

Suitable group size: up to6 participants30

5.2 Lucky pot

The learners recall the essential technical terms of the previously discussed topic, write them down and have them explained by another group of participants.

Procedure:

Divide the whole group into small groups of about five members each. Each participant should now write a term on a moderation card that he/she considers significant for the topic previously discussed. The group members introduce their terms to each other and then place the cards in a container that serves as a "lucky pot". Each group passes its lucky pot to another. The members of this group each take out a card and explain the terms they have drawn to each other in their group. The other group members can add to the explanations if necessary. Afterwards, the whole group meets again. Here, only terms that could not be clarified in the small groups are discussed.

Suitable group size: up to12 participants60

5.3 Info stop

Immediately after an informational session, have small groups complete a task that directly relates to the content previously taught.

Procedure:

After an information session of about 20 minutes, you will give the participants a task that relates directly to the previously taught content. This is to be worked on in small groups of about four members each. Depending on the difficulty of the question, the time required to complete the task is two to five minutes.

Possible task types for participants:

- solve a math problem
- discuss a thematically further-reaching question
- Formulate questions about the subject matter
- summarize the main points of the learning content
- consider concrete ways of putting what has been taught theoretically into practice

The results of the group work will then be discussed in plenary and, if necessary, supplemented by you.

Suitable group size: 6 to 30 participants. Note: For larger groups of participants, the very similar method marble group is suitable.

5.4 Card question yellow-red

The participants write on colored cards one central term of the previously discussed topic as well as one question that they think has not yet been answered.

Procedure:

All participants receive a yellow and a red moderation card. On the yellow card, each participant should write a central technical term of the previously discussed topic. On the red card, write a question that is still open for him/her. Afterwards, all cards are collected from you.

At the beginning of the next session, each participant draws one of the labeled yellow cards. In pairs, they are to explain their drawn terms to each other. Call on one group to briefly explain their terms to everyone. Afterwards, respond to questions you have chosen that have been written down on the red-colored cards.

If you use this method regularly as part of a course, you can also use yellow cards from longer past sessions, this reinforces the repetition charac- ter.

In addition to the positive aspect of repeating important technical terms, using this method will give you feedback on which terms the participants remembered particularly well. If no terms were noted for important technical topics, you can think about how you can convey them more effectively next time.

Suitable group size: up to12 participants30

5.5 Term Swap

You write the central terms of the previous information phase on cards. Each participant now draws one of the terms without seeing it. Among themselves, they can swap their terms (barter) until they have the card to which they want todare to say something. After that, any participant begins to explain his term, or you specify the order of terms.

The method can also be used in the phase "Introduction to the topic" to determine the previous knowledge of the participants and to align the previous knowledge as much as possible. Alternative procedure

Instead of central terms, write questions about the topic on the cards, which can be drawn in turn by the participants and also exchanged among themselves again. Finally, they should answer their question.

Suitable group size: up to6 participants18

5.6 Invent exam questions

As the name of the method signals, learners create exam questions themselves. Procedure:

The participants are given the task, either alone or in partner work, to formulate exam questions on the topic of the previous session or several thematically related sessions. To help, first present examples of the different types of exam questions and briefly explain the differences. When the participants have completed their task, collect the exam questions. Select some of them to be answered by the participants at the beginning of the next session.

If you have the task to conduct an exam at the end of a course, you can actually use some questions created by the participants, if necessary slightly reformulated. If you announce this at the time of the assignment, the students will be more motivated to write questions for the exam. After all, they may be lucky enough to encounter one of their own questions again in the exam.

A positive side effect of this method is that participants will discover for themselves how difficult it is to create good exam questions.

Suitable group size: up to12 about participants100

5.7 Sorting task

The central terms of the previous information phase are written on cards by you. All cards should be available in the number of participants. All participants receive a stack with all the terms. Each person should now divide the terms into two sections. On the left side he puts the terms he knows and can explain, to the right of it he puts the terms that he can explain only partially or that are unknown to him.

Two participants at a time then come together and try to close each other's gaps in knowledge, so that more and more cards "move" to the left side. Any terms that are still unknown can now be looked up in a textbook. The task is completed when all teams of two know all terms. It is a good idea to have participants take turns explaining one of the terms at a time.

Alternative procedure

Alternatively, you can write all the terms one below the other on a sheet of paper. Each participant receives this sheet and should note to the right of the terms whether they know the word and then write a short explanation next to it. Afterwards, the exchange with a partner takes place again.

Suitable group size: up to12 participants30

6 Methods for Phase 6: Cool down

<u>Didactic function of the methods of this phase</u>

With the help of the activating methods in this phase, you will receive feedback on your event from the participants. If you wish, you can implement important suggestions in the next implementation of the course.

6.1 Flash light

Each participant briefly orally answers one or two questions, e.g.:

- What did I like about the course?
- What would I have liked to have different?/ What would I have liked to

have additional? Rules for the flash:

- Short (approx. 2-3 sentences)
- Specifically
- No discussion, nor direct commentary by the instructor on the posts.

<u>Suitable group size</u>: up to6 about participants18

6.2 Colorful feedback

Participants provide written feedback on four different aspects. <u>Procedure:</u>

Write four questions (see below) on four different colored moderation cards. Hang them on a pin board that is divided into four quadrants. All participants now also receive four different colored cards and should answer the following questions: On the green card: What was the most interesting insight for me in this seminar?

On the blue card: what do I implement first from what I have learned?

On the yellow card:What content was I missing in the event? On the red card:WhatI find superfluous here?

Hang all the cards, read the feedback briefly and ask the group for their opinion in case of unclear expressions. The author can remain unknown and does not have to comment. Do not comment on the feedback, follow the rules for accepting feedback.

You can also modify the questions. For example, the question on the yellow card could be: What do I want as content in the next training module?

Suitable group size: up to6 participants18

Figure: Colorful feedback example

6.3 Three property words

All participants are given one to two minutes to think of three adjectives to express their impression of the seminar (e.g. strenuous, instructive and inspiring). Afterwards, everyone names their three words. These are not commented on.

Suitable group size: up to6 participants30

6.4 One-minute-paper

Ask your participants to write on the front side of a sheet of paper that should be between A6 and A5 (e.g., a A4 page cut in half) what they liked most about the session. On the reverse side they should also write what they would like to see changed in the next sessions. One answer should be formulated for each session, so that the written feedback only takes about one minute.

Alternative questions:

1) What was the key point of the event for you today?

2) What is the main question that remained unanswered for you

today? or

3) What is the most important insight for you to take away from this event?

4) Which argument did not convince you?

Let the sheets/cards collect in the rows of seats towards the edge and then towards the front. Become the questions for you and present a summary of the results, if possible, in the following session.
Even though the evaluation of larger groups involves a relatively large amount of work, it is worthwhile to use this method, as experience has shown that you will receive more concrete answers than is often the case on standard evaluation forms.

6.5 Star flash

The participants line up in a circle. They ask the feedback question, e.g.: *"What has been particularly interesting for me in the course of the seminar so far?".* Each student gives an answer to the question. The other participants indicate their agreement or disagreement with the statement by either taking a step towards the middle ("I agree with the statement"), standing still ("I see it as neutral") or taking a step back ("I disagree with the statement").
Everyone returns to the starting position and the next participant presents his or her answer.
Suitable group size: up to6 participants18

6.6 Sentiment per one-point question

By sticking a dot, the participants give you feedback on the event.
Procedure:
Design a poster on which you write a question at the top and draw a graduated or flowing scale below it. Participants answer the question by sticking a dot at the appropriate place on the scale.

Examples:
For my practical activity, in this event I have...

Learned a lot!	Learned a few things!	Little learned!

I felt the atmosphere here in the event....

Ask participants to give you feedback and explain the gradations of the scale. Ask for questions afterwards. When there is no more confusion, each participant receives a sticky dot, which they should all stick on at the same time if possible. Do not watch, because the participants will then answer more honestly. Afterwards, look at the result, but do not comment on it. Follow the general feedback rules. Instead, you can have the group evaluate the distribution of points by asking for comments on the event with regard to the evaluation result. Afterwards, thank them for their feedback.

If you do not have glue dots, participants can draw a small cross in the appropriate place.

Suitable group size: up to6 participants30

6.7 Structured card question

This is the written feedback of the participants according to predefined guiding questions.

Procedure:

Hang two posters on moderation walls. On the first one, write as a heading:

"This is what I liked about..."

Underneath hang oval heading cards with the inscriptions:

- *the contents!*
- *the trainer!*
- *of the group!*

On the second poster, write down as a heading: "*I would like this to be different next time, to...*"

Underneath hang heading cards with the inscriptions:

- *the contents!*

- the trainer!

- of the group!

The participants should write their answers as keywords or short sentences on moderation cards and then pin them on the pinboard. Do not watch while doing this, so that this can be done anonymously. When all cards are posted, read the feedback briefly and ask the group for their opinion in case of unclear statements. In this process, the au- tor can remain unknown and does not have to comment. Do not comment on the feedback, follow the rules for accepting feedback.

Suitable group size: up to6 participants12

6.8 Two-dimensional one point question

By sticking a dot, participants give you feedback on two aspects of the event at the same time.

Procedure:

Design a poster on which you draw a large square and above it write the heading "Your feedback on the seminar". Additionally, write *"This is how I found the atmosphere here*" on the y-axis and "*This is how much I take away in terms of ideas, content, suggestions"* on the x-axis (see figure below). The participants are given the task of answering both questions simultaneously by sticking a dot in the appropriate place.

Ask participants to give you feedback on the seminar and explain the gradations of the scale.

Explanation of the scales

- " *A dot stuck in the square on the far left means that the "content cup" has remained empty, so you have taken nothing in terms of content suggestions. A dot stuck on the far right means that your cup has become full, so you take very many ideas and suggestions for yourself*".
- *"A dot stuck in the square at the very bottom means that you have set the mood in the seminar as negative. A dot stuck at the top, on the other hand, says that you rated the atmosphere as very good".*

To check that the task has been understood correctly, ask the group where the dot would have to be placed if the content cup were full and the mood were medium-had been moderate. The solution is that the point would stick on the far right and at the same time horizontally seen in the middle.

Ask for questions afterwards. If there are no more uncertainties, all participants receive one sticky dot each, which they should stick on at the same time if possible. Do not watch, because then the participants will answer more honestly. Afterwards, look at the result, but do not comment on it. Follow the general feedback rules. Instead, you can have the group evaluate the distribution of points by asking for comments on the seminar with regard to the evaluation result. Afterwards, thank the participants for their feedback.

If you do not have glue dots, participants can draw a small cross in the appropriate place.

<u>Suitable group size</u>: up to6 participants30

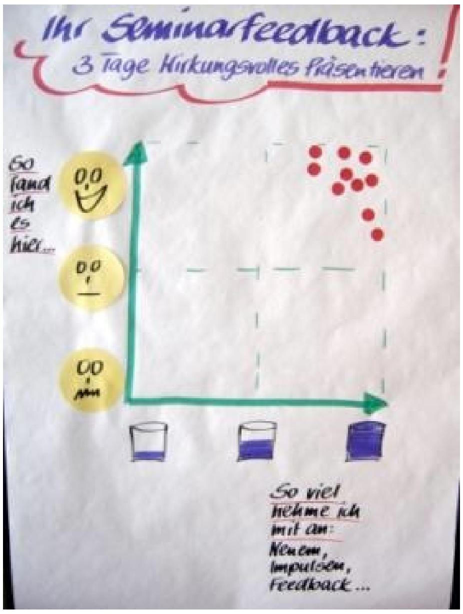

Figure: Example of the two-dimensional one-point question

7 Activating methods for large group events

The use of activating methods in teaching is time-consuming and should usually be concluded with the presentation of all group work results. The often existing pressure of the material in lectures as well as the mostly large group of participants does not allow the use of more elaborate activating methods in this form of teaching.
In the following, you will be introduced to techniques/ easy-to-use methods that can still help you activate students in large groups for a short period of time.

a) **Show commonalities**
b) **Lift solution by hand**
c) **Marble Group**
d) **Assign order**
e) **Series game**
f) **Guessing question**
g) **Callback question**

The methods presented in the overview specifically for events with groups of participants over 30 are now described in more detail.

a) **Show commonalities**

With the help of this method you obtain information, for example, about the previous knowledge of the participants in larger groups. You ask the participants questions, and if the aspect in question applies, they should signal this to you by raising their hands.

<u>Suggestions for questions:</u>

- *Who has already attended an event on this topic?*
- *Who has already gained practical experience in this area?*
- *Who has already heard of the theory ...?*

This provides them with information, for example, about the participants' prior thematic knowledge. At the same time, the participants are somewhat activated by reporting and recognize possible commonalities with other group members, which they can discuss during a break.

b) Lift solution by hand

Ask a question, and present a range of possible solutions. Example:

"*Who gets the result x in this task? Who gets the result y? ...".* All participants are asked to show which answer they think is correct by raising their hand. Then explain the correct solution.

c) Marble Group

After a lecture unit of about 15 to 20 minutes, the students are given the task of discussing a given question with a person sitting next to them for two minutes. When everyone in the room starts talking, a murmuring sound is created, hence the name for this method.

Possible task types for participants:

- Formulate questions about what was previously taught;
- Summarize the key points of the learning;
- consider concrete ways of putting what they have learned in theory into practice.

Afterwards, ask some of the interviewees to briefly present their response. If no one volunteers to do so, you can call on individual groups directly. This kind of pressure ensures that the partners really deal with the given tasks.

d) Assign order

You have the participants put aspects of a topic in the correct order when called out. The terms are previously unsorted on the board.

e) Series game

Prepare a worksheet with a question written at the top that should be solvable with the information previously taught.

Example of a question: *"What phases should a seminar go through?"*.

The person sitting furthest to the left from you in each row of seats receives this worksheet. After your start signal, the sheet is passed through the row. Each participant who knows an answer to the question is to write it down. The person sitting on the far right of the row has the task of checking that the required number of terms is on the list. If this is not the case, she must look in your row of seats for the

ask for the missing terms. The group whose sheet is the first to arrive completely filled in correctly on the right side of the row is the winner.
To encourage motivation, you can announce a reward for the winning group: The "Winner series", for example, receives a box of small chocolate bars.

f) Guessing question

Consider an appropriate estimation question.
Sample question: "*What do you think: What percentage of medications given to patients are actually taken by them?"*
Your participants now have the task of thinking about the question and writing down their answer large and clearly on a piece of paper. When prompted, everyone holds up their solution. Try to get an overview of the estimates and summarize them. Also, mention the extreme estimates without pointing out the person in question. You can additionally ask who would like to briefly justify their guess. With challenging guessing questions, the attention of the participants increases greatly. This method is therefore particularly suitable when the general concentration of the group wanes.

g) **Callback question**

The shout-out question is a simple way to gather input from participants. On a whiteboard or flipchart, write down a question as a heading. Allow a short time for reflection. Have participants shout out their answers to you without having to speak up. You write down all the ideas on a suitable medium for everyone to see, if possible exactly as they were formulated. Make sure that the ideas are not evaluated or commented on and that no discussion arises during the collection phase.
If you receive a contribution that seems to be a joke, ask if you should write it down. In most cases, the person will tell you that it was just a joke.

Bibliography

There are numerous methods for seminars. If the ones presented are not enough for you, here are some very successful method collections.

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A total of over methods150 are sorted according to the different phases of a seminar and are each described specifically.

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The book, which is now in its second edition11. due to its great success, presents numerous seminar methods in a well-structured way and gives concrete advice on how to use them.

Waldherr, Franz/ Walter Claudia (2009): Didaktisch und praktisch. Ideas and methods for university teaching. Stuttgart: Schäffer-Poeschel Verlag. S. 22-25; 53f.

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The title says it all. 2002Spielbar has been published2 with further games88 for various occasions in seminars. A third volume was published in 2009.

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Of course, the book guthin;-) The book addresses standard teaching methods, activating methods, special methods for large groups and activating exercises in its methods chapter.

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