



The ups and downs of student research competence

Vignette #11

Complete research cycle



KEYWORDS

DIFFERENCE AND HETEROGENEITY,
LACK OF RESEARCH COMPETENCE



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GEFÖRDERT VOM

#11: The ups and downs of student research competence



The following text sequence or vignette describes a situation in the context of a teaching that aims at research-based learning. The situation described challenges you as a teacher and may require you to act directly. The aim of the vignette is to allow you to think about what you are doing in such a situation or how you could prevent it. But you may also consider the situation to be problem-free and more conducive to learning. Either way you can preventively familiarize yourself with possible challenges and reflect upon your own evaluations and impulses for action.

The situations described are taken from interview data with coordinators of research-based learning projects and have been sharpened for the purpose mentioned above. The most common challenges in teaching courses to promote research-based learning have been selected and converted into vignettes.



The ups and downs of student research competence

Sunday afternoon. Your weekend, actually. In principle it is, but your course situation keeps popping up in your mind: The students are busy, have found a research question and are working on it. So far so good, however, you have noticed that the methodological skills of the different groups are very different. For example, you have heard excerpts from the interview transcript of one group - it is brimming over with suggestive questions and yes-no questions, and it is also very long. Others have produced a very good interview guide, but are worried about making mistakes during the interview and are afraid to go into the field.

Keywords: Difference and heterogeneity, lack of research competence





Reflective questions

The situation described above is a typical challenge that you could face if you implement research-based learning in your teaching. The following questions of reflection serve as impulses to look at such or similar situations from different perspectives and then to come to different decisions:

Is the quality of the students' research important to you?

What do you want to use your resources for?

Do you want to have a balancing effect by supporting the weaker ones more or do you want to devote comparable amounts of time and energy to all project groups or participants?

How important is a relatively homogeneous level of quality of the results of the individual groups to you?

What opportunities do the students have throughout the course to learn from their own mistakes and those of their fellow students?

What learning goals do you have for the students? At which point should they be taught the knowledge? In the process or in the assessment?



Attitudes and actions

In the following, attitudes as well as preventive and intervening actions in the situation described are presented. First of all, attitudes are described which have an impact on whether and how to react. Then actions are presented. They are practical examples of how teachers at universities deal with the situation in a preventive or intervening manner. In addition, indirect measures are listed which involve a more subtle approach yet may have a strong impact.

Attitudes

Attitudes do not include concrete measures but describe the inner attitude of teachers (or coordinators) towards different situations. Depending on the attitude, situations can be interpreted as "problematic" and "challenging", but also as "desirable" and "normal".

Be guided by the principle of minimal help

The principle is that help is only provided when it is requested and then only to the extent needed by the students. This also means that students themselves are responsible for their own organisation. Only in cases where group work is clearly getting out of hand intervention will take place.

An appropriate action could be: In order to assess whether it is really necessary to intervene you have to have discussions with the students. Make them aware of their self-responsibility. If this advice does not have any effect, you as a teacher may step in – and only to the extent necessary.

Let students design the process on their own

You want to give the students room to shape the process independently and to gain experience by themselves.

An appropriate action could be: You are holding back on recommendations. Even when concrete help is requested, you always offer a variety of options and describe the advantages and disadvantages as neutrally as possible, so that the students ultimately make their own decisions based on their alternative courses of action.

Consider excessive demands as a basic principle of university

You consider it normal and desirable that students are overwhelmed. In conversations you make it clear to the students that it is okay and normal to be overwhelmed and what positive effects it has: excessive demands lead to growth.

An appropriate action could be: In a reflective discussion with the students, you take up the topic of excessive demands. Together you think about the benefits of excessive demands in this situation.

Preventive actions

Preventive actions prevent the situation described or rather makes them less likely. There is - of course - no guarantee of avoiding such conflicts.

Ask about the structuring needs of the groups

At the beginning of the semester you can ask the students how much they would like to be supervised and how much structure they would like. Depending on this, you can then respond to their wishes.

Benefit of this action: From the beginning, students take responsibility for how much you as a teacher are involved in the process of the individual group. Consequently, you do not have to decide for yourself whether to readjust.

Conduct team development before the start of the project

Before the actual research is started, you initiate a team development phase. In this phase, students experience, among other things, the benefits of role allocation in the team - without being explicitly told how to do it. As a rule, students then decide to adopt this principle for their project work and assign different roles to each other.

Benefit of this action: Roles such as content or process guardians could be assigned, whose task is to identify deficits and, if necessary, to call for help. Teams can become more efficient with this measure.

Appoint several group spokespersons

You demand that the project groups appoint two spokespersons who are in contact with you or with the tutors.

Benefit of this action: Appointing speakers can prevent that only one perspective on the research process is communicated and that possible misunderstandings or ambiguities remain hidden.

Offer contact persons

From the very beginning, students are regularly informed that they have a contact person in case of difficulties - even for minor questions or concerns..

Benefit of this measure for the case vignette situation: If students are explicitly pointed out to the existing support several times, the inhibition threshold to use it tends to decrease.

Use microformats of research to take up existing capabilities

At the beginning of the project you ask the students what they are already capable of. Adapted to these results they develop the project to be carried out. This does not have to cover the entire research process, but can also only cover individual research steps, such as developing a research question, collecting material or evaluating existing material. Another possibility would be to narrow down methods and subject areas.

Benefit of this action: Students have less freedom and can therefore work in a more focused and goal-oriented manner. This makes it easier to stick to the given time frame. In addition, the learning objectives can be better aligned to the project.

Intervening actions

Interventions are usually carried out "when the milk has already been spilled". These are therefore acute reactive measures:

Outsourcing learning of research methods in workshops

You do not try to teach students certain methods during the research process. Instead, you either offer methodological workshops yourself or advertise existing offers.

Benefit of this action: Questions or discussions on methods can be "outsourced" to other contexts, thus saving time and energy. Furthermore, some of the students' ideas turn out more realistic when they have learned more about the methods and the corresponding workload.

Issue a method guide

You develop a manual in which the most common methods for your project are briefly outlined, application scenarios and advantages and disadvantages are described, and reference is made to the common literature.

Benefit of this action: The students have a point of reference to help them decide on a method and also further literature to help them become more familiar with their chosen method.

Issue a guide to scholarly work

If there is a guide to scholarly work in your department, distribute it at the beginning of the event or as needed. If it does not exist, this would be an opportunity to develop such a sustainable handout.

Benefit of this action: If students lack basic skills in scholarly work, they can find valuable tips and advice on basic working techniques here.

Create explanatory videos

You create a video that explains the basics of research or other scholarly working techniques.

Benefit of this action: Especially when it is to be expected that other students will also have similar problems, it is worth making an explanatory video. Tell from your own experience and keep the production effort low, even simple videos can be effective. Students can deal with them outside of attendance time so that your course planning is not affected.

Set up an extended project meeting

You extend the usual attendance time to a three-hour window to address the gaps that exist.

Benefit of this action: Such an extended time slot offers the advantage that you can work together with the students to deal with the problem in greater depth.

Indirect (accompanying) actions

In addition, indirect measures are listed which involve a more subtle approach yet may have the same impact.

Deploy team facilitators

You can use student tutors as team facilitators, for example. They observe the process and provide feedback on group behaviour and the research process at regular intervals. At the end of the course they could also write a summary of their observations for the students about students behaviour in the research and group process.

Benefit of this action: The team facilitators are providing feedback, thus differences or even deficits become explicit and the students can decide what to make of them.

