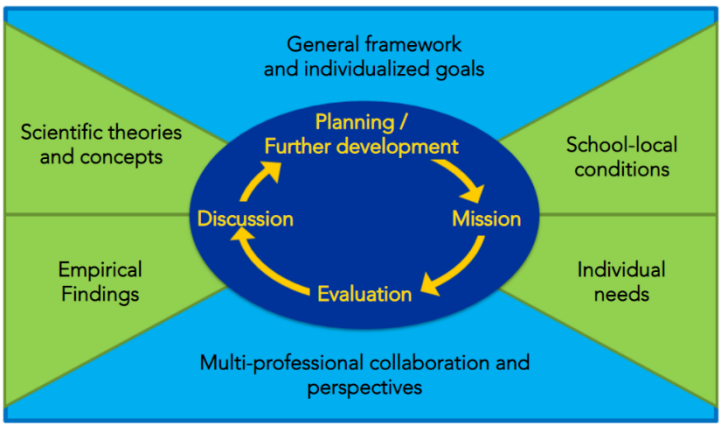
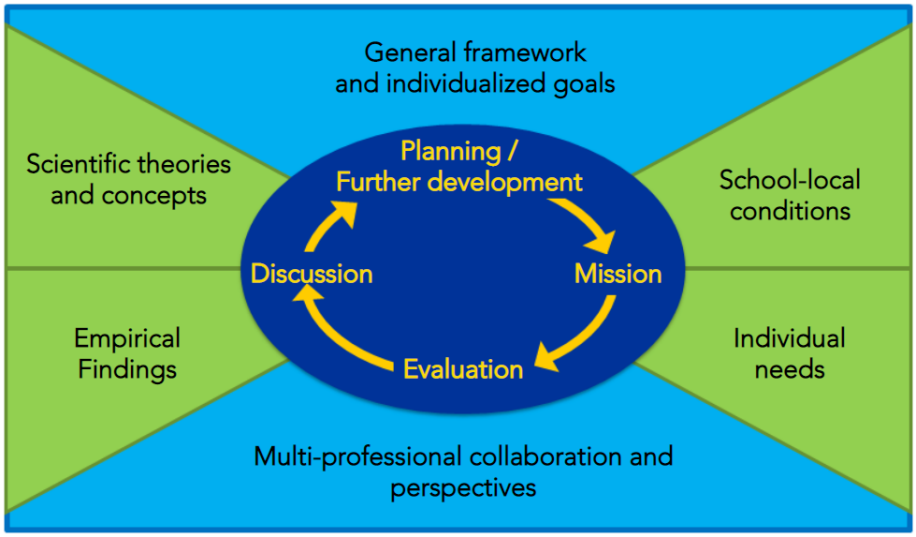
Development of inclusion-sensitive educational material

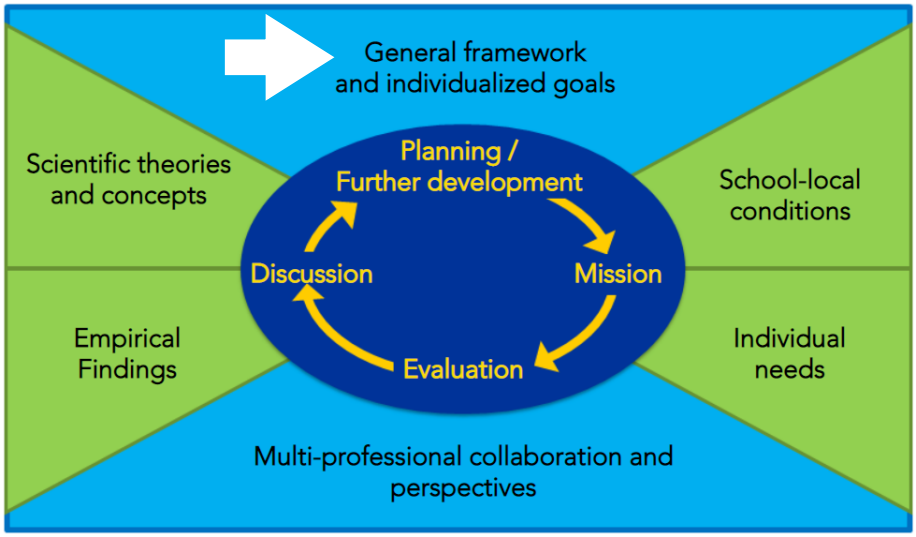
An overview of the process model





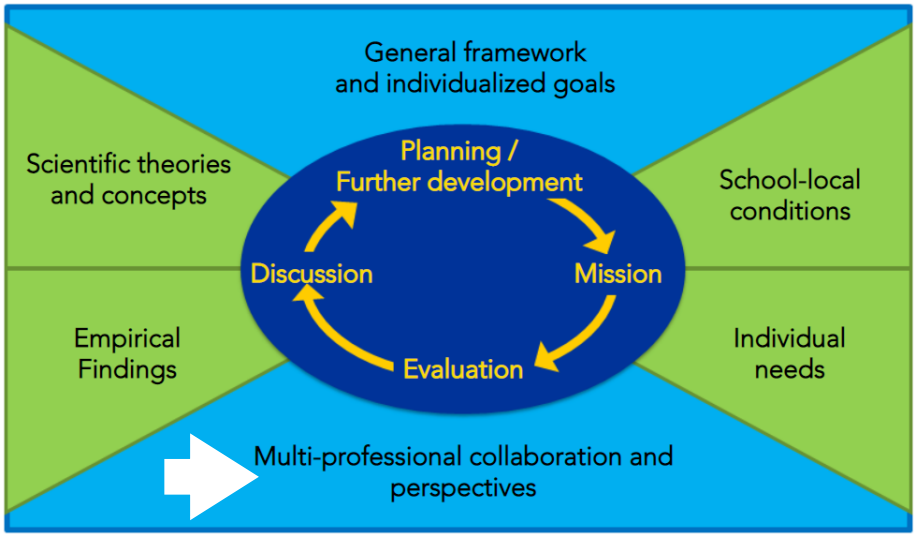
It is often the case that for the specific learning situation and constellation on site there are no blind materials that are sufficiently sensitive to inclusion in terms of scope and quality. The available materials usually lack selected dimensions of diversity that still have a significant impact on learning on site.

In such cases it is necessary that the teacher is enabled to add what is missing to existing educational materials or to tackle new developments.



General framework and individualized goals

The clarity and precision of the teaching and learning goals are instrumental for learning success. Goals also include school structure, educational policy and school administrative requirements that must be taken into account when creating the material. This also includes curricular specifications, such as educational and framework plans, these must be individualized with reference to the student and the school-local context. Likewise, the educational goals must be justified transparently against the background of scientific theories and concepts.

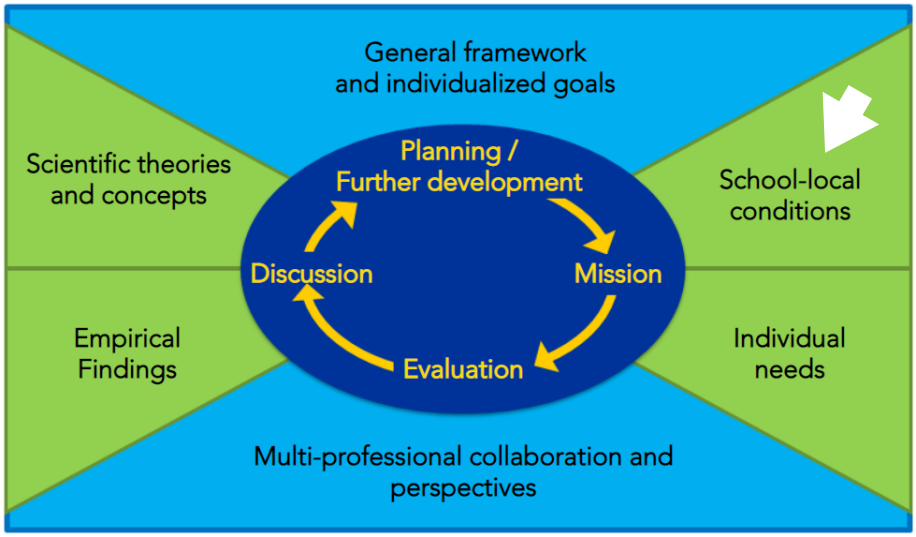


Multi-professional collaboration and perspectives

Sustainable learning success also results from the cooperation with other teachers and professions as well as parents and students: inside. Depending on the educational goal and level of competence, different professions must be included in the development of the teaching material. These professions include, for example, speech therapists, special educators, psychologists and occupational therapists. This also includes the cooperation between school practitioners and scientists: inside. Furthermore, parents and students should also be involved. Parents have a great responsibility for the upbringing and education of their children, so they must not be excluded.

Exemplary questions:

- Do I involve different professions and colleagues: Are you involved in the development work?
- Do I involve the parents and students: Are they involved in the work process?
- Are there feedback mechanisms or quality circles to discuss the material?

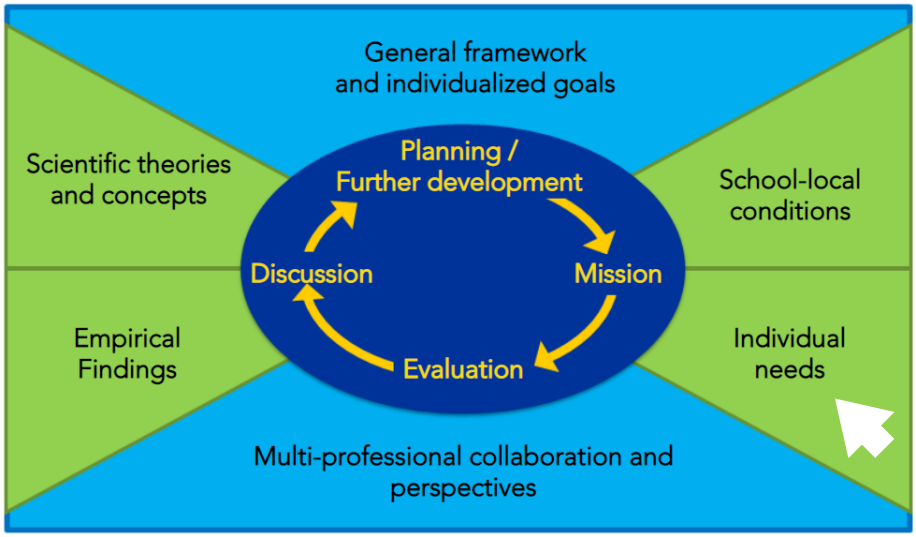


School-local conditions

With regard to the local school conditions, all demographic, personnel, financial and spatial factors must be taken into account. Here it is necessary to check which possibilities / potentials exist in the school and where, for example, there are financial restrictions. On the part of the learners, for example, it is important to know what demographic peculiarities are at the school, is there a high proportion of poverty / Hartz 4 in the school district, or are there peculiarities with regard to the history of migration, e.g. a very high proportion of children with refugee experiences the cultural context in the families of origin is important here. A teaching material should, for example, not exclude pupils: inside because of their cultural context. Furthermore, language support options should also be built in, if necessary.

Exemplary questions:

- Does my school have the financial means to purchase this material?
- What time frame (e.g. 45-minute hours, blocks of double hours) do I have for using the material?
- Which room (s) are available for using the material?
- Which employees: are I available for the introduction / use of the material?
- With which material already known to the pupil can I combine this material?
- What connection options does the material offer to the school development goals?
- Which competencies and educational standards of the underlying curriculum / curriculum does the material take up?
- What connection options are there with regard to the socio-economic environment of the school?
- What is the number of materials in the school?
- How is the material accessible to me?

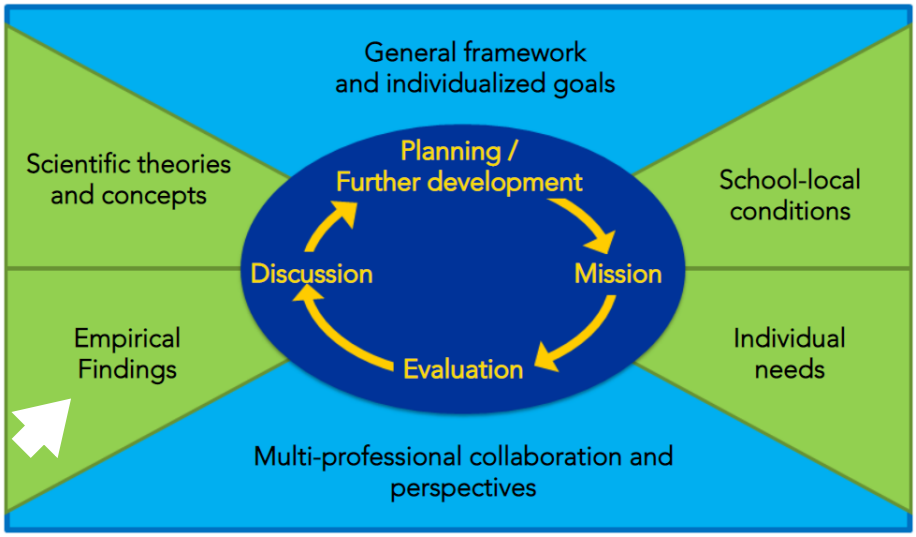


Individual needs

On the part of the learner, for example, previous knowledge, previous experience and motivation must be taken into account. Successful learning can only be achieved if the material builds on previous knowledge. Piaget's work on cognitive development is also of great relevance here. In addition, by taking into account previous knowledge, frustration experiences on the part of the child are avoided. In addition to previous knowledge, motivation expenses must also be taken into account. In the case of children with a refugee history or migration experience, appropriate cultural backgrounds and language skills should be asked for. On the part of the teacher, it is necessary to reflect on which competencies, abilities and skills are available, i.e. in the sense of resources that can be brought into the material work.

Exemplary questions:

- What basic skills do the students have?
- What needs and needs do my students have?
- What language requirements do my students have?
- What is the cultural background of my students?
- What are my students' interests?
- What knowledge do the teachers involved have?

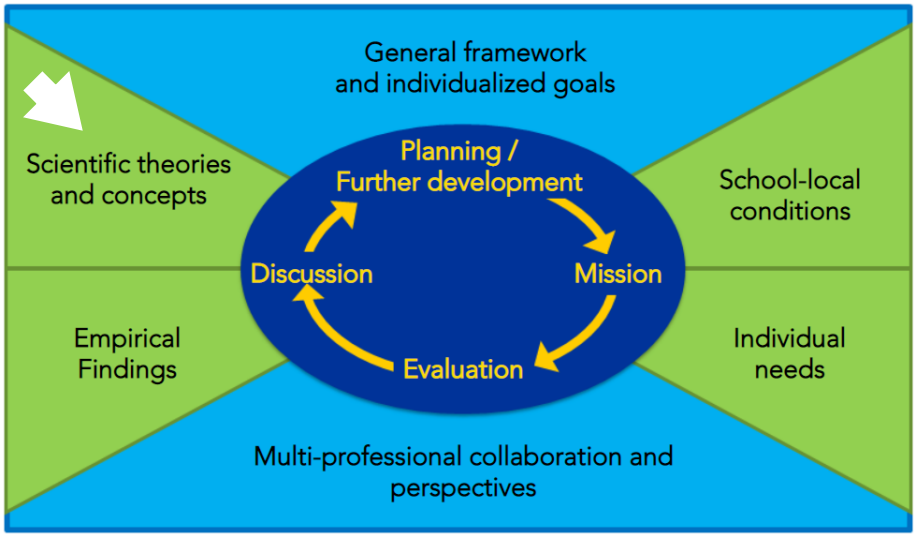


Empirical findings

The material should also consider empirical findings and be evidence-based accordingly. This also means that an overview of empirical studies on the teaching material should first be created. Furthermore, the experiences and evaluations of colleagues should be used.

Exemplary questions

- What empirical studies are there on the teaching material?
- What evaluations of comparable materials are available?
- Which experiences from other learning groups, classes or schools can be used?
- In what form has the material contributed to the further development of the basic skills of the students?
- How does the material contribute to achieving the target competencies?
- In what form was it possible to respond to the needs and requirements of the students?
- Which linguistic or cultural experiences could be taken up and further developed?

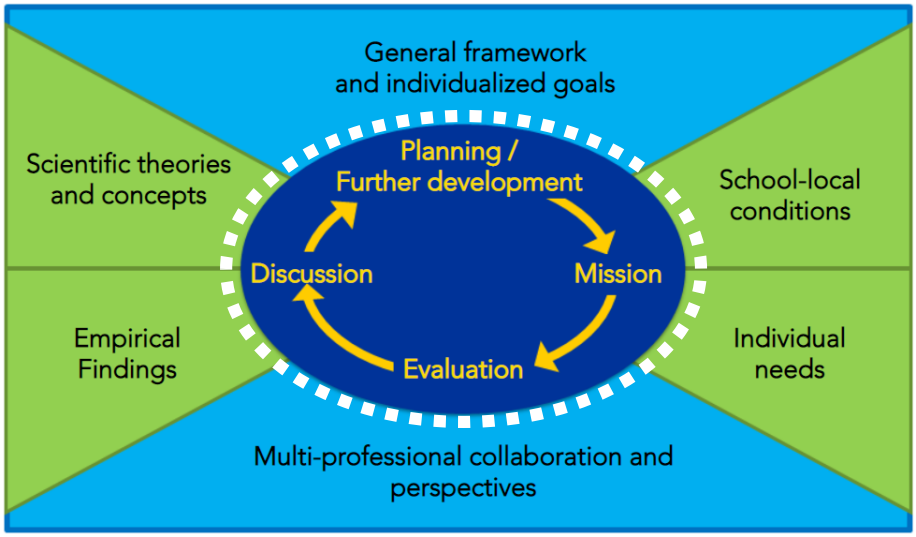


Scientific theories and consepts

This is about the scientific foundation of the teaching material. In this case, the material should incorporate the latest scientific theories and concepts. The relevant sciences are to be determined on a case-by-case basis, but these usually include, for example, the specialist sciences (mathematics, German studies, etc.), specialist didactics and pedagogy / educational science, and the findings of pedagogical psychology are also of high relevance. Findings about the design of the materials must also be included here. The scientific theories and concepts provide the argumentation basis for decisions about the preparation of the teaching material.

Exemplary questions:

- Which funding priorities / funding goals are the focus of the material?
- Which primary school pedagogical core areas are affected by the material?
- Which disciplines are the focus of the material?
- Which didactic principles are used in the context of the material?



Circular process:

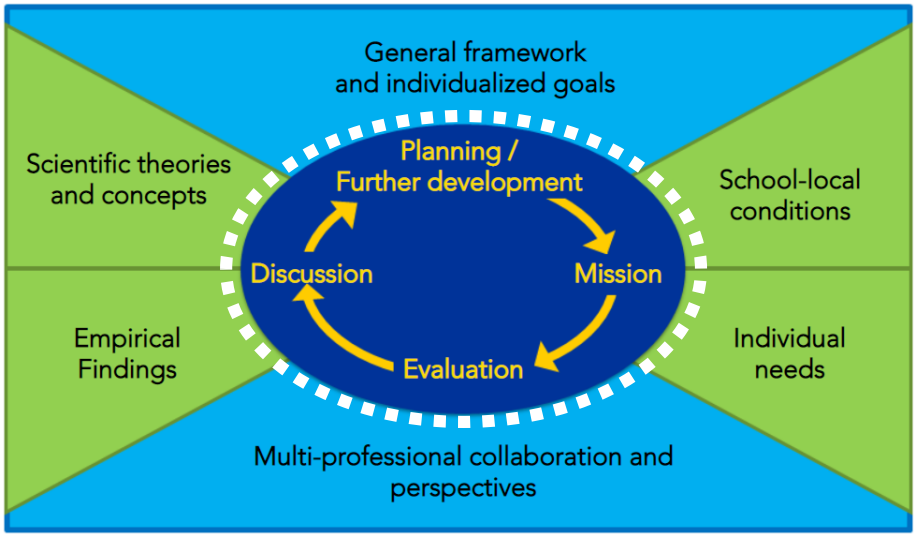
The circular process includes planning, deployment, evaluation and discussion. For the understanding of the process it is crucial that the process cannot come to an end, but should always continue. After the cycle has been run through, there is a first version that should serve as a starting point for further development activities.

1. Planning / further development:

The objectives of the teaching material are determined during the planning. In doing so, attention must be paid to school structure, educational policy and school administration requirements as well as to the scientific foundation. Furthermore, the goals still have to be individualized and local school conditions must also be taken into account.

Exemplary questions:

- What cognitive, social, motor learning objectives are prepared by the teaching material?
- Do the learning objectives take contextual factors into account, e.g. school structure, educational policy and school administration?
- Are the learning objectives also based on a scientific foundation?
- Are the learning objectives also individualised and related to the learning success of the individual learner?

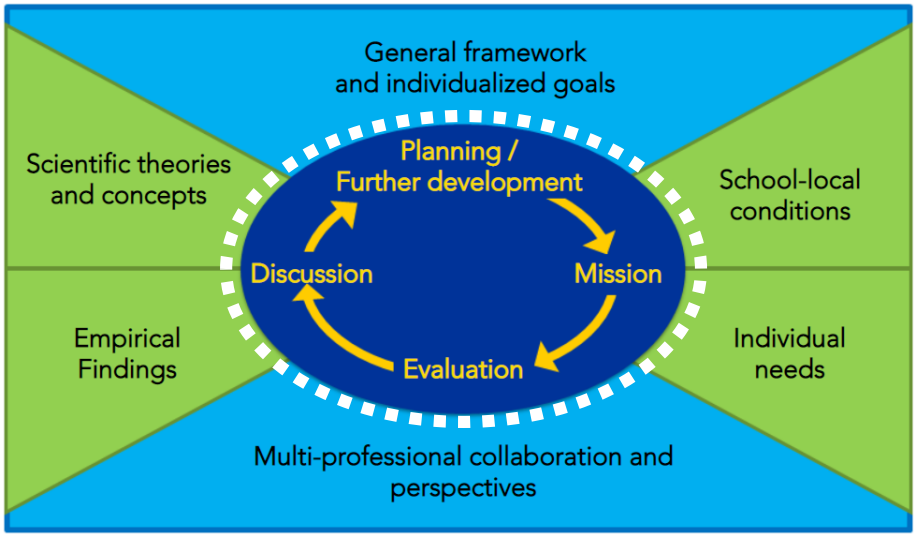


2. Use:

During use, the material is tested in the intended learning setting. It should be determined which parts of the material should be tested, and the sample must be selected accordingly. Here, the mentioned school-local conditions such as the spatial equipment and individual needs must be taken into account.

Exemplary questions:

- In which learning setting should the material be tested?
- To what extent will the material be tested?
- What findings should the trial offer (e.g. checking language levels)?
- How should the sample be selected in order to generate valid results?
- What local school and administrative conditions must be considered?
- What scales do I use to assess the success of the material?
- What spatial possibilities do I have at my disposal?

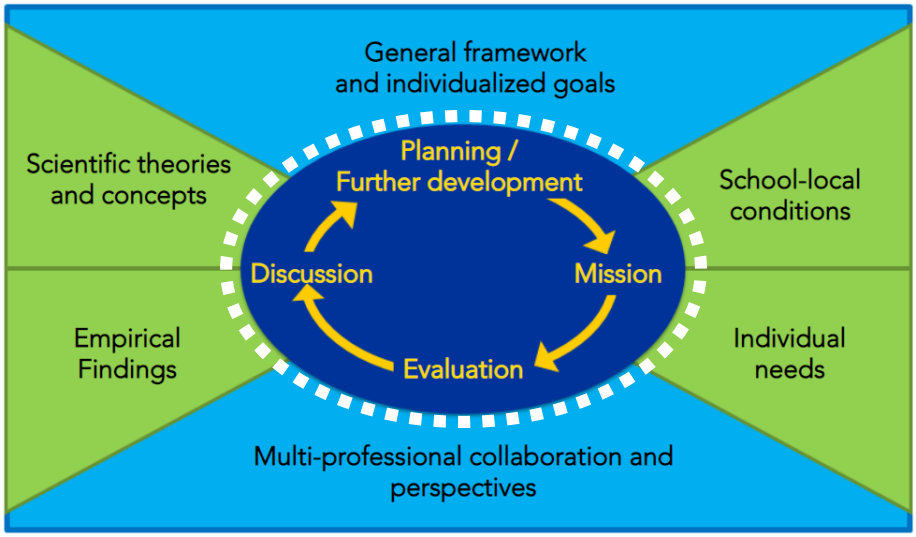


3. Evaluation:

The evaluation summarizes the feedback from the learners on the teaching material in terms of quality and / or quantity. During the trial, information is collected in accordance with scientific standards and assessed against the background of the objectives. It is also important to observe local school conditions and to take into account individual needs on the part of the learner. For example, the instructions should be formulated in a way that is appropriate for the addressee. The collection and evaluation of the data must be based on the quality criteria of qualitative and quantitative research.

Exemplary questions:

- Are the instructions formulated in a comprehensible way?
- Are the characteristics of the learning group considered?
- Do I follow the quality criteria of qualitative or quantitative research when collecting data?
- Are research ethical standards adhered to, e.g. the clarification of the purpose of the study?
- What conclusions does the evaluation allow with regard to the revision of the material?
- What strengths and weaknesses does the material show?
- What weaknesses need to be addressed before the material is widely used?
- What insights does the evaluation provide with regard to the objectives of the material?



4. Discussion:

In the discussion, the results of the evaluation and the use are discussed against the background of the state of scientific research. The discussions should also be carried out with colleagues and include different professions, e.g. special school teachers, occupational therapists, logotherapists and psychologists. Ideally, scientists can also be involved in the process in this phase.

Exemplary questions:

- How can the results be explained with regard to the research literature?
- How can the results be classified in relation to the learning group? Here, the perspectives of colleagues should be sought, including those of different professions, e.g. special education teachers, occupational therapists, logotherapists, etc....
- What are the limits of your own survey?
- How do I integrate the findings into the revision process of the material?