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# What to Learn

In the realm of transdisciplinary education, the learning objectives extend beyond just students; educators, researchers, and societal partners are also integral learners. Establishing a conducive learning environment where all participants can contribute to and learn is paramount. The exploration of wicked problems opens avenues for diverse learning goals, categorized into three key aspects:

- Knowledge creation
- Action-oriented outcomes
- Development of intrinsic values

They are essentially encompassing the realms of the head, hands, and heart (Smeers et al.). Notably, the emphasis is often placed on the process itself rather than the end result (Veltman et al., 2021). In your transdisciplinary project, you can incorporate these three forms of learning goals.

## Knowledge Creation

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In transdisciplinary education you create knowledge for society, practice, education and science. You create knowledge together by sharing, discovering, working and researching together, by applying knowledge in new situations. Knowledge creation within the transdisciplinary framework is dynamic, shaped by the wicked problem at hand and the collaborative efforts of the transdisciplinary team. Drawing from multiple disciplines and engaging with societal partners, including organizations and civilians, broadens the nature of knowledge. The scale of knowledge encompasses critical thinking, systemic and holistic thinking, long-term orientation, visioning, understanding complexity, and sense making, wherein the head plays a pivotal role.

Discuss with your transdisciplinary group what kind of knowledge you want to create together.

## Action-Oriented Outcomes



In transdisciplinary projects, you work on concrete projects that contribute to societal issues. You develop new things together. Action is a fundamental component of the learning process, emphasizing collaborative efforts to address real wicked problems. This approach directs the learning process towards active outcomes with potential societal impact. Embracing an action-

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oriented mentality instills courage, creativity, perseverance, resilience, and optimism. Interacting with actual stakeholders facing the problem fosters collaborative skills such as effective communication and co-creation. This proactive approach not only prepares students for collaborations beyond the academic setting but also motivates other stakeholders to participate in the change-making process, contributing to societal impact, where the hands play a major role.

Discuss with your transdisciplinary group what kind of products you want to develop. The preferences for the product format and expectations of the exact results might differ between different team-members, reflecting different interests and backgrounds. The discussion about the product, thus also is an important moment of reflection on the position of the different team members themselves. In the end, make sure to agree on a shared final product instead of different separated sub-products, as the magic of transdisciplinary is in the real integration of your diverse perspectives and types of knowledge.

## Development of Intrinsic Values



Finally, transdisciplinary projects contribute to everyone's self-development as a human. The final learning goal revolves around willingness, reflecting inner development goals encompassing being, thinking, relating, collaborating, and acting. This

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transformative approach facilitates a profound change within the participant, aligning with essential frameworks for transformative skills for sustainable development, echoing the principles of the sustainable development goals. This internalized motivation, driven from within, underscores the critical role of the heart in the learning process.

Whereas the action-oriented outcomes should clearly be formulated collaboratively with all stakeholders, intrinsic value learning goals can both be individual and team-wide. As every participant enters the project with their own experiences, perspectives and background, everyones personal development process will be unique. The learning goals, you formulate, should do justice to this individuality. At the same time, learning and working in a team also creates a common transformation from you as a team. Formulating intrinsic team development goals together can help you understand each others current values, foster mutual understanding and thus provides an important fertile ground for real co-creation.