# **Research-based Learning in Intergenerational Dialogue** and its relationship to education

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## ABSTRACT

In this article, I will show how the method of intergenerational dialogue can promote transformative learning and fosters personal growth through education in both young and old people. Education is holistic in Humboldt's sense because it reflexively links the world and the theory with the individual's inner being. Students become researchers of their own educational process.

The role of tacit knowledge in the context of experience, but also creativity, are key phenomena with which the learning and educational process can be made clear, both in old and young people. All theoretical terms are explained using a practical dialogue example. Differences between young and old people in the dialogue model contribute to refined insights.

**Keywords**: Education, Dialogue, Intergenerativity, Research-based Learning, Transformative Learning.

# 1. INTRODUCTION

"Man should seize as much of the world as possible and connect it with himself as closely as he can while placing everything in relation to inner education towards an ultimate purpose." (Humboldt 1794)

Education is a holistic process that fosters intellectual, moral, and social development, enabling individuals to realize their potential and contribute to society. Rooted in traditions like the Humboldtian educational ideal, it emphasizes the integration of research and teaching, critical thinking, and personal growth through Bildung, connecting individuals deeply with the world.

Modern approaches build on these foundations, incorporating dialogue for reflective thinking and mutual understanding, and intergenerationality to enrich learning through diverse perspectives and shared experiences. These methods promote transformative education, addressing contemporary challenges while staying true to the enduring goal of developing thoughtful and capable individuals.

# 2. THE DIALOGICAL RESEARCH-BASED LEARNING AND EDUCATION MODEL IN THE SEMINAR ETHICS OF GENERATION

Based on the Humboldtian educational ideal, Heidelberg University is committed to research-based teaching and learning created on the latest scientific standards. This includes the development of innovative teaching and learning formats as well as the reflective use of proven new approaches. My work deals with an intergenerational model using the dialogical and utopian method [1], which has been developed in recent years and is continually being developed further. Research-based learning in intergenerational dialogue offers two transdisciplinary milestones: pure dialogue and intergenerationality by including groups outside the university. Since old people, with their experience, can listen furthest into the past, they are ideally suited for dialogue and are a rich source of knowledge.

The didactics of the seminar is illustrated in Fig.1. Starting with the introduction to the theory, the first questions are raised that, in the Kantian sense, reason cannot initially clarify or can only clarify with great difficulty. Through real dialogue in a face-to-face situation, original and creative solutions and answers can be found in the realm of the I and You, amidst the exuberance of spirits [2]. The experienced researcher will uncover these treasures of implicit knowledge or spontaneity in the transcription and share them with the students as feedback in the next lesson. This process leads to wondering, potential insight, new questions and ideally, new theory.

In the dialogue model (Fig. 1), "the university teacher is no longer a teacher, the student is no longer a learner, but he does his own research, and the professor leads his research and supports him in it. Because university teaching now enables us to understand and produce the unity of science and therefore makes use of the creative forces."[3].

This is how masters and fellows meet in a relaxed learning atmosphere to have inspiring, real dialogues with old people. Science must be understood self-acting in the word. In contrast to Humboldt, the "community of like-minded people" is supplemented by people of different ages, as this is the only way to capture historical and future moments and ideas. The experience of old age is of inestimable value for transformative learning and thus the inner educational process of the human being. We will see this with an example in the next chapter.

"Transformative learning refers to the process by which we transform our taken-for-granted frames of reference (...) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action"[4].

Transformative learning is an irreversible change in the way a person interacts with the world. Thinking and acting as a vegetarian was such a transformative learning process for me.

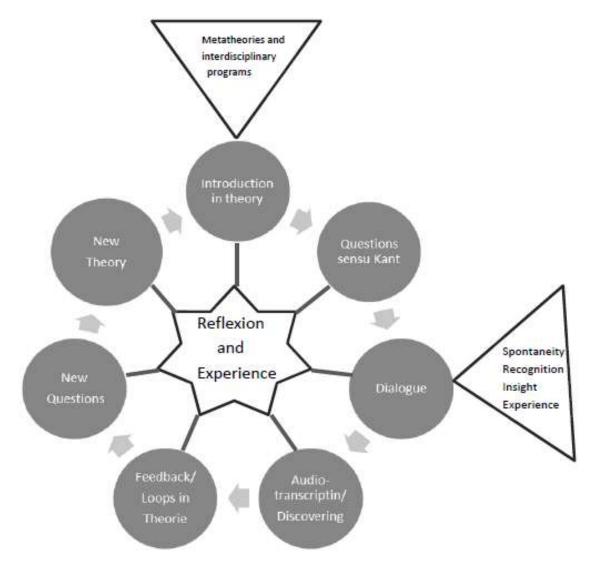


Figure 1: Dialogical Research-based Learning and Education Model

#### 3. HOW TRANSFORMATIVE LEARNING FUNCTIONS IN INTERGENERATIONAL DIALOGUE

The connection between dialogue research and learning was empirically examined in our own studies. Spontaneity, recognition, insight, and the extent of experience are essential for learning processes of young and old people. These phenomena of deep transformative learning, which allow human personality to mature in the sense of Humboldt, is now elaborated by a practical example and explained theoretically, using the work of Immanuel Kant.

The following dialogue was conducted as part of the course Utopia and Human Questions. Based on the questions that Immanuel Kant once asked so succinctly What can I know? What should I do? What can I hope

for? What is man? in all dialogues we asked central human questions about the areas of faith and knowledge, good and evil, body and soul, man in nature and cosmos in order to promote and develop a utopian consciousness based on the answers and reflections.

In the session *Faith and Knowledge* the following Kantian question was asked:

How far can curiosity for knowledge go? Can we really want to know everything or are there final limits or even taboos?

Let us now have a look on the dialogue between JP (student) and HD (old man from outside university), with objections from JS (old researcher from university). I will explain the dialogue at the appropriate points and relate it to the Humboldtian ideal of education and transformative learning.

"HD (85): There should be limits. I think when we want to know everything, this is dangerous.

JP (stud.): (...) but there are also metaphysical limits and ethical limits.

HD: Yes, see nuclear bombs.

JP: Nuclear bombs. Is the knowledge so dangerous or what we make of it? I would differentiate between the discoverer and the inventor, acquiring knowledge and applying knowledge.

JS (89): At the beginning you don't even know what can be done with the knowledge. You have to take the risk....

JP: That's a difficult point because curiosity is poking in the dark, which can be destructive."

This is a very creative statement that arises spontaneously. What is the dark? Is it a physical or religious term? Is evil in the dark? The statement strikingly demonstrates the creativity of the mind in a student and provides a starting point for new research questions and theories as described in my model. It is linked to the existential concepts of danger and concern, as we will see later.

"HD: Maybe it's a question of responsibility, do I pass on knowledge knowing what will happen to it?

JS: Who do I pass it on to? Knowledge should be publicly available.

HD: My responsibility I have to take seriously, because everything that is possible is done.

JS: Science thrives on the publication of knowledge

HD: The moment I publish I no longer have control over it. I am responsible for whether I publish my knowledge. JP: Is it fair to the other person? If I find knowledge and I recognize dangers about it, is it fair to say that I don't explain it to the other person because I might expect them to use it incorrectly? I find the idea of censorship difficult. I know something that I don't want you to know because you can't handle it. This is paternalistic."

Here we recognize the student's inner concern. He does not want knowledge to be withheld from him and is firmly opposed to paternalistic ways of thinking. JP expresses what many students could call a theme of being and defends himself against paternalistic narrowing. The topic spans the spectrum between freedom and concern. This is where inner education and renewal comes into play. Let's listen further.

"HD: I understand, but emotionally I have the opinion that I am critical of the approach that it has to be available to everyone. But there is censorship regulated by law. When I discover that it is possible for anyone to make the atomic bomb. - No-

JP: I would classify this as potential for democracy. If I look at all the aspects from a democratic point of view, then I would claim that every person is equal and rational, so that everyone should have the same opportunity to participate in knowledge. How does it work with "some knowledge not everyone is allowed to know" when everyone should participate. So society places a taboo on science and not the other way around."

From the student's statement it can be concluded that learning can increase the potential for democracy. This is also a result of Mezirow. We will continue to see what implications of "good and evil" arise.

"JS: We have to differentiate between basic research and applied research. Where the destructive potential becomes apparent.

JP: I recognize that knowledge itself has its dangers, especially when you look at applied knowledge. But I would be uncomfortable if researchers withheld knowledge from me. That you don't throw out knowledge, but rather embed it in contexts. That means there are dangers that we don't want to have."

JP spontaneously has an insight while recognizing that knowledge itself has its dangers, but then he returns to his central theme of paternalism. What becomes relevant here is the ethical concept of danger and what saves the danger, but also the concern that precedes it. (see also Heidegger)

This is not a general insight, but rather an inverse insight, because it helps to recognize what is socially irrational in people. But this subtle approach must be discovered, taught and learned.[5]. In the classification of the socially irrational, Lonergan agrees with Kant [6].

The example also shows how the inner education works in Humboldt's sense and tries to move towards perfection.

"HD: And I give accompanying knowledge.....

JP: [on atomic bombs?] I wouldn't do that pass it on,, but the principle is passing it on and making exceptions."

Now JP again spontaneously works out principles: passing on as an original phenomenon and the exception as a contingency phenomenon. This is because of the ability to produce ideas itself or in other words the spontaneity of knowledge in the mind. [7]

JS: Agrees. "I would fundamentally reject knowledge censorship.

HD: My scepticism comes from the fact that I have experienced so many cases of abuse. As I got older, I became pessimistic."

Now experience comes into play. But what is experience? Experience is an empirical knowledge. It is a synthesis of perceptions in a consciousness that recognizes the essential. Or to put it another way: experience is an idea of the necessary connections of perceptions in existence, not in time [8]. If a person lives a long time, proximity to existence and therefore real experience is more likely. That is why experience plays such a significant role in age creativity. The level of concern for the world of tomorrow is increasing. Creativity becomes more integrative, especially as we get older. Old people usually succeed in combining a multitude of important social elements into a new whole. One can speak of wisdom-related creativity here [9].

"JP: When it comes to manipulatives, it's the asymmetry of knowledge.

HD: But I can't force the knowledge.

JP: What is knowledge that one should know?

HD: To address the next question, to prepare a canon of democracy-promoting knowledge."

JP now asks the question that Humboldt was trying to answer. How much humanistic education do people need? HD tries to adapt the task to our time by bringing democracy into the field, but this raises a lot of more questions about the understanding of democracy and human behaviour within. JP and HD do not agree on the difference between theory and practice.

"JS: We should leave it as an open problem

HD: For me it can be decided, but not in the group. The accumulation of more and more knowledge has actually led to more and more material prosperity, but very differently for people. My point of view is very sceptical of science. I would doubt better luck. This is where philosophy comes into play. This is a purely ethical requirement that ethics provides the framework for science to be able to act."

In this way, HD advocates a spread and infiltration of ethics in research and teaching in the spirit of Humboldt. Science, understood as research, is subordinate to philosophy as the idea of the unity of science. Philosophy, and in particular ethics with its connection to applied research, takes on new meaning as a higher-level place for critical reflexion. At Humboldt it was given a new priority over theology, jurisprudence and medicine. Humboldt thus took up Kant's concern in his late work about The Controversy of the Faculties [10].

We have now seen how insight, experience and spontaneity work together and initiate a continuous search for the truth in dialogue. Because all topics and programs in my seminar revolve around an ethical tribe, this benefit fosters everyone who participates with interest.

It is important to remember that older people have an advantage in developing reason and truth because of their experience if this experience has an existential impact.

## 4. WHAT ABOUT IMPLICIT KNOWLEDGE AND EXPERIENCE

Tacit or silent knowledge is responsible for deep learning. Polanyi distinguishes three forms: a) inexpressible, tacit knowledge, where articulation is practically impossible, b) the area in which the tacit component is the information communicated through easily understandable language and c) the area in which the tacit and the formal fall apart and the speaker does not know what he is talking about. [11]. Let's go to shape form b first.

To fully describe the experience, the language needs to be less precise. The greater lack of precision brings the forces of inarticulate judgment all the more effectively into play in order to deal with the indeterminacy of language. So it is our personal involvement that directs the richness of the experience. Only with this tacit knowledge is it possible to say anything about the experience.

Such a simple, somewhat imprecise expression can be found above in HD's utterance: "My scepticism comes from the fact that I have experienced so many cases of abuse. As I got older, I became pessimistic." But the tacit knowledge is not yet reaching the young student. They leave it as an open problem. And HD continues to vehemently support scepticism.

Further I could find form c in dialogues between young and old, where a personal commonality and sympathy created a symmetry in the dialogic structure, while the content, which could be traced back individually and biographically, had nothing to do with each other, except for a meta-sense that connected the two again.

## 5. PERSPECTIVES FOR SOCIETY

The dialogical research-based learning model (Fig. 1) has many potentials. Ethics is always in the foreground in intergenerational dialogue, which is intended to educate future generations with the help of the elderly. Man becomes a scientist because his inner education is tied to scientific theory. The diversity and complexity of the areas, including human individuality and creativity, continually raise new questions that help develop new theories.

It can already be said that such a thinking and learning space promotes the creative participation of both young and especially old people in society. Fully mature age creativity is of particular quality because it can integrate paradigms and thus help to create a new whole. [12]. This can be seen in the following statement from an 85-yearold woman, which emerged in dialogue:

"LM (85) to student: If we think we have to subjugate the earth, we are no longer part of nature. We fall into nothingness. We are caught as part of nature. Our soul then has nothing left. Maybe it's the same for both of us: how can we make good use of our time here, where we are guests of the creatures on earth?"

I think that such statements could be useful to society, also including with the help of AI.

A further application that I have planned is the interdisciplinary program for the summer semester 2025 on the topic of "Concern for the future of the world". We learn in an intergenerational thinking space model using dialogue.

We dedicate ourselves to the topic in four blocks as follows:

- a) Ideas of the good life
- b) The cultural spheres of the good life
- c) Politics of concern for a good life
- d) Adjusting screws for changeability

The next publication will report the dialogic products gained in the sessions, possible applications and social dissemination. Thus, I will close with a quotation from David Bohm: "In fact, dialogue is something new to our culture. We believe that it is an activity that might well prove vital to the future health of our civilization." [13]

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