Exploring the Research Landscape of the General Didactics Network at NERA

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This study explores the research landscape of the Nordic Educational Research Association's "General Didactics" network. Using a mixed-methods approach, the paper analyzes 79 research presentations to identify key themes, methodologies, and trends in the field. The research reveals a strong focus on Curriculum and Pedagogy, Didaktik and Bildung, and Assessment and Feedback in Education. Descriptive and case study designs dominate the methodological approaches, with qualitative methods such as interviews and observations being most prevalent. The network's research demonstrates a commitment to interdisciplinary collaboration and the integration of Didaktik principles in various educational contexts. Notable findings include the emphasis on teacher education, the impact of Didaktik-informed curricula on student motivation and critical thinking, and the exploration of classroom processes through a Didaktik lens. The study highlights the network's contribution to advancing the understanding of Didaktik in practical educational settings and its role in shaping contemporary educational discourse. The paper concludes by suggesting future directions for research within the General Didactics network, emphasizing the need for more experimental and longitudinal studies to complement existing qualitative insights.

Key words: General Didactics, Curriculum & Pedagogy, educational research, interdisciplinary approach, empirical inquiry, teaching effectiveness.

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Introduction

General Didactics – network (Allmenn didaktikk) is part of the Nordic Educational Research Association (NERA). The researcher's network has been instrumental in advancing the knowledge of education through multifaceted research. Central to the scholarly pursuit within this network is the concept of Allmenn didaktikk, or general didactics (Werler, 2024, Hopmann, 2015; Hopmann, 2007; Gundem, 2000; Klafki, 1995), which serves as a guiding framework for analyzing and improving instruction and learning processes. This robust theoretical model addresses the complexity of teaching and unveils the interdisciplinary connections that enrich educational practices.

Seen from a research perspective, Didaktik points to the difference and relationship between teaching and learning, between matter and meaning making, to the role of significant context in establishing a teaching-learning relationship, and advocates for a reflective and critical stance regarding the re/co-construction of teaching practices (Krogh et al. 2021; Hudson & Meyer, 2011; Hopmann 2007).

As education researchers continually seek ways to enhance educational outcomes, the research network's investigations are rooted in this rich tradition. Drawing from the Didaktik framework, researchers have explored a plethora of themes ranging from curriculum development and teacher education to student engagement and learning strategies.

The utilization of Didaktik in research is unquestionable, as evidenced by the existence of Didaktik research that analyzes its conceptual construction in Nordic educational contexts (Bjørkvold & Ryen, 2021; Werler & Tahirsylaj, 2020; Uljens & Ylimaki 2017). Additionally, the framework has been extensively applied in education research, encompassing diverse fields and numerous subjects. Ulstrup-Engelsen's (1990) study compared the understanding of Didaktik in Sweden and Norway, while Johansen's (2007) research examined Didaktik-driven content selection in relation to teaching quality. Brante's (2016) study discussed how subject matter planning and teaching within school education can be understood as Didaktik. Furthermore, Ryen's (2016) research explored the epistemology of critical thinking, relevant to the Nordic educational context. Wermke & Prøitz (2019) analyze the dichotomy between curriculum and Didaktik traditions in the Nordic countries, while Roth (2022) explores the application of the Didaktik framework in Swedish preschools, focusing on complex teaching realities. The framework was applied studying teachers' reflections on their practices in adult education (Schoultz 2023).

However, there has been no attempt to systematically "cartograph" the application of this theoretical framework (typic themes, research methods, research problems etc.) in contemporary research in the Nordics. This gap in our understanding may limit our ability to identify emerging trends, methodological innovations, and potential areas for future investigation.

The network General Didactics represents a collaborative effort of researchers from the Nordics to investigate and advance the theoretical and practical applications of Didaktik in various educational contexts. Didaktik, as a foundational framework, guides the examination and enhancement of educational practices in schools and higher education, ensuring a cohesive approach across diverse research projects (Hopmann, 2015). In the following, the term Didaktik is used whenever the framework is used. The term General Didactics is used, whenever the research conference network is referred to. The research behind this paper

adopts a mixed-methods approach that accommodates both the qualitative richness and quantitative rigor necessary to inform and shape educational discourse about the epistemological positions of the network. This methodological plurality allows for a comprehensive exploration of educational issues, offering insights that are both data-driven and context-sensitive. This research contributes to ongoing research related to Didaktik (Krogh, Qvortrup & Graf, 2021; Sæverot &Werler, 2017).

Against this backdrop, two research questions are answered in this article. *What are the main domains of research within the General Didactics network between 2020 and 2024?* This question seeks to identify and categorize the key areas of focus that have dominated the research output within the network. It prompts an investigation into the thematic concerns that have stimulated researchers' attention and how these have evolved over the five-year period in question.

The second research question is: *How have the research methodologies and designs advanced the understanding of Didaktik in educational contexts?* The second question explores the methodological choices made by researchers within the General Didactics network. By examining the diversity of research designs, such as descriptive, case study, content analysis, and quasi-experimental designs, this question probes the efficacy of these methodologies in contributing to knowledge about general didactics.

By analyzing the number of presented papers, their respective research designs, the methodologies employed, and the recurrent themes, this paper aims to delineate the research landscape within the General Didactics network at NERA. In doing so, this paper aspires to reveal how research methodologies and design have fostered a deeper comprehension of Didaktik framework in practical educational contexts. The paper further aims to understand the progression of educational research within the framework of Didaktik, along with the implications these studies have for educators, policymakers, and learners alike.

By highlighting the main domains of research, the aim of this article is to map out the intellectual topography of the network, shedding light on the topics that are deemed most pertinent for advancing the field of education within a Didaktik framework. To answer the research questions, this paper will draw on a comprehensive analysis of the research artifacts, i.e. accepted abstracts that resulted in full paper presentations or symposia presented within the General Didactics network, exploring both the contents and the approaches of the scholarly work.

The current study addresses existing research gaps by providing empirical evidence of how Didaktik theory is applied in a Nordic research context. It offers a qualitative examination of research trends and methodological approaches within the Nordic Educational Research Association (NERA) General Didactics network. By exploring how Didaktik theory informs contemporary educational research, the study seeks to illuminate the theoretical and practical implications of this pedagogical framework in Nordic educational scholarship. These theoretical foundations underpin the study's investigation of two core questions: (1) What are the main domains of research within the General Didactics network between 2020 and 2024? and (2) How have the research methodologies and designs advanced the understanding of Didaktik in educational contexts? By linking Didaktik and Bildung to these questions, the study evaluates how theoretical principles translate into practical and methodological advancements.

Theoretical Foundation: Didaktik and Bildung

At the heart of the "General Didactics" research network lies the Didaktik framework, which has a rich history and tradition in European, and particularly German, educational thought (Westbury et al., 2005; v. Oettingen, 2016; Uljens & Ylimaki, 2017, Krogh et.al, 2021; Werler, 2024). Didaktik is often contrasted with the more curriculum-oriented approaches prevalent in North America, emphasizing the teacher's role in selecting and organizing content to foster student learning and development (Deng, 2015).

At its core, Didaktik perceives teaching as a cultural and intentional act that guides students toward fuller participation in society, fostering their ability to critically engage with knowledge (Westbury, Hopmann, & Riquarts, 2000). This perspective directly informs the first research question, which seeks to identify the key domains within the General Didactics network, as these domains often revolve around the practical application of Didaktik principles to curriculum design, pedagogy, and student engagement. By investigating these domains, the study evaluates how Didaktik principles underpin contemporary educational practices.

Similarly, the concept of Bildung, with its emphasis on the holistic development of individuals, aligns with the second research question by providing a philosophical framework (Uljens & Ylimaki, 2017; Krogh et.al, 2021) to evaluate the methodologies used within the network. Bildung's focus on cultivating autonomy, critical thinking, and self-reflection offers a lens to assess how research methodologies foster these qualities in both educators and students. The study's exploration reflects the application of Bildung as a guiding ideal within the network's research efforts.

Didaktik is embedded firmly in teacher education curricula of the Nordic countries (Elstad, 2023). As prospective teachers learn about the intricacies of Didaktik, they simultaneously apply its principles to grasp the societal and political dimensions of education, along with acquiring insights into effective teaching strategies, assessment methods, and professional judgment. From a research perspective Didaktik examines the complex dynamics among schools, teaching methods, learning experiences, and their wider environmental contexts to understand and respond to the changing demands of education (Gundem, 2000). In practical terms, Didaktik comes alive through deliberate actions taken by teachers. It is not just about planning; it encompasses executing instructional design tailored to specific learner groups, structuring lessons, assessing learning outcomes, and adaptively placing these plans into action to facilitate student growth in knowledge and skills.

Closely tied to the Didaktik framework is the notion of Bildung, which represents the holistic development of the individual (Bauer, 1997; Hopmann, 2007). The concept of Bildung is a richly layered and comprehensive notion deeply embedded in German and Nordic educational philosophy and cultural tradition. Bildung is fundamentally about the development of the whole person, a concept that integrates intellectual, cultural, and emotional dimensions of growth (Klafki, 2000). This development is not limited to academic achievements but includes the cultivation of one's character, personality, and cultural awareness. Bildung, therefore, represents a journey of self-cultivation, where the individual is actively engaged in shaping their own identity and understanding of the world (Rucker, 2020). Bildung also highlights the interplay between the individual and their social environment. It promotes the idea that personal growth is inextricably linked to one's interactions with culture,

society, and the natural world. Thus, Bildung is not just about self-improvement; it is also about contributing to the collective good, engaging with others, and understanding one's role within a larger community. The network's exploration of the integration of Bildung into educational practices reflects the long-standing concern within the Didaktik tradition to cultivate well-rounded, self-determined, and socially responsible individuals.

The concepts of Didaktik and Bildung provide the lens through which this study examines the General Didactics network. Didaktik informs the analysis of research domains by highlighting the interplay between teaching, learning, and context. Bildung, emphasizing holistic development, offers a framework for evaluating how methodologies advance reflective and critical educational practices, directly addressing the study's research questions.

The NERA network General Didactics

The landscape of educational research is ever evolving, with paradigms shifting in accordance with the developments of research trends. Such research trends a primarily distributed and debated amongst peers at research conferences. The Nordic Educational Research Association consisting of 25 research networks represents such a platform. The network General Didactics was established at the NERA conference in 2005 and has been in continuous development since then.

Research results are in the network primarily presented as paper presentations. Each of the networks operates based on a systematic and rigorous review process of handed in abstracts (see image 1), ensuring the relevance and quality of the research presented. The first step for a researcher aiming to participate at the General Didactics network in the NERA conference is to prepare an abstract outlining their study. According to NERA policy, the abstract must be comprehensive yet concise, typically ranging between 350 to 450 words. These abstracts are required to contain specific sections detailing the theoretical framework, research question, data collection method, method of analysis, and potential results of the study.
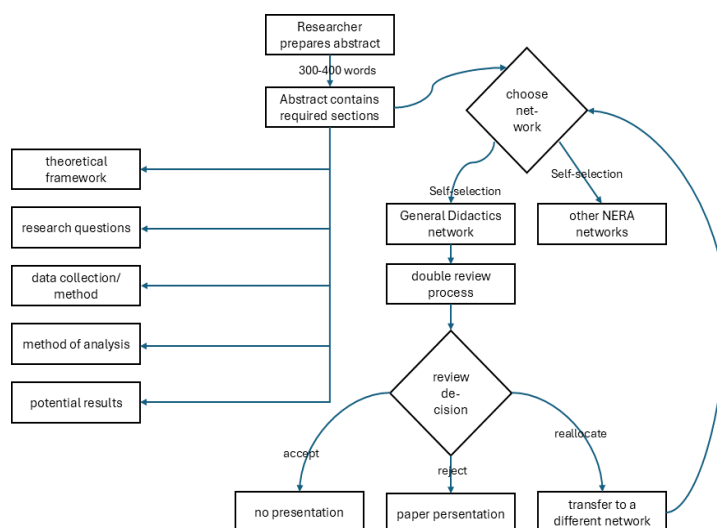

Figure 1: The graphical representation of the NERA Conference abstract submission and review process

Once the abstract is crafted, the authors must then choose the most appropriate research network within the conference to submit their proposal. This choice is based on how well researchers think that the research aligns with the network's overall topic, which, in this case, is General Didactics. This self-selection process is crucial as it allows authors to position their work within the context of a community of scholars who share similar research interests.

Upon submission, the abstract undergoes a double review process. This process entails two independent evaluations by members of the research network, who are responsible for managing the review. These reviewers are experts in the field and are tasked with grading and evaluating each proposal based on two primary criteria: the quality of the research and the fit of the proposal's topic within the network's theme.

The review process is not only about ensuring quality but also about fostering coherence within the network's sessions. To this end, reviewers have the discretion to reallocate proposals to different networks if they believe the research would be more appropriately discussed within another context or if another network is a better fit for the topic. Within the General Didactics research network, studies should be grounded in the theory-laden framework of Didaktik, which provides a comprehensive lens through which teaching and learning can be explored and understood. This dynamic aspect of the review process ensures that both the research presented and the academic discussions that follow are as impactful and relevant as possible.

Methodology

The current research builds on the exploration of the previously discussed state of the art literature. The study shaded light on the practical application of Didaktik principles in Nordic educational contexts. It addresses gaps identified in earlier studies, such as the need for a more nuanced understanding of how Didaktik informs teaching practices and student learning.

The NERA network was selected for two reasons. Firstly, it has a unique focus on Nordic educational research. Secondly, it has been in existence for 20 years, which makes it an established area of research discourse. Unlike other networks such as ECER and AERA, NERA's regional relevance and commitment to interdisciplinary collaboration make it a significant contributor to the development of Didaktik research. This regional focus is particularly valuable as Nordic countries share similar educational philosophies, policy frameworks, and cultural understandings of teaching and learning. The network's concentrated size and collaborative nature enable more intimate scholarly exchanges and sustained dialogue among researchers who work within similar educational contexts.

Utilizing Hoveid, Keiner, and Figueiredo's (2014) approach, this study combines qualitative and quantitative analysis to understand the General Didactics network's scholarly contributions, examining the number of publications, research designs, and methods, while classifying research by topics and approaches to assess development and intersections within General Didactics research in the Nordics. The scientific quality is defined by the disciplinary community, as Keiner (2010) suggests, through discipline-based analytical and systematic criteria. This research aims to empirically reconstruct General Didactics, acknowledging its epistemological and ontological diversity, to define what constitutes knowledge in the field. The empirically based reconstruction of a sub-discipline of education 'from within' serves as disciplinary self-observation.

The data collection involved a systematic review of all abstracts (including keywords) that were published in the NERA program and were presented later within the General Didactics network, throughout four annual NERA conferences (2020-2024, 2021 is missing due to Covid restrictions). The abstracts were published based on a criterion guided selection process, that was carried out by peers. The participants were afforded the option of categorising their research work in advance under the 'General Didactics' sub-discipline.

Public abstracts were anonymized and aggregated to protect researchers' identities while upholding scholarly integrity. A brief bibliometric analysis was conducted to quantify the number of paper presentation given each year, providing a perspective on the network's output and growth. Then, the abstracts were sorted and analyzed according to research design, methods, and topics. Each of the abstract was classified based on the primary research design it employed, such as descriptive, case study, content analysis, or quasi-experimental design. This classification illuminated patterns in research approaches over time.

Similarly, abstracts were also categorized by the research methods utilized, such as interviews, qualitative data analysis, observations, surveys, and various other approaches listed in the provided notes. Frequency tallies provided insights into the most popular methods used by researchers within the network.

Didaktik theory (Hopmann 2007, Hudson & Meyer, 2011, Krogh et al. 2021) guided the analysis by providing core concepts such as the relationship between teaching and learning, the role of context, and reflective practice. The resulting coding process allowed a structured examination of how Didaktik principles manifest in educational research.

The coding process transformed the raw data (abstracts) into meaningful insights. The overarching framework of General Didactics was pivotal for thematic coding. It facilitated the assessment of prevailing research trajectories within the network (teaching-learning relationship, content transformation, professionalism). Each abstract underwent rigorous categorization based on predetermined criteria that included research design, methodologies, and substantive topics (e.g. relationship between teaching and learning of reflecting Bildung principles) within the ambit of Didaktik theory.

The study began with the delineation of the primary research designs, which can be identified in each abstract. To illustrate, a paper titled "Frequency and nature of teaching practices across varied school contexts" would have been coded as "descriptive" in nature. Conversely, an analysis emphasizing the singular experience of a teacher applying Didaktik theory in mathematics instruction would typify a "case study." A descriptive design would enable the investigation of a pedagogical phenomenon in a specific context without asserting causality. Case study methodology, content analysis and quasi-experimental designs offers idiographic insights. Other designs were coded into categories like: reflective practice, exploratory, theoretical, and longitudinal studies.

The classification included research methods from abstracts, with interviews highlighted in seven papers as a key method, while a number focused on in-depth qualitative analysis for narrative insight. Observations were also common, essential for assessing in-class teaching dynamics. The methodology spectrum included surveys, document and video analysis, and experimental and correlational research. For instance, an abstract on in-service teachers' views on Didaktik featuring interviews and thematic analysis would be categorized under "interviews" and "qualitative data analysis" respectively.

Thematic coding further sorted the key research topics within the abstracts according to the contours of Didaktik theory. Three categories become prominent. As a curriculum represents a structured plan of what is to be learned, and pedagogy focuses on the methods, strategies, and approaches used to facilitate learning, abstracts that focus the research on learning objectives, content to be covered, skills to be developed, knowledge domains to be explored, sequence and progression of learning experiences as well as teaching methods, instructional strategies or ways of engaging students fall under the category "Curriculum & pedagogy". A typic "Didaktik & Bildung" abstract explored the theoretical foundations of Didaktik and its relationship to the holistic development of students. An abstract related to researching the integration of Bildung principles into a science curriculum would be coded here.

The absence of network presentations in 2021 represents a significant limitation in the dataset, as it creates a gap in the continuous observation of research trends. This interruption was due to the global COVID-19 pandemic. The pandemic's impact on educational research may have influenced the quantity and focus of presentations, potentially accelerating interest in digital learning environments and temporarily reducing attention to others, potentially benefiting future studies beyond 2024.

Findings on research domains within the General Didactics network (2020–2024)

Thematic frequency analysis of the collected data involved descriptive statistics to measure the frequency of publications, research designs, methods, and the prevalence of each topic over the study period. This approach quantified the relative importance and evolution of these elements over time.

The frequency analysis of the research network's output reveals several notable trends. Over the past five years, the number of papers published annually has fluctuated, with a low of 12 papers in 2020 and a high of 25 papers in 2022, with an average of approximately 20 papers per year (Table 1). This suggests a consistent and sustained level of research activity within the network.

Table 1: Research methods frequency

1.	**Interviews (7)**	12.	**Experience sampling (1)**
2.	**Qualitative data analysis (6)**	13.	Classroom video observations (1)
3.	**Observations (6)**	14.	Quantitative data analysis (1)
4.	**Surveys (3)**	15.	Qualitative content analysis (1)
5.	**Qualitative analysis (3)**	16.	Documentary review (1)
6.	**Case studies (2)**	17.	Process drama (1)
7.	**Document analysis (2)**	18.	Collaborative projects (1)
8.	**Video data analysis (2)**	19.	Digital communication study (1)
9.	**Video observation (2)**	20.	Self-reflection (1)
10.	**Observational study (1)**	21.	Theoretical study (1)
11.	**Discourse analysis (1)**		

In terms of research design, the network has predominantly adopted descriptive (27 papers) and case study (19 papers) approaches, indicating a strong emphasis on in-depth, contextual examinations of educational phenomena. Other research designs, such as content analysis (9 papers), quasi-experimental (6 papers), and a range of less common methods, including reflective practice, exploratory, theoretical, and longitudinal studies, are also represented within the network's portfolio.

The analysis of research methods employed within the network reveals a diverse toolkit. The most frequently utilized methods include interviews (7 occurrences), qualitative data analysis (6 occurrences), and observations (6 occurrences), underscoring the network's reliance on qualitative approaches to gather rich, contextual data. Other methods, such as surveys, document analysis, video data analysis, and various forms of experimental and correlational studies, are also present, albeit to a lesser extent.

Advancements in research methodologies and their role in Didaktik understanding

The qualitative analysis of the collected data utilized thematic coding (Attride-Stirling, 2001) to identify the prevailing research domains within the network. This process involved interpreting textual information to ascertain prominent subjects within the abstracts and determining how these address the network's overarching themes Didaktik and Bildung.

This analysis reveals several core areas of inquiry. The most prominent topic is Curriculum and Pedagogy, which encompasses a range of subtopics related to teaching methods, instructional design, and the evaluation of teaching effectiveness. This aligns with the network's emphasis on the practical application of Didaktik principles in shaping educational practices.

Another significant area of research is Didaktik and Bildung, which explores the theoretical and philosophical underpinnings of the Didaktik framework and its relationship to the holistic development of students, captured in the German concept of Bildung. This theoretical grounding serves as a guiding light for many of the network's research endeavors. Alongside these central themes, the network has also investigated topics such as Assessment and Feedback in Education, Social and Emotional Learning, Literacy and Language Education, and Intercultural and Ethical Education, among others. These areas demonstrate the network's breadth of interest in addressing various facets of the educational landscape through the lens of Didaktik.

Notably, the research network has prioritized topics related to teachers, including Teacher Professional Development and Teacher-Student Interaction. This teacher-centric approach reflects the network's commitment to empowering educators and understanding the complexities of their roles in implementing Didaktik-informed practices, as emphasized by Deng (2015) and Westbury (2000).

Main domains of research

The quantitative and qualitative analysis of the research network's output reveals several key findings regarding the thematic focus, methodological trends, and central areas of inquiry over the five-year period, and these might correlate with the evolution of the network's

thematic priorities. Image 2 highlights the relation between choice of design and applied research methods.
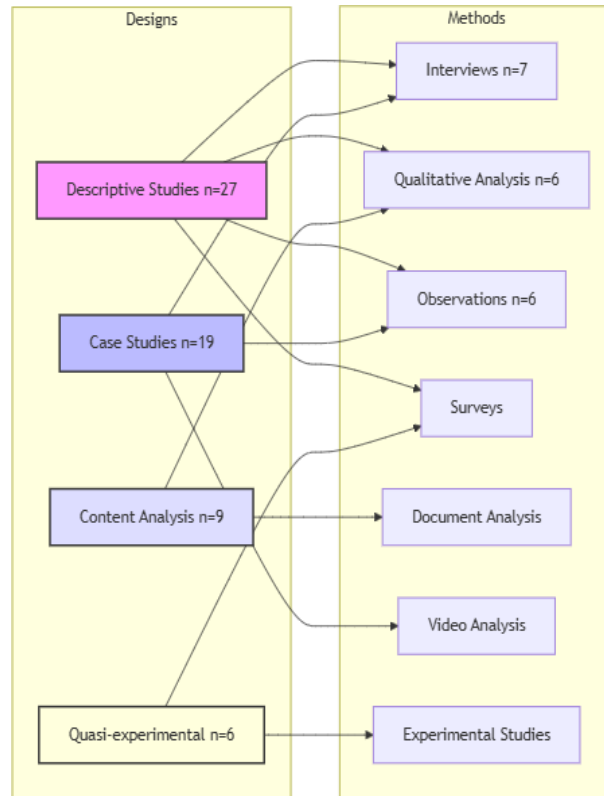

Figure 2: Research designs and methods in the NERA network General Didactics

With the data collected and analyzed, both qualitative and quantitative findings were synthesized to answer the research questions. This required integrating the thematic patterns from the qualitative analysis with the empirical frequency data from the quantitative analysis. To ensure the reliability and validity of the findings, this study included confirmation by cross verifying the results with existing literature on Didaktik and methodological approaches within the field of education research. This reconciled the network's research patterns with established educational theories and practices (see Table 2, image 2).

Table 2: Top research topics by year (number in brackets)

YEAR	TOP RESEARCH TOPICS
2020	*Assessment & Feedback in Education (4), Teacher Professional Development (2)*
2021	*No presentations due to COVID pandemic*
2022	*Social & Emotional Learning (4), Intercultural & Ethical Education (3), Environmental & Health Education (2)*
2023	*STEM Education (2), Student Experience & Career Development (2), Online & Digital Education (2)*
2024	*Teacher & Student Interaction (2)*
ALL YEARS	*Curriculum & Pedagogy (9), Didaktik & Bildung (7), Literacy & Language Education (4)*

Thematic Priorities

The research network has concentrated on several core thematic areas, as evidenced by the frequency and distribution of topics covered in the papers.

The most prominent research topic is Curriculum and Pedagogy, which has been the focus of 9 papers across the time period examined. This broad theme encompasses various sub-topics related to teaching methods, instructional design, and the evaluation of teaching effectiveness, reflecting the network's commitment to understanding and improving educational practices.

Another major area of research is Didaktik and Bildung, which has been the subject of 7 papers. This domain delves into the theoretical and philosophical foundations of the Didaktik framework and its relationship to the holistic development of students, as captured by the German concept of Bildung.

Other significant research topics include:

- Assessment and Feedback in Education (4 papers)
- Social and Emotional Learning (4 papers)
- Literacy and Language Education (4 papers)
- Intercultural and Ethical Education (3 papers)

The network has also investigated areas such as Teacher Professional Development, STEM Education, Student Experience and Career Development, Teacher-Student Interaction, and Online and Digital Education, though to a lesser extent.

Methodological Trends

The analysis of the research designs and methods employed by the network reveals several notable trends.

In terms of research designs, the network has predominantly utilized descriptive (27 papers) and case study (19 papers) approaches. This emphasis on in-depth, contextual examinations of educational phenomena suggests a strong reliance on qualitative methodologies to generate rich, contextual data (see image 2 & 3).
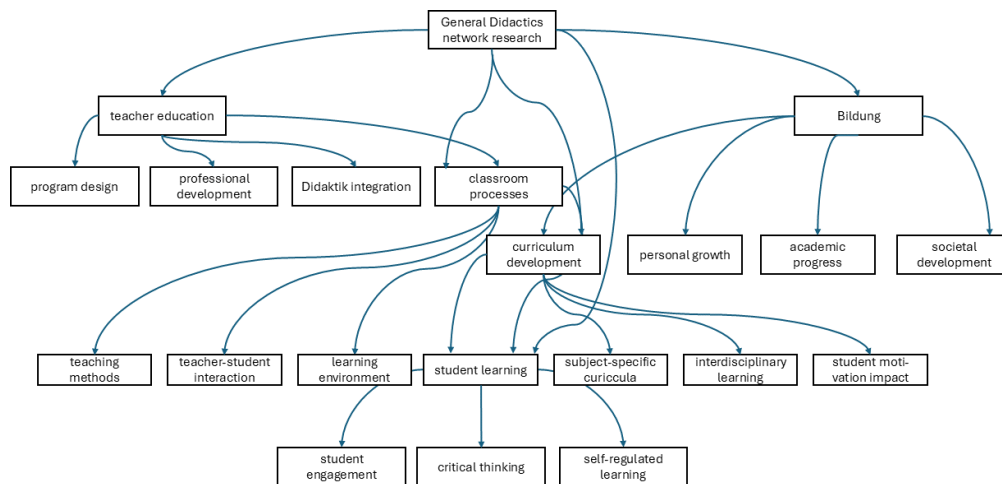
Image 3: The research domains of the NERA network General Didactics

The most employed research methods include:

Interviews (7 occurrences)
Qualitative data analysis (6 occurrences)
Observations (6 occurrences)

These methods align with the network's focus on understanding the perspectives, experiences, and interactions within educational settings. Other methods, such as surveys, document analysis, video data analysis, and various forms of experimental and correlational studies, are also represented but to a lesser degree.

The network's methodological diversity reflects its commitment to employing a range of tools to address the complexities of educational research, drawing from both qualitative and quantitative approaches as needed. This is also expressed in table 3, providing the relative frequency of the thematic distribution of research themes in the network.

Table 3: Thematic distribution of research

Theme	Number of Papers	Percentage
Curriculum & Pedagogy	9	22.5%
Didaktik & Bildung	7	17.5%
Assessment & Feedback in Education	4	10%
Social & Emotional Learning	4	10%
Literacy & Language Education	4	10%
Intercultural & Ethical Education	3	7.5%
Teacher Professional Development	2	5%
STEM Education	2	5%
Student Experience & Career Development	2	5%
Teacher & Student Interaction	2	5%
Environmental & Health Education	2	5%

Online & Digital Education   │ 2   *5%*

Central Themes and Areas of Inquiry
Underlying the network's research activities are several central themes and areas of inquiry that collectively shape its scholarly agenda. The research network on General Didactics is characterized by a strong emphasis on interdisciplinary collaboration, drawing insights from various fields, including pedagogy, psychology, sociology, and subject-specific didactics. This interdisciplinary approach allows for a multifaceted examination of educational issues and the integration of diverse perspectives, aligning with the broader tradition of Didaktik research (Westbury et al., 2005).

At the core of the network's research efforts are several central themes that permeate the diverse array of projects and publications. These include:

1. Theoretical foundation: The network's research is firmly grounded in the theoretical framework of Didaktik, which serves as a guiding principle for understanding and improving educational practices, as highlighted by Hopmann (2015).

2. Focus on educators: A significant portion of the network's research focuses on the experiences, knowledge, and practices of teachers, aiming to empower educators through professional development initiatives informed by the latest research findings, in line with the scholarly discourse on the crucial role of teachers in Didaktik-informed practices (Deng, 2015; Westbury, 2000).

3. Empirical exploration: The network employs a rich tapestry of research methodologies, both qualitative and quantitative, to gather robust evidence and gain a comprehensive understanding of the research questions, reflecting the growing emphasis on mixed-methods research in Didaktik studies (Hopmann & Riquarts, 1995).

4. Interdisciplinary collaboration: The network fosters interdisciplinary collaboration, leveraging insights from various disciplines to provide a multifaceted examination of educational issues, aligning with the holistic perspective on education inherent to the Didaktik tradition (Westbury et al., 2005).

5. Cultivation of Bildung: The network explores the integration of the concept of Bildung into educational practices, seeking to nurture the well-rounded development of students, which is a central tenet of the Didaktik framework (Klafki, 2000).

Table 4 outlines what type of research design is linked up to the typical research method.

RESEARCH DESIGN	ASSOCIATED METHODS
DESCRIPTIVE	observations, interviews, curriculum analysis
CASE STUDY	qualitative data analysis, surveys, interviews
CONTENT ANALYSIS	document analysis, qualitative data analysis
QUASI-EXPERIMENTAL	quantitative data analysis, observational study
EXPLORATORY	observations, interviews
THEORETICAL	theoretical study, document analysis
ETHNOGRAPHIC	observations, case studies, interviews
ACTION RESEARCH	process drama, collaborative projects

Advancing Didaktik studies

The General Didactics network showed an upward trajectory in research publications between 2020 and 2024. Descriptive designs dominated the research approaches, followed by case studies and content analysis, with a smaller number of quasi-experimental designs. Qualitative methods such as interviews, qualitative data analysis, and observations were prevalent. The central themes identified were curriculum & pedagogy, didaktik & Bildung, and assessment & feedback in education. These topics indicate a strong emphasis on curricular and pedagogical frameworks, the theoretical underpinnings of education, and methods for providing effective feedback and assessments.

The analysis of the General Didactics network's presentation from 2020 to 2024 has yielded valuable insights into the domains of inquiry that have shaped scholarly efforts within the field. The findings detail the key areas of research that have been prioritized, resonating with earlier discussions surrounding curriculum & pedagogy, teaching effectiveness, and the interdisciplinary approaches that underpin Didaktik research.

Teacher Education

One of the prominent domains of inquiry within the network centered on teacher education. The research revealed a distinct focus on designing and enhancing teacher education programs that prepare educators to integrate Didaktik principles in their teaching practice. Several studies investigated optimal curriculum structures for teacher education, emphasizing the inclusion of Didaktik principles that could result in transformative educational practices. Comparative analyses of teaching methods within pre-service and in-service teacher programs provided insights on fostering Didaktik expertise. A noteworthy aspect was the empirical examination of Didaktik-informed teacher education and its correlation with positive student learning outcomes, thus affirming the critical role of educator preparation in effective pedagogical delivery.

Curriculum Development

Curriculum development emerged as another central research area. Studies delved into how curriculum design can be informed by Didaktik to foster engaging and holistic learning experiences. Strategies for infusing Didaktik principles into subject-specific curricula were explored, with findings indicating the successful integration of these principles into various

disciplines. The role of interdisciplinary learning in fortifying didactic approaches to curriculum design was highlighted, mirroring the network's dedication to fusing academic boundaries for enriched educational outcomes. Additionally, research demonstrated that Didaktik-informed curricula have a tangible impact on student motivation and critical thinking, suggesting a strong alignment between theoretical principles and practical applications.

Classroom Processes
By exploring classroom processes through the Didaktik lens, the findings highlight a nuanced understanding of how teaching methods, teacher-student interactions, and physical learning environments interact to shape educational outcomes. This empirical evidence contributes to the theoretical framework by demonstrating how Didaktik principles facilitate context-sensitive teaching practices that adapt to diverse student needs. Moreover, these insights advance the discourse on reflective teaching by showing how such practices cultivate a cohesive learning environment, aligning with the Bildung ideal of nurturing well-rounded, autonomous learners. The results showed variations in the effectiveness of teaching methods influenced by Didaktik, with methods optimized for student engagement highlighted as particularly impactful. The significance of physical classroom design and resources in mirroring and facilitating didactic principles was also confirmed, indicating a multi-faceted approach to embodying Didaktik in practical settings.

Student Learning
The network consistently sought to understand the impact of Didaktik-influenced teaching on student learning. A cache of studies explored teaching strategies that actively engage students and catalyze their motivation, guided by the principles of Didaktik. The results pointed toward a constructive effect of these pedagogical approaches on student motivation and self-reg in learning. Furthermore, the cultivation of critical thinking skills through Didaktik-guided teaching strategies underscored the doctrine's effectiveness in nurturing sought-after cognitive skills in learners.

The Role of Bildung
Finally, the concept of Bildung, a cornerstone of Didaktik, was given due attention in the network's research portfolio. The synthesis of Bildung and education was examined through the prisms of curriculum and instructional practices. The findings postulate that integrating Bildung into curriculum designs enriches the educational experience and promotes comprehensive student development. This underscores the role of Bildung in fostering students' academic progression and personal growth, resonating with didactic traditions that aim for education to contribute to the overall formation of the individual.

   The network's focus on teacher-centric issues, such as teacher professional development and teacher-student interactions, resonates with the growing body of literature on the crucial role of teachers in implementing Didaktik-informed practices. Scholars like Deng (2015) and Westbury (2000) have emphasized the importance of understanding teachers' conceptions, knowledge, and classroom decision-making processes within the Didaktik tradition. The network's attention to these areas aligns with this scholarly discourse.

   Furthermore, the network's exploration of the concept of Bildung, which encompasses the holistic development of the individual, is a hallmark of the Didaktik tradition. As

Klafki (2000) has argued, Bildung is a central tenet of Didaktik, representing the aim of education to cultivate well-rounded, self-determined, and socially responsible individuals. The network's focus on integrating Bildung into educational practices reflects this long-standing concern within the field of Didaktik.

The network's interdisciplinary approach, which draws insights from various fields, resonates with recent calls for a more comprehensive and integrated understanding of educational phenomena. As Westbury et al. (2005) have noted, Didaktik has traditionally been associated with a broader, more holistic perspective on education, encompassing philosophical, psychological, and sociological dimensions. The network's engagement with diverse disciplinary perspectives aligns with this tradition of interdisciplinary collaboration in Didaktik research.

Finally, the network's methodological diversity, encompassing both qualitative and quantitative approaches, aligns with the growing emphasis on mixed-methods research in Didaktik studies. Scholars like Hopmann and Riquarts (1995) have highlighted the value of combining different research methods to capture the complexity of educational processes and the interplay between theory and practice within the Didaktik framework.

Across these domains, the network's research activities have illuminated how the Didaktik concept informs various facets of educational practice. The convergence of empirical research with didactic theory has not only contributed to advancing methodology and pedagogical insight but has also shaped a research narrative that echoes the foundational aims of Didaktik—to establish an educational tradition that is as reflective as it is transformative.

Discussion

In summary, the findings from the analysis of the "General Didactics" research network demonstrate a strong alignment with the core tenets, theoretical foundations, and recent discussions within the field of Didaktik. The network's focus on Didaktik as a guiding principle, its attention to teacher-centric issues, its exploration of Bildung, its interdisciplinary approach, and its methodological diversity all reflect the evolving and multifaceted nature of Didaktik research in the contemporary educational landscape.

Teacher Education and Didaktik

This research provides concrete evidence supporting the theoretical assertions of earlier works. The emphasis on optimizing teacher education programs in alignment with Didaktik principles addresses a critical gap in existing research: the limited empirical evidence on how these principles are operationalized in teacher education. By illustrating the application of Didaktik theory in designing curricula and fostering reflective practices, the findings advance Deng's (2015) and Westbury's (2000) theoretical assertions. Specifically, the study demonstrates how embedding Didaktik principles enables educators to navigate the balance between content delivery and fostering students' critical engagement, thereby extending the theoretical discourse into actionable insights for teacher education. Also, the research extends von Oettingen's (2016) exploration of Didaktik theory by demonstrating how theoretical principles (tab. 2 & 3) can be integrated into teacher education programs.

The findings on teacher education reveal it as a central domain of focus within the General Didactics network. This aligns with research question one by identifying a critical area where Didaktik principles are operationalized. The emphasis on professional

development and reflective teaching practices demonstrates the network's commitment to enhancing educators' abilities to apply Didaktik principles effectively. These insights bridge a gap in the literature by providing empirical evidence of how Didaktik frameworks influence teacher training, offering concrete strategies for curriculum design and instructional methodologies.

Curriculum development and Bildung

The findings on curriculum development bridge a critical gap in the integration of Bildung principles into subject-specific and interdisciplinary curricula. The demonstrated impact of Didaktik-informed curricula on fostering student motivation and critical thinking extends the Bildung concept by offering empirical support for its application in contemporary educational settings. These findings advance Klafki's (2000) work by showing how holistic development, a cornerstone of Bildung, can be systematically incorporated into curriculum design to enhance both cognitive and emotional learning outcomes, ensuring education transcends rote learning. The network's research deeply engages with Klafki's (2000) concept of Bildung, offering contemporary interpretations of this educational philosophy. By investigating how Didaktik principles can be infused into curriculum making, the study builds upon Hudson and Meyer's (2011) work on educational transformation. The findings resonate with Rucker's (2020) exploration of Bildung, particularly in demonstrating how curriculum making can foster holistic student development beyond mere academic achievement.

The findings show that curriculum development, particularly the integration of Bildung, is a prominent theme. This directly addresses research question one by highlighting how the network's research advances theoretical and practical applications of Bildung. By focusing on holistic learning experiences, the studies demonstrate how Didaktik-informed curricula foster student motivation and critical thinking. This contributes to bridging theoretical and practical gaps in curriculum studies by showcasing Bildung as a cornerstone of effective educational design.

Bildung and individual development

The network's exploration of the Bildung concept in relation to Didaktik principles echoes a broader philosophical question: what is the ultimate goal of education? The findings present Bildung as an integral component of education, one that promotes individual formation and growth. By incorporating Bildung into the educational process, the network's research propounds a view of education that extends beyond the mere acquisition of knowledge to encompass personal and societal transformation.

Methodological considerations

Methodologically, the research aligns with and extends the approach advocated by Hopmann and Riquarts (1995). By combining qualitative and quantitative analyses, the study provides a comprehensive view of Didaktik research that goes beyond previous single-method studies. This approach addresses the call by Uljens and Ylimaki (2017) for more integrative approaches to educational research.

The network's research exemplifies the interdisciplinary nature of Didaktik studies, as highlighted by Westbury et al. (2000). By drawing insights from various disciplines and

examining educational phenomena through multiple lenses, the study demonstrates the continued relevance of the Didaktik tradition in contemporary educational research.

These findings align with Deng's (2015) assertion that Didaktik bridges theoretical and practical education. However, unlike previous studies that emphasize theoretical discourse (e.g., Westbury et al., 2005), this research demonstrates a robust engagement with empirical methods, thus broadening Didaktik's interpretation and application in Nordic educational settings. However, the study's reliance on conference abstracts limits the depth of data analysis. Future research could incorporate full papers or longitudinal studies to capture evolving trends.

Conclusion

The General Didactics network's contributions to educational research between 2020 and 2024 reflect a concerted effort to intertwine didactic theory with tangible educational practice. The discussion prompts further reflection on the potential for educational research to not only interrogate existing pedagogical models but also to inspire innovative approaches that meet the evolving needs of educators and learners. This body of work demonstrates the network's commitment to a research paradigm that is both theoretical and practical, merging thoughtful inquiry with empirical validation, and ultimately, shaping a narrative in educational science that is deeply rooted in the Didaktik framework.

The network General Didactics has demonstrated significant academic contributions, especially in the domains of curriculum & pedagogy, Didaktik & Bildung, and assessment & feedback in education answering research question one. The diversity of research methodologies and the interdisciplinary nature of the studies reflect a network that is attentive to the complexity of educational phenomena, and establishes the answer on research question two. The focus on empirical research underscores the importance of data-driven approaches to inform policy and practice. Overall, whilst this study provides insights into research trends, it cannot, by its nature explain lack of research and consequences of the research for practice.

The field of General Didactics indicates a predominant reliance on descriptive and case study approaches. Such research provides deep, localized understanding, but there is a compelling need to expand the methodological repertoire. Emerging research strategies that are not yet represented in the network, like quasi-experimental studies, design-based research or longitudinal ethnographic studies are useful in systematically investigating causal relationships, particularly examining specific didactic principles influence critical educational outcomes, in iteratively developing, testing, and refining teaching strategies within real classroom contexts. Then, researchers could develop nuanced understandings of how Didaktik principles dynamically shape student development and teacher professionalism. In turn, such strategies would address calls for more integrative and sustained research approaches (Hudson & Meyer, 2011).

The analysis reveals a strong teacher-centric focus within the General Didactics research network. While studies extensively explore teacher professional development, interactions, and curriculum implementation, student-centered research remains comparatively limited. This emphasis reflects the traditional Didaktik perspective that positions teachers as central knowledge mediators (Deng, 2015). However, the sparse direct engagement with students' experiences and perspectives diverges from the holistic *Bildung* ideal, suggesting a

need for more balanced research that amplifies students' voices and self-directed learning narratives.

The analyzed research illuminates the multifaceted role of *Didaktik* in education. Serving as a reflective framework, it guides curriculum design and pedagogical strategies while emphasizing teacher education. *Didaktik* enables educators to critically analyze content and foster Bildung, integrating theoretical ideals with classroom practice. By promoting critical thinking, cultural awareness, and personal growth across disciplines, it demonstrates a comprehensive approach to educational development (Uljens & Ylimaki, 2017; Hopmann, 2007; Klafki, 1995).

By furthering methodological diversity, strengthening student perspectives, and continuously bridging theoretical principles with educational practices, *Didaktik* enables transformative pathways for critically reflective pedagogical development.

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