



OPEN ACCESS

EDITED BY

Kate Attfield,
Cardiff Metropolitan University,
United Kingdom

REVIEWED BY

Fernando José Sadio-Ramos,
Instituto Politécnico de Coimbra, Portugal
Martyn Rawson,
National Tsing Hua University, Taiwan

*CORRESPONDENCE

Milan Mašát
✉ milan.masat01@upol.cz

RECEIVED 09 July 2025

ACCEPTED 12 September 2025

PUBLISHED 03 October 2025

CITATION

Mašát M (2025) The use of textiles
in the educational process at Waldorf
primary schools.
Front. Educ. 10:1660329.
doi: 10.3389/feduc.2025.1660329

COPYRIGHT

© 2025 Mašát. This is an open-access article
distributed under the terms of the [Creative
Commons Attribution License \(CC BY\)](#). The
use, distribution or reproduction in other
forums is permitted, provided the original
author(s) and the copyright owner(s) are
credited and that the original publication in
this journal is cited, in accordance with
accepted academic practice. No use,
distribution or reproduction is permitted
which does not comply with these terms.

The use of textiles in the educational process at Waldorf primary schools

Milan Mašát*

Department of Czech Language and Literature, Faculty of Education, Palacký University Olomouc, Olomouc, Czechia

This paper examines how textiles can be integrated into Waldorf primary schools through three exploratory case studies. Rather than prescribing guidelines, the study positions its outcomes within theoretical debates on craft, handwork, embodied knowing, and aesthetics. Drawing on interviews with three teachers, the cases illustrate that textiles can function both as cultural practices and as embodied engagements: they may support multisensory learning, strengthen patience and fine motor skills, and foster identity through imaginative and aesthetic experience. The analysis suggests that textiles are not merely peripheral activities but can serve as practices where cognition, embodiment, and self-understanding converge. Earlier perspectives, such as Stehlik's critique of technology, are reconsidered considering current curriculum reforms that seek to balance digital tools with craft-based learning. The paper highlights the heuristic value of case studies for illustrating how theoretical concepts might be operationalized in practice, offering insights for academic discourse and pointing to future research on the intersection of material culture, pedagogy, and identity.

KEYWORDS

textiles, Waldorf primary schools, educational process, case study, educational action

1 Introduction

The aim of this paper is to examine how textiles are integrated into the educational process in Waldorf primary schools. Rather than treating textiles merely as tools of handcraft, the study positions them at the intersection of craft (Martin, 2011) and handwork (Sigler, 2022), where making is simultaneously practical, cultural, and esthetic. This dual orientation allows me to explore textiles as media that not only foster skill but also carry meaning, shaping students' identities and their ways of knowing. The motivation for the study arises both from my own experience as a Waldorf teacher and from the need to theorize such experiences in light of contemporary debates in pedagogy and material culture.

The theoretical framing draws on perspectives that highlight the embodied and relational character of learning. Ingold (2011) conceptualizes craft and making as forms of "dwelling," in which knowing is inseparable from lived engagement with materials and environments. From this standpoint, weaving, felting, or working with fabrics are not ancillary activities but can be understood as epistemic practices, ways of generating understanding through bodily immersion in material processes. Similarly, Eisner (2002) and Gude (2004) argue that esthetic experience shapes identity and learning by enabling students to perceive themselves as creative and culturally situated beings. Thus, the

integration of textiles into education may be seen not only as skill acquisition but also as identity formation through esthetic and sensory experience.

At the same time, the paper engages critically with previous literature. Earlier references to “primitive textiles” (Harmer, 1903) are avoided as they reproduce outdated terminology. Stehlik’s (2008) emphasis on creativity through resistance to technology is acknowledged as a historical perspective but placed in dialogue with recent curriculum developments in Europe and Australia, such as HERMMES, 2025 (*Digital Media in Steiner/Waldorf Education project*, 2025) and European Council for Steiner Waldorf Education [ECSWE], 2025 (*European Council for Steiner Waldorf Education [ECSWE]*, 2025), which illustrate how Waldorf schools increasingly grapple with the role of digital media. This shift underlines that the question is not whether to integrate technology, but how to balance it with embodied, craft-based learning.

Methodologically, the paper employs three exploratory case studies of teachers, whose practices illustrate diverse ways of integrating textiles into different subjects. The case studies are not presented as generalizable evidence for prescriptive guidelines but as context-specific insights that open space for theoretical reflection. The limitations of this approach are acknowledged: three cases cannot justify universal recommendations, but they can serve as windows into the lived pedagogical reality of Waldorf classrooms.

The article is therefore directed at an academic audience – researchers and scholars in the fields of alternative pedagogy and didactics. The contribution lies not in offering normative guidelines for practitioners, but in theorizing how textiles can function as educational media, what they may reveal about Waldorf pedagogy, and how they raise broader questions about the role of craft, aesthetics, and identity in contemporary education.

2 Waldorf schools

Waldorf schools, founded on the educational philosophy of Rudolf Steiner¹, emphasize a holistic approach that integrates cognitive, artistic, and practical learning experiences into a unified conception of child development. This holism is not simply rhetorical: it reflects Steiner’s conviction that intellectual growth should be cultivated together with esthetic perception and embodied practice. For this reason, Waldorf pedagogy deliberately foregrounds artistic domains—painting, music, drama—while also placing equal weight on manual and craft-based activities such as woodworking or textiles. These elements are not supplementary; they are constitutive of what it means to learn in a Waldorf school.

¹ Rudolf Steiner, an Austrian philosopher and educator, is renowned for his contributions to various fields, including education, architecture, and expressive arts. His educational philosophy, known as Steiner or Waldorf education, emphasizes the spiritual development of children through creative and holistic approaches. In music education, Steiner’s methods focus on the spiritual connection of children with music, particularly using the musical interval of the fifth, which is believed to resonate with childhood spirituality (Boland, 2024). Steiner developed *Sprachgestaltung*, a technique for expressive speech that emphasizes the artistic and sensory aspects of spoken language, influencing notable figures in voice training (Montello, 2024). His pioneering educational vision continues to have global appeal, though it is sometimes critiqued for superficially integrating indigenous knowledge into Western educational frameworks (de Rijke, 2024).

As Ionova et al. (2024) demonstrate, the arts are treated as formative forces shaping both emotional life and moral orientation. In this sense, the arts and crafts function as identity-forming practices, aligning with the broader argument of this paper that textiles can be understood as educational media, not merely as “handwork.”

A further expression of this holistic orientation is Waldorf’s distinctive media education strategy, which postpones the introduction of digital technologies until later developmental stages. While this has often been described as resistance to modernity, recent studies (Neumann, 2024; Rawson, 2024) suggest that the rationale is more nuanced: the delay is intended to synchronize technological exposure with children’s cognitive readiness, so that embodied and sensory learning are not prematurely displaced by abstract, screen-based modes of engagement. From this perspective, the place of textiles and crafts becomes even clearer—they provide the material, tactile foundation on which later encounters with abstraction and technology can be built.

Institutionally, Waldorf schools have evolved from their foundation in 1919 into a globally diffused but still culturally specific network. Their governance structures emphasize collaborative autonomy and what Steiner called a “free spiritual life,” a principle later adapted into forms of participatory school management (Zech, 2023). The curriculum, organized in three developmental phases of “doing, feeling, and thinking” (Attfield, 2024), continues to shape pedagogy internationally, though it has been modified to meet local contexts and the demands of state standards. This ongoing process of translation and adaptation (Rawson, 2024) underscores that Waldorf education is not static but constantly negotiated between tradition and contemporary educational policy.

Teacher training remains deeply grounded in anthroposophy, the esoteric philosophy from which Steiner derived his pedagogical vision (Uceda, 2015). While this grounding raises questions about accessibility and inclusivity, it also ensures continuity in pedagogical practice. International expansion—currently over 1,184 schools in 67 countries (Paull and Hennig, 2020)—has highlighted both strengths and vulnerabilities. Financial sustainability, uneven governance, and questions of discipline persist (Ogletree, 1998; Koolmann et al., 2016). Yet, despite these challenges, Waldorf schools are frequently praised for their capacity to create democratic working cultures, foster teacher morale, and cultivate independent thinking in students.

Finally, Waldorf’s insistence on delayed formal literacy instruction (Bell, 2024) exemplifies its departure from mainstream schooling, while comparative studies (van Schie and Vedder, 2023) confirm that its outcomes remain academically equivalent. More significantly, the Waldorf model contributes diversity to educational landscapes, offering an alternative vision of schooling in which embodied making, esthetic experience, and identity formation are integral to learning. This orientation provides the necessary context for the present study’s focus on textiles: if Waldorf pedagogy is built upon the unity of head, heart, and hand, then textiles are not incidental but paradigmatic of how knowledge, creativity, and identity can be co-constituted in this tradition.

2.1 Status of Waldorf schools in the Czechia

In the Czechia, Waldorf schools illustrate how global pedagogical traditions can be locally adapted through cultural and artistic engagement. One notable example is the emphasis on collective music-making, such as the choral projects at the Waldorf Elementary and Secondary School in Ostrava-Poruba, which bring together students, teachers, and community partners, including international institutions and local artists (Schmuckerová, 2024). These initiatives are not only artistic enrichment but also expressions of Waldorf's commitment to cultivating identity through shared cultural experience, where aesthetics function as a medium of belonging and self-formation.

Assessment practices in Czech Waldorf schools likewise align with the international Waldorf philosophy, privileging qualitative evaluations and self-assessment over standardized testing (Smrček, 2015). This approach reflects the pedagogical conviction that learning outcomes should be understood as processes of personal growth rather than solely as measurable performance. Such practices support the broader argument of this paper: that education, including textile-based work, may be conceived as a process of identity construction as well as skill acquisition.

The challenge of the digital age, however, has provoked new tensions. Czech Waldorf schools have begun cautiously integrating digital technologies, particularly in higher grades, while critically reflecting on their impact on sensory development and embodied learning (Píkec, 2016; Doutlik, 2015). This negotiation suggests that Waldorf pedagogy is not simply opposed to modern media but seeks to balance them with traditional, tactile forms of engagement. From this standpoint, the use of textiles can be interpreted as part of a deliberate counterbalance to screen-based abstraction, preserving the centrality of embodied, material experience within the curriculum.

Finally, the autonomy of Czech Waldorf schools, operating independently of political and religious structures, enables them to sustain pedagogical practices tailored to their communities (Zech, 2013). Yet this independence is also a source of responsibility: it requires schools to continually justify their approaches in light of changing cultural and technological contexts. The Czech case thus illustrates both the resilience and the vulnerability of Waldorf education—showing how its commitment to holistic, aesthetic, and craft-based learning must be constantly reinterpreted in a rapidly evolving educational landscape.

2.2 Principles and foundations of Waldorf pedagogy

Waldorf pedagogy is rooted in a holistic conception of the child as a complete being—body, soul, and spirit—whose development calls for a careful balancing of the spiritual and the earthly, of freedom and individuality (Vudrag, 2019). This view goes beyond a developmental model; it frames a philosophy of education in which learning is understood as a transformative process integrating cognition, emotion, and embodied practice. Steiner's epistemology rejects naïve realism in favor of an interactive ontology: knowledge is not passively received but emerges in dynamic relation to the

world (Schieren, 2023). Within this framework, activities such as textile handwork are not peripheral but can be seen as exemplary, for they embody the principle of knowledge-through-engagement.

Play, as Souza et al. (2025) emphasize, is central to Waldorf practice because it integrates motor, cognitive, and emotional growth while cultivating resilience and empathy. Yet play also points to a broader argument: that knowing is relational and enacted, not abstract. Ingold's (2011) concept of dwelling provides a useful lens here. To “dwell” is to inhabit the world through material practices, where knowledge is inseparable from lived engagement with environment and substance. In Waldorf classrooms, textile activities—whether spinning, weaving, or felting—offer such practices: children come to know through doing, handling, and shaping materials, enacting the kind of embodied knowing that Ingold describes.

The curriculum's alignment with developmental stages (Antunes and Camargo, 2022) reinforces this principle. Each stage—whether focused on “doing,” “feeling,” or “thinking”—is anchored in activities that integrate body and imagination. Textiles, situated at the intersection of craft and aesthetic practice, can therefore serve as paradigmatic examples of this integration. They not only cultivate fine motor skills but may also nurture identity by allowing students to perceive themselves as creators embedded in cultural traditions and ecological processes. This connects with Eisner's (2002) and Gude's (2004) insights: aesthetic experience contributes to identity formation, as students develop a sense of self through acts of making that are both expressive and culturally meaningful.

Waldorf pedagogy also emphasizes the child's embeddedness in society and nature, advocating an ecological awareness that situates learning within broader cultural and environmental contexts (de Carvalho Santana and Carvalho Vilar, 2023). The educator's role, accordingly, is not to transmit knowledge but to act as a guide, creating conditions in which students can explore their potential and negotiate their individuality (Vudrag, 2019). As Loebell (2023) reminds us, this is not only an intellectual task but also one of nurturing the will and emotional life, ensuring that development remains balanced and humane.

Taken together, these principles help explain why textiles matter for Waldorf pedagogy. They are not isolated activities but practices that integrate body, culture, and spirit. By weaving together cognition, creativity, and identity, textile work can be seen as illustrating the essence of Waldorf education: a humanized, inclusive pedagogy in which aesthetic and embodied experience play a central role in becoming fully human.

3 The use of textiles in the educational process of Waldorf primary schools

As Easton (1997) noted, textiles occupy a distinctive place in Waldorf pedagogy: they can function as media that integrate practical skill, cultural continuity, and aesthetic experience. Within the framework of the Waldorf curriculum, which emphasizes the development of “head, heart, and hands,” textile activities embody this tripartite ideal. They may engage intellect through pattern, measure, and form; emotions through aesthetic expression

and narrative use; and the will through manual dexterity and perseverance. In this way, textiles exemplify the holistic conception of learning that Waldorf education seeks to cultivate.

Earlier scholarship sometimes described such practices in terms of “primitive textiles” (Harmer, 1903), but this terminology is both outdated and theoretically unhelpful. Rather than reproducing such labels, it is more productive to situate textiles within two overlapping discourses: craft (Martin, 2011) and handwork (Sigler, 2022). Craft highlights the cultural and artistic dimensions of making, while handwork emphasizes embodied practice and skill. In the classroom, textiles cross both fields, allowing children to see themselves as participants in a cultural tradition while also experiencing the immediacy of working with material. This double orientation—craft and handwork—is central to the argument of this paper: textiles are not simply classroom activities, but potential vehicles of identity and knowledge formation.

The artistic dimension of Waldorf pedagogy reinforces this point. Teaching itself is conceived as an art, and working with fabric becomes a means of cultivating aesthetic appreciation and creativity (Ramirez, 2006). Such practices resonate with Eisner’s (2002) and Gude’s (2004) arguments that aesthetic experience is formative for identity, enabling students to recognize themselves as creative subjects embedded in cultural contexts. Textile work therefore contributes not only to skill development but also to processes of self-understanding and cultural belonging.

Stehlik (2008) argued that Waldorf schools nurture imagination partly by resisting the premature dominance of modern technologies, encouraging children to generate their own images and stories. While valuable as a historical perspective, this view requires qualification. Current debates within Waldorf education in Europe and Australia, including recent curriculum reforms such as HERMMES (*Digital Media in Steiner/Waldorf Education project*, 2025) and European Council for Steiner Waldorf Education [ECSWE], 2025 (*European Council for Steiner Waldorf Education [ECSWE], 2025*), indicate that digital media are increasingly engaged in more nuanced ways. In this shifting landscape, textiles take on renewed importance: they anchor education in tactile, embodied experience, providing a counterbalance to abstraction and virtuality without being positioned as the opposite of technology.

Finally, textiles embody what Ingold (2011) calls dwelling: a mode of knowing that arises from lived engagement with material. To weave, spin, or felt is to learn through doing, inhabiting knowledge rather than merely representing it. This form of embodied knowing is inseparable from identity: in manipulating fibers and threads, students not only acquire skills but also construct understandings of themselves as learners and makers. In this sense, textile work can be interpreted as a paradigmatic expression of Waldorf’s educational philosophy—where knowing, feeling, and being are woven together.

4 Methodology

The choice of methodology is closely derived from the theoretical framework presented in the previous chapters. I have characterized textiles as a phenomenon located at the intersection of craft (Martin, 2011) and handwork (Sigler, 2022), that is, as

both a practical skill and an aesthetic, culturally shaped expression. Furthermore, I emphasized that working with textiles can represent a form of dwelling and embodied knowing (Ingold, 2011)—a way of learning through lived engagement with the world of materials. Since my aim is to investigate this complex, culturally and pedagogically grounded nature of textiles, it is methodologically appropriate to employ an approach that allows me to connect theory with contextual practice.

4.1 Why case studies?

For this reason, I chose the case study approach. As Gustafsson (2024) notes, this method makes it possible to conduct an in-depth, contextually embedded analysis of a specific phenomenon in its real-world setting. For my research, this is crucial, since I do not intend to test pre-formulated hypotheses or measure outcomes quantitatively. Rather, I aim to understand how textile activities are lived in Waldorf schools, what meanings teachers and pupils ascribe to them, and how these experiences resonate with theoretical concepts of identity, aesthetics, and knowing.

Shaw and Mikhailov (2024) stress that case studies in social research explore “the total situation”—the sequence of events, the interactions of participants, and the wider context. This is particularly suitable for Waldorf pedagogy, because this tradition itself is built on a holistic conception of the child and the integration of “head, heart, and hand.” In this context, textiles are not an isolated skill, but a point of intersection between bodily, aesthetic, and cultural dimensions of learning, which case studies can uniquely capture.

4.2 Concrete research design

In this project I carried out three small-scale case studies with teachers of different professional profiles (mathematics and storytelling, handicrafts and science, eurythmy and drama). This selection was deliberate: it was designed to show that textiles permeate multiple areas of the curriculum, thereby illustrating the cross-disciplinary and holistic potential of Waldorf pedagogy. Data were gathered through semi-structured interviews, which made it possible to capture both the teachers’ personal experiences and their concrete pedagogical practices. The interviews were transcribed and subjected to thematic analysis, with categories derived from the theoretical concepts outlined in the first part of the paper (craft/handwork – Martin, 2011; Sigler, 2022; dwelling/knowning – Ingold, 2011; aesthetics and identity – Eisner, 2002; Gude, 2004).

4.3 Strengths and limitations

The strength of this design lies in its capacity to provide richly textured and detailed data that would be lost in a purely quantitative approach (Tran and Nguyen, 2024). Case studies enable me to connect empirical findings with theoretical perspectives and to suggest that textile practice is not merely an instructional method, but a mode of existential engagement with the world of materials and culture.

At the same time, it is necessary to recognize the limitations. As Gibson and Groom (2025) point out, case studies are often criticized for their small scope, limited transferability, and occasional lack of methodological transparency. In this research, I therefore explicitly acknowledge that three cases cannot serve as a basis for universal recommendations. Instead, I interpret them as exploratory insights that open discussion and indicate directions for further research. The practical implications drawn from the results are to be understood as possibilities and inspirations, not as prescriptive rules.

4.4 Researcher's position

Finally, the methodological choice must be situated in the context of my dual position—as both a Waldorf teacher and an educational researcher. This combination provides unique access to insider knowledge and to subtle meanings of textile practice that an outside observer might overlook. At the same time, it requires reflexivity, so that empirical data are not uncritically confirmed by personal experience. Acknowledging this dual perspective strengthens the transparency of the research and clarifies why the findings are addressed primarily to an academic audience: to contribute to theoretical debate on material culture and pedagogy, rather than to prescribe methodological guidelines for teachers.

5 Results and discussion

As outlined in the methodology, the purpose of this section is not to generalize findings or to prescribe guidelines, but to present three exploratory case studies that shed light on how textiles may be integrated into Waldorf pedagogy. These cases are offered as heuristic insights, illustrating how theoretical constructs—craft and handwork (Martin, 2011; Sigler, 2022), dwelling and knowing (Ingold, 2011), and the link between aesthetics and identity (Eisner, 2002; Gude, 2004)—can be enacted in classroom practice. The analysis suggests that textiles are not merely supplementary activities, but can serve as sites where skill, creativity, and identity come together.

5.1 Case study A

A young primary school teacher (27) integrates textiles as tools for multisensory learning. In mathematics lessons, she uses colorful felt shapes to introduce geometric concepts. This practice reflects Sigler's (2022) view of handwork as embodied practice: children can learn through manipulation, transforming abstract forms into tactile experiences. Beyond mathematics, she employs silk scarves in storytelling, where fabrics symbolize characters or natural phenomena. In this context, textiles function as aesthetic media that help shape imagination and perception, aligning with Eisner's (2002) argument that art education can cultivate new ways of seeing and new dimensions of self-concept. This case illustrates how textile activities may bring together cognition, sensory exploration, and aesthetic identity, even at the early stages of education.

5.2 Case study B

An experienced teacher of handicrafts and practical skills (45) uses wool and felting to connect material practice with scientific concepts. By creating felted models of cells and molecules, students engage in what Ingold (2011) describes as “dwelling with matter,” where knowledge may emerge through tactile interaction rather than abstract description alone. In weaving lessons, students work on simple looms, cultivating rhythm, patience, and perseverance. These activities highlight the dual orientation of textiles: as craft (Martin, 2011), rooted in cultural tradition, and as handwork (Sigler, 2022), emphasizing embodied practice. This case suggests how textiles can serve as a bridge between abstract science, cultural heritage, and personal skill development.

5.3 Case study C

A senior teacher of eurythmy and drama (58) employs textiles as extensions of the body in movement and performance. Flowing fabrics help students experience rhythm, dynamics, and fluidity in eurythmy, while improvised costumes in drama classes encourage non-verbal expression and imagination. These practices resonate with Gude's (2004) view that art education contributes to identity formation by situating learners as cultural participants. The teacher's work illustrates how textiles may function simultaneously as pedagogical tools and as aesthetic and relational media through which students explore themselves as expressive and creative beings.

5.4 Theoretical reflections and implications

Taken together, the three case studies support and illustrate aspects of the theoretical framework introduced earlier:

- Craft and handwork: Textiles can be seen simultaneously as cultural artifacts (Martin, 2011) and as embodied practices (Sigler, 2022).
- Dwelling and knowing: Learning may arise through lived engagement with materials, as suggested in activities such as felting, weaving, or performing with fabrics (Ingold, 2011).
- Aesthetics and identity: Textile activities may foster self-perception and cultural belonging, allowing students to view themselves as creators and participants in cultural traditions (Eisner, 2002; Gude, 2004).

Earlier scholarship, such as Stehlik (2008), portrayed Waldorf pedagogy as fostering imagination by resisting premature technological exposure. While this perspective remains valuable historically, it no longer fully reflects current practice. Contemporary curriculum reforms—such as HERMMES, 2025 (*Digital Media in Steiner/Waldorf Education project*, 2025) and European Council for Steiner Waldorf Education [ECSWE], 2025 (*European Council for Steiner Waldorf Education [ECSWE]*, 2025)—demonstrate that Waldorf schools today increasingly engage with

digital technologies in critical and balanced ways. In this shifting context, textiles gain renewed significance: they ground learning in tactile, embodied experience, complementing rather than opposing technological developments.

By contrast, early ethnographic references such as Harmer's (1903) description of "primitive textiles" have been deliberately excluded from this analysis. Such terminology not only reproduces outdated and ethnocentric framings but also fails to contribute meaningfully to current theoretical debates. Their omission underscores the intention to situate textile pedagogy within contemporary scholarly discourse rather than to reproduce historical stereotypes.

5.5 Implications for research and practice

The cases presented here are exploratory and context specific. They should not be mistaken for prescriptive rules. Rather, they suggest how textiles may enrich learning when thoughtfully integrated, and they open space for further academic discussion. The implications that emerge are best understood as possible directions, not universal recommendations:

- Supporting multisensory learning: Textiles can enhance kinesthetic engagement and may support memory retention.
- Cultivating creativity and imagination: Fabrics provide opportunities for expressive storytelling, drama, and artistic exploration.
- Fostering perseverance and fine motor skills: Weaving and felting may help develop patience, coordination, and sustained attention.
- Connecting knowledge and materiality: Textiles can make abstract concepts more tangible and relational.
- Nurturing identity and belonging: Aesthetic engagement with materials may allow students to perceive themselves as creators embedded in cultural traditions.

These findings resonate with the Waldorf ideal of integrating "head, heart, and hand" and highlight textiles as potential exemplars of holistic pedagogy. Yet their heuristic value lies not in generalizability, but in illustrating how theoretical perspectives—craft/handwork, embodied knowing, aesthetics/identity—may manifest in everyday teaching. In this way, the study contributes primarily to academic debates on pedagogy and material culture, while offering inspiration rather than prescriptions for practice.

6 Conclusion

The purpose of this article was to explore how textiles can function as educational media in Waldorf primary schools. To do so, I employed three exploratory case studies, designed not to produce generalizable evidence but to generate practice-near insights that could be situated within broader theoretical debates. This methodological stance was essential: a small number of cases cannot justify prescriptive recommendations, yet they can help to illuminate how abstract theories may be lived out in practice.

The case studies suggested that textiles are multi-dimensional educational media. On the one hand, they belong to the sphere of craft (Martin, 2011), carrying cultural continuity, rhythm, and the weight of tradition. On the other hand, they exemplify handwork (Sigler, 2022), where knowledge arises through the body, through repetitive movement, dexterity, and the sensory manipulation of materials. This duality helps explain why textiles can be pedagogically powerful: they simultaneously root learning in cultural history and embody it in immediate practice.

From the perspective of Ingold's (2011) notions of dwelling and embodied knowing, the cases showed that children do not merely acquire information "about" textiles but may also come to know "through" textiles. Felting molecules, weaving patterns, or moving with fabric in eurythmy illustrate a mode of knowledge-making that is experiential and relational. This indicates that textile practices are not marginal skills but can be understood as core epistemic acts in Waldorf pedagogy.

Equally significant is the role of aesthetics. Following Eisner (2002) and Gude (2004), textile engagement may foster identity formation: children perceive themselves as imaginative, culturally situated creators. The cases demonstrated this most clearly in storytelling and drama activities, where fabrics became not only didactic aids but also vehicles of self-understanding. This shows that aesthetics are not ornamental to Waldorf pedagogy; they are constitutive of how learners see themselves and their place in cultural traditions.

The study also contributes to ongoing debates about technology in Waldorf education. While Stehlik's (2008) portrait of deliberate resistance to digital media was valuable in its time, it no longer captures current practice. Contemporary reforms—such as HERMMES, 2025 (*Digital Media in Steiner/Waldorf Education project*, 2025) and European Council for Steiner Waldorf Education [ECSWE], 2025 (*European Council for Steiner Waldorf Education [ECSWE]*, 2025)—demonstrate that Waldorf schools now seek to balance digital technologies with embodied learning. In this shifting terrain, textiles acquire renewed significance: not as nostalgic relics but as counterweights and complements, grounding education in tactile and sensory modes that coexist with digital tools.

Methodologically, the paper underscores both the potential and the limitations of case study design. Three cases cannot provide statistical generalization, but they offer description that makes theoretical categories more tangible. The contribution of this article is therefore heuristic: it illustrates how concepts such as craft/handwork, dwelling/knowning, and aesthetics/identity may be connected with everyday teaching practice. By doing so, it extends theoretical debates in material culture and pedagogy while avoiding prescriptive claims of "best practice."

Finally, my dual positionality—as both Waldorf teacher and educational researcher—shaped the inquiry. This insider perspective enabled the recognition of subtle pedagogical meanings that might escape external observation, but it also required reflexivity about potential bias. Explicit acknowledgment of this position strengthens the transparency of the study and clarifies why its contribution is aimed primarily at academic discourse rather than at immediate practitioner guidance.

Future research could build on these insights by expanding the scope to multi-site comparative studies and longitudinal

analyses of how textile engagement affects learning outcomes (e.g., perseverance, conceptual understanding, cultural identity). Ethnographic methods and student-centered perspectives (such as reflective journals or artifact analysis) may further illuminate how children themselves experience textiles as media of knowing and belonging. Moreover, comparative studies with non-Waldorf settings could test whether the dynamics identified here are unique to Steiner-inspired pedagogy or more broadly relevant.

In conclusion, the study indicates that textiles in Waldorf classrooms are not peripheral activities but can serve as paradigmatic practices where cognition, embodiment, and identity converge. Their educational value lies less in measurable outputs and more in the process of becoming—learning through making, perceiving, and dwelling with materials. The cases presented here thus enrich theoretical discussions on pedagogy and material culture, offering exploratory insights rather than prescriptions, and pointing to further inquiry into the role of embodied and aesthetic practices in contemporary education.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the corresponding author upon reasonable request. Requests to access the datasets should be directed to Xuepeng Guo, 201290261@tjgydx.wecom.work.

Ethics statement

The studies involving humans were approved by the Ethics Committee of Tianjin Normal University, China. The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation in this study was provided by the participants' legal guardians/next of kin.

Author contributions

MM: Formal analysis, Resources, Funding acquisition, Project administration, Data curation, Writing – original draft,

Visualization, Conceptualization, Writing – review & editing, Supervision, Validation, Investigation, Software, Methodology.

Funding

The author(s) declare that no financial support was received for the research and/or publication of this article.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author(s) declare that no Generative AI was used in the creation of this manuscript.

Any alternative text (alt text) provided alongside figures in this article has been generated by Frontiers with the support of artificial intelligence and reasonable efforts have been made to ensure accuracy, including review by the authors wherever possible. If you identify any issues, please contact us.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

- Antunes, R., and Camargo, G. (2022). Principles and fundamentals of waldorf pedagogy: The perspective of more humanized teaching. *Saberes Pedagógicos* 6, 22–38. doi: 10.18616/rsp.v6i2.7746
- Attfield, K. (2024). The humane education of Waldorf. *Front. Educ.* 9:1332597. doi: 10.3389/feduc.2024.1332597
- Bell, A. (2024). Teaching children to write and read in Waldorf schools. *Front. Educ.* 9:1387867. doi: 10.3389/feduc.2024.1387867
- Boland, N. (2024). Music as expression of children's spirituality: The case of Steiner early childhood education. *Int. J. Children's Spiritual.* 29. doi: 10.1080/1364436X.2024.2439097 [Epub ahead of print].
- de Carvalho Santana, J., and Carvalho Vilar, J. (2023). The society – nature relationship from the waldorf pedagogy. *Vitruvian Cogitationes* 4, 60–76. doi: 10.4025/rvc.v4i1.67446
- de Rijke, V. (2024). O paradoxical pioneer! repurposing steiner education in collage and scribble. *Pedagogy Culture Soc.* 32, 1003–1012. doi: 10.1080/14681366.2024.2355090
- Doutlik, K. (2015). Status of media in waldorf school. *Medijska Istraživanja* 21, 101–119. doi: 10.3390/vaccines11111726
- Easton, F. (1997). Educating the whole child, "head, heart, and hands": Learning from the Waldorf experience. *Theory Into Practice* 36, 87–94. doi: 10.1080/00405849709543751
- Eisner, E. W. (2002). *The arts and the creation of mind*. Yale University Press.
- European Council for Steiner Waldorf Education [ECSWE] (2025). *ECSWE – European Council for Steiner Waldorf Education*. Available online at: <https://ecswe.eu> (accessed August 25, 2025).
- Gibson, L., and Groom, R. (2025). "Case studies," in *Research methods in sports coaching*, eds L. Nelson, R. Ryan Groom, and P. Potrac (London: Routledge), 118–128. doi: 10.4324/9781003381891
- Gude, O. (2004). Postmodern principles: In search of a 21st-century art education. *Art Educ.* 57, 6–14. doi: 10.1080/00043125.2004.11653528

- Gustafsson, J. (2024). "Case studies," in *Advanced research methods for applied psychology*, ed. P. Brough (London: Routledge), 111–121. doi: 10.4324/9781003362715
- Harmer, A. (1903). Introduction to the primitive textile work in the laboratory school. *Elementary Sch. Teacher* 3, 710–717. doi: 10.1086/453275
- HERMMES (2025). *HERMMES: Digital media in steiner/waldorf education*. Available online at: <https://www.hermmes-project.eu> (accessed August 25, 2025).
- Ingold, T. (2011). *Being alive: Essays on movement, knowledge and description*. Routledge: Taylor & Francis.
- Ionova, O., Luparenko, S., and Kabanska, O. (2024). The role and place of art in waldorf school. *Problems Educ.* 1, 279–297. doi: 10.52256/2710-3986.1-100.2024.19
- Koolmann, S., Nöring, J. E., and Boukal, F. (2016). Waldorfschulen und ihre zukünftigen herausforderungen – eine organisationsstrukturelle betrachtung [Waldorf schools and their future challenges - an organisational-structural analysis]. *RoSE – Res. Steiner Educ.* 7, 59–80. German
- Loebell, P. (2023). "Central motifs in education reform and Waldorf education," in *Handbook of research on Waldorf education*, ed. J. Schieren (Routledge: Taylor & Francis). doi: 10.4324/9781003187431-35
- Martin, M. (2011). *The Waldorf handwork and craft curriculum*. The Wonder of Childhood. Available online at: <https://thewonderofchildhood.com/> (accessed April 5, 2011).
- Montello, F. (2024). Sensorialidad en la voz hablada. formación del habla (Sprachgestaltung -Rudolf Steiner) [Sensoriality in the spoken voice. Speech Formation (Sprachgestaltung -Rudolf Steiner)]. *Llengua Soc. Comun.* 2024, 13–21. Spanish doi: 10.1344/LSC-2024.22.2
- Neumann, R. (2024). Media education in Waldorf/Steiner schools. *Front. Educ.* 9:1365149. doi: 10.3389/feduc.2024.1365149
- Ogletree, E. J. (1998). *International survey of the status of waldorf schools*. Champaign: ERIC Clearinghouse on Elementary and Early Childhood Education and the National Parent Information Network.
- Paull, J., and Hennig, B. D. (2020). Rudolf steiner education and waldorf schools: Centenary world maps of the global diffusion of "The School of the Future." *J. Soc. Sci. Human.* 6, 24–33.
- Pikec, V. (2016). *Waldorfska škola u digitalnom dobu [Waldorf school at digital time]*. Zagreb: Sveučilište u Zagrebu. Croatian
- Ramirez, M. Y. (2006). *L'enseignement en tant qu'art dans le curriculum Waldorf [Teaching as an Art in the Waldorf Curriculum]*. France: Vincennes-Saint Denis. French
- Rawson, M. (2024). Translating, transmitting and transforming Waldorf curricula: One hundred years after the first published curriculum in 1925. *Front. Educ.* 9:1306092. doi: 10.3389/feduc.2024.1306092
- Schieren, J. (2023). *Handbook of research on waldorf education*. New York, NY: Routledge. doi: 10.4324/9781003187431
- Schmuckerová, S. (2024). Choral singing to regional sources and the ethnic diversity of music. *Stud. Sci. Facultatis Pedagogicae* 23, 154–159. doi: 10.54937/ssf.2024.23.4.154-159
- Shaw, C. R., and Mikhailov, A. A. (2024). Case study method. *Sociol. Methodol. Methods Mathemat. Model.* 30, 66–80. doi: 10.19181/4m.2024.33.1.3
- Sigler, A. (ed.) (2022). *Übergang: Handarbeitsunterricht in der 7. Jahrgangsstufe an Waldorfschulen (2. nepozm. dotisk)*. Pädagogische Forschungsstelle Kassel. (Pův. vyd. 2019). Available online at: <https://www.forschung-waldorf.de/>
- Smrček, O. (2015). *Metody hodnocení žáků ve Waldorfské základní škole [Methods of Assessing Pupils in a Waldorf Primary School]*. Zlín: Tomas Bata University. Czech
- Souza, L. B. P., Pacheco, L. R. B., de Oliveira, D. R., and Conceição, R. F. (2025). Waldorf: Playing in waldorf pedagogy. *RCMOS – Multidiscipl. Sci. J. Knowledge* 1, 1–7. doi: 10.51473/rcmos.v1i1.2025.803
- Stehlik, T. (2008). "Thinking, feeling, and willing: How waldorf schools provide a creative pedagogy that nurtures and develops imagination," in *Pedagogies of the imagination*, eds T. Leonard and P. Willis (Dordrecht: Springer), 231–243. doi: 10.1007/978-1-4020-8350-1_17
- Tran, T. T., and Nguyen, H. T. (2024). "Case study," in *Applied linguistics and language education research methods: Fundamentals and innovations*, ed. H. Bui (Hershey: IGI Global Scientific Publishing), 182–205. doi: 10.4018/979-8-3693-2603-9.ch012
- Uceda, P. Q. (2015). Waldorf teacher education: Historical origins, its current situation as a higher education training course and the case of Spain. *Encounters Theory History Educ.* 16, 129–145. doi: 10.15572/ENCO2015.9
- van Schie, T. J., and Vedder, P. (2023). Different pedagogies, equivalent results: A comparison of language skills and school attitude between Waldorf school students and public school students in the Philippines. *Global. Soc. Educ.* 21. doi: 10.1080/14767724.2023.2248902 [Epub ahead of print].
- Vudrag, D. (2019). *Waldorfska pedagogija u ranom i predškolskom odgoju i obrazovanju [Waldorf pedagogy in early and preschool education]*. Undergraduate thesis, University of Zagreb, Faculty of Teacher Education: Zagreb. Croatian
- Zech, M. (2013). "Waldorfschulen als Beispiel gelebter Schulautonomie auf dem freien Markt [Waldorf schools as an example of lived school autonomy on the free market]," in *Waldorfpädagogik in Praxis und Ausbildung*, eds D. Randoll and M. da Veiga (Wiesbaden: Springer), 11–24. German doi: 10.1007/978-3-658-01705-7_1
- Zech, M. M. (2023). "School autonomy and collaborative governance as constitutive elements of waldorf schools," in *Handbook of research on waldorf education*, ed. J. Schieren (New York, NY: Routledge), 513–531. doi: 10.4324/9781003187431