Students' Perceptions of School-Based Feedback in Vocational Education and Training in Finland: the Case of Students with Learning Difficulties

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ABSTRACT:

This study explores how students with learning difficulties (LD) in Finnish vocational education and training (VET) perceive and experience feedback. While Finnish VET traditionally emphasizes inclusivity, recent policy developments after the 2018 reform have shifted the focus towards competency-based education, with less explicit emphasis on inclusion. This study examines how feedback practices affect students with LD in this evolving educational landscape. Using a qualitative approach, data were collected from 49 students across four VET institutions through focus group discussions and individual interviews. Content analysis identified three key themes: (i) the effectiveness of various feedback approaches, (ii) perceptions and emotional responses of students, and (iii) suggestions for improvement. The findings revealed that individual face-to-face feedback was the most effective and preferred method for providing students with personalized and actionable guidance. Peer feedback was valued in practical tasks for its immediacy, although it lacked the depth of teacher feedback. Although convenient, virtual feedback is often delayed and less interactive, reducing effectiveness. The study concludes that timely, specific, and personalized feedback is essential for supporting students with LD and recommends that VET educators prioritize one-on-one feedback and enhance the structure of virtual feedback. These findings contribute to understanding inclusive feedback practices and provide recommendations for improving feedback in VET settings.

Keywords: Vocational Education and Training (VET), Learning Difficulties (LD), Feedback, Finland, Student Experiences

INTRODUCTION

Background on Feedback in Vocational Education Training (VET)

Feedback is recognized as a fundamental component of the learning process, especially in VET, in which practical skills and competencies are developed and refined. It serves as a mechanism for guiding students through the learning process by reinforcing correct behaviors, correcting mistakes, and motivating learners to engage more deeply with their studies (Wuttke et al., 2020), which supports developing cognitive and practical skills during the VET. In addition, effective feedback in VET, where practical skills are emphasized, serves several key functions, including reinforcing learned skills and providing directions for improvement. For feedback to be meaningful, it must be timely, specific, and supportive, ensuring that students understand how to apply it to improve their performance (Hattie & Timperley, 2007; Wuttke et al., 2020).

Considering the increase in emphasis on VET inclusivity, feedback has a crucial role in ensuring that students facing LD can access equitable support to assist them in their individual learning paths (Karttunen & Seppänen, 2021). Effective feedback enhances learning by giving students timely, relevant, and actionable insights into their progress (Hattie & Timperley, 2007). This is particularly significant for students with learning difficulties (LD), who face various challenges related to basic academic skills, such as reading, writing, and numeracy. These difficulties can impede students' ability to engage with, interpret, and act upon feedback, ultimately affecting their performance and learning outcomes (Turner & Baker, 2017). In inclusive VET environments, where students with LD participate in the general educational settings, understanding the dynamics of feedback delivery and reception is critical for supporting their success (Karttunen & Seppänen, 2021). To better understand feedback's effectiveness, it is imperative to consider various types of feedback that serve unique purposes in guiding learning.

Feedback can be classified into various types based on purpose and delivery method. According to Wisniewski et al. (2019), feedback could, for example, be corrective, formative, or summative.

Corrective feedback focuses on identifying errors and provides clear guidance on improving them (Wisniewski et al., 2019). Students with LD often require targeted, direct, and clear communication to overcome cognitive challenges that affect their ability to process and apply information and may prevent them from fully understanding or acting upon feedback (Conway, 2016). This means feedback must clearly indicate what was done correctly and where improvement is needed. For students with LD, corrective feedback must be delivered in a supportive manner and must be clear and constructive to avoid discouragement (Wisniewski et al., 2019). Overly critical or context-lacking feedback can demotivate and disengage learners from learning (Adie et al., 2018).

Formative feedback is designed to guide students to understand their progress and what they need to improve throughout their learning process. The cognitive and processing challenges LD students face require that feedback be tailored, clear, and supportive (Conway, 2016). This type of feedback is particularly useful in VET and beneficial for students with LD when it is non-evaluative and supportive, who often require additional support to process and apply the information they receive, allowing them to adjust without feeling overwhelmed (Adie et al., 2018).(Wisniewski et al., 2019). Simultaneously, delayed, vague, or generalized feedback, including overly critical feedback, may discourage students with LD, leading to confusion and missed learning (Hattie & Timperley, 2007).

Summative feedback is often used at the end of a learning period, cycle, or task to provide an overall assessment of student performance. While summative feedback is essential for measuring achievement, it is less effective for immediate improvement. It may therefore not always be suitable for students with LD, who benefit more from continuous, formative guidance and feedback (Indrawati, 2021). In addition, delayed feedback can diminish its effectiveness because students may already be disengaged from the learning process (Hattie & Timperley, 2007).

Feedback for Students with Learning Difficulties

The Finnish VET system has emphasized accessibility and individualized support, aiming to provide educational opportunities for all students, including those with learning difficulties. While the extent of inclusivity in practice varies, policies have aimed to promote equal participation (Siirilä & Laukia, 2021). However, the literature shows that significant challenges are hindering the implementation of inclusivity across institutions (Björk-Åman & Ström, 2022) such as variable support services, lack of training programmes for teachers specialized in LD students, and inconsistency in the implementation of feedback practices tailored explicitly to LD students (Karkkulainen et al., 2023). Inclusivity in Finnish VET

is rooted in a system that is competence-based and customer-oriented, aiming to provide both skilled labor for society and promote social inclusion (Björk-Åman & Ström, 2022; Rintala & Nokelainen, 2020). However, inclusivity alone cannot guarantee the effectiveness of feedback practices. Literature shows that the most effective method for LD students is the multimodal approach, where peers and virtual feedback are included besides the teacher's feedback (Karkkulainen et al., 2023). Studies on the feedback system in South Africa and China show that interactive and structured feedback approaches significantly improve learning engagement in VET institutions (Cao & Han, 2024; Mahlangu & Mtshali, 2024). The 2018 Finnish education reform aims to promote equitable access to quality education by introducing personalized learning pathways designed to cater to individual student needs, including those with LD. One key feature of this approach is the Personal Competence Development Plan (PCDP), which supports individualized progress monitoring (Björk-Åman & Ström, 2022; Seitamaa & Hakokoöngäs, 2024; Siirilä & Laukia, 2021). However, the extent to which this framework ensures equitable learning experiences for all students remains an ongoing area of discussion (Björk-Åman & Ström, 2022; Seitamaa & Hakokoöngäs, 2024; Siirilä & Laukia, 2021), as research shows LD students' challenges persist regarding access to individualized feedback and support (Karkkulainen et al., 2023). Even though the PCDP plan serves as the foundation for determining each student's necessary support and guidance, it fails to consistently translate into real-world implementation in the VET institutions (Syed & Jain, 2023). It is critical to address the unique needs of students with LD by offering them special or intensified, timely, personalized, and multimodal support and feedback when necessary (Rintala & Nokelainen, 2020; Jahnukainen & Itkonen, 2010). Empirical research from Malaysia highlights the effectiveness of multimodal feedback, including teacher and peer input, in enhancing educational outcomes for students with learning difficulties. Specifically, these feedback strategies have been shown to foster greater skill retention and boost learners' confidence within inclusive classroom environments (Maamin, Maat, & Iksan, 2021). In Saudi Arabia, recent studies underscore how digital pedagogies, particularly AI-supported feedback systems, contribute to improved academic engagement and individualized support for students with learning disabilities (Al-Motrif, 2025). Similarly, research by Mastam and Zaharudin (2024) emphasizes the transformative potential of digitalization in supporting students with disabilities, especially within STEM and technology education. While broader challenges persist in parts of sub-Saharan Africa, such as structural and pandemic-related learning barriers in inclusive education systems (Chirowamhangu, 2024), these global insights still provide valuable lessons for Finnish vocational education and training (VET) institutions that seek to adopt inclusive, technology-enhanced feedback models. In addition, findings from Uganda illustrate the institutional barriers present in vocational education and training (VET) systems. Arinaitwe et al. (2022) point out that weak collaboration between vocational teacher training institutions and workplaces hinders the development and implementation of inclusive educational practices, such as feedback mechanisms, vital for supporting diverse learners.

Furthermore, another effective approach emerging to improve the VET inclusivity plan is educational models based on deep learning. Students can access AI-assisted feedback through these models, which allows them to track their real-time progress, a model from which Finnish VET institutions can benefit. Finally, support and guidance for students with LD are essential for promoting inclusivity and ensuring that students can complete their studies and transition to the workforce (Rintala & Nokelainen, 2020). Research shows that implementing multimodal feedback systems can result in better student retention and improved learning (Cao & Han, 2024; Mahlangu & Mtshali, 2024). Integrating evidence-based internationally practiced feedback approaches can enhance inclusivity strategies in Finland's VET institutions.

Despite Finland's policy emphasis on inclusivity in VET, approximately 9% of students require exceptional support, with a significant majority (86%) enrolled in general education settings where they receive their support (Education Statistics Finland, 2023), reflecting an effort to assist within mainstream classrooms rather than through segregation. Even though individual needs are meant to be addressed through this exceptional support, its implementation raises questions about whether it is complementary or contradictory to the main objective of full inclusion (Björk-Åman and Ström, 2022). This inclusivity is reflected in the design of learning environments and resource availability, such as personalized learning plans and support services (Karttunen & Seppänen, 2021). In addition, research suggests that feedback practices in Finnish VET are not always adequately adapted to the needs of students with LD (Siirilä & Laukia, 2021). For example, Björk-Åman and Ström (2022) and Seitamaa and Hakokoöngäs (2024) highlight tensions in the operationalization of inclusiv-

ity, particularly between the structured nature of institutional support and the need for personalized, flexible guidance. They argue that while policies advocate for inclusiveness, the actual delivery of support and advice can vary, often constrained by institutional limitations such as time and resources. Although these structures are designed to support all students, there are concerns about their effectiveness, particularly for students with complex or diverse needs. Some staff members feel that the support structures, while comprehensive on paper, can falter in practice, leaving students without the necessary guidance.

This study defines "learning difficulties" as mild-to-moderate challenges in core academic areas, such as literacy and numeracy, identified through assessments that measure academic performance against standard benchmarks. Based on teacher evaluations and enrollment in VET programs offering special support, the participants were identified as having LD, rather than severe disabilities or medical conditions requiring intensive special care. In VET, these challenges significantly impact students' engagement with the curriculum, especially if feedback mechanisms are not adapted to their needs (Conway, 2016). Therefore, students with LD often require tailored instructional strategies and differentiated feedback to succeed in their vocational competencies.

Considering the increasing emphasis on student-centered learning and guidance in Finnish VET, which encourages students to play an active role in their learning (Obeng, 2019; Raudasoja et al., 2024), it is essential to understand how feedback can be optimized for students with LD. This study contributes to the emerging body of research by examining feedback practices in inclusive VET settings. It offers insights into how these practices can be enhanced to better support students with learning difficulties. Therefore, the primary aim of this study was to investigate how students with LD in Finnish VET institutions experience feedback and identify areas where feedback practices can be improved. Specifically, this study addressed the following research questions:

1. What feedback methods are used in Finnish VET for students with learning difficulties?
2. How do students with learning difficulties in Finnish VET perceive and experience the feedback they receive?
3. What improvements can be made in feedback practices to better support students with LD in inclusive VET environments?

METHODS

This study adopted a qualitative research design to explore the feedback experiences of students with LD in VET institutions. A qualitative approach was chosen to capture students' rich, in-depth perspectives, allowing for a nuanced understanding of how feedback is perceived and applied in inclusive VET settings (DeJonckheere & Vaughn, 2019). This qualitative method allows for in-depth exploration of participants' subjective experiences, which are often overlooked in quantitative approaches (Ryökkynen & Räty, 2022). The research design used a combination of focus group discussions (to explore interactions and shared perceptions) and individual interviews (to explore personal experiences) to gather data on how students with LD experienced feedback in inclusive VET settings. This dual-method strategy enriched the data by balancing individual depth and collective discussion (Opdenakker, 2006).

Participants

The study involved 49 students aged 17–35 years, all of whom were identified by their teachers based on their assessments as having LD and requiring tailored support in vocational studies. The participants were drawn from four VET institutions in Finland: two inclusive institutions where students with LD participate in general educational settings, and two special-needs VET schools that provide more intensive support. This combination allows for diverse samples representing different types of VET programs and levels of support. Table 1 provides an overview of the participants' vocational programs and phases of their studies.

The participants represented six different vocational programmes: social and healthcare, business administration, building and construction, logistics, electrical and electronics engineering, and catering and tourism. The selection criteria for participants were based on teacher assessments of students' LD, which included challenges in reading, writing, mathematics, memory retention difficulties, social and interactive skills, graphics drawing, and design skills that required additional support (Karkkulainen et al., 2023). The criteria ensured that the sample was representative of students with mild-to-moderate LD enrolled in inclusive and special-needs VET institutions.

All participants received tailored support in vocational studies, based on their learning difficulties. The broad range of vocational disciplines represented in the sample ensured that the study captured feedback experienc-

Table 1. **Overview of Participant Categorization**

Basic vocational programme	Specialization	No. of participants	Gender		Phase of study
			Female	Male	
Social and Health Care	Care for the Elderly	6	6	-	2nd and 3rd year
	Children and Youth Care	2	1	1	2nd and 3rd year
	Mental Health and Substance Abuse Welfare	1	1	-	3rd year
Building and Construction	Building and Construction	8	2	6	1st and 3rd year
Business Administration	Sales/Customer Service	10	6	4	2nd and 3rd year
	Office Administration	5	4	1	1st, 2nd, and 3rd year
Logistics	Forklift Operators	5	2	3	2nd year
Electrical and Electronics Engineering	Electrical Engineering	7	-	7	3rd year
Catering and Tourism	Chef	5	5	-	3rd year
	Total Participants	**49**	**27**	**22**	

es across various learning environments, from practical, hands-on fields (e.g., construction, catering) to more administrative fields (e.g., business administration).

Data Collection

Data were collected using semi-structured focus group discussions and individual face-to-face or online interviews, depending on participant preferences and logistical constraints. These are widely recognized methods for exploring collective and personal experiences and perspectives in qualitative research (Creswell & Poth, 2018). Open-ended questions allowed flexibility in responses, ensuring that participants could express their perspectives freely (Brinkmann & Kvale, 2015). This approach aligns with best practices in educational research, where qualitative interviews facilitate a deeper understanding of students' lived experiences and perceptions of feedback (Merriam & Tisdell, 2016; DeJonckheere & Vaughn, 2019).

The focus group discussions involved five focus groups of 21 students, with group sizes ranging from 4 to 5 students per group. The purpose of this variation was to ensure broad interaction and thorough discussions, and accommodate various comfort levels among the study participants. Focus groups were chosen to explore how students collectively discussed and interpreted feedback and how they understood and applied it. These discussions allowed for participant interactions, often eliciting insights that might not have emerged in individual interviews. Focus groups also provide a platform to understand how peer feedback operates in collaborative and practical settings. These sessions are beneficial for understanding peer feedback dynamics.

Individual interviews involved 28 students, whose participation was either face-to-face or online. Individual interviews allowed for a deeper exploration of personal experiences, particularly when discussing the sensitive or unique feedback challenges faced by students with LD. The semi-structured nature of the interviews provided flexibility, allowing participants to elaborate on their specific experiences through feedback.

The focus groups and individual interviews were guided by a semi-structured interview guide (see Appendix 1), developed based on prior research on feedback in educational settings (Hattie & Timperley, 2007; Wisniewski et al., 2019). The key topics covered in the interview guide included the following.

- Types of feedback received and sources of feedback.
- Clarity and usefulness of the feedback.
- Feedback preference and emotional responses to feedback (e.g., motivation and frustration).
- Impact of feedback on learning and skill development.
- Perceptions of feedback received from teachers and peers.

The flexibility of the semi-structured format allowed participants to elaborate on their experiences in their own words, offering nuanced insights into how they interpreted and responded to feedback.

Data Analysis

Data were analyzed using qualitative content analysis, starting with the transcription of interview recordings and adjustments to field notes. Following Kleinheksel et al. (2020), transcripts were read line by line to understand the responses to the research questions. This method identifies patterns and themes by using deductive and inductive coding. The deductive codes were based on interview guides and research questions, whereas inductive codes emerged from the data. Examples included "feedback methods" and "perceptions" (deductive), and "emotional impact" and "clarity of feedback" (inductive). NVivo software (version 1.7.1) facilitated the organization and management of qualitative data, ensuring consistent coding and easy retrieval. Units of meaning were identified, coded, labelled, and organized into coherent themes, resulting in three overarching themes that helped interpret the data patterns. Ultimately, three broad themes were identified through deductive and inductive thematic analysis, which reflect varying aspects of the experiences these students have with feedback. These included (i) the effectiveness of various methods for feedback such as virtual, face-to-face, and peer feedback; (ii) the emotional and cognitive response of students to feedback such as frustration and motivation; and (iii) students' concerns about feedback clarity, timeliness, and delivery, as well as their suggestions for improving feedback practices.

The themes were reviewed to ensure alignment with the coded extracts and dataset, resulting in a thematic map. They were subsequently defined and named through ongoing analysis, refining each theme and the overall dataset analysis. This process yields clear definitions and names for each theme. Finally, vivid and compelling interview extracts were analyzed in the context of the research questions and literature to derive the study's results.

Ethical Considerations

This study adhered to strict ethical guidelines to protect the rights and confidentiality of participants. Ethical approval was obtained from the relevant institutional review board. Participants received detailed information about the study's objectives and procedures, following established ethical guidelines for educational research (BERA, 2018; Creswell & Creswell, 2021). Written informed consent was obtained from all participants, with additional parental consent for minors (≥ 18 years old). To ensure anonymity and confidentiality, participant identifiers were removed, and pseudonyms were assigned, consistent with qualitative research ethics recommendations (Tracy, 2020).

RESULTS AND DISCUSSION

What Feedback Methods are Used in Finnish VET for Students with Learning Difficulties

The study's results identified several feedback methods used in Finnish VET institutions for students with learning difficulties (LD), each with varying degrees of effectiveness. These include the following.

Teachers' face-to-face feedback: This method involves providing feedback to the entire class after tasks, lessons, or classroom activities. Although efficient for the teacher, many students with LD felt that it often lacked specificity and personalization and thus had limitations. Many participants expressed that group feedback did not provide sufficient specific guidance tailored to individual needs. The effectiveness of this method also varied between theoretical and practical settings, as expressed in respondent 4's statement.

> *"In practical tasks like cooking, we get feedback right away from teachers and peers, but in theory classes, the feedback comes later, which is less helpful." (R4)*

> *"When the teacher talks to the whole class, it's hard to know if I'm doing things right or wrong personally." (R14)*

Similar challenges have been noted in other education systems. Studies in the United Kingdom and Australia emphasize the limitations of whole-class feedback for students with LD, as it often lacks individualization and does not address specific learning needs (Henderson et al., 2019). Research in Germany and Canada further suggests that group feedback is most effective in practical, hands-on learning environments, where students can immediately apply corrections (Schön & Ebner, 2020). These parallels highlight the widespread need for more tailored, adaptive feedback methods across VET systems internationally.

Teachers' Individual Face-to-Face Feedback: This method involved one-on-one sessions between the teachers and students. This is considered the most authoritative and valuable form of feedback, with teachers as the primary source of formative and summative feedback,

guiding students in their academic and practical performance. Many participants found one-on-one feedback sessions with their teachers to be the most effective method. This form of feedback allowed students to receive specific, detailed, and actionable insights directly related to their performance, which helped them understand where improvements were needed. This was particularly true for tasks requiring precision or complex problem-solving.

> *"Sometimes it takes too long to get feedback when it's online, and I don't understand it as well." (R9)*
> *"When I have a one-on-one discussion with my teacher, I get more detailed feedback, and it's easier to understand what I need to improve." (R8)*
> *"When I sit with my teacher alone, I get feedback that's directly about me, not just everyone." (R16)*

The importance of personalized, direct feedback for students with LD is well-documented in international research. The Universal Design for Learning (UDL) framework in the United States emphasizes customized, multimodal feedback to accommodate students with diverse cognitive challenges (CAST, 2021). Similarly, studies in Finland, Sweden, and the Netherlands advocate for one-on-one feedback as a best practice in vocational and special education, particularly for students who struggle with reading comprehension and working memory difficulties (Karttunen & Seppänen, 2021). These findings reinforce that personalized feedback is crucial in Finland and VET and inclusive education systems worldwide.

Teachers' virtual feedback: Due to the increased use of digital learning platforms during the COVID-19 pandemic, many students received virtual feedback through e-learning and email. Students considered virtual feedback convenient and easily accessible since it allowed them to revisit the teacher's comments at any time as they pleased. For some students, written feedback was constructive, allowing them to reflect and revise at their own pace. However, the delivery of virtual feedback determines its effectiveness. To better understand virtual feedback's maximum potential and impact, students' perceptions of it and their experiences with it must be carefully examined. Peer Feedback: Peer feedback also falls into the category of face-to-face feedback, especially in practical tasks, such as construction or catering. It is described as immediate and task-specific, providing real-time corrections and advice during collaborative projects. Peer feedback is frequently used in practical, hands-on settings such as construction or catering tasks. Students appreciated the immediacy and relevance of peer feedback, which mainly occurred during collaborative tasks, and allowed for quick corrections during tasks. This feedback form was generally viewed positively as it was timely and focused on specific task-related improvements. Many students found peer feedback motivating because it was often delivered in a friendly and supportive manner.

> *"When we work together, my classmates give me tips, and it helps me fix things right away." (R4)*
> *"When I'm cooking with my classmates, they tell me if I've done something wrong straight away. It helps a lot." (R4)*
> *"My classmates help me fix things quickly, but it's not as thorough as what I get from my teacher." (R5)*

The role of peer feedback in vocational education is widely recognized in international research. Immediate peer feedback is particularly beneficial in apprenticeship-based learning, where students work in authentic, real-world settings. In such environments, quick corrections allow students to refine their skills in real time, reinforcing learning through direct application. This is especially valuable in vocational training, where hands-on experience is central to skill development. Similarly, research in the UK and Australia suggests that peer feedback enhances engagement and self-regulation, allowing students an active role in their learning (Henderson et al., 2019). However, these studies also highlight that the quality of peer feedback depends on the training and experience of the students providing it.

How Do Students with Learning Difficulties Perceive and Experience the Feedback They Receive?

Students' feedback perceptions varied depending on their method and source, timeliness, clarity, constructiveness, and alignment with their learning challenges. Feedback that was timely and specific was generally well received, whereas feedback that was delayed, unclear, or overly critical was seen as less effective. Feedback was categorized as either positive or negative, based on its impact on students' motivation and ability to improve their skills.

Positive Perceptions: Students who received timely, personalized feedback from their teachers reported feeling motivated and better equipped to improve their skills. The one-on-one feedback sessions were particularly appreciated because they provided specific actionable insights. For students with learning difficulties (LD), verbal one-on-one feedback was especially beneficial, as they often struggled to process written feedback due to reading comprehension and working memory challenges. This preference aligns with research suggesting that multimodal feedback (a combination of verbal, visual,

and written elements) enhances understanding for students with LD and other cognitive challenges (Henderson et al., 2019).

> *"When my teacher gives me feedback that's clear and right after a task, I understand what I need to do better." (R11)*
>
> *"When the feedback is written, it's harder for me to understand because reading is difficult for me, but when the teacher tells me directly, it's clearer." (R9)*

The preference for immediate, personalized feedback among students with LD is supported by research in the United States and the United Kingdom, where studies emphasize that real-time verbal feedback is more effective than written-only feedback for students with dyslexia and other learning challenges (CAST, 2021). Similarly, in Scandinavian VET systems, structured verbal feedback has been shown to improve student engagement and skill retention (Karttunen & Seppänen, 2021). The findings suggest that vocational educators worldwide should prioritize real-time, interactive feedback methods to ensure students with LD can effectively process and act on feedback.

Negative Perceptions: Many students expressed frustration when the feedback was delayed, too general, or overly critical. Delayed feedback often causes students to forget the context of a task, making it harder for them to apply guidance effectively. This was particularly problematic in tasks that required immediate correction, such as practical work. Virtual feedback has been particularly criticized for lacking immediacy and real-time interaction with face-to-face feedback. While teacher virtual feedback was often seen as convenient, students noted delays in receiving it and a lack of real-time interaction. These factors reduce the usefulness of virtual feedback, particularly when immediate guidance is required for practical correction. Therefore, some students found virtual feedback to be less effective than face-to-face feedback, citing a lack of clarity and delayed responses. Previous studies have indicated that a lack of immediacy and interactivity poses a real problem and aligns with research suggesting that asynchronous feedback often falls short in distance learning environments, particularly for students with additional learning needs, as also observed in distance learning environments internationally (Indrawati, 2021; Henderson et al., 2019). In vocational and special education settings, students often struggle with understanding written-only feedback, particularly when they do not have opportunities for real-time clarification. This challenge is especially pronounced in practical, hands-on learning, where immediate guidance is needed to correct mistakes and reinforce skills effectively. The Universal Design for Learning (UDL) framework in the United States emphasizes multimodal feedback approaches, incorporating audio, video, and real-time discussions to enhance feedback accessibility for students with cognitive challenges (CAST, 2021).

> *"The feedback I get online is useful, but sometimes it takes too long, and I forget what I was supposed to fix." (R22)*
>
> *"Sometimes it takes too long to get feedback when it's online, and I don't understand it as well." (R9) "Sometimes I don't understand the feedback I get online, and it comes too late to make a difference." (R9)*
>
> *"Sometimes the feedback comes too late, and by then, I've already forgotten what I did wrong. It's not helpful anymore." (R27)*

Feedback timing was consistently highlighted as a critical factor in its effectiveness. Timely, actionable feedback is crucial for students who benefit from immediate corrections, allowing them to apply feedback before they forget the task. This supports the broader literature on the importance of feedback immediacy (Hattie & Timperley, 2007). Practical tasks require immediate feedback to allow real-time adjustments, reinforcing learning (Wisniewski et al., 2019).

Similarly, feedback that lacked clarity or was too vague made it difficult for students who required more explicit guidance to understand what they needed to improve:

> *"Sometimes I just don't get what the feedback means, and I don't know how to fix my mistakes." (R27)*

Feedback that lacks clarity can exacerbate learning difficulties. Students with LD, especially those with reading challenges, often struggle with written feedback and find it challenging to interpret vague or generalized comments. Verbal feedback is preferred because it provides more direct and comprehensible instruction (Conway, 2016). This suggests that multimodal feedback, a combination of verbal and written feedback, may help bridge the gap for students with LD who experience difficulty processing only one form of feedback.

In the case of peer feedback, although it provided immediate and task-specific guidance, it was not as detailed or structured as teacher feedback, which is a notable limitation. In addition, although it is more frequent in collaborative tasks, it could vary greatly depending on the peer's level of knowledge. The lack of depth in peer feedback suggests that it should be supplemented with structured

teacher feedback to ensure that students with LD receive more detailed and corrective insights (Turner & Baker, 2017). This highlights the need for both speed (through peer feedback) and content depth (through teacher feedback), particularly in practical learning contexts.

> *"My classmates help me fix things quickly, but it's not as thorough as what I get from my teacher." (R5)*
> *"My friends help me, but it's not always as detailed as what I get from the teacher." (R15)*

A key limitation of peer feedback was that its quality and reliability varied depending on the peer's level of knowledge. While frequent in collaborative tasks, it was not always consistent or systematically structured. This highlights the need for speed and depth in feedback, where peer feedback provides immediacy, but teacher feedback ensures comprehensive guidance. Studies suggest supplementing peer feedback with structured teacher feedback can improve effectiveness, particularly for students with learning difficulties (LD) who require more detailed and corrective insights (Turner & Baker, 2017).

The challenges identified in this study reflect wider international concerns about feedback accessibility for students with LD. Research in the United Kingdom and Australia has found that students with reading difficulties often struggle with unclear feedback, reinforcing the need for explicit, structured guidance (Henderson et al., 2019). Similarly, Universal Design for Learning (UDL) frameworks in the United States emphasize the importance of customized, multimodal feedback approaches to accommodate diverse learning needs (CAST, 2021). The findings suggest that VET institutions should effectively consider integrating real-time, structured feedback models to enhance clarity and support students with learning difficulties.

Emotional Responses: The students were susceptible to how the feedback was delivered. Therefore, the emotional impact of feedback also played a significant role in how students interpreted and responded to feedback. Overly critical feedback discouraged students, particularly those sensitive to negative evaluations.

> *"When the feedback is too harsh, it makes me feel like I'm not doing well, even when I've tried hard." (R19)*

They reported feeling more motivated when the feedback was supportive and encouraging rather than overly critical. Previous research has shown that positive reinforcement helps to build student resilience, especially when coupled with constructive criticism (Adie et al., 2018). Therefore, teachers should be trained to provide balanced feedback that highlights strengths and improvement areas to maintain student motivation and confidence. The emotional effects of feedback on students with LD are widely recognized in international research. Studies in the United States and Canada emphasize that students with LD are more likely to experience feedback anxiety, particularly when feedback is negative or unclear (CAST, 2021). In the UK and Australia, research highlights that feedback framed in a growth-oriented manner fosters higher self-efficacy and engagement among students with special educational needs (Henderson et al., 2019). The findings suggest that VET institutions worldwide should implement teacher training programs on feedback delivery, ensuring that feedback practices are both constructive and emotionally supportive, particularly for students with learning difficulties.

The following table (Table 2) summarizes the main findings from the two main results sections, detailing the characteristics of each feedback method along with students' positive and negative perceptions.

It was observed that group feedback demonstrates efficiency in addressing common issues but lacks individualized attention. Individual face-to-face feedback offers

Table 2. **Summary and key characteristics of feedback methods and student perceptions.**

Feedback Method	Characteristics	Positive Perceptions	Negative Perceptions
Group face-to-face feedback	Generally, delivered to the whole class	Covers common issues efficiently	Lacks personalization; vague for individual improvement
Individual face-to-face feedback	One-on-one, specific guidance	Personalized, detailed, and actionable	Requires scheduling; limited availability
Virtual feedback	Delivered through e-learning platforms, often written	Convenient, accessible at any time, and supports independent review	Delayed, lacks real-time clarification, and is less interactive
Peer Feedback	Spontaneous, face-to-face specific guidance	Timely, detailed, actionable, and task-specific.	May lack depth and structure.

tailored, actionable guidance but requires a greater time investment. Virtual feedback provides flexibility and accessibility, albeit potentially reducing immediacy and interactivity. Peer feedback is characterized by timeliness and task specificity, although it may be time-intensive and lack depth. Each approach has distinct strengths and challenges that influence its overall efficacy.

What Improvements Can Be Made to Feedback Practices to Better Support Students with Learning Difficulties in Inclusive VET Environments?

The study's results also gathered students' insights on how feedback practices could be improved to meet their needs better. Their responses led to the following conclusions:

Personalization and Clarity: The Consistent requests from students were for more personalized face-to-face feedback. They felt feedback should be specific to their individual learning challenges rather than generalized for the whole class. Additionally, they emphasized the importance of clear, concise feedback that provides actionable steps for improvement.

> *"I wish feedback would always be about what I need to fix, and not just general comments." (R8)*

This emphasizes the assertion that feedback must be tailored to the individual needs of each student, particularly those with LD, as generalized feedback often fails to address specific challenges. Personalized feedback ensures that students receive guidance relevant to their learning difficulties, allowing them to make targeted improvements (Conway, 2016).

Timeliness: Another critical factor is the timeliness of feedback. Students expressed a strong preference for receiving feedback shortly after completing tasks, as it allowed them to make immediate corrections and learn from their mistakes in real time:

> *"The faster I get feedback, the faster I can fix my mistakes." (R12)*

Providing immediate feedback, particularly in practical tasks, allows students to make real-time corrections and reinforces learning. Real-time feedback mechanisms, such as live chats or instant messaging tools, can be integrated into virtual platforms to enhance feedback immediacy (Hattie & Timperley, 2007).

The importance of timely feedback is widely recognized across international education systems. Research in Scandinavian and German VET models highlights the role of structured, real-time feedback loops in enhancing student skill development (Karttunen & Seppänen, 2021). Similarly, studies in the United Kingdom and Canada emphasize that interactive digital tools, such as peer-assisted feedback and AI-based feedback systems, can significantly reduce response time and increase student engagement (Henderson et al., 2019).

Improving Teacher Virtual Feedback: Although virtual feedback was considered convenient during the pandemic, it was not favored for regular use. VET institutions should focus on making virtual feedback more interactive, perhaps by incorporating live chat options or video follow-ups to clarify written feedback (Adie et al., 2018). Similarly, many reported that virtual feedback limited their ability to ask follow-up questions, making it less effective than in-person feedback. Students recommended more real-time virtual interactions, such as quick video calls, to clarify the written feedback. Other suggestions included shorter response times and more interactive features, such as follow-up discussions or the option to ask clarifying questions online.

> *"It would help if we could have quick follow-up video calls to clarify feedback when it's online, instead of waiting until the next class." (R20)*

To improve the effectiveness of virtual feedback, VET institutions should explore options to make it more interactive and responsive. Research on digital feedback in vocational education suggests that incorporating real-time video feedback sessions, online discussion forums, and AI-powered feedback tools can significantly improve student engagement (Indrawati, 2021). Several global case studies illustrate how these innovations are already being implemented. For instance, VET institutions in Singapore utilize AI-based feedback systems, allowing students access to preliminary, instant, automated responses before the instructor's review (Indrawati, 2021). Vocational institutions can use AI-driven feedback tools that analyze student work and provide instant, personalized feedback. AI-powered assessment tools in vocational nursing programs can help students identify skill gaps and receive real-time feedback (Ejjami, 2024). This would reduce teacher workload while ensuring timely, targeted guidance. Teachers can use recorded video feedback to provide personalized explanations, especially for students who struggle with written-only feedback. Instructors could also use screencasting tools (e.g., Loom, Screencast-O-Matic) to record verbal feedback while highlighting student work on screen (Bahula & Kay, 2022). This can help students with LD process feedback more effectively. Some online learning platforms (e.g., Peergrade, Turnitin Feedback Studio) would allow real-time stu-

dent-to-student feedback with guided teacher moderation. In apprenticeships, structured peer review systems would improve engagement and learning accountability (Wihastyanang et al., 2020). This would enhance interaction while ensuring timely feedback in digital settings. Canadian VET programs use virtual reality (VR) simulations, enabling students to engage with instructors and peers in real time to receive feedback and improve skill acquisition (Jahnukainen et al., 2023). VET programs in Australia incorporated real-time video feedback for live guidance of students so that they can get answers to their follow-up questions, allowing them to get over one of the essential flaws of asynchronous virtual feedback systems (Björk-Åman & Ström, 2022). Finnish VET institutions can benefit from integrating such technologically advanced and interactive feedback systems to improve the students' learning experience.

Balanced Feedback: Students with LD emphasized the importance of receiving balanced feedback, where strengths and improvement areas were highlighted. They noted that feedback that focused solely on mistakes could be demotivating.

> *"I need to hear what I'm doing right, too, not just what's wrong." (R23)*

The importance of balanced feedback is widely recognized in international education systems. Studies in the United States and Canada show that strength-based feedback models improve student self-efficacy and resilience, particularly for students with LD (CAST, 2021). Similarly, UK and Australia research highlights that feedback incorporating encouragement and constructive guidance fosters higher engagement and academic persistence (Henderson et al., 2019). Providing balanced feedback highlighting strengths and improvement areas is essential for fostering student engagement and motivation. This aligns with research on growth-oriented feedback, which suggests that focusing on student success, in addition to areas of improvement, encourages persistence and a positive attitude toward learning (Adie et al., 2018).

CONCLUSIONS

This study explored how students with learning difficulties in Finnish vocational education and training perceive and experience feedback. The findings highlight the critical role of personalized, timely, and precise feedback in supporting student learning, particularly in inclusive Finnish VET settings. The study also identified key challenges in current feedback practices, especially regarding group and virtual feedback timeliness and clarity.

This study found that individual face-to-face feedback is the most effective method for students with LD. This feedback allowed students to receive specific and detailed guidance, which helped them understand how to improve their performance. Students valued the opportunity to ask follow-up questions in a one-on-one setting, which enhanced their comprehension and confidence.

While peer feedback was generally more informal, it played an important role in practical, hands-on tasks such as construction and catering. Students appreciated the immediacy of peer feedback, which allowed real-time corrections during collaborative activities. However, peer feedback alone was insufficient and needed to be supplemented by structured teacher feedback.

The increased use of virtual feedback during the COVID-19 pandemic has posed several challenges. Students reported that virtual feedback lacked immediacy and interaction and often arrived too late to be actionable. This suggests that, while virtual feedback can be helpful, it should not replace face-to-face feedback, particularly for students who require more direct support. However, group feedback is perceived as less effective because of the lack of personalization. Too general or unclear feedback often leads to confusion and frustration among students with LD, thus reinforcing the need for a tailored feedback mechanism.

Timeliness is a recurring theme in all feedback methods. Feedback that is delayed or provided long after a task is completed is perceived as less effective, particularly for students with LD who benefit from immediate guidance.

While the focus of this study was on Finnish VET institutions, the findings it generated can impact vocational education systems across the globe. Adopting structured feedback systems in countries such as Germany, Australia, the US, and the UK to provide special assistance to students with LD showcases the globally recognized significance of personalized feedback mechanisms. Various countries have devised inclusive policies to implement in the education sector, but they face multiple challenges when it comes to adapting feedback practices among diverse learners. Based on available research, individualized, specific feedback shared promptly proves to be critical for students with LD, irrespective of the educational context. For example, German and Australian policies for vocational education for students with LD emphasized a structured feedback mechanism to cater to individu-

al needs, similar to Finland's approach. US- and UK-based studies focus on multimodal feedback strategies, combining virtual and face-to-face options for enhanced accessibility. The internationally accepted best practices can help Finnish VET institutions improve their feedback strategies to align with the global trends of inclusive education.

Recommendations for Practice

Based on these findings, several recommendations can be made to improve feedback practices in inclusive VET settings.

VET teachers should receive professional development to deliver constructive and supportive feedback. Training should focus on breaking down feedback into manageable steps for students with LD and balancing criticism with positive reinforcement to maintain student motivation. Additionally, they should focus on providing individual face-to-face feedback whenever possible, as this allows for detailed, personalized guidance tailored to each student's learning needs. This type of feedback is particularly valuable for students with LD, as it offers clarity and opportunities for follow-up discussions.

Peer feedback should be encouraged in collaborative hands-on tasks (in practical settings) as it provides immediate, task-specific guidance. However, it should be structured and supplemented by teacher feedback to ensure that it is sufficiently detailed and comprehensive. This would enhance the collaborative nature of vocational tasks while ensuring that students receive the depth of feedback needed to make meaningful improvements.

VET institutions should leverage technology to provide interactive virtual feedback. Teachers should ensure they are well-structured and provide specific, actionable guidance when virtual feedback is necessary. Efforts should also be made to minimize delays in virtual feedback and ensure that it remains relevant and valuable to students. Real-time feedback tools, such as instant messaging or video feedback, can help overcome the limitations of asynchronous virtual feedback by allowing students to seek immediate clarification. This would enable students to reflect on their performance while the task was still fresh in their minds and enable them to make immediate corrections.

LIMITATIONS

Although this study provides valuable insights into the feedback experiences of students with LD in Finnish VET, several limitations should be noted.

Firstly, the study was conducted at four VET institutions in Finland. While the sample included students from various vocational programs, the findings may not be generalizable to all VET institutions or students with LD in other countries. Future research could explore feedback practices and experiences in a broader range of VET contexts, including different vocational fields within and beyond Finland, to provide a more comprehensive understanding of how feedback practices vary across contexts and can be optimized for students with LD.

Secondly, a significant portion of the feedback discussed in this study was delivered virtually due to the COVID-19 pandemic. Although this study provides important insights into virtual feedback practices, its findings may not fully reflect how feedback operates under normal conditions. In addition, challenges with virtual feedback may be amplified by the unique conditions of remote learning. Future studies could investigate how virtual and face-to-face feedback compare with external pandemic-related disruptions and offer insights into how these methods complement each other. Future studies should also explore how technology can be leveraged to improve feedback effectiveness, particularly among students with LD.

Thirdly, the study utilized focus group discussions and individual interviews, providing rich qualitative data. However, the differences in these methods may have influenced how the students expressed their feedback experiences. Some students may have experienced more comfort sharing in group settings, whereas others may have felt more open to individual interviews. Future research could explore how different data collection methods impact data gathered from students with LD.

Fourth, as in any qualitative study, the responses provided by students may reflect their individual experiences and emotional states at the time of the interviews. Future studies should incorporate longitudinal designs to assess how perceptions of feedback evolve, particularly as students progress through vocational training. This study also provided valuable insights into how feedback influences long-term learning outcomes.

Additionally, this study focused primarily on the students' perspectives. Future studies could explore teachers' perspectives on providing feedback to students with LD, examining the challenges educators face in delivering feedback that meets their students' diverse needs.

Despite these limitations, this study contributes significantly to the literature on feedback in vocational education, particularly for students with LD. This highlights the need for inclusive feedback practices sensitive to students' diverse needs and tailored to their specific learning challenges. These findings offer practical recommendations for educators by emphasizing the im-

portance of individualized feedback and the potential of peer-supported learning to foster a positive feedback culture in VET institutions. Future research ought to explore technology-driven and innovative feedback strategies that can help enhance inclusivity and accessibility in VET education.

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