

Occupational Health and Safety of High School Dual-Training Students: School Principals' Perceptions of Their Role

^{1,2}Myriam Bérubé, ^{1,2}Nadielda Pastor-Bédard, ³Céline Chatigny,
²Auréli Tondoux, & ^{1,2}Marie Laberge
University of Montreal¹, Sainte-Justine UHC Research Center²,
Université du Québec à Montréal³

Abstract

Dual-training programs aim to develop students' employability while enabling them to continue their education. These programs are often offered to adolescents experiencing educational challenges. They are particularly vulnerable to occupational health and safety (OHS) risks due to learning difficulties and the predominantly manual nature of the trades involved. While various stakeholders support students in acquiring OHS skills, the role of school administrations in OHS prevention is less understood. This article explores high school principals' perceptions of OHS management in dual programs for students with limited formal education. Through a thematic analysis of 17 interviews with principals, this exploratory study identifies four central themes reflecting their approach to OHS: (a) general roles self-reported by principals, (b) student placement in traineeships, (c) supervision of traineeships, and (d) allocation of OHS responsibilities. Findings reveal that while principals approve of OHS initiatives, they primarily depend on teaching staff to handle day-to-day safety activities. Principals' roles in that matter are largely supportive and informational. Comprehensive OHS training for all program participants, including principals, appears essential for encouraging a proactive approach across all levels.

Keywords: Occupational health and safety, work organization, school management, dual-training program, traineeship

Introduction

Many high school students with disabilities are directed towards dual-training programs to promote and develop their employability skills (Rooney-Kron & Dymond, 2022; Test et al., 2009). One of the learning challenges is the development of occupational health and safety (OHS) skills. OHS prevention and education are crucial for this population, as young, less qualified workers with learning disabilities often find themselves in employment situations with risks of injuries during and after their education (Breslin et al., 2018; Laberge et al., 2016; Laberge & Ledoux, 2011; Turner et al., 2022; Zierold et al., 2011). These programs have been deemed effective in reducing chronic work disability among this population (Mazzotti et al., 2014; Test et al., 2009). Different partnership configurations exist between schools and employers, involving multiple stakeholders with varying responsibilities depending on school administration.

This study focuses on the role of high school principals in implementing dual-training programs, with a specific focus on administrative practices related to OHS prevention and training. Principals in

institutions offering these programs are responsible for establishing an organizational structure that supports both students and teachers in fulfilling OHS-related tasks. However, despite legal obligations and governmental resources allocated to educational institutions, it remains unclear what principals understand of their roles and responsibilities in OHS or how they effectively establish conditions that support student health in the workplace.

Literature Overview

To date, few texts provide data on principal's role and responsibilities within dual-training programs. Some studies in educational management focus on the impacts of administration on various educational outcomes, such as student success or professional development of teachers (Petrides et al., 2014; Robinson et al., 2007). Others investigate the influence school principals may have on promoting health in the institution, unrelated to OHS or vocational training (Dadaczynski & Paulus, 2015; Yilmaz, 2022).

Studies by Andersson et al. (2015) and Chatigny et al. (2012) involved principals of vocational training centers. These programs provided training for specific trades and did not necessarily target students with disabilities. These studies reported that principals delegate most OHS responsibilities to teachers (Andersson et al., 2015). However, teachers reported being inadequately trained specifically for these tasks, lacking support from their administration, and receiving largely insufficient resources (Chatigny et al., 2012). Although these results are interesting, they are not directly transferable to the context of high school dual-training programs targeting students with learning difficulties. These youth require adapted training practices due to communication challenges and age-related factors.

Furthermore, the roles and responsibilities of school principals are broadly defined and vary depending on the school context. They may include communicating with students, parents, or external organizations; managing behavioral issues; ensuring quality of services; teaching; managing personnel and resources; advising students; developing schedules and completing administrative documents; handling emergencies; ensuring the professional development of teaching staff; and more (Oleszewski et al., 2012). A recent literature review emphasized that school principals face numerous challenges due to these multiple tasks, such as implementing ministerial programs while meeting various demands from different stakeholders, including families and teachers. This leads to school principals' work intensification (Pollock et al., 2023). The lack of resources also appears to be a determinant of the increased complexity of the administrative role (Tintoré et al., 2022).

Principals can adopt different management approaches regarding OHS. In the Canadian province of Quebec, the Work Safety Board in charge of the administration of the OHS legislation, called the Commission des normes, de l'équité et de la santé et sécurité du travail (CNESST, 2016)—which translates to norms, equity, and OHS—has proposed a framework categorizing OHS management practices within educational institutions. This framework outlines levels of management based on observable elements such as the actions implemented, the resources available, the organization of work, and the involvement of actors. These levels represent a progression from minimal engagement, when nothing is done unless obligated, to fully integrated preventive strategies.

Context of the Study

This study examines Quebec's "Work-Oriented Training Path" (WOTP), a dual-training program designed for secondary students facing significant learning challenges. Intended for youth aged 15 to 21 who are more than two years behind in school, the WOTP combines part-time traineeships in one of 135 semiskilled trades recognized by the Quebec Ministry of Education. These trades, such as assistant cook and merchandise clerk, are characterized by roles in which "employees perform concrete, repetitive and simple tasks in accordance with a pre-established sequence" (Quebec Ministry of Education, 2024).

In this study, a "placement" refers to the action of finding supervised and structured traineeships for students, arranged within the WOTP program. These traineeships provide students with hands-on work experience, allowing them to develop practical skills and prepare them for employment opportunities. The program offers two distinct training options: the three-year "Prework training" (PWT) track, tailored for students with severe educational difficulties, and the "Training for a semiskilled trade" (TST)

track, a one-year certification pathway focusing on developing skills within a specific trade ¹.

Within the WOTP, trainees are legally recognized as students, with the responsibility for liability insurance in the event of an injury assigned to the school. Supervision is provided by both a teacher and a workplace supervisor, each playing essential roles. Teachers manage traineeships and placements, conduct weekly check-ins, and oversee evaluations for certification in semi-skilled trades (Laberge et al., 2017a, 2017b). They also initiate educational activities on OHS, a field focused on ensuring safe and healthy working conditions, and collaborate with companies to create a safe learning environment (Laberge et al., 2017a). Workplace supervisors support students' training, including workstation safety and trade-specific OHS. Recruiting companies that are committed to maintaining strong OHS standards is critical for both the safety and success of students (Laberge et al., 2017a). Gender identity, combined with the prevalence of traditionally gendered work environments in the trades, adds further complexity to these negotiations, particularly in relation to OHS (Laberge et al., 2017b). Ultimately, it is the legal responsibility of school principals to ensure that learning environments are safe and healthy, in line with the institution's obligations. Given that this responsibility is frequently facilitated by teaching and support staff, principals' efforts in supporting teachers significantly influence the overall OHS management (Bérubé et al., 2022). This study is part of an action-research study to develop a multilevel OHS prevention program tailored to the WOTP enhanced by digital tools. The initiative primarily involved teachers, with certain aspects also engaging students, employers, pedagogical counselors, and principals. This article, focused on the needs assessment stage, examines school principals' perceptions, roles, and understanding of OHS within the WOTP.

Research Questions

The work of school principals can significantly influence the OHS practices within their schools, as they theoretically possess control over the determinants of the work environment, whether through resource allocation or by establishing requirements. However, principals themselves operate within a complex work situation that necessitates balancing resources and constraints imposed by the Ministry, as well as the needs of teachers and students (Tintoré et al., 2022). In this context, this study aims to answer two key questions:

- 1. How do school principals influence the OHS capabilities of their staff and students?**

This question seeks to understand the ways in which principals shape the abilities and resources available to staff and students for engaging in safe practices and training.

- 2. What resources or factors enable or limit principals' actions for effective OHS management in dual-training programs?**

Here, we examine the types of resources—such as budget, training programs, and administrative support—that either support or constrain principals in implementing effective OHS practices.

Methods

Theoretical Framework and Design

This study employs a qualitative exploratory design, drawing on phenomenological interpretative methods to capture the lived experiences and perceptions of school principals regarding OHS (Debout, 2012; LeVasseur, 2003). The theoretical framework guiding this research is grounded in activity-centered approaches from francophone-rooted ergonomics, specifically those of St-Vincent et al. (2011) and Guérin et al. (2021). These frameworks emphasize how the organization and environment of a workplace either support or limit an individual's ability to achieve their work goals. In the context of school administration, this approach highlights how principals' efforts to promote student health and safety are shaped by organizational factors, such as academic policies and budget limitations.

To further explore how principals' roles in OHS are supported or constrained, we integrate Amartya Sen's capability theory (2010). Sen's theory focuses on expanding individuals' "real opportunities" or capabilities to achieve valued goals, a perspective that is particularly useful for understanding the en-

¹ For more information: Work-Oriented Training Path | Ministry of Education and Ministry of Higher Education. <https://www.education.gouv.qc.ca/en/contenus-communs/school-administrators-public-and-private-schools/work-oriented-training-path/>. Accessed July 14, 2023 <http://www.education.gouv.qc.ca/index.php?id=33667&L=5>.

abling conditions needed for principals to act effectively in OHS management. For example, a principal's focus on student health may be shaped by factors like their autonomy within school policies, their level of training in OHS, and the resources they can access. While legal requirements mandate that school principals prioritize prevention, limited expertise and resources might hinder their ability to fully meet these obligations.

According to the capability theory, for principals to adjust effectively to the constraints of their work environment, certain “conversion factors” must be present. These factors enable principals to transform both internal resources—such as knowledge, experience, and skills—and external resources—such as administrative support and funding—into effective actions that enhance school safety practices (Falzon, 2013; Oudet, 2012). This theoretical lens allows us to examine the ways in which principals can be empowered to fulfill their OHS responsibilities more effectively.

To illustrate how OHS responsibilities are managed, this study incorporates the CNESST framework for OHS management, partially outlined earlier. This framework allows for the categorization of participants' engagement levels with OHS based on observable elements such as actions implemented, available resources, work organization, and actors' involvement. It delineates four distinct levels of OHS management within educational institutions:

- Focused on routine activities - No prevention unless obligated;
- Reactive - Prevention considered post-accident, informal reactions;
- Proactive - Initiating written measures for control and long-term maintenance;
- Preventive - Prevention integrated into the organization's functioning.

The minimum effective level, according to the CNESST (2021), is proactive management.

This study adopts a theoretical approach that integrates three complementary frameworks from distinct disciplines: the activity-centered approach to address occupational health concerns, capability theory to explore possibilities for strengthening OHS prevention, and the CNESST framework to examine managerial practices in OHS management.

Data Sources

Data were collected from two sources between December 2019 and March 2020. First, the team conducted in-depth semi-structured interviews lasting one hour with four principals from the two School Service Centers (SSCs) involved in the action-research (hereafter “partner principals”). Second, shorter telephone interviews were conducted with 13 principals from SSCs in Quebec who were not partners in the action-research (hereafter “external principals”). This additional data collection aimed to broaden the scope of the results, providing more representative data.

Recruitment and Sampling

With the assistance of educational consultants, four partner principals (PPs) were invited based on the following criteria: representing different school contexts, two principals for each of the two partnering SSCs, and gender parity representation considering the known gender dynamics in the WOTP (Labege et al., 2017b). All four agreed to participate.

To recruit external principals (EPs), an email was sent to their schools using a purposive sampling method, aiming to gain insight into various geographical areas. The risk of injuries among vocational training students varies depending on the socioeconomic status of their school; disadvantaged schools generally report more serious injuries (Apostolico & Shendell, 2016). At least one school in each administrative region was contacted. Schools offering both paths were preferred to gather information on diverse teaching contexts. In the end, 13 EPs from 11 different regions (two-thirds of the regions) and working in urban and rural areas accepted the invitation.

In addition to gender identity and regional classification, Table 1 reports points that could influence the perspectives of the principals, namely experience and program size (Tamadoni et al., 2024; Vaccaro et al., 2012). The respondents (12 women and 5 men) have between 6 months and 5.5 years of experience as principals in the WOTP. The WOTP in their schools employs between one and 18 teachers.

Table 1
Participant Profiles

Participant*	Gender identity**	Experience as a WOTP principal***	Number of teachers in the WOTP****	Type of region (rural, urban) ² *****
PPA	W	I	L	U
PPB	M	I	M	U
PPC	M	B	M	U
PPD	W	B	S	U
EP1	W	E	S	U
EP2	W	I	M	U
EP3	W	E	S	U
EP4	W	I	S	R
EP5	M	B	S	R
EP6	W	B	L	U
EP7	W	E	S	U
EP8	M	E	L	U
EP9	W	B	L	U
EP10	W	B	M	U
EP11	W	E	M	U
EP12	W	I	S	R
EP13	M	B	M	R

* PP: Partner principals | EP: External principals

** W = Woman | M = Man (selfreported)

*** Beginner (B) = 1 year and less | Intermediate (I) = between 1 and 3 years | Experienced (E) = 3 years and more

**** Small (S) = up to 5 students | Medium (M) = from 6 to 10 students | Large (L) = 11 student and more

***** R = Rural | U = Urban

Development of Interview Guides

Two semi-structured interview guides were collaboratively developed by research team members (M.L. and A.T.), both ergonomists with extensive knowledge and experience in qualitative design. They were reviewed by another member (M.B.), a doctoral student specializing in equity and inclusion, to ensure they were free of biases and aligned with the study's research questions. The development process was informed by the team's prior research and grounded in activity ergonomics models (St-Vincent et al., 2011) to ensure comprehensive coverage of OHS management aspects relevant to WOTP. Five core sections were included for both principal populations (PPs and EPs): personal characteristics, teacher profiles in WOTP, perceptions of traineeships, OHS perspectives, and digital technology experiences. Additionally, the guide for PPs contained three extra sections: student profiles, traineeship supervision perceptions, and school organization. To promote rigor and relevance, the questions underwent pre-testing with an initial interview, allowing the team to confirm that questions were unbiased and effectively addressed key study areas. A debrief session to ask the interviewee what she had understood of the questions was carried out at the end. No modifications were necessary following this pilot.

Interview Process

The project received approval from the CHU Sainte-Justine Research Ethics Committee (#2020-2540). All participants provided consent before their interviews and had the opportunity to ask questions. The first three PP interviews were conducted in person, while the last one took place via video conference (M.L.) due to the lockdown imposed by the COVID pandemic. They lasted about 1h30, and then the gen-

² In accordance with « Milieux ruraux et urbains: Quelles différences de santé au Québec? | Santéscope ». *INSPQ*. Accessed October 3rd, 2022 (<https://www.inspq.qc.ca/santescope/milieux-ruraux-urbains>).

eral action-research project was discussed. The shorter interviews, lasting between 25 and 45 minutes, were all conducted over the phone (M.B.). All interviews were audio-recorded with participants' consent.

Data Analysis Process

Detailed reports were compiled and excerpts transcribed to report all content elements. These were imported into a Microsoft Excel grid, where each grid line corresponded to one sentence. Thematic content analysis, inspired by Paillé and Mucchielli (2021), was conducted semi-inductively (Anadón & Guillemette, 2007; Bingham, 2021) and was informed by the researchers' knowledge of activity ergonomics models and by current OHS best practices. M.B. engaged in active listening and reading, followed by multiple coding cycles, progressing from the smallest unit of meaning to theme formation. A second researcher (N.P.-B.) counter-coded the material, and discrepancies were discussed for consensus. Subsequently, coded units were classified by gender identity, experience, number of supervised teachers, and region type to explore trends. Results were interpreted in the discussion according to the theoretical framework presented above (capability theory, CNESST framework, activity ergonomic models). Potential coding biases were discussed in team meetings using reflective journals, including dates, events, attendees, and reflections.

Results

The analysis identified four themes with respect to principals' perceptions of OHS, each encompassing four sub-themes. Not all results are directly tied to OHS. Instead, they emphasize what is being done or left undone, the impact of these actions or inactions on OHS, and their relationship to the resources available or allocated. In general, limited trends were identified regarding gender identity, years of experience, region, or level of project involvement. When applicable, these are reported in the results.

General Roles Self-reported by Principals

Student Success as the Main Goal

Principals' self-described roles in the WOTP context encompassed three primary areas: student success, guidance of teaching staff, and school administration. Student success was addressed by eight principals. They emphasized their support role, focusing on fostering students' perseverance and success. While the ministry outlines OHS as integral to student success (Quebec Ministry of Education, 2013), principals mostly highlighted efforts around academic perseverance, certification, and motivation.

Empowering Teachers for Effective Student Support

To support student success, principals prioritized collaborative efforts with teachers, who maintain daily contact with students. Principals believed that empowering teachers is key to aiding students in achieving autonomy and fulfilling their potential: "It's working with teachers to make sure that each student can reach their maximum potential" (EP3, woman, experienced, urban). This collaboration extends to guidance on classroom management, curriculum standards, and student discipline.

Administrative Roles

Administrative tasks among principals varied and included responsibilities such as developing formal structures—like official traineeship contracts and standardized evaluations—and overseeing budget and program promotion efforts. Some principals (e.g., EP2, EP8, EP10) were involved in coordinating logistical aspects of traineeships:

In relation to the WOTP, making sure that each teacher understands the subjects they teach. In traineeship supervision, making sure that supervision is done according to the rules, respecting the number of visits for each student, each week, to ensure that students accumulate enough hours for the program. Making sure that skills are assessed and worked on. (EP8, man, experienced, urban)

Diverse Definitions of Responsibility in OHS

Only one principal (EP13, newly appointed) spontaneously cited OHS prevention as part of his role. Others acknowledged OHS responsibilities when prompted, but it remained peripheral within their self-defined roles. Principals' definitions of their responsibilities varied widely, influenced by individual school contexts. Most appeared more aligned with the traditional functions of secondary school administration rather than with those roles associated with dual-training, where OHS might take a more central role.

Student Placement in Traineeships

Strategic Preparation for Successful Placements

Recruiting businesses and securing traineeships for students were seen as critical tasks by principals, planned months ahead to ensure optimal pairing. While principals oversaw student group assignments and program choice, they delegated daily supervision and student preparation to teachers. Teachers deliver the Employment Preparation course throughout the year, which begins with modules that assess "students' interests, possibilities for them" (EP5, woman, beginner, rural). The order and focus of subsequent modules vary by school. For instance, EP1 (urban, experienced) noted that her teachers prioritize job search skills early in the school year, while EP13 emphasized that OHS awareness is covered first to prepare students for safe integration into the workplace. Most principals, however, lacked detailed knowledge of the curriculum, relying instead on teachers to address OHS competently.

Priorities in Matching Students with Companies

Principals considered the pairing of students with companies as a critical responsibility of teachers, with many (EP1, EP4, EP6, EP10, EP11) allocating special education resources to support this task: "[Educators] have a very good understanding of our youth in a broader context, which helps in finding an environment more adapted to their social and psychological needs" (EP11, woman, experienced, urban). Nearly all principals (12) underscored the importance of teachers knowing each student's strengths, interests, and abilities to create personalized opportunities that encourage success. However, few principals mentioned OHS as a criterion in placement decisions, with greater emphasis placed on factors like the quality of company orientation and proximity to the student's home.

Challenges and Strategies in Company Recruitment

Convincing companies or organizations³ to accept students as trainees is another major aspect of the role, requiring teachers to leverage community ties and, where possible, existing business networks. For principals, experienced teachers bring valuable skills and strategies to these negotiations, crafting compelling arguments that highlight the program's benefits. Nine principals observed that the current labor shortages have influenced company participation. While some companies are motivated to accept trainees to alleviate staff shortages, the lack of sufficient resources for supervision can compromise the traineeship experience. This paradox, described by two principals (EP8, EP4), reflects the dual challenge of fulfilling student needs while managing company expectations. Notably, OHS is seldom a focal point in recruitment pitches; instead, it is addressed only at the contract signing or initial company visit. Principals recognized the importance of teachers' relationship-building with companies but did not mention actively helping teachers develop specific outreach skills.

Less experienced principals, such as EP13 and EP5, relied on experienced teachers to manage placements, and many were unaware of the time involved in securing traineeships. The time investment varies depending on community size and the availability of partner companies that have previously collaborated with the teachers. For example, EP12 (woman, rural) noted, "Sometimes it goes very quickly, especially if we have established partners from previous years." Some principals felt the time teachers spend on recruitment does not justify a release from teaching duties, while others (EP2, EP6) grant two to five days specifically for this purpose. Occasionally, students contributed to finding traineeships, and in these cases, principals were more informed about the steps involved.

Recruitment efforts generally rely on an informal network of companies familiar with the program.

³ Most "employer" partners are private companies, though some are public sector or community organizations. The term "company" is used throughout the article to simplify the text and remain faithful to the language used by the directors.

Principals at larger schools had established more formalized systems, such as school-wide or SSC-level directories that consolidate company contacts and traineeship opportunities. These directories contain basic information, such as company names, available trades, and company availability, but they do not track OHS details. While these tools streamline placement processes and aid new teachers in integrating into the program, principals generally felt that they had limited influence over these resources. As PPA explained, teachers in her program are often reluctant to share their recurring partners in a collective repository, due to the fragile nature of company relationships, which could be jeopardized by a negative experience with another teacher (e.g., due to less effective supervision).

The Traineeship Contract as a Procedure

The transition from placement coordination to active traineeship is formalized by the signing of a legal traineeship contract, which details the roles and responsibilities of the student, company, and school. While nearly all principals were familiar with the insurance-related terms of these agreements, only one (EP8) reported in-depth knowledge of the contract's specific clauses on OHS. Three principals with less than 2 years of experience (EP6, EP13, and PPA) admitted they had never read it. For many principals, the contract was viewed primarily as a procedural requirement, with teachers largely responsible for overseeing its practical aspects, such as ensuring on-site safety standards are met.

Supervision of Traineeships

On-site Supervision as a Window into the Workplace

Supervision emerged as a central task in the principals' descriptions of traineeship-related responsibilities, particularly the on-site visits by teachers. These visits provide teachers with the opportunity to observe students within their traineeship environments and to engage with company representatives. Teachers often use these visits to model tasks, help students with complex challenges, and make OHS considerations more tangible for students. Principals, when interviewed, were asked to share their expectations for these supervisory visits and to describe the resources they offer teachers for support.

Setting Expectations for Supervisory Visits

Six principals cited the frequency of site visits as a key expectation, with regularity viewed as essential for effective supervision (EP3, EP8, and four others from the PPs). For some, frequency was the only specified criterion, but a few principals (EP8, PPA) mentioned additional expectations, such as ensuring that specific trade-related skills were being evaluated during these visits. However, PPA pointed out that current assessment practices often lack rigor, as teachers sometimes forgo using the structured assessment tools provided by the SSC. Other principals viewed supervisory visits more as a way for teachers to interact with students in their work environment rather than for in-depth interventions, with goals like "meeting students in their environment" (PPA, woman, urban) or verifying that the student was "observed and engaged with their employer" (PPB, man, urban).

Expectations that Positively Impact OHS

While principals generally did not mention direct OHS interventions as a priority during supervision, they did express expectations that indirectly promote a safe work environment, such as overseeing skill development, observing students' progress, and coordinating with workplace supervisors. The PPs, in particular, reported a consistent understanding of how supervisory visits should be conducted, including frequency, duration, and activities such as transportation assistance and skills assessment. Nonetheless, one principal, PPA, observed that some teachers might not fully leverage these visits for educational purposes:

I suspect some [teachers] rely solely on phone supervision... Or there are some who will go [to workplaces], but they offer suboptimal supervision. Normally you should look at what the tasks are and do them or observe the young person and see what needs to be modified. I have the impression that it's more [social], I don't feel it's about learning to work. (PPA, woman,

I, urban)

Maintaining strong relationships with companies was noted as a significant, although often underappreciated, aspect of supervision. Principals recognized that nurturing these relationships helps ensure ongoing placements and support for students, yet they did not uniformly see relationship-building as a direct supervisory responsibility.

Resource Allocation for Supervision

In terms of resources provided for these supervisory tasks, several principals reported supplying teachers with tools such as cell phones and tablets for communication and note-taking, but they expressed uncertainty about the extent of their use. Similarly, students often have access to technology such as school-funded computers or tablets, but these devices are not typically used during traineeships. In fact, personal devices, such as cell phones, are often prohibited during traineeships: “Students all have their cell phones, but they use it like anyone uses their cell phone [...]. They are prohibited during traineeships, we prohibited it” (PPC, man, beginner, urban). The only OHS-specific resource available to teachers and students came from in-class exercises developed by the CNESST, which were mentioned as a preparatory tool rather than as part of on-site supervision.

Allocation of OHS Responsibilities

Navigating Legal and Institutional OHS Responsibilities

In discussing the distribution of OHS responsibilities, principals expressed varied understandings of their role and the role of other stakeholders in maintaining a safe traineeship environment. Only two principals, both with fewer than two years in their position (EP6 and EP12), mentioned the legal responsibility of their institutions to establish formal OHS structures, such as internal committees focused on OHS training and awareness. For the majority, however, OHS responsibilities were seen as peripheral to their main duties, often absorbed within broader administrative and pedagogical support functions. For example, one principal noted: “It’s challenging for me to check on a day-to-day basis because I am not in the workplaces. So, it’s really a matter of trust and collaboration with the supervising teachers” (EP8, man, experienced, rural).

Some principals, mostly men, regarded their role in OHS as indirect or “subdued,” viewing it as an aspect of the teachers’ broader responsibilities (four men—EP5, EP8, EP13, and PPC—and one woman—EP11). This delegation to teachers often stemmed from practical considerations of workload management and proximity to students during traineeships. As EP13 explained:

I rely a lot on my teachers [for OHS], I don’t go to the workplaces, so I don’t know the procedures and measures in place for student safety; it’s much more the teachers. Once the contract is signed, and I know the student is insured by the school board, I don’t really question it. (EP13, man, beginner, rural)

Providing Personal Protective Equipment to Students

The provision and oversight of personal protective equipment (PPE) also highlighted the complexity of OHS responsibility distribution. According to the law, the school is responsible for supplying PPE, with the Ministry allocating a budget for traineeship-related expenses. Nonetheless, principals differed in their interpretations of this responsibility. Eight principals, particularly those from rural areas, indicated that families were expected to supply essential items like work boots, citing financial constraints and practicality. However, some principals, aware of families’ precarious socioeconomic conditions, chose to cover PPE costs through the school budget when necessary:

His traineeship was almost compromised because parents didn’t have the money to buy anything. So, we arranged things in an informal way to find what he needed. We included it in the school budget somewhere, undercover. The traineeship site said it was not their responsibility to provide it. (EP6, woman, beginner, urban)

Experienced principals tended to assign PPE responsibilities to families or the companies hosting students, only providing PPE in exceptional circumstances. In most cases, companies supplied easily shareable items, such as goggles or helmets. For some principals, discussions about PPE responsibilities were almost nonexistent, as in the case of EP5, who noted: “I haven’t had any purchase orders for PPE, so I assume employers manage it or students already own items like steel-toed boots” (EP5, man, beginner, rural). EP7 perceived that PPE was not necessary at her school, as students primarily engage in service-based tasks that are low-risk.

Principals as OHS Resources in Crisis Situations

Nonetheless, ten principals positioned themselves as resources in cases of severe OHS issues, including direct intervention when concerns about a company’s safety standards arise. One principal, EP10, described the decision to end a traineeship to safeguard a student’s well-being: “It happened to me this year. We had to remove a student from a traineeship because I didn’t consider it a safe environment for the student” (EP10, woman, I, urban). Principals also acknowledged that they would be consulted if a workplace accident occurred during a traineeship. However, some who had experienced such situations reported feeling ill-equipped to handle them: “This year, I had a student who was injured, and I was like OK, let’s try to respect the conditions. He had to do light work. But we were like in limbo. What should we do?” (PPA, woman, I, urban).

Unclear Expectations Around OHS Training

The principals’ roles in OHS training were more ambiguous. Six principals (EP1, EP2, EP7, EP9, EP11, and PPC) reported that teachers had no formal OHS training, and five were uncertain about whether their staff had received any (EP4, EP5, EP13, PPA, and PPB). One principal thought that trade-specific OHS training was necessary, but felt it would be too complex to manage effectively, due to the diverse work environments involved in the WOTP. Some principals viewed OHS training as unnecessary, assuming that teachers could independently access relevant resources as needed, as in the case of EP2, who noted: “No, not since last year, no training. But they are aware. They work on CNESST modules with the students. They discuss it with the students” (EP2, woman, I, urban). Thus, several teachers become OHS trainers without having received formal training themselves.

OHS training for students primarily occurred during the Employment Preparation course, which was typically taught by supervising teachers. While principals assumed that teachers drew on CNESST resources, few could confirm specific content. A newly appointed principal, PPC, remarked: “They follow the main themes of the program, but I couldn’t go into specifics about what they cover” (PPC, man, beginner, urban). In some cases, principals reported that student training leaned more toward public health themes, such as food hygiene and sanitation, rather than workplace-specific safety skills.

Discussion

This study highlights the complex and often peripheral role that high school principals play in OHS within the context of dual-training programs. To achieve this, it was necessary to illustrate the delegated tasks and the principals’ interface role (Glomeron, 2015).

Study Contributions

A primary observation concerns principals’ knowledge of OHS, which is considered an internal resource according to Sen’s capabilities theory. Principals demonstrate a limited understanding of their legal obligations regarding the prevention of occupational injuries or diseases. According to Quebec law, the school board is legally designated as the employer for WOTP trainees (*Loi sur les accidents du travail et les maladies professionnelles*, n.d.). In this capacity, principals must implement the prevention measures mandated by the Act Respecting Occupational Health and Safety (n.d.), including ensuring that all environments safeguard students’ health and safety through adequate PPE provision and OHS monitoring. They are also expected to appoint school staff to oversee OHS responsibilities and collaborate with companies to ensure that students receive proper training and supervision on workplace risks.

Although principals are more aware of their liability in the event of student injuries, they are unprepared to manage accidents. Additionally, a limited awareness of workplace risks distances them from

the OHS issue. The invisibility of common risks within the WOTP settings, such as those related to customer service or repetitive work (Laberge & Caroly, 2016), results in a lack of genuine commitment to establishing an OHS policy. While principals may possess a general idea of the skills and knowledge associated with OHS training, it remains unclear whether they view this training as essential for the success of the traineeship. As a result, their commitment to OHS responsibilities appears partial or, in some cases, absent altogether. This gap reveals a deficiency in internal resources, including legal, managerial, and specialized knowledge, limiting principals' capacity to act on OHS. Increasing their knowledge, including awareness of various risk categories, is crucial for enhancing their ability to address OHS issues.

A lack of external resources also emerged, stemming from principals' limited awareness that specific ministerial grants should be allocated for traineeship materials. Consequently, there is no dedicated budget for PPE at the school level, leaving many principals unable to equip students adequately. This shortage of external resources for OHS prevention has been previously described in professional training centers (Chatigny et al., 2012). Given that funding for work-study programs is closely tied to reducing severe injuries, this issue is especially concerning (Shendell et al., 2018).

Principals' definitions of their roles vary, reflecting the recognized lack of clarity in defining their roles and responsibilities (Oleszewski et al., 2012). While role flexibility can sometimes be advantageous, it often leads to confusion, especially in OHS management, where both responsibility and resources are unclear. Principals point to specific duties—such as managing contracts and insurance—and expectations for teachers—such as ensuring contracts are signed and PPE is available—but they largely see themselves as playing a supportive rather than central role in OHS, similar to the situation observed by Andersson et al. (2015). This reliance on staff to handle OHS tasks may place an undue burden on teachers, who feel ill-equipped for this mandate (Chatigny, 2022; Laberge et al., 2017b). Delegation of OHS duties may also hinder principals' understanding of tasks and effective resource allocation, limiting teachers' flexibility to prioritize OHS in daily activities. However, maintaining relational trust within the organization is positive for students' outcomes (Robinson et al., 2007). Efforts should focus on preserving trust while offering resources tailored to teachers' needs, such as designated time for safe company selection, formalized traineeship directories, or specialized education resources. Addressing the absence of a defined principal's role, studies have recommended preparatory programs and mentoring for future principals (Craft et al., 2016; Tamadoni et al., 2024). These programs should include modules on legal OHS obligations, the importance of prevention, and practical OHS management concepts relevant to dual-training settings.

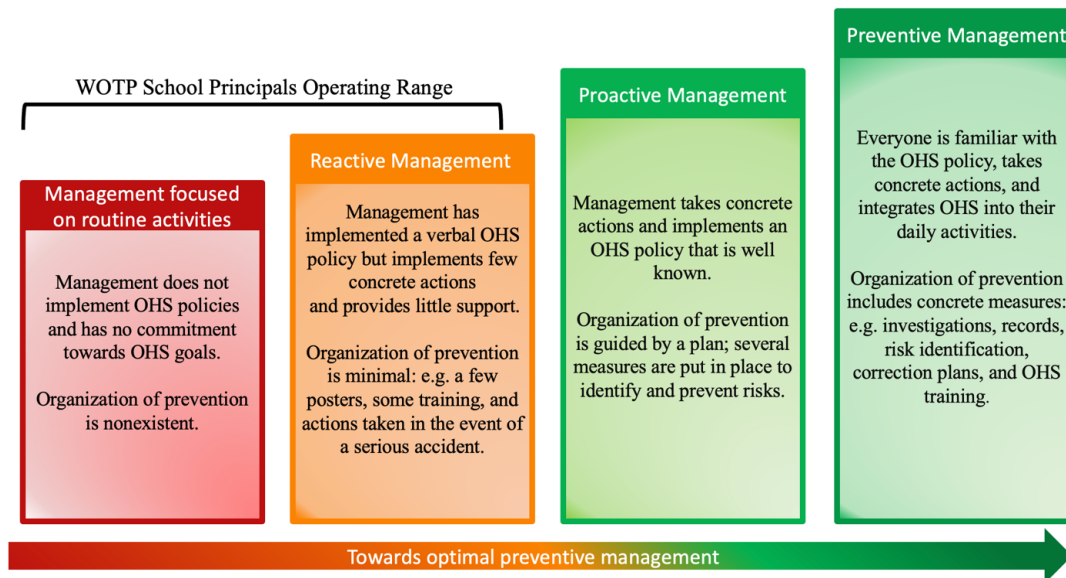
Although principals recognize the importance of OHS, their involvement is often limited to supportive oversight rather than active engagement, which can be attributed to principals' limited capacity to effect change in their current organizational structure (Lapointe et al., 2013). This challenge extends beyond the OHS mandate: “The enactment of their vision for teaching and learning was hindered by oppositional mindsets, and pre-existing structures and practices at their school sites” (Petrides et al., 2014, p. 187). For example, principals are removed from the complex process of selecting traineeship sites. Individual (e.g., company loyalty) and collective (e.g., sharing companies) work strategies implemented by teachers are identified as central to the company recruitment activities, so principals hesitate to modify them to establish their role in the process. However, their involvement at this critical juncture could better align with their legal OHS prevention role, and could allow teachers to prioritize safer traineeship options. Targeting a conversion factor that empowers school principals to effectively manage OHS issues, without disrupting teachers' strategies, would support a more cohesive approach to OHS within WOTP.

In contrast to the CNESST framework that suggests a hands-on approach to OHS management, our findings reveal a tendency toward indirect involvement, with principals acting more as facilitators than as direct enforcers of safety standards and policies. Specifically, this study shows that WOTP principals operate at the first two levels of OHS management described by the CNESST (2016): activity-centered management and reactive management. See Figure 1, with content adapted and contextualized. Their incapability to proactively manage OHS appears to stem from moderate to poor internal and external resources. Many principals expressed the desire to move to proactive management but face systemic obstacles: they lack the necessary OHS knowledge to establish policies themselves (internal resource), the desired changes threaten collective work strategies (conversion factor), and the budget and available digital tools are not mobilized for this purpose (external resources). While the solution for many prin-

cipals is to delegate tasks related to OHS to teachers, studies have emphasized that WOTP teachers also feel uncertain in addressing OHS (Laberge et al., 2017a, 2017b). These findings underscore the need to develop OHS skills for all key stakeholders in the WOTP.

Figure 1

Management of OHS by WOTP School Principals



Note. Adapted from CNESST (2016). Cadre de référence, conditions gagnantes pour la prise en charge de la santé et de la sécurité du travail (SST) dans les établissements d'enseignement. Commission des normes, de l'équité, de la santé et de la sécurité du travail. Free translation.

Differentiation Based on Profiles and Contexts

The results did not yield clear conclusions about how principals' profiles and contexts influence their OHS management approach, despite differentiated analysis. Factors like age and experience are shown to influence leadership style and resilience in educational administration (Petrides et al., 2014; Tamadoni et al., 2024). Gender-related differences in management are also known to exist (Rhee & Sigler, 2015), but the broad, exploratory nature of the questions may have obscured these subtleties. The sample's limited experience range—principals with under six years in the role—further restricts conclusions. It is difficult to draw a direct link between experience in the WOTP principal position and familiarity with OHS management, as their professional backgrounds could exert substantial influence on their ability to oversee this theme (Laberge et al., 2017a). Additionally, classifying context as “rural” or “urban” may not adequately capture community dynamics, as some “urban” principals identified with small-community challenges. Nonetheless, as proactive OHS management approaches become more common, differences tied to principal profiles may become more discernible.

Study Limitations

While this study offers valuable insights, it is important to note certain limitations, according to qualitative research quality criteria (Frambach et al., 2013). The sample size, though sufficient for exploratory analysis, limits the transferability of our findings across diverse educational settings. To foster transferability, we made sure to include an extensive description of the educational setting, the research context, and the sampling. Future studies with participants from different educational settings could validate and expand upon these findings. To enhance dependability, the research team went through numerous cycles of iterative coding.

Data collection took place at a pivotal moment of the pandemic, and it is unclear how practices have evolved since. This event could have diversified principals' knowledge of health management and,

perhaps, OHS management (Thornton, 2021). Further studies should investigate that evolution. Also, it would have been beneficial to share the conclusions with the principals to enhance interpretation credibility. However, to foster credibility, other techniques were used, like theory triangulation. To enhance confirmability, the process and results were discussed with peers and experts, and reflective journals were used.

Actionable Recommendations

To strengthen OHS practices within the dual-training programs, this study has identified a series of actionable recommendations based on its results. Addressing key challenges at multiple levels—individual, technical, and institutional—these recommendations aim to equip school leaders, teachers, and policymakers with the tools and strategies needed to build a cohesive OHS culture that enhances both student safety and educational outcomes (National Institute for Occupational Safety and Health, 2023).

Institutional-level Recommendations

Institutional recommendations involve broader school or SSC policies and initiatives.

- Implement protected time for teachers and principals to talk about OHS.
- Formalize placement criteria and company recruitment criteria with emphasis on OHS.
- Create a PPE provision policy supported by school funding.
- Strengthen principal involvement in company recruitment.
- Enhance OHS supervision skills among teachers by offering specific training.
- Offer formal OHS training or mentorship for principals of dual-training programs, which encompasses legal responsibilities.

Technical-level Recommendations

Technical recommendations involve tools, resources, and guidelines that schools can implement to improve OHS management.

- Develop clear OHS supervision guidelines and tools adapted to the context of dual-training programs.
- Provide real-time OHS documentation tools to include principals in the conversation and facilitate information archiving.
- Provide tools to foster collective and collaborative strategies to manage traineeships and placements.
- Establish a system for timely OHS issue reporting by teachers to principals.
- Establish formalized systems for tracking and supporting OHS responsibilities.

Individual-level Recommendations

These recommendations focus on actions that principals and teachers can implement directly.

- Integrate OHS awareness into “student success” conversations, seeing as it is an evaluation criterion.
- Encourage student engagement with OHS principles by discussing this subject in various settings—class, traineeship, homework.

Conclusion

High school principals in dual-training programs for students with learning difficulties encounter significant barriers in fulfilling their OHS responsibilities. Limited knowledge of prevention practices, constrained financial and human resources, and challenges in driving organizational change contribute to a decentralized perception of OHS, often distancing principals from their legal obligations. Addressing these obstacles is crucial for fostering a culture of safety within schools and traineeship environments.

This study highlights several pathways to increase principals’ active involvement in OHS. Allocating specific ministerial resources toward OHS initiatives—such as a dedicated budget for prevention-related expenses or targeted training programs—could empower school leaders to adopt more proactive roles. Additionally, providing clear definitions of OHS responsibilities and expectations could guide

principals in embedding safety practices within their broader administrative duties.

In response to the needs identified in this study, the development of digital tools designed to streamline OHS-related tasks offers a promising solution. Improved data management systems, tailored for high school administrators, could facilitate real-time tracking of students' traineeship progress, centralize key documentation (such as contracts and incident reports), and enhance collaborative efforts among staff. By simplifying access to critical information about partner companies and providing reminders about safety obligations—such as the timely provision of PPE—these tools can support principals in meeting both their preventative and legal responsibilities.

Disclosure

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