This contribution examines premature interruption of training (PIT) through the lens of fit between the training and the trainees. To do so, it explores early indicators of PIT and the reasons cited by young people for training interruption. Using quantitative and qualitative approaches, 628 questionnaires were handed out, and 31 semi-structured interviews were conducted. All participants were enrolled in the 2-year apprenticeship leading to a Federal Vocational Education and Training (VET) Certificate, a low-threshold training track in the Swiss VET system. The findings reveal which elements are involved in poor fit and how they may contribute to PIT.

1. Introduction

This contribution is based on a longitudinal study conducted by the University of Teacher Education in Special Needs and the Swiss Federal University for Vocational Education and Training (SFUVET). It focuses on the phenomenon of premature interruption of training (PIT) in the 2-year apprenticeship leading to a Federal VET Certificate. PIT is explored in the light of fit—the adequacy between training and trainee—giving new insights into this occurrence.

The Swiss education system comprises four levels: Primary, Secondary I, Secondary II, and Tertiary. The Secondary II level is divided into general and vocational education. In Switzerland, vocational education and training (VET) is the pathway most often chosen by young people (66% vs. 34% who enter general education) (Office fédéral de la statistique [OFS], 2022). This popularity is more marked in German-speaking regions, while general education is more popular in Italian- and French-speaking regions (especially the cantons of Vaud, Geneva and Fribourg). VET is available in two forms: full-time vocational school, and the dual VET model, which provides classes at vocational school and on-the-job training. The latter is dominant in Switzerland overall, but the former is more popular in French- and Italian-speaking regions than in the German-speaking area (State Secretariat for Education, Research and Innovation [SERI], 2022).

Two training tracks are available within the dual VET model: the 3- or 4-year apprenticeship leading to a Federal VET Diploma (FVD), and the 2-year apprenticeship leading to a Federal VET Certificate (FVC). A bridge exists between these tracks and one third of young people take up this opportunity, joining the second year of 3- to 4-year apprenticeship after obtaining an FVC (OFS, 2018).

Less acclaimed than the 3- to 4-year apprenticeship, especially in certain domains and regions (Trede et al., 2018), the 2-year apprenticeship was designed in 2004 for academically weaker, more “practically-oriented” pupils. It draws more young people from socially disadvantaged and migrant backgrounds (Meyer, 2018). It aims to facilitate school-to-work transition, ease the mobility towards other training tracks, and attain 95% of graduates in Secondary II (Conférence Suisse des directeurs cantonaux de l’instruction publique [CDIP], 2011). However, young people face many hurdles: finding a suitable apprenticeship and fulfilling its requirements (Hofmann & Schellenberg, 2019), completing the training (Lamamra & Masdonati, 2009) and earning a diploma (Scharenberg et al., 2014).

The dual model is seen as an appropriate system for a gradual school-to-work transition (Organisation for Economic Co-operation and Development [OECD], 2000), which has become more complex in recent years (Bergman et al., 2011). In view of the rate of PIT in VET (22.5%) and of re-entry into training (79.9%) (OFS, 2021), we can question this view, especially for the 2-year apprenticeship. Indeed, whereas the rate of PIT varies little between training programs, the rate of re-entry into training varies highly. PIT thus represents a significant risk factor for dropping out of the training system and precarious integration into the labor market.
Our contribution focuses on PIT (in the 2-year apprenticeship) through the lens of fit (Neuenschwander, 2014), in other words, the adequacy between training and trainees. The general question considered here is: to what extent does PIT reflect a poor fit between the target group and the training offer? Answering this question will also allow consideration of levers to prevent PIT.

2. Theoretical background

2.1 Premature interruption of training

PIT refers to all situations where the apprentice or the employer terminates the apprenticeship contract, by mutual consent or unilaterally, before the end of the time agreed with the VET company. It includes cases in which young people change their training track or profession and thus does not necessarily imply a withdrawal from the training system.

The rate of PIT in 2-year apprenticeships is 22.3%. The training program and standard length of training have little bearing on this figure (respectively 20.9% and 22.1% in the 3-year and 4-year apprenticeships leading to an FVD) (OFS, 2021). However, the rate of re-entry into training varies highly depending on the region, from 17.6% in central Switzerland to 27.3% in north-west Switzerland. It also varies according to sectors of activity: from 30.4% in construction, 29.1% in gastronomy and hospitality, 27.4% in beauty and hairdressing, 19.5% in home economics, to 19.2% in retail. In terms of social groups, the most important difference concerns gender (24.1% men, 20.1% women). The difference between Swiss and foreign nationals is minimal (22.4% Swiss, 21.3% foreign nationals born in Switzerland, 22.8% foreign nationals born abroad), particularly in contrast to the 3–4-year apprenticeships (respectively 19.4%, 24.5%, 29.5% in 3-year apprenticeship, and 20.8%, 29.2%, 34% in 4-year apprenticeship).

Terminations happen for various reasons; in most cases, several factors play a role (Lamamra & Masdonati, 2009). Based mainly on 3-year and 4-year apprenticeships, the literature converges toward three categories:

1) The trainees: poor academic performance in vocational school, orientation issues, such as lack of information on the trade or company, low motivation and external contingencies, such as parenthood or illness.

2) The VET companies: bankruptcy or restructuring, work and training conditions, for instance harshness of the work, lack of support.

3) Contextual elements: general economic situation, apprenticeship positions’ market (Bosset et al., 2020; Kriesi et al., 2016; Stalder & Schmid, 2016).

Two reasons are transversal to these categories: 1) workplace relations with the trainer, the employer, and colleagues, and 2) the school-to-apprenticeship transition, including orientation (choice of trade at an early age, choice by default) and adaptation issues (change in context, adolescent-to-adult sociability).

2.2 Fit

Fit refers to the adequacy between an individual's interests, values, needs, and skills, and the requirements of the context—in this case, the training (Neuenschwander, 2014; Singer et al., 2014). Fit is a traditional concept used in orientation processes because a successful fit is thought to enhance well-being and satisfaction with training (Pinquart et al., 2003). This model first emerged in the 1950s and has evolved to include at least two more aspects.

First, Eccles et al. (1993) have shifted the definition of fit as static, with stable personality traits and/or skills, to fit as an ever-evolving process. These researchers speak of a dynamically created alignment between a young person's developmental stage and the characteristics of the environment. This suggests that both parties can adapt to each other (Dawis & Lofquist, 1984); it opens the door for support and interventions.

Second, researchers (e.g., Neuenschwander, 2012) now consider perceived fit—the alignment between one's self-concept and the perceived requirements of the environment—which refers to a cognitive model and considers...
representations of oneself and the training. It develops before entry into a training program and influences the adjustment process, impacting on task mastery, feelings of stress, poor health, social integration, occupational commitment (Näggele & Neuenschwander, 2014), and the risk of dropping out (Stalder & Schmid, 2016).

We hypothesize a close link between PIT and fit. Elements relating to fit can be identified before the start of the training, for example, in the unsuccessful orientation process leading to choice of occupation (Lamamra & Masdonati, 2009; Stalder & Schmid, 2016). We further hypothesize that discrepancies may appear on personal and contextual elements, which may ultimately contribute to PIT.

To verify these hypotheses, we ask the following research questions: first, what are early indicators of the risk of PIT, and what reasons do young people give for deciding to prematurely interrupt their training? Secondly, what do these indicators and reasons reveal about poor fit, and which elements—personal and contextual—come into play?

3. Methodology

3.1 Quantitative part

3.1.1 Participants and procedures

The participants in the first survey (at the start of training—t1) were 628 young adults (mean age = 19.3 years; SD = 4.5 years; 37.6% females), beginning their FVC program in four professional fields: 209 (33.3%) in gastronomy, 125 (19.9%) in home economics, 167 (26.6%) in the construction sector, and 127 (20.2%) in carpentry. We chose these four fields and corresponding professions based on the relevance of PIT, the distribution of gender and cantons, and the number of apprenticeship contracts. The cantons included were Zürich, Bern, St. Gallen, Luzern, Solothurn, Zug, Geneva, Vaud, and Fribourg. We administered the first survey questionnaires (t1) to 628 participants in a classroom setting in October 2016, where there were no dropouts. The researchers helped with data collection. The second survey (t2) was conducted in May 2018 (at the end of the training) in a classroom setting and comprised the apprentices who participated at t1, the stayers (494 participants). New apprentices were excluded from the analyses. The apprentices from t1 who were not present at t2 were considered potential leavers. Those who were ill or absent were excluded from this group and assigned to the group of stayers. Thus, we considered 134 out of 628 persons (21.3%) as affected by PIT between t1 and t2 (leavers).

Comparing sectors, the percentage of leavers (those who had PIT) ranged between 17.7% (painting practitioners) and 27.9% (construction practitioners). No significant differences were found among regions, sexes, migration backgrounds, and parental educational levels.

3.1.2 Measures

Certain variables measured at t1 contained information about fit. They are potential early indicators of perceived fit and included the following:

Professional orientation
- Person–occupation fit perceptions were measured using five items that focused on the individual’s personality and abilities, such as “My apprenticeship training fits my personality” (Neuenschwander et al., 2013). The scale ranged from 1 (“I completely disagree”) to 4 (“I completely agree”). Cronbach’s α was 0.82.
- Parents, teachers, and career counselors’ support during career choice was measured using one item for each support source, such as “My parents supported me in choosing a career” (Neuenschwander et al., 2013). A Likert scale was used for the response options, ranging from 1 (not at all true) to 4 (completely true).
- Prior knowledge about occupation and about the VET company was measured, each using a single item, such as “I knew a lot about my occupation before I started training” (Neuenschwander et al., 2013). A Likert scale was used for the response options, ranging from 1 (not at all true) to 4 (completely true).

Stress and performance
- Stress levels in the VET company and in the VET school were measured using two scales (based on Semmer et al., 1999), each with five items (e.g., “Time pressure at work is high” [VET company]. “The subjects of the lessons change so fast; I have trouble keeping up” [VET school]). A Likert scale, ranging from 1 (very rarely/never) to 5 (very often) was used. Cronbach’s α values were 0.70 for stress in the VET company and 0.79 for stress in the VET school.
- **Self-rated performance in the VET school and the VET company.** To measure the former, we developed a two-item scale (Kammermann et al., 2009) using the following items: 1. “How do you assess your own performance in occupation-specific knowledge classes?” 2. “How do you assess your own performance in general subject classes?” A Likert scale, ranging from 1 (very poor) to 6 (very good), was used; Cronbach’s $\alpha$ was 0.78. Performance in the VET company was evaluated with one item (“How do you assess your own performance at work?”) and the same scale.

**Relationships**

- **Commitment to the VET company** was measured using three items (e.g., “I am proud of the company where I do my training.”) based on a scale developed by Meyer et al. (1993). A Likert scale was used for the response options, ranging from 1 (not at all true) to 4 (completely true). Cronbach’s $\alpha$ was 0.81.

- For **competencies/support of the VET trainer**, we used four items (e.g., “My VET trainer explains things well,” “My VET trainer takes his/her time when I ask a question.”) on a scale that measured the pedagogical competencies of the VET trainer, based on the scale developed by Neuenschwander et al. (2001) and adapted by Stalder et al. (2011). Cronbach’s $\alpha$ for the scale was 0.83.

- **Support of VET school teacher** was measured using an item based on a scale developed by Frese (1999) and adapted by Stalder et al. (2011). The introductory question, “How interested are the following persons in your training situation?”, was followed by a list of people in support roles. A Likert scale, ranging from 1 (not at all) to 4 (very), was used.

**Training conditions**

- **Skill variety in the VET company** was measured using three items (Prümper et al., 1995), for example: “My work is varied.” The answer format for both scales was a 5-point scale, ranging from 1 (very rarely/never) to 5 (very often). Cronbach’s $\alpha$ was 0.67.

- **Overall levels of satisfaction with the school and the company** were measured using two questions based on Kammermann et al. (2009) and Baillod (1992): “How satisfied are you with 1) your training in the vocational school / 2) the training in the company?” The points on the rating scales ranged from 1 (extremely dissatisfied) to 7 (extremely satisfied).

**Individual dispositions**

- **Depression and anxiety** were measured using four items on a scale, called “4-item Patient Health Questionnaire,” developed by Löwe et al. (2010). The introductory question was “Have you experienced the following problems over the last two weeks?” The answers on the rating scale ranged from 1 (not at all) to 4 (almost every day). Cronbach’s $\alpha$ was 0.79.

### 3.1.3 Analyses

The focus of our analyses is the comparison between “stayers” and “leavers” in terms of different fit indicators measured at t1. We first compared the means of the chosen indicators at t1 (see Section 3.1.2. Measures) between stayers at t2 ($N = 494$) and leavers at t2 ($N = 134$) by conducting T-tests and calculating Cohen’s $d$.

For the second analyses, we selected certain variables from the comparison as the independent variables, and the outcome (staying versus leaving) as the dependent variable in a logistic regression.

### 3.2 Qualitative part

#### 3.2.1 Participants

It proved difficult to find volunteers who had experienced a PIT among the participants of the quantitative survey at t1. With the help of cantonal vocational training services, we found 31 young people (17 men, 14 women) from a variety of professional sectors.

We assumed that enlarging the population beyond the quantitative sample would not invalidate the analysis. Indeed, the objective of the qualitative analysis was to focus on the processes leading to PIT, which are quite similar across sectors (Lamamra & Masdonati, 2009).
Twenty young people (ages 17-36) came from the French-speaking region and 11 from the German-speaking region. They had experienced PIT between 2 and 14 months prior to the interview. We contacted them by letter, and followed up either by phone, email, and/or instant messaging services.

Semi-structured interviews were conducted (approximately 60’ each), including socio-biographic data, the situation at the time of the interview, support systems and networks, and the reasons for PIT. In this article, we use the data relating to the reasons for PIT. Questions relating to PIT were: "Please tell me about the process leading up to PIT", "If you were to rank the reasons for PIT, what would you put in 1st, 2nd, and 3rd place?", and "Do you think there are other elements that led to PIT?". Follow-up questions allowed for the emergence of new themes.

3.2.2 Procedures

All interviews were transcribed and anonymized. A thematic content analysis was conducted (Paillé & Mucchielli, 2016). After coding the transcripts using NVivo© software, two analyses were performed: deductive (themes based on the literature) and inductive (based on the emerging data).

Content analysis made it possible to identify the reasons for PIT, as well as signs indicating the reasons. To come up with the combinations of reasons, we used Excel “pivot tables” which compare and combine raw data to produce an analysis.

3.3 Description of "combined" methods

The longitudinal study on which this article is based is not rooted in a conventional mixed methods methodology, hence the term “combined methods”. To explain how we proceeded in relation to this contribution, we refer to Guest (2012), who recommends describing the design of a mixed methods study using two dimensions: the timing and the purpose of data integration. Here, we describe the combination of data within this contribution:

• Timing: researchers worked together once the qualitative and quantitative results relating to fit and PIT were completed. Both sets of results were combined at that point.

• Purpose: researchers compared qualitative and quantitative findings in an *ad hoc* analysis to deepen their knowledge about the connection between indicators of perceived fit and reasons for PIT. This analysis generated the results presented in Table 2. In the quantitative part, perceived fit was measured, whereas fit was inferred from the qualitative data.

3.4 Limitations of the study

The comparison between the quantitative and qualitative parts of the study is only possible for certain aspects because the samples were not chosen with a mixed methods methodology in mind.

In the quantitative part, there are limitations regarding the sample (from four professional fields only), which is not representative, and the sources of the data (self-reports). Apprentices needed help in understanding the questionnaires, which may have induced some responses. In the qualitative study, all young people were contacted on a voluntary basis; some cases may not have been reached (self-limitation). Only the perception of the trainees was analyzed: further research might benefit from cross-referencing data from both trainees and trainers (Krötz & Deutscher, 2021). Social desirability constitutes a limitation in both approaches.

4. Results

4.1 Quantitative results

The first part of research question 1 focused on early indicators of PIT at the start of the training (t1). Based on our considerations about fit and fit perceptions, we supposed that leavers had a poorer fit at the start of their training compared with stayers. Indicators of fit at t1 and the respective comparisons between leavers and stayers are presented in Table 1.

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3 In the French-speaking region, 12 young people came from the canton of Geneva, 5 from the canton of Vaud, and 3 from the canton of Fribourg. In the German-speaking region, 7 young people came from the canton of Bern, 2 from the canton of Zürich, 1 from the canton of Solothurn, and 1 from the canton of St. Gallen.
Notes: higher fit compared with leavers ($t(617) = -3.43$, $p < .05$) and the support of parents ($t(623) = -2.19$, $p < .05$) and the support of teachers ($t(621) = -2.20$, $p < .01$) and relationships, $t(619) = -2.19$, $p < .05$) compared with leavers. However, both groups had similar ratings for support from the teacher in the VET school.

For training conditions, stayers rated skill variety in the VET company more positively ($t(621) = -2.20$, $p < .01$) than leavers. Accordingly, overall satisfaction with the situation in the company also differed between the two groups ($t(620) = -3.74$, $p < .001$), as did overall satisfaction with the VET school; stayers were more satisfied than leavers ($t(617) = -4.13$, $p < .001$).

Finally, we compared individual dispositions; leavers reported higher levels of depression and anxiety on the four-item scale than stayers ($t(603) = 2.41$, $p < .05$).

We also conducted a logistic regression to provide evidence of the variables’ individual contributions to the final outcome (staying versus leaving). For this analysis, we selected a limited number of predictors for

### Table 1
Comparison between leavers ($N = 129–131$) and stayers ($N = 474–492$) concerning their situation at the start of VET (indicators at $t1$)

| Indicators at $t1$                              | Leavers Mean Standard Deviation | Stayers Mean Standard Deviation | $t$  | $p$ | $d_{Cohen}$ |
|------------------------------------------------|---------------------------------|---------------------------------|------|-----|-------------|
| **Profession–orientation**                      |                                 |                                 |      |     |             |
| Support of parents                              | 2.81                            | 1.14                            | 3.04 | 1.13 | -2.04       | 0.041 | 0.203 |
| Support of teachers                             | 2.75                            | 1.15                            | 3.04 | 1.07 | -2.75       | 0.009 | 0.261 |
| Support of career counselors                    | 2.49                            | 1.08                            | 2.51 | 1.14 | -0.20       | 0.839 | 0.018 |
| Prior knowledge of occupation                   | 2.74                            | 0.92                            | 2.76 | 0.87 | -0.30       | 0.763 | 0.023 |
| Prior knowledge of VET company                  | 2.37                            | 1.02                            | 2.44 | 0.96 | -0.73       | 0.468 | 0.072 |
| Fit perceptions                                 | 3.12                            | 0.58                            | 3.30 | 0.51 | -3.43       | 0.001 | 0.330 |
| **Stress and performance**                      |                                 |                                 |      |     |             |
| Stress in VET company                           | 2.70                            | 0.68                            | 2.63 | 0.74 | 0.98        | 0.326 | 0.099 |
| Performance in company (self-rated)             | 4.80                            | 0.81                            | 4.90 | 0.72 | -1.37       | 0.172 | 0.130 |
| Stress in VET school                            | 2.36                            | 0.82                            | 2.30 | 0.83 | 0.71        | 0.477 | 0.073 |
| Performance in gs classes (self-rated)           | 4.52                            | 0.99                            | 4.73 | 0.85 | -2.55       | 0.011 | 0.228 |
| Performance in osk classes (self-rated)          | 4.47                            | 0.92                            | 4.77 | 0.81 | -3.40       | 0.001 | 0.346 |
| Effort/concentration in VET school               | 3.11                            | 0.55                            | 3.27 | 0.47 | -3.38       | 0.001 | 0.313 |
| **Relationships**                               |                                 |                                 |      |     |             |
| Commitment to VET company                        | 3.02                            | 0.81                            | 3.19 | 0.68 | -2.19       | 0.030 | 0.227 |
| Competencies/support of VET trainer              | 3.21                            | 0.75                            | 3.48 | 0.53 | -3.85       | 0.000 | 0.416 |
| Support of teacher in VET school                 | 3.38                            | 0.80                            | 3.39 | 0.79 | -0.15       | 0.874 | 0.013 |
| **Training conditions**                         |                                 |                                 |      |     |             |
| Skill variety in VET company                     | 3.93                            | 0.74                            | 4.08 | 0.65 | -2.20       | 0.028 | 0.215 |
| Overall satisfaction with company                | 5.21                            | 1.35                            | 5.69 | 1.08 | -3.74       | 0.000 | 0.393 |
| Overall satisfaction with VET school             | 5.34                            | 1.03                            | 5.74 | 0.90 | -4.13       | 0.000 | 0.414 |
| **Individual dispositions**                      |                                 |                                 |      |     |             |
| Depression–anxiety                              | 1.83                            | 0.80                            | 1.65 | 0.73 | 2.41        | 0.016 | 0.125 |

Notes. General subject classes; occupation-specific knowledge classes. Numbers in bold indicate significant differences.

The apprentices retrospectively reported their professional orientation at $t1$. Stayers rated the support of the teacher in compulsory school ($t(613) = -2.75$, $p < .01$) and the support of parents ($t(611) = -2.04$, $p < .05$) higher than leavers. We also found that fit perceptions differed at the start of the training; as expected, stayers perceived a higher fit compared with leavers ($t(617) = -3.43$, $p = .001$). Prior knowledge about the occupation and the VET company and the support of the career counselors did not differ significantly between the two groups.

Concerning stress and performance, leavers neither experienced more stress in the VET company nor rated their performance worse compared with stayers. In the VET school, stress was also rated equally by both groups, but stayers had a more positive view of their performance in general subject classes ($t(623) = -2.55$, $p < .05$) and in occupation-specific knowledge classes ($t(624) = -3.40$, $p = .001$).

Regarding relationships, stayers rated the competencies/support of their VET trainer in the company higher ($t(623) = -3.85$, $p < .001$) than leavers. Furthermore, stayers had a higher overall commitment to the company ($t(619) = -2.19$, $p < .05$) compared with leavers. However, both groups had similar ratings for support from the teacher in the VET school.

For training conditions, stayers rated skill variety in the VET company more positively ($t(621) = -2.20$, $p < .01$) than leavers. Accordingly, overall satisfaction with the situation in the company also differed between the two groups ($t(620) = -3.74$, $p < .001$), as did overall satisfaction with the VET school; stayers were more satisfied than leavers ($t(617) = -4.13$, $p < .001$).

Finally, we compared individual dispositions; leavers reported higher levels of depression and anxiety on the four-item scale than stayers ($t(603) = 2.41$, $p < .05$).
4.2 Qualitative results

4.2.1 Reasons for PIT

The reasons\(^4\) fall under the following categories: relationships, performance, work conditions, training conditions, and external contingencies. They broadly align with the literature on PIT, but two reasons stand out: health and professional orientation.

Relationships (N = 17 persons for whom this reason was apparent) include the apprentice’s employer, colleagues, teachers, and clients. Young people report conflicts, absence of support, and discrimination. Poor performance (N = 15) relates to the professional school (low grades, difficulties in literacy and numeracy, cognitive difficulties) and the company (negative feedback). Work conditions (N = 10) refer to the formal conditions in the company (schedules, overtime), the work itself (drudgery, difficult tasks), and pressure at work (lack of time, stress). Training conditions (N = 8) pertain to the pedagogical design of the apprenticeship and the trainers’ pedagogical skills and commitment. External contingencies (N = 5) concern elements beyond the scope of the training, such as the bankruptcy of the company or other priorities (e.g., family).

Health (N = 15) includes physical and mental issues. Mental health in particular seems fragile among the members of this population, who report feelings of depression, isolation, and anxiety in relation to their apprenticeship. The emerging picture is one of young people with vulnerabilities as they enter the training, which are often exacerbated by the training itself, but also those who develop health issues through a bad experience in training. These issues have repercussions (absenteeism, poor performance, etc.).

Orientation (N = 17) relates to the process leading to a choice of trade and/or training path. The results reveal that many young people make a choice by default (meaning that it does not correspond to their wishes) and perceive low self-determination.

4.2.2 Combinations of reasons

Two combinations of reasons emerge from our analysis; the first, identified in research on PIT in 3-year and 4-year apprenticeships (Lamamra & Masdonati, 2009), includes work conditions, training conditions, and relationships and highlights the importance of quality relationships in the transmission process when learning a trade.

The second combination includes health, performance, and professional orientation and is specific to the population in the present study. It highlights the importance of professional orientation and its implications for health and performance in young people. The causal relations among these three reasons for PIT are multi-directional: poor performance in school and health issues may affect orientation in this training track, which may in turn affect performance and health through low self-determination (Bosset et al., 2020).

4.2.3 What these results reveal about fit

From these qualitative results, we infer five pairs of individual and contextual elements that show where poor fit appears. It is here that the disentanglement of fit takes shape.

a) Poor fit between interests and occupation

Our findings show a prevalence of truncated orientation processes made under difficult conditions: a sense of urgency to find an apprenticeship, lack of opportunities, limited choice of trades and training tracks, and low self-determination. This forces some young people to make “default choices,” as in Linda’s case:

\(^4\) (Lack of) motivation, absences, and tardiness were not considered reasons as such but as signs indicating one or more of the above-mentioned reasons.
Some people told me that I had to choose catering and service, and well, I noticed as time went by that in fact, it did not interest me (…). I didn’t like the apprenticeship because they were teaching me things I do not like (Linda, aged 16, ex-apprentice in catering and service).

As a result, she cannot engage in the training, which is not meaningful to her. It also prevents an apprentice from persevering when facing difficulty, as expressed by Janine:

This is not the trade I want to do later in life (…); if it had been, I would have persevered (aged 18, ex-apprentice in catering and service).

The lack of self-determination in the orientation process stands out in the wording used by the young people: “some people told me” (first excerpt), “the social worker told...” (Rasa, 25, ex-apprentice in cooking), and “my mum told me” (Christophe, 18, ex hairdressing apprentice).

b) Poor fit between skills and training requirements
Young people talk about their difficulties in performing the tasks required of them. Academic deficiencies (literacy and numeracy) and cognitive difficulties (concentration, comprehension, memory) are frequent. Ibrahim explains:

And in fact, we always had to remember everything… everything in the head, and we had to write, in fact. And I really… really had huge difficulties with that (aged 20, ex-sanitary facilities apprentice).

Another difficulty relates to managing schoolwork, company-based demands, and daily life, as Laura explains:

The problem is that, well, I had to tell my boss everything I had learned the previous day in school even though I would get home at 6:30 or even 7:00 pm. From school. And the next day, I had to tell my boss about everything I had done (aged 19, ex-apprentice in cooking).

Her testimony shows how the rhythm (alternating between school and workplace), the different pedagogies (teachers in school, trainers in the company), and the work/training hours impact her everyday life.

c) Poor fit between the need for support and support received
Apprentices in the 2-year program are entitled to additional personalized coaching. However, some young people lament the lack of support from their supervisors, as Maureen clearly describes:

My dream is to find an understanding boss with whom I can talk, whom I can confide in (aged 22, ex-hairdressing apprentice).

This relationship is crucial for learning in workplace training contexts (Masdonati & Lamamra, 2009). From the young people’s perspective, a “good” relationship represents a guarantee of support, but trainers are also under the pressure of operating a business (Lamamra et al., 2019). The relationship between the apprentice and their boss or trainer at work is often tense. Ricky explains:

He (his boss) was stressed out. He had to go everywhere. He would yell at me. It didn’t go well (aged 17, ex-builder’s apprentice).

The pressure experienced by the trainer has repercussions not only on the quality of the relationship with the apprentice, but ultimately on the apprentice’s health as well (can lead to burnout).

d) Poor fit between the value given to the training path and its public image
The 2-year apprenticeship was created to be an easier, more accessible version of the 3–4-year apprenticeship. However, the latter remains the reference, and the former is seen as a less valued version, leading many young people on the shorter scheme to feel stigmatized. Achir (aged 18), ex-administration apprentice, expresses his feelings in these terms: “I don’t want to be an FVC apprentice!”, stressing the impact on his self-image. That their practical skills are presumably stronger than those in the 3–4-year apprenticeship does not balance out the negative perception. Melissa explains how her hard work is not recognized:

It’s a 2-year apprenticeship, but we work like everyone else, in fact (…). We are seen a bit as… not exactly stupid people, but… they think, “She will not get it as quickly as the other ones.” (aged 18, ex-sales apprentice).

The greater accessibility of the training track seems to be proportionally linked to its perceived lesser value, as Achir points out when he says “anyone can get it”.

e) Poor fit between health and training requirements
The 2-year apprenticeship is geared to a highly heterogeneous and vulnerable population, which makes for fertile ground when it comes to health issues.
Training requirements that are incompatible with pre-existing health issues call into question the quality of the professional orientation. Health issues can also develop during the apprenticeship. In these cases, PIT is almost unavoidable. Other troubles are directly linked to the pressure of an apprenticeship, as Yolanda points out:

Let’s say I had the impression that I wasn’t feeling good in my private life to begin with, so I felt that… how to say… the homework, the… the obligations at work and… I felt too much pressure (aged 27, ex-nursing and community health apprentice).

For Yolanda, the management of various training locations, plus educational and professional expectations, create pressure that becomes overwhelming. Lukas experiences a similar situation:

I broke down on the construction site. And… I had already broken down in school… and a few times at home, so they suspected epilepsy… and then I took some tests before the summer and… They said it was psychological… because I was burned out… everywhere (aged 18, ex-builder’s apprentice).

The situation described in the preceding excerpt indicates the importance of mental health, which is affected throughout the process (before, during, and after PIT); young people experience symptoms of anxiety, depression, and burnout.

**4.3 Bridging quantitative and qualitative findings relating to poor fit**

Table 2 completes and combines the quantitative and qualitative results above. It summarizes the five pairs showing the poor fit between personal and contextual elements, as well as qualitative (reasons) and quantitative results (early indicators) from which we infer these findings. To put it another way, we summed up all qualitative and quantitative results of this study into five dimensions of poor fit.

**Table 2. Poor fit, links to qualitative and quantitative results**

| Poor fit between contextual (training) and personal elements (interests, skills, needs, and values) | Qualitative results: reasons from which poor fit is deduced by researchers | Quantitative results: early indicators from which perceived poor fit emerges |
|---|---|---|
| 1 Occupation versus interests | - Professional orientation - Performance - Health | - Fit perceptions - Support of parents and teachers |
| 2 Training requirements versus skills | - Performance | - Self-rated performance in VET school - Efforts in VET school |
| 3 Work and training conditions versus need for extra support | - Work conditions - Training conditions - Relationships | - Variety of work in VET company - Overall satisfaction with VET school and company - Support/competencies of VET trainer - Commitment to VET company |
| 4 Social representation of training versus need for identification | - Professional orientation - Training conditions - Health (mental) | - None |
| 5 Tasks and requirements versus healthcare needs | - Professional orientation - Health | - Depression/anxiety |

**5. Discussion**

The results support the central role of fit by highlighting its benefits, and by warning against the damaging effects of poor fit. Through early indicators of PIT and the reasons young people give for their PIT, the results underline the strong link between poor fit and PIT and support the basic tenet of the fit theory in the orientation process.

The quantitative results show that young people who drop out later on perceived their fit as lower at the start of training. Even though perceived fit may evolve, a good fit at the start of the training is a prerequisite...
for completion of the training (Neuenschwander, 2014). The qualitative results present the problem posed by a choice by default, which compromises fit. It then proves very difficult to engage in the tasks assigned (Bourgeois, 2011). It also highlights the issue of young people's seemingly low self-determination—in particular with regard to their level of autonomy—during the orientation process. Strong self-determination is important as it may favor motivation (Deci & Ryan, 1985) and engagement in the tasks, as well as preventing later health issues (Farholm et al., 2016).

In terms of stress and performance, the quantitative results indicate that the stress levels of stayers and leavers do not differ in the VET school and in the company. The timing of the questionnaires may have played a role; at the start of training (t1), the young people may not yet have been aware of their difficulties. However, the qualitative results reveal that some young people who interrupt their training struggle with concentration, memory, and multitasking.

The quantitative results indicate that stayers already had a more positive self-evaluation of their school performance at the start of training compared with leavers. The qualitative results reveal where the difficulties of leavers actually lie, that is, in basic literacy and numeracy skills. Apprentices' prior school experience may be related to this finding; in the group of young people who started their education in a foreign country and finished it in Switzerland, the percentage of PIT is 27%, which is comparatively high. This could be related to language skills (Konsortium PISA.ch, 2019).

Young people who interrupt their training later on report lower levels of effort in the VET school at the start of the training (quantitative results). We can link this to our findings on choice by default and how it impacts motivation and engagement in tasks (qualitative results); endeavoring to achieve something that is not in line with one's goals is difficult and may have an impact on their engagement and performance (Dubeau et al., 2015). The combination of "health, performance, and professional orientation" supports this view. Overall, the issue of performance and effort in school points out a misfit and sheds light on this "one size fits all" approach to this training.

On the subject of relationships, the qualitative results highlight the importance of support and competence on the trainer's part, from the very start of the training. Furthermore, stayers rate themselves higher in terms of their commitment to the company. The qualitative results point out the centrality of quality relationships, as shown in the combination of "work conditions, training conditions, and relationships" reasons. Quality relationships may contribute to an overall higher perception of the training quality, which lowers the risk of PIT (Negrini et al., 2016; Wenger, 2022).

Young people in the 2-year apprenticeship, particularly those who have experienced PIT, often lack resources and VET trainers who serve as central persons by gaining the young people's trust, as well as transmitting knowledge/skills and providing support (Hofmann et al., 2014). The dual apprenticeship's work and training conditions, marked by the tension between production and training, do not allow sufficient time and space to accommodate some young people's need for extra support.

Training conditions are also central. The quantitative findings point out the importance of the variety of skills used at work in the VET company, which enhances satisfaction and supports a successful transition to the labor market (Stalder, 2012). The qualitative results report the dissatisfaction of some young people with boring tasks. The VET companies may lack training skills and thus assign uninteresting tasks to the young person; perhaps they are also overwhelmed by the pressures of productivity (Gehret et al., 2019; Lamamra et al., 2019).

More generally, the results point out central issues about satisfaction. The comparison between stayers and leavers underlines why stayers are more satisfied overall with the VET company and the VET school. In the interviews, dissatisfaction manifests itself through the stigmatization of the 2-year apprenticeship: some young people view it as an inferior option and are unhappy to be associated with it.

Health issues emerge in several ways. First, mental health seems to be related to PIT; leavers report more symptoms of depression and anxiety compared with stayers. Second, they reveal the complex connection between elements of fit and health (e.g., interaction of health, performance, and professional orientation). Third, health issues, particularly regarding mental health, appear to be both reasons for and consequences of PIT (Duc & Lamamra, 2014).

Finally, the results reveal that PIT does reflect a poor fit between the target group and the training offer. More interestingly, the pairs of poor fit revealed in this study go beyond the more conventional studies on the reasons for PIT by bringing together individual and contextual elements, and presenting a vivid account of their interactions, based on the definition of fit. In this sense, our study goes in the same direction as that of Eccles et al. (1993), who view fit as a dynamic concept. While these authors consider the young people's developmental stage as the individual element, we refer to their interests, skills, needs, values, and health. The idea of both
parties adapting to each other (Dawis & Lofquist, 1984), while promising, needs further exploration in this particular training.

6. Conclusion

Our study is relevant to the field of low-threshold training tracks within VET, as it sheds light on poorly explored areas. The results fill gaps in the three topics below.

First, our study contributes to the emerging field of investigation relating to the 2-year apprenticeship. Second, regarding PIT, our findings move beyond listing the reasons for PIT as we have identified two specific reasons (health issues and choice by default), a specific combination of reasons (health, performance, and professional orientation), and two unexpected elements (low self-determination and perceived stigmatization of the track). Third, these results underline the interest in combining methods. Overall, our contribution exposes the acute vulnerability of young people in the 2-year apprenticeship.

Based on the five pairs of poor fit, we see three main levers to prevent PIT:
1) Improve young people’s self-determination in the orientation process by taking their motivations into account more fully, working with them on their representations (of themselves and their possibilities), and enhancing their participation.
2) Recognize the trainers’ central role in preventing PIT—in particular as it relates to psychosocial risks—by passing down specific knowledge for tackling difficult situations and valuing his/her responsibility.
3) Improve the social representation of this training by involving all VET actors, but also by reflecting on the design of the apprenticeship program, which attracts young people with heterogeneous and complex needs.

Our results contribute to the theorization of fit as a dynamic concept in two ways. First, by disentangling five different aspects of fit (see Table 2), we allow for a multidimensional vision of this concept. Second, as each pair is composed of both personal and contextual elements, it completes and extends the vision of fit as the result of reciprocal interactions. This in turn allows for targeted interventions that enable mutual adjustments and multi-level evolutions to happen.

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Vorzeitige Lehrabbrüche in dem Bildungsgang im schweizerischen Berufsbildungssystem im Hinblick auf Eignung

Zusammenfassung
Dieser Beitrag untersucht vorzeitige Lehrabbrüche im Hinblick auf Eignung von Ausbildung und Auszubildenden. Zu diesem Zweck wurden sowohl Frühindikatoren als auch die von den Jugendlichen angegebenen Gründe für den Abbruch untersucht. Unter Verwendung eines quantitativen und qualitativen Ansatzes wurden 628 Fragebögen ausgeteilt und 31 halbstandardisierte Interviews geführt. Alle Teilnehmerinnen und Teilnehmer befanden sich in der zweijährigen Lehre zum eidgenössischen Berufsattest, einem niederschwelligen Bildungsgang im schweizerischen Berufsbildungssystem. Die Ergebnisse zeigen auf, welche Elemente von einer schlechten Eignung betroffen sind und wie diese zu einem vorzeitigen Lehrabbruch bei tragen können.

Schlagworte: Vorzeitige Ausbildungsabbrüche; Eignung; Eidgenössisches Berufsattest; Sonderpädagogik; kombinierte Methoden

Arrêts de formation prématurés dans la filière suisse d’apprentissage en deux ans au prisme de son adéquation

Résumé
Cette contribution examine les interruptions prématurées de formation à la lumière de l’adéquation entre la formation et les apprenti·e·s. À cette fin, nous explorons les indicateurs précoce•s et les raisons d’arrêts données par les jeunes. Utilisant une approche quantitative et qualitative, 628 questionnaires ont été distribués et 31 entretiens semi-directifs ont été conduits. L’ensemble des participant•e•s étaient engagé•e•s dans un apprentissage en deux ans menant à l’Attestation fédérale de formation professionnelle, une filière à bas seuil au sein du système de formation professionnelle suisse. Les résultats révèlent les éléments concernés par une mauvaise adéquation de la formation et comment ces derniers peuvent contribuer à un arrêt d’apprentissage prématuré.

Mots-clés : Arrêts de formation prématuré•s ; adéquation ; Attestation fédérale de formation professionnelle ; éducation spéciale ; méthodes combinées
Varia

Abbandoni precoci della formazione nel sistema svizzero di apprendistato a basso livello attraverso il prisma dell’adeguatezza

Riassunto
Questo articolo esamina gli abbandoni precoci della formazione secondo la prospettiva dell’adattamento tra contesto di formazione e apprendisti-e. A tal fine, esploriamo gli indicatori precoci e le ragioni addotte dai e dalle giovani per abbandonare la formazione. Utilizzando un approccio quantitativo e qualitativo, sono stati distribuiti 628 questionari e sono state condotte 31 interviste semi-strutturate. Tutte e tutti le e i partecipanti svolgevano un apprendistato biennale per il conseguimento del certificato federale di formazione pratica, un percorso di livello base all’interno del sistema svizzero di formazione professionale. I risultati rivelano quali elementi sono influenzati da un pessimo adattamento e come questi possano contribuire all’abbandono precoce dell’apprendistato.

Parole chiave: Abbandoni precoci della formazione; adattamento; certificato federale di formazione pratica; educazione speciale; metodi combinati

Isabelle Bosset, Dr. phil., studied educational sciences at the University of Geneva. She has worked as a researcher for over 10 years with special interests in adult education, organizational support of training, and school-to-work transition. She now works as an expert at éducation21, in the field of education and sustainability.
Education 21, Monbijoustrasse 31, CH-3000 Bern
E-mail: isabelle.bosset@education21.ch

Claudia Hofmann, Dr. phil., is Senior Researcher at the University of Teacher Education in Special Needs, Zurich. She studied psychology at the University of Bern. Her research interest is school-to-work transition for people with disabilities.
Interkantonale Hochschule für Heilpädagogik, Schaffhauserstr. 239, CH-8050 Zürich
E-mail: claudia.hofmann@hfh.ch

Barbara Duc, Dr. phil., is Senior Researcher at the Swiss Federal University for Vocational Education and Training. She studied educational sciences at the University of Geneva. She works on the dual VET system in a sociological perspective. Her research interests are school-to-work transition, occupational socialization and health.
HEFP, CP 192, CH-1000 Lausanne 16 Malley
E-mail: barbara.duc@hefp.swiss

Nadia Lamamra, Dr. phil., is sociologist and Professor at the Swiss Federal Institute for Vocational Education and Training. She works on the dual vocational training system, both from the perspective of apprentices and trainers. Her topics are school-to-work transition, gender and occupational health.
HEFP, CP 192, 1000 Lausanne 16 Malley
E-mail: nadia.lamamra@hefp.swiss

Annette Krauss, MSc. in Psychology, is Junior Researcher at the University of Teacher Education in Special Needs, Zurich. She currently does research in developmental and health psychology and applied vocational psychology.
Interkantonale Hochschule für Heilpädagogik, Schaffhauserstr. 239, CH-8050 Zürich
E-mail: annette.krauss@hfh.ch