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4.1 Functional Analysis

FUNCTIONAL ANALYSIS REPORT



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INITIAL ROADMAP

A4.1 - Functional Analysis Report

Theoretical research

Why is important to monitor behavior in class to avoid dropout? Which are the common behaviours that show high dropout risk?

1

2

Empirical research

How does this look in real life?
What can trainers say from their previous experiences?

Development of other materials

- 4.2 In-campus office
- 4.3 Case handling mechanism
- 4.4 Methodology for piloting

3

Piloting results about behavioural observation

How relevant was behavioural observation for a proper detection of high dropout risk students? Were TeSTED materials helpful?

The functional analysis report spread from different sources of information, which gathered primary and secondary data. It is structured in three parts, which are very closely related with the other results of the Intervention mechanism.

PART 1 - Theoretical research:

EVBB and BK-Con contributed with their expertise to the theoretical part of the report, which highlights why observing behaviour in class is important. From this research, we inferred that it was important for the development of “A4.2: In-campus office” to have templates that could spark discussions and collaboration to support students at risk.

PART 2 - Empirical research:

4 partners conducted informal interviews with real-life trainers. DAYANA, USLIP, ipcenter and AKMI interviewed at least 1 trainer per country and ask them about dropout and success cases of previous students, so we could determine specific indicators that influence dropout. These cases have been also included in our TeSTED cases library, which is part of “A4.3 - Case handling mechanism”. Our aim is that the library will grow over time with new reported cases.

PART 3 - Piloting results:

DAYANA, USLIP, ipcenter and AKMI tested, in the framework of “A4.4 - Piloting Operation”, why the observations of teachers during class were essential to detect those students at higher risk. This part served as a confirmation of our hypothesis on the theoretical part.

PART 1

THEORETICAL RESEARCH

PREPARED BY:
Two partners

EVBB & BK-CON

RELEVANCE OF MONITORING AND ANALYSING STUDENT BEHAVIOUR TO REDUCE DROPOUTS

Analysing the behaviour and underlying patterns or types of behaviour which are commonly associated with a decrease in students' interest in their academic life (Banaag et al., 2024) can focus on these issues and help to implement strategies preventing a dropout case.

There is a range of behaviours that students who are at risk of dropping out can exhibit and the underlying causes are often based on **personal and family factors, socioeconomic factors, ill mental health and more** (Zhengin, 2021).

Concerning behavioural patterns can manifest in the form of (but not limited to) discipline issues, frequent absenteeism, disruptive outbursts, social withdrawal etc. It is important for teachers to understand their students' behaviour so that they can provide tailored support to address the needs of each student. Some students might have difficulties in understanding academic concepts, some may face aggressive behaviour from peers, others may have social-emotional issues. A tailored approach can be more appealing to the student than a universal approach, students will feel a sense of understanding and acceptance with their teachers (Finn et al., 1997).

Another benefit of analysing student's behaviour is helping schools and educational institutions **gain a deeper insight into potential systemic issues** which have an impact on dropout rates. Reforming policies and approaches in order to tackle this issue can be effective (Balfanz et al., 2007).

By **identifying gaps such as ineffective teaching methods and curriculum gaps**, schools can optimise their resources and improve the learning environment for their students (Jimerson et al., 2000).

Continuous assessment of student's behaviour allows schools and teachers to continuously evolve according to the needs of their students and improve their practices.

The implementation of **early warning systems (EWS)** has proven to be successful and effective in identifying students which are at risk of dropping out.

The **“ABC approach”** focuses on analyzing antecedents, behaviours and consequences, so it's more effective than approaches solely focus on academic performance (UNICEF, 2018)

THE MOST COMMON BEHAVIOURS OF STUDENTS, WHO ARE AT RISK OF DROPPING OUT

There are behaviours of students, who are at risk of dropping out, which are common to both - school settings and vocational educational training settings (VET):

- **Frequent absenteeism** which causes a disconnect between the student and learning environment. This can be influenced by reasons like personal issues, lack of interest in the coursework or logistical issues (Balfanz et al., 2007)
- **Poor academic performance** (e.g. failing grades, struggling with understanding coursework, lack of academic progress) can pose difficulties for students in trying to keep up with coursework (Bowers, 2010). Such behaviour can be caused by inadequate study habits, difficulty understanding course content, lack of interest or engagement in the class.
- **Negative behaviour** (e.g. frequent conflicts with teachers and peers, disruptive classroom behaviour, lack of abidance ot school rules (Battin-Pearson et al., 2000). Negative behaviour can stem from emotional and personal issues.
- **Personal or family issues** can influence a student's approach to school in a negative or positive manner. Individuals from their social circle have dropped out, single-parents' households or financial issues can pose risk factors (Dupere et al., 2018).
- **Social isolation** (e.g. withdrawal from school events or social interactions) can be caused by bullying or other personal reasons. The learning environment and the attitude towards and from peers can have a significant influence on a student's participation in school.

Following drop out indicators are specifically for the VET sector, which has practical training as a core component:

- **Poor performance in work placements** can be an indicator that the student is struggling with the practical side, or they lack interest in it (CEDEFOP, 2017). Hands-on experience in their chosen field is essential in the apprenticeship stage of VET.
- **Career expectations are not aligned with the course content.** VET programs are career specific and if students realise their unfitting career expectations during the training they may have a higher inclination of drop out in pursuit of a different career path (Wheelahan & Moodie, 2017)
- **Have issues in the application of technical skills.** Each VET program requires a specific set of technical skills applicable to the path/ sector. Students may succeed with theoretical parts of their studies, but struggle with the technical skills and therefore in maintaining progress and completing their studies (Guo & Choy, 2019)

CHALLENGES WHEN SUPPORTING A STUDENT WHO IS AT RISK OF DROPPING OUT

The detection of warning signs at an early stage is the biggest challenge in trying to support students and prevent dropouts (Dynarski & Gleason, 2002). Disinterest or issues manifest in different manners; it can be difficult for teachers to identify them at an early stage. (Bowers, 2010)

Indicators and reasons for a drop out can vary and teachers have to be capable of **addressing these multifaceted needs** and direct students to the appropriate staff which supports them with specific issues (Suldo & Shaffer, 2008). Collaborations in schools with helping professionals (e.g. social workers, counsellors and other community resources) can help students in need (Freeman et al., 2015).

For teachers it is very important to have **a good relationship with their students** and have their trust, then they will be open to discuss their problems. Teachers can develop a better understanding of the issues and factors behind them. (Johnson & Johnson, 2009).

Limited resources and capacity can restrict schools' ability to effectively address their students' problems and reduce their dropout rates (Delgado & Staples, 2008). Lack of staff, funding, resources or time constraints play a significant role in a school's approach to risk students and their performance.

Resources in education institutions should be maximised to tackle this issue (Galloway, 2021). The duration for which the support is provided depends on the issues. Underlying issues behind a student's poor academic performance or negative behaviour cannot be fixed immediately and often **requires long-term support and monitoring** (Loder-Jackson & Roach, 2016).

SUGGESTIONS TO CARRY OUT INTERVENTION STRATEGIES

What is an intervention strategy?

Intervention strategies provide targeted support for students at risk of dropping out to help them stay in school or graduate. Effective dropout intervention involves ongoing monitoring and evaluation to ensure that the programs are effective. Attendance, behaviour, course performance and graduation rates are tracked by schools and feedback from students, families and staff help to identify areas of improvement (UNICEF, 2018) and refine their strategies.

What types of intervention strategies can be implemented to reduce dropouts?

Vocational education and training programs (VET) in Germany implement several strategies to reduce the risk of students dropping out. A very efficient tool in this process is the **“Early Warning systems”** (EWS) that can identify students at risk of dropping out at an early stage (Doll, J. J., Eslami, Z., & Walters, L., 2013). They have been proven to be very efficient and provide teachers with an opportunity to intervene in a timely manner and prevent dropouts (Bowers & Sprott, 2012). Indicators like attendance, behaviour and course performance flag students who may need extra support. Systems function by monitoring an array of indicators and analyses all the data to assess the potential of dropping out. Some examples are: Edsby, BrightBytes, Panorama Education).

Tailored-made Interventions are provided to address the specific needs for at-risk-students, this includes academic support like tutoring, mentoring to programs designed for students to recover lost credits or provide resources to tackle “non-academic-issues” such as mental health issues, family problems or financial struggles. (Barbetta, Norona & Bicard, 2005)

SUGGESTIONS TO CARRY OUT INTERVENTION STRATEGIES

Many VET institutions employ **dropout prevention coordinators** who can develop individualised support plans and connect students with services both in and out of school e.g. counselling, health services, childcare, housing assistance and job training etc. (ASO Staff Writers, 2023).

Engaging families and communities in supporting at-risk students is important to inform them of their child's progress and involve them in the intervention strategies. Some schools offer parenting classes or family counselling (Doll, J. J., Eslami, Z., & Walters, L., 2013). **Parental communication tools** can maintain open communication channels regarding potential issues so that educators and parents or custodians of the students can work together in challenging situations. This helps to create a supportive environment at school and at home (Kraft & Rogers, 2015). Some examples are: ParentSquare, ClassDojo

Collaborations with community partnerships like social services, youth organisations and local businesses (e.g. mentors, internships, service-learning projects and enrichment activities) can help to keep students engaged and motivated (Barbetta, Norona & Bicard, 2005).

Traditional classroom-based learning may not suit all students; some VET programs provide **Alternative learning methods**. VET-inspired pedagogies are often more hands-on and tailored to individual interests. Flexible learning formats such as part-time programs or distance-learning can better support students with work or family commitments. **Learning management systems** are designed to provide students with resources and tools which support the learning process (Watson & Watson, 2007). Teachers can also deliver their courses, track students' progress, request and deliver reports (Some Examples: Canvas, Blackboard, Google Classroom)

HOW COULD SCHOOLS BETTER REDUCE DROPOUTS?

The main recommendation is to build a **permanent interdisciplinary team** in VET programs that can support with continuous counselling and clearly defined goals (SMART) in the VET environment, organising academic support or language support if needed, feedback from teachers which is essential for improvement, connecting with social services and health/mental health organisations, collaboration with the students, families/custodians, educators and community organisations is important, continuous monitoring and evaluation is absolutely necessary.

A Vocational Education and Training (VET) Specialist can provide in-depth knowledge of the VET system including its structure, programs and key stakeholders, this specialist can identify early warning signs of potential drop-outs, understands the reasons behind them and develops targeted interventions to address the specific needs of at-risk students.

A Psychologist or Counselor can offer psychological and counselling support to at-risk VET students. Their knowledge in human development, motivation and well-being would be vital for a supportive environment.

The Social Worker focuses on the socioeconomic factors influencing VET dropout rates such as family circumstances, financial difficulties, or integration challenges. They liaise with social services, connect to community resources and advocate for policies and programs designed to systemic barriers (CEDEFOP, n.d.).

DO'S

- Successful intervention strategies must have clearly defined objectives (specific, measurable, achievable, relevant and time-bound objectives - SMART)
- Evidence-based approach
- Combination of academic support, mentoring and family engagement
- Early childhood interventions
- Tailored to specific needs and characteristics of the target group
- Targeting specific barriers (e.g. language support, extracurricular activities)
- Collaboration with stakeholders, such as students, families, educators and community organisations
- Continuous monitoring and evaluation of educational interventions

DONT'S

- Unprepared interventions can result in unstructured, emotional discussions
- Giving up too easily - not every intention will succeed on the first attempt, assess what went wrong and make subsequent attempts
- Stopping support after the intervention - sometimes it's a long-term process that requires ongoing support
- Assuming that the strategy will work immediately
- Implementing interventions with poor structure
- Blaming "problem students" when an intervention fails to produce the desired results
- Lack of culturally appropriate approaches
- Insufficient collaboration with local stakeholders like community organisations, schools and government agencies
- Inadequate evaluation and adaptation
- Neglecting sustainability can undermine the long-term impact of an intervention.

PART 2

EMPIRICAL RESEARCH

PREPARED BY:
Four partners

**USLIP, IPC,
DAYANA & AKMI**

HOW DID WE CONDUCT OUR EMPIRICAL RESEARCH?

The empirical research within the TeSTED project was designed to explore the factors that lead to early school leaving as well as the conditions that enable students to remain in education.

We conducted informal interviews with at least 1 trainer per country. We wanted to hear about teachers' and trainers' past experiences with students who were at risk of dropping out. Each partner collected detailed accounts of two types of cases:

- **Drop-out cases:** where students eventually left their educational program.
- **Success cases:** where students, despite being at risk, managed to remain in school and complete their studies.

To ensure consistency across countries and partners, a common template (the ABC model) was provided. This template guided the data collection and structured the case documentation. The ABC framework captures:

- ♦ **Antecedents (A):** the circumstances and risk factors that appeared before the critical behaviour (e.g. absenteeism, health problems, financial stress).
- ♦ **Behaviour (B):** the observable actions and responses of students at risk (e.g. disengagement, conflicts, avoidance).
- ♦ **Consequences (C):** the outcomes that followed, either leading to dropout or demonstrating successful intervention and retention.



ROMANIA

DROPOUT CASE

Colegiul Silvic Bucovina (Male, 28)

Risk Behaviours:

- High absenteeism & low grades
- Conflicts with teachers and classmates
- Lack of parental involvement and monitoring

Turning Point:

- Hid academic problems from family → lack of communication and support
- Family instability and economic pressures increased

End of Story: Dropped out in 2016 without specialization. Faced unemployment, reliance on social assistance, and substance abuse. Example of how lack of family-school cooperation deepens dropout risks.

SUCCESS CASE

VET Student in Iasi (Male, 22)

Risk Behaviours:

- Disinterest in school, lack of motivation
- Feeling of not belonging
- Absenteeism to work for quick income

Turning Point:

- Left to work abroad as a day laborer
- Returned to school after seeing limited opportunities

End of Story: Completed studies to obtain specialization. Motivated by promise of better pay & a management position at uncle's company.



AUSTRIA

DROPOUT CASE

Hairdresser & Stylist (Female, 21)

Risk Behaviours:

- High absenteeism due to physical/health problems
- Lack of motivation, avoidance of education
- Family conflicts, responsibility for siblings

Turning Point:

- Despite internal & external support, health problems worsened
- Early engagement and family stress added pressure

End of Story: Dropped out in final year without qualification. Dependent on fiancé and social assistance. Talented, but health and family issues interfered too much.

SUCCESS CASE

Media Expert (Male, 24)

Risk Behaviours:

- High absenteeism (non-justified)
- Difficulties completing tasks, avoiding group work
- Psychological problems (depression)

Turning Point:

- Dropped out after 3 months – 6-month break with psychological support
- Returned in a different education form with less stress

End of Story: Open to feedback & consultation, improved concentration. Absenteeism reduced, more active in group work. On track to graduate successfully in 2025



BULGARIA

DROPOUT CASE

Restaurateur Student (Male, 16)

Risk Behaviours:

- Low attendance, skipping classes (especially mornings)
- Aggressive behaviour, conflicts with peers & teachers
- Family problems, lack of parental support, poverty

Turning Point:

- Teachers provided support and worked with family & institutions
- Despite interventions, student rejected education as valuable

End of Story: Dropped out after prolonged disengagement. Limited job opportunities, relies on insecure, low-paid work.

SUCCESS CASE

Assistant Coach (Male, 15)

Risk Behaviours:

- Lack of motivation & interest in studies
- Conflicts with teachers, complaints about strict coach
- Family problems (separated parents, over-tolerant upbringing)

Turning Point:

- Low grades, disengagement, anxiety – flagged by teachers
- Assessment revealed family & emotional issues
- Mentoring Project introduced: older students supporting younger peers

End of Story: Received support from teachers, specialists, and parents. Stayed in school and continued his education successfully.



GREECE

DROPOUT CASE

Tourism & Hospitality Student (Male, 20)

Risk Behaviours:

- High absenteeism
- Lack of motivation in class
- Ongoing financial problems

Turning Point:

- Absenteeism increased – grades dropped
- Meeting with head of studies took place, but no solution found

- **End of Story:** Student chose to drop out mid-second year because he found a job abroad after internship. Left education without a qualification.

SUCCESS CASE

Chef Student (Male, 21)

Risk Behaviours:

- High absenteeism (non-justified)
- Stress, fatigue, difficulty concentrating
- Signs of depression, avoidance of tasks

Turning Point:

- Internship + demanding work made it hard to balance study & job
- Teachers and head of studies stepped in
- Flexible solutions: tuition in instalments, option for morning/evening classes

End of Story: Student managed to stay in education and adjusted workload and timetable helped him continue.

MAIN CONCLUSIONS

About Drop-out Cases...

1. Financial challenges often push students into absenteeism and eventually dropping out.
2. Even with support, work abroad opportunities can seem like quicker solutions to financial pressure, making retention difficult.
3. Motivation and performance decline gradually, showing the need for early intervention.
4. Listening to student experiences and adapting teaching approaches can create a more favorable learning environment – even if no universal solution exists.

About Success Cases...

1. Early detection of problems (like anxiety, absence) + tailored support prevents dropout.
2. Flexibility in schedules and fees helps students balance work and study.
3. Open dialogue between learners and VET staff creates trust and collaborative solutions.
4. Returning to school after absence shows resilience and determination – with the right support, students can succeed and build a better future

PART 3

PILOTING RESULTS

PREPARED BY:
ALL PARTNERS

USLIP, IPC,
DAYANA, EVBB,
BK-CON, AKMI

MONITORING AS A TOOL FOR EARLY RISK DETECTION

The piloting phase across Austria, Bulgaria, Romania, and Greece demonstrated that continuous monitoring was indispensable in identifying early warning signals of school dropout. Standardized questionnaires and reporting templates created a comparable dataset, but the real added value came from the **structured monitoring calendar**: monthly check-ins, systematic use of indicators (motivation, attendance, family support, financial background), and **individualized intervention plans**.

For example, **in Austria**, socio-economic questionnaires initially flagged several students as potentially at risk, but continuous monitoring and a **qualitative exchange between the teacher and the socio-pedagogue revealed deeper issues such as declining motivation and concentration difficulties due to traumatic migration experiences**. Without this monitoring process, those signals might have remained unnoticed until students fully disengaged.

In Romania, monitoring enabled the differentiation between general absenteeism and high-risk absenteeism. Through monthly data collection and comparison between groups, the **project team identified a 10% improvement in attendance among students supported by TeSTED interventions**, showing that ongoing tracking directly translated into measurable results

THE ROLE OF BEHAVIOUR OBSERVATION AND QUALITATIVE INPUTS

While monitoring tools provided the framework, qualitative insights from teachers, trainers, and socio-pedagogues were essential to understand the reasons behind the numbers.

Trainers could spot subtle behavioural patterns—withdrawal from peers, lack of engagement, or changes in communication style—that questionnaires alone could not capture.

In Austria, the selection of six high-risk students for intensive counseling was based not only on survey results but also on trainers' qualitative observations. Trainers reported visible demotivation and emotional instability, which supported the decision to **focus interventions on emotional support and job orientation**.

In Bulgaria, **behaviour observation was particularly effective in Roma minority communities**. Trainers noted cases where lack of parental involvement made students appear “low risk” in the questionnaire, but interviews and behavioural analysis revealed hidden vulnerabilities.

In Romania, descriptive statistics highlighted absenteeism as the main problem, but it was teacher observations that revealed why: repeated behavioural issues and emotional distress, often linked to difficult home environments. Counselling and peer mentoring were therefore tailored to address not only academic but also social-emotional needs. The qualitative feedback loop helped refine interventions and confirmed that risk assessment was not a “one-time event” but a dynamic process.

IN A NUTSHELL...

The piloting clearly demonstrated that **monitoring and qualitative observation are mutually reinforcing.**

Monitoring tools like the socio-economic and psychometric questionnaires provided the structure and comparability across countries, while behaviour observation brought depth and contextual accuracy.

Together, they ensured that students most at risk were **not only identified but also understood and supported** in ways that improved attendance, behaviour, and engagement.

Concrete outcomes prove that the mechanism was not theoretical but a practical, evidence-based tool that schools can embed sustainably.

A4.1
FUNCTIONAL ANALYSIS REPORT

Barvarese alla vaniglia
Preparare la crema con tre litri
di latte e zucchero, e un quarto
di vaniglia di prima di vaniglia
bolle, e aggiungere appena ac-
cetta la di polve già messa a to-
giare di prima.
Lasciarla freddare e mercolan-
do, e quando comincerà
a solidificare, con del latte
e zucchero.

La Cuisson à l'eau.

On cuit les aliments peuvent se
cuire à l'eau.
les légumes bouillante (salse)
la viande (bouillon fade)
les pâtes et le riz
les œufs: à la coque