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SELFIE WBL PILOT COUNTRY REPORT: TURKEY

THE EU AGENCY SUPPORTING COUNTRIES TO DEVELOP THROUGH LEARNING

This is a joint report by the Joint Research Centre (JRC, B.4) of the European Commission, and the European Training Foundation (ETF).

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EXECUTIVE SUMMARY

With 18.2 million students and 1.1 million teachers, the Turkish education system is massive. If tertiary education is included, more than 25 million students have been affected by school closures in Turkey resulting from the COVID-19 pandemic. Developing the digital skills of students and teachers is the focal point of several official strategic documents, including the most current Vision 2023 document of the Ministry of National Education (MoNE)[1]. COVID-19 has brought the subject to the fore, and the vital importance of digital skills and competences is acknowledged by all stakeholders.

The MoNE has a long tradition and experience in quality monitoring and improvement practices through its 360-degree quality measurement and monitoring system at vocational education and training (VET) schools. As part of this vision, the SELFIE tool was first piloted in 2019 with the participation of 43 332 students, 6 532 teachers and 927 school leaders in 47 provinces. The initial findings of the pilot were quite promising for future applications.

The SELFIE WBL pilot project started in Turkey in July 2020. SELFIE WBL is a new SELFIE module for VET schools that involves in-company trainers. It provides a self-reflection tool for VET schools to improve their digital capacity. Aggregate data obtained from the tool can also be used to inform the MoNE's digital education policy. Convenient sampling was used to select the pilot VET schools in collaboration with the MoNE's Directorate General (DG) for VET. Priority went to schools with programmes in information technology and related fields since all schools were closed during the pilot. VET schools of different sizes (small, medium and large) were selected from four provinces (Ankara, Istanbul, Mersin and Kastamonu), which represent different geographical regions of Turkey. The pilot study, which was completed in November 2020, drew on the involvement of 23 schools and 28 companies involving 7 301 students, 1 089 teachers, 170 school leaders and 87 in-company trainers.

The outcomes of the pilot are not representative of the national education and training systems. They do, however, provide useful insights for schools and companies participating in the pilot and, overall, for schools and companies providing similar WBL programmes and belonging to the specific economic sectors covered by the pilot.

The quantitative results revealed that users (i.e. school leaders, in-company trainers, teachers and students) had a high level of satisfaction with SELFIE WBL. In Turkey, in-company trainers and school leaders were found to have a higher level of satisfaction with SELFIE WBL than other user groups. In addition, the results showed that users of SELFIE WBL were quite likely to recommend its use to others. School leaders were found to be more likely to recommend SELFIE WBL than other user groups. Overall, the highest mean rating on the SELFIE WBL questionnaire came in the area of 'Pedagogy: Supports and Resources', while the lowest mean rating came in the area of 'Infrastructure and Equipment'.

The qualitative findings are also promising. All participants stated that SELFIE WBL made it possible for schools to identify their strengths and weaknesses in different SELFIE areas from the perspectives of different user groups. As the SELFIE WBL reports show, schools have started to prepare their action plans with the involvement of companies in order to address weaknesses in the use of

[1] Turkey's Education Vision 2023 is available at http://2023vizyonu.meb.gov.tr/doc/2023_VIZYON_ENG.pdf

educational technologies. It is likely that the use of digital technology in education will be more prominent after the COVID-19 crisis, so SELFIE WBL is a promising tool for schools and companies. The qualitative findings also show that in-company trainers highlight the potential of SELFIE WBL for self-reflection.

SELFIE TEAM IN TURKEY

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2. DIGITAL EDUCATION AND WBL POLICIES IN TURKEY

In Turkey, formal vocational and technical education includes four school types, namely vocational and technical Anatolian high schools, multi-programme Anatolian high schools, vocational education centres and private vocational schools (Turkish Ministry of National Education [MoNE], 2018a). First, the vocational and technical Anatolian high schools provide students with academic and vocational knowledge and skills that enable them to join the workforce or go on to higher education. They cover 54 fields and 199 related branches and run two types of programme: the Anatolian Vocational Programme (AVP) and the Anatolian Technical Programme (ATP). While both of these programmes provide courses related to vocational and technical knowledge and skills, the ATP offers more intensive courses in the subjects of mathematics, physics, chemistry and biology. Students gain enrolment in the AVP through local placement and in the ATP through a central entrance exam for upper secondary schools. Second, the multi-programme Anatolian high schools offer both general and vocational and technical education programmes within a single educational institution. Third, the vocational education centres provide journeyman and mastership training and vocational and technical programmes. While students receive theoretical training in the vocational education centres, they gain practical training in the workplace. Vocational education centres cover 27 fields and 142 related branches. Lastly, the private vocational schools are private educational institutes that provide vocational education programmes.

Work-based learning (WBL) is a crucial element of the programmes in the Turkish vocational education and training (VET) system (MoNE, 2018a). In the AVP, students in 12th grade receive theoretical training at school for two days and practical training in the workplace for three days (for a total of 24 hours a week). In the ATP, students in the 10th and 11th grades complete apprenticeship in

companies during their summer break (100 and 200 hours, respectively). Students in vocational training centre programmes receive on-the-job training for four or five days a week.

Because of the COVID-19 outbreak in 2020, all educational institutions in Turkey closed temporally in mid-March. For the new school year 2020/2021, VET schools and companies resumed face-to-face training in early October with the necessary COVID-19 measures in place. However, schools at all levels (including VET schools) closed again from mid-November until the end of the school year because of increased COVID-19 cases in Turkey. Practical training in companies continued with strict COVID-19 measures.

During the COVID-19 school closures, the Ministry of National Education (MoNE) has delivered distance education services through the Education Information Network (Eğitim Bilgi Ağı [EBA]; www.eba.gov.tr), which is a digital education platform for all learners in K–12 education, as well as through the EBA TV educational channel for all learners and through live classrooms. First, the EBA has provided students from preschool to 12th grade (including VET schools) with several educational resources including school and interactive books, tests, activities, graphics, curriculum-based videos and live classes. Second, a public broadcaster (EBA TV) has given students (including VET schools) an opportunity to follow their courses on television. With the cooperation of the Turkish Radio and Television Corporation (TRT), EBA TV was launched in March 2020 and television broadcasts have been sent out on four HD and four SD channels. The channels broadcast video lectures of basic lessons suitable for kindergarten, primary, lower secondary and upper secondary levels, as well as a variety of other activities. Lastly, live classrooms have provided live sessions on the EBA platform for all K–12 students to receive lessons and feedback from their own teachers synchronously. For students without a computer and internet connection, 13 599 EBA support centres and 133 mobile support centres have been set up across the country to provide access to the EBA (MoNE, 2020b).

Between 23 March and 20 November 2020, the EBA had about 9.6 billion hits and became the most visited education website worldwide, according to data from the MoNE (2020b). The EBA had about 13 million active students and all teachers were active users as well. In 13 television studios, 6 327 course videos were recorded for 122 subjects involving about 1 000 teachers. A total of 8 631 hours were broadcast to students via eight allocated TV channels. In addition, about 50 million live online courses were taken through the EBA.

In Turkey, the use of digital technology and competences in education is one of the key goals for the resilience and effectiveness of teaching and learning at all levels. The MoNE puts great emphasis on the development of digital infrastructure, content and skills in schools. This goal is clearly highlighted in the 2023 Education Vision for a Strong Future, announced by the MoNE (2018b). Moreover, the MoNE has undertaken several projects on the use of digital technologies for teaching and learning. As one of the most important projects, the FATIH (Movement to Enhance Opportunities and Improve Technology; http://fatihprojesi.meb.gov.tr) project was instigated in 2011 to provide infrastructure and hardware (including interactive whiteboards and broadband internet) for all classrooms, access to e-content, platforms to support teachers in technology integration and content development, and other facilitation services. The FATIH project aims to provide equal opportunities in education and improve the integration of technology in schools. In addition, the Safe Schooling and Distance Education Project, funded by the World Bank, has recently been launched to improve the capacity of the education system to provide equal e-learning opportunities to students during and after the COVID-19 pandemic and any other possible shocks (MoNE, 2020c). Also, several e-training programmes have been offered to VET teachers. More than 40 000 VET teachers have received online training. For example, cybersecurity training has been delivered to vocational and technical Anatolian high school

teachers with the cooperation of IBM Turkey (MoNE, 2020a). In addition, the SELFIE tool helps all schools to integrate digital technologies into teaching, learning and assessment. The SELFIE WBL tool will enable VET schools and companies providing work-based learning to reflect on the extent to which they use digital technologies in their teaching and learning practices (European Training Foundation [ETF], 2020). There are also platforms to support cooperation between VET schools, public institutions and the private sector. The platforms include the Turkish VET Map (meslekiegitimharitasi.meb.gov.tr) and the My Job My Life platform (meslegimhayatim.meb.gov.tr; ETF, 2020).

3. SETTING UP THE PILOT

3.1 Methodology for selecting the pilot schools and companies in Turkey

This section explains the methodology used to select schools and companies for the SELFIE WBL pilot.

Sampling of VET WBL schools

According to MoNE statistics for the 2019/2020 school year, there are 4 470 VET schools in 81 provinces and municipalities in Turkey. For the SELFIE WBL pilot study, 26 VET schools from four provinces were identified in collaboration with the MoNE's DG for VET. The following selection criteria were used:

- owing to the exceptional circumstances related to COVID-19, the most accessible and convenient VET schools were selected for the pilot
- the VET schools were public vocational and technical Anatolian high schools or multi-programme Anatolian high schools that run VET programmes
- the VET schools had at least one year's experience in the implementation of WBL
- the VET schools were of different sizes
- the VET schools run VET programmes for different economic sectors (primarily information and communication technology)

It is important to highlight that the pilot outcomes are not representative of Turkey's national education and training systems owing to the exceptional circumstances of COVID-19 and the resulting small sample size of VET schools participating in the pilot.

Sampling of companies

For the SELFIE WBL pilot study in Turkey, each school coordinator identified at least one company that provided WBL opportunities for the school. The MoNE's DG for VET approved the companies selected for the pilot. At least two in-company trainers from each company were required to participate in the pilot study. The main selection criteria for companies were as follows:

- they must have adequate information and communication technology infrastructure
- they must work in sectors primarily related to information and communication technologies

In addition, companies from other sectors (e.g. automation, networks and electronics) were included in the pilot if they provided apprenticeship training to pilot VET schools.

3.2 Methodology for translating and adapting the SELFIE materials

SELFIE had already been translated in 2019, so the new questionnaires and related material for SELFIE WBL were adapted from the original language into Turkish in two steps. First, the country expert translated all new questionnaire items and other materials into Turkish. After translation, the national expert reviewed the translated questionnaires and materials in terms of their content, contextual adaptation and usability. Second, an outside expert (Dr. Muge Adnan of Mugla University, whose expertise is English Literature) checked the key concepts and terminology in the translated questionnaires and materials for their clarity, coherence and contextual relevance. Based on the outside expert's suggestions, any necessary revisions were made.

3.3 Preparing for the pilot implementation

In the preparation for the pilot implementation of SELFIE WBL, the following steps were taken.

First, a detailed plan was prepared and the methodology was set out in an inception report, which explained the sampling, communication, implementation, translation of the SELFIE WBL questionnaire, data analysis, the report on the findings, potential difficulties, activities and pilot deliverables. However, owing to the exceptional circumstances of COVID-19, some revisions were made to the plan and methodology in the inception report without affecting the expected standards and deliverables of the pilot study.

Second, the national expert coordinated the pilot implementation with EU partners through communication and collaboration tools such as online meetings, emails, Basecamp, OneDrive and other online Office tools, so that the pilot participants could follow a common approach and obtain support when necessary. The national expert also communicated regularly with representatives of the Ministry of National Education to encourage them to reach out to VET schools and companies in the pilot and solve any challenges that might arise, while also keeping them informed of progress.

Third, after the identification of VET schools and companies, the national expert sent invitations in the name of the DG for VET and the European Training Foundation (ETF), asking candidates to participate in the SELFIE WBL kick-off event and pilot. The MoNE also invited the schools officially to participate in the kick-off event and pilot. When required, the national expert contacted school leaders personally.

Lastly, a kick-off meeting, organised in collaboration with the MoNE, took place on 17 November 2020. Owing to the COVID-19 outbreak, the meeting was held online. The total number of participants was 57. The participants included national stakeholders, the Joint Research Centre (JRC), the EU Delegation to Turkey, the ETF, the European Forum for Technical and Vocational Education and Training (EfVET), VET pilot schools and companies. Of the participants, 39 were from VET providers and four were from companies that provide WBL. At the meeting, the SELFIE WBL tool was introduced, instructions on SELFIE WBL were given and demonstrated, the responsibilities and timeline were explained to the schools and companies, and any concerns and expectations were addressed. The national expert set up an instant messaging group to promptly address any problems arising in the pilot. The group covered school coordinators responsible for SELFIE WBL.

The national expert posted a blog entry on ETF Open Space to describe the SELFIE WBL pilot in Turkey ('When the tune changes, so does the dance!'2).

4. IMPLEMENTATION

This section explains the process followed in the implementation of the SELFIE WBL pilot and presents the numbers and distribution of participating schools and companies. The timeline of the SELFIE WBL pilot also appears below.

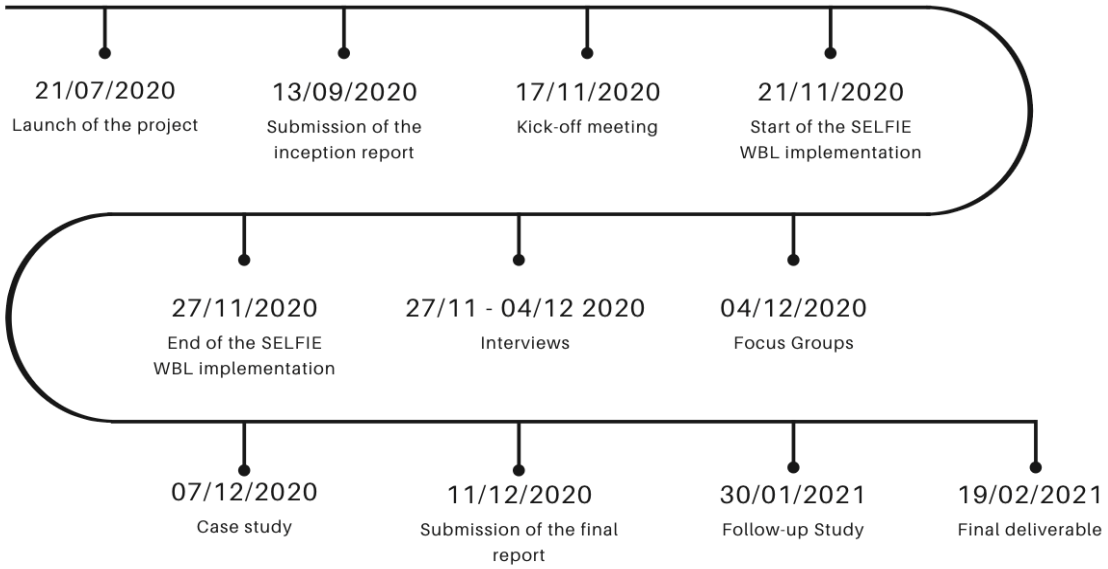


FIGURE 1. THE TIMELINE OF THE PROJECT

The SELFIE WBL pilot was launched on 21 July 2020. Then, the inception report for the pilot was submitted to the MoNE and ETF on 13 September 2020. Over two months later, the kick-off meeting for the pilot took place on 17 November 2020.

As a result of the kick-off meeting, all VET schools participating in the SELFIE WBL pilot smoothly completed their registration in the system. Any difficulties encountered by the schools were promptly resolved by the national expert or other school coordinators. All questions related to the implementation of the SELFIE WBL tool were answered and school coordinators received encouragement through verbal incentives. During the implementation of SELFIE WBL, the national expert communicated regularly with the ETF and JRC to ensure the approval of registrations and address any challenges (e.g. account reset requests).

The SELFIE WBL pilot ran between 21 and 27 November 2020. A total of 23 VET schools and 28 companies filled in the SELFIE WBL questionnaire. Three VET schools could not complete the data collection. While 60.9% of the schools (n=14) were large, 26.1% (n=6) were medium-sized and 13% (n=3) were small. Regarding the location of schools, most (81.6%; n=19) were urban. Many of the schools (47.8%; n=11) were in the western part of Turkey. Also, 81.6% (n=19) of the schools had VET

[2] The blog entry is available at https://openspace.etf.europa.eu/blog-posts/when-tune-changes-so-does-dance.

programmes for information and communication technologies. It must be noted that the sample is very limited in terms of the representativeness of VET schools in Turkey.

TABLE 1. DISTRIBUTION OF SCHOOLS

No. VET schools	No. regions	School size			Location		Geographical coverage					Programme area						
		S	M	L	U	R	N	E	W	S	C	A	B	TE	TC	AT	HW	BIZ
23	3	3	6	14	19	4	0	0	11	9	3	0	1	19	1	0	1	1

Note: S = small, M = medium, L = large; U = urban, R = rural; N = north, E = east, W = west, S = south, C = central; categories of programme areas: A - agriculture/food industry; B - biotechnology; TE - technology & engineering; TC - tourism & catering; AT - art & design; HW - health & welfare; BIZ - economy & business

As Table 2 shows, most of the companies in the pilot study (71.4%; n=20) were small in size. Only three (10.7%) were large. Regarding the economic sector, the companies were mainly from the technology and engineering sector (71.4%; n=20).

TABLE 2. DISTRIBUTION OF COMPANIES

No. Companies	No. regions	Company size				Economic sector						
		Mic	S	M	L	A	B	TE	TC	AT	HW	Biz
28	3	0	20	5	3	0	3	20	2	0	1	2

Note: Mic = micro, S = small, M = medium, L = large; categories of programme areas/economic sectors: A - agriculture/food Industry; B - biotechnology; TE - technology & engineering; TC - tourism & catering; AT - art & design; HW - health & welfare; BIZ - economy & business

The total number of SELFIE WBL pilot participants was 8 707 users. Of the users, 84.5% (n=7 301) were students, 12.5% (n=1 089) were teachers, 1.9% (n=170) were school leaders, and 1% (n=87) were in-company trainers. Table 1 presents the distribution of the schools.

After the implementation of SELFIE WBL, semi-structured interviews were conducted with school leaders, teachers and in-company trainers between 21 November and 12 December 2020. A focus group was held with one school coordinator, one school leader and one teacher, and a case study was conducted. Lastly, the final report on the SELFIE WBL pilot was submitted to the MoNE and ETF on 11 December 2020.

A follow-up study was conducted to identify options for scaling up and integrating the SELFIE WBL tool in the Turkish national education and training system. For this purpose, a consultation was held with the relevant national stakeholders (i.e. policymakers, school leaders, school coordinators, teachers, students and in-company trainers) who had taken part in the pilot. As a result of focus group interviews with the national stakeholders, the current report presents several findings on the scaling-up and integration of the SELFIE WBL tool.

5. FOLLOW-UP: QUANTITATIVE AND QUALITATIVE ANALYSES

5.1 Methodology

This section discusses the approach adopted to analyse the quantitative and qualitative data. It also presents the approach for gathering feedback from the participating schools and companies in the case study, focus groups and interviews.

Quantitative data collection and analysis

During the implementation of SELFIE WBL, all participants rated their satisfaction with SELFIE WBL on a scale from 1 to 10 (with 1 being the lowest score and 10 being the highest score). In addition, all participants, except students, rated their likelihood to recommend SELFIE WBL to their colleagues using a five-point scale (from 1 – Not at all likely to 5 – Extremely likely) with an option for 'prefer not to say'. The data analysis made use of all valid responses to the questionnaire items. For all participants, the mean scores of satisfaction with SELFIE WBL and the likelihood of recommending SELFIE WBL to their colleagues were calculated. In addition, the mean ratings of the items in each SELFIE WBL area were calculated by averaging participants' valid responses. All participants responded anonymously to the questions on the SELFIE WBL questionnaire. In addition, it is important to underscore that the small sample size diminishes the representativeness of the results for Turkish national education and training systems and VET schools.

Qualitative data collection and analysis

Qualitative data were collected by gathering feedback from the participating schools and companies. Follow-up in-depth semi-structured interviews and a focus group were conducted for this purpose.

The semi-structured interviews were conducted with 7 school coordinators, 11 teachers, and 5 in-company trainers. The interviewees were participants in the SELFIE WBL pilot and had a wealth of information on the use of SELFIE WBL. The MoNE organised the interviews. Owing to the tight pilot schedule and the heavy workload of the key pilot stakeholders during the school closures related to COVID-19, it was not possible to set a common date for all interviews. Therefore, open-ended questions were sent to the key stakeholders to collect their responses. Any issues related to the questions were promptly resolved through individual communication with the participants. This qualitative data collection process focused on advantages and limitations related to setting up SELFIE WBL, motivating and monitoring participants, reports, the usefulness of SELFIE WBL, and any lessons learnt from SELFIE WBL.

The focus group with one school coordinator, one school leader and one teacher sought to identify the strengths and weaknesses of the SELFIE WBL tool, the usefulness of relevant survey results, any areas where more support was needed, and any possible improvements. The focus group was conducted online by the national expert. During the focus group, the national expert encouraged the participants to feel free to express their opinions on the strengths and weaknesses of SELFIE WBL, relevant survey results, and any areas where further support was needed for SELFIE WBL. The national expert also took notes on any important issues regarding topics of interest. After the focus group, the national expert reviewed and updated the notes to include any issues that had been missed.

One vocational and technical Anatolian high school in İstanbul was selected for the case study. The selected school was one of the schools that had participated successfully in the SELFIE WBL pilot. The national expert conducted interviews with representatives of all stakeholders and the SELFIE WBL school coordinator.

In a meeting held on 4 December as part of the qualitative analysis, the national expert obtained preliminary pilot feedback from some of the national stakeholders during discussions in the breakout rooms of a webinar to present the preliminary findings of the SELFIE for work-based learning pilot in Georgia, Montenegro, the Republic of Serbia and Turkey.

The data obtained from the in-depth semi-structured interviews, the case study and the focus group were analysed using qualitative data analysis methods. First, all interview notes taken during the data collection were read and the general sense of the data was obtained. Next, any relevant text segments in the interview notes were identified and assigned codes, which might be a word or phrase representing the text segment. Then, similar codes were aggregated together into categories. Finally, the findings were presented and discussed in order to understand the participants' experiences and opinions on setting up SELFIE WBL, motivating and monitoring participants, reports and the usefulness of SELFIE WBL.

In order to ensure the trustworthiness of the qualitative results, the sources and researchers were triangulated. The findings from different user groups enabled the researcher to check for consistency among different target groups. Moreover, the data were independently analysed by two researchers (i.e. the national expert and Dr. Evren Sumuer from Kocaeli University), who found the consistency of the findings to be satisfactorily high.

5.2 Quantitative results

The analysis of the quantitative data showed that the average satisfaction with SELFIE WBL in Turkey was 7.14 out of 10 points. The user groups with the highest satisfaction scores were in-company trainers (7.73) and school leaders (7.72), followed by teachers (7.46) and students (7.07).

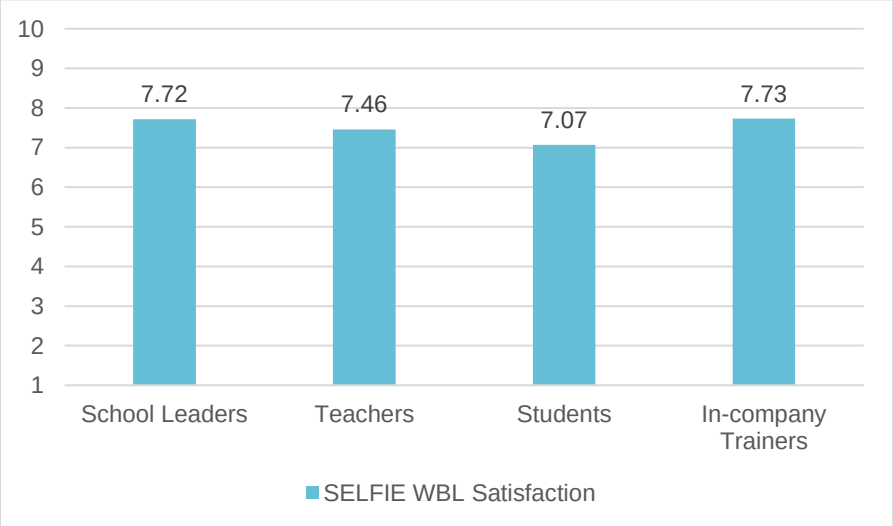


FIGURE 2. SELFIE WBL SATISFACTION

The mean score for their likelihood to recommend SELFIE WBL was 3.73. Among the user groups, school leaders were most likely to recommend using SELFIE WBL to their colleagues (4.02), followed by in-company trainers (3.86) and teachers (3.67).

The SELFIE questionnaire consisted of items in eight areas of digital education, which users rated on a five-point Likert scale (from 1 – strongly agree to 5 – strongly disagree). While school leaders, teachers and in-company trainers responded to the items in all eight areas, students responded only to the items in five areas. The items in two areas (i.e. 'Leadership' and 'Continuing Professional Development') did not appear on the student questionnaire because they were not relevant. Overall, the highest mean score for all user groups was obtained in the area of 'Pedagogy: Supports and Resources' (M=4.17, SD=1.12), followed by 'Student Digital Competence' (M=3.94, SD=1.00), 'Collaboration and Networking' (M=3.94, SD=1.21), 'Pedagogy: Implementation in the Classroom' (M=3.87, SD=1.02), 'Continuing Professional Development' (M=3.82, SD=1.02), 'Leadership' (M=3.79, SD=1.04) and 'Assessment Practices' (M=3.78, SD=1.07). The lowest mean score for all user groups was obtained in the area of 'Infrastructure and Equipment' (M=3.72, SD=1.05). Table 3 shows the mean scores for each area.

TABLE 3. MEAN SCORES GIVEN BY THE PARTICIPANTS FOR EACH AREA

Areas	n	Mean	SD
Infrastructure and Equipment	8 684	3.72	1.05
Leadership	1 335	3.79	1.04
Collaboration and Networking	8 616	3.94	1.21
Continuing Professional Development	1 331	3.82	1.02
Pedagogy: Supports and Resources	8 609	4.17	1.12
Pedagogy: Implementation in the Classroom	8 590	3.87	1.02
Assessment Practices	8 584	3.78	1.07
Student Digital Competence	8 585	3.94	1.00
Note: Overall responses			

According to the anonymised pilot data for Turkey, the area with the highest percentage of positive responses was 'Pedagogy: Supports and Resources' (78.6%), followed by 'Student Digital Competence' (69.3%), 'Collaboration and Networking' (67.7%) and 'Pedagogy: Implementation in the Classroom' (66.1%). On the other hand, the area with the lowest percentage of positive responses was 'Infrastructure and Equipment' (62.7%).

5.3 Qualitative results

The analysis of the qualitative data revealed that SELFIE WBL met the expectations of participants in relation to monitoring the digital readiness of their schools and companies to use digital technologies in teaching, learning and assessment. One of the school leaders stated his expectation for SELFIE as 'determining in which areas the school's digital competences are not sufficient, revealing differences in the perceptions of stakeholder groups, and determining the digital competences of companies'. The results showed that all stakeholders (i.e. school leaders, teachers, students and in-company trainers) found SELFIE WBL useful and were likely to use it in the future.

Moreover, participants pointed to the customisation of the questionnaire as one of the most promising strengths of SELFIE WBL. One said that 'it has been a very good tool in terms of covering a wide variety of questions and being able to add new items according to our own needs'.

Another important finding is that the SELFIE WBL reports are useful for all stakeholders to jointly discuss and understand their strengths and weaknesses in terms of technology integration. A school leader said: "It was determined that the digital tools put into practice by the school administration were not sufficiently understood and used by teachers and students. The infrastructure and equipment for our school was ranked as the weakest area.' Similarly, a teacher stated that 'this survey let us see for ourselves. It is necessary not to fall behind in technology but to benefit positively from digital technology in every field.' In addition, an in-company trainers pointed out that 'in today's conditions, the importance of technology and digitalisation is better understood. With the completion of this project, digitalisation in education will take a big step forward.'

Participants indicated that some improvements could be made in their schools based on the results of the survey. In particular, they put extra emphasis on the weaknesses revealed by the results. For example, a teacher stated that 'considering the financial situation of our school, priority should be given to internet infrastructure and speed'. This result showed the SELFIE WBL enabled stakeholders to identify areas to prioritise and improve.

Finally, the results revealed that while most students were satisfied with SELFIE WBL, they did suggest improvements, including reducing the number of items and making them clearer, adding questions related to different areas such as family environment and opportunities to study in school, and adding more items to the questionnaire.

5.4 Overall findings

This section discusses the main findings from the quantitative and qualitative analyses and the reflections of participants.

Topics	Reflections and main findings
Registration, inputting the school and company data, customising the surveys and generating links	Registration: Almost all school coordinators in the qualitative study found that it was easy for them to register online owing to Turkish language support, resources in the SELFIE WBL tool, support provided by the national coordinator or their colleagues, and information given in the kick-off meeting. Inputting the school and company data: Most of the interviewed school coordinators stated that it was easy to input the school and company data. Some indicated that it was not difficult for them to find the information required for SELFIE WBL and that the SELFIE WBL tool provided guidance for registration.

	Only one participant said that it was difficult to input the company data because of a lack of familiarity with the SELFIE WBL site. Customising the surveys: Many of the school coordinators pointed out that they could identify their own needs for improvement with optional questions or their own questions in SELFIE WBL. Similarly, the school leader and the school coordinator in the focus group indicated that the customisation of the questionnaire was a feature that works well in the SELFIE WBL tool. However, one participant stated that it was necessary to increase the number of their own questions in the questionnaires in order to obtain more complete insights that would yield better future ICT policies at the schools. Generating links: The participants found the SELFIE WBL guide, the information in the SELFIE WBL tool, and the preview to be useful for generating links for each user group. On the other hand, one participant underlined the difficulty of generating links for companies. He said, 'Although we added the companies at the first stage, we had trouble creating questionnaires and links for the companies originating from the system.' He stated that the system did not generate links for companies so he requested the national expert to reset his account. This finding seems odd because all links are created automatically for all groups in SELFIE WBL. It is possible that the participant made an error when adding companies or forgot to save the settings. Also, another participant recommended generating only one link for all user groups to access the questionnaire after which the participants could identify their own user type (i.e. school leaders, teachers, in-company trainers or students).
Reaching out to and motivating participants and monitoring participation	Reaching out to and motivating participants: Many school coordinators participating in the qualitative part of the pilot study stated that the certificate of participation made participants more enthusiastic to complete the SELFIE WBL questionnaire. Some underlined that the participation rate in their school was higher than the minimum rate of 40% for teachers and students in WBL. On the other hand, many pointed out that it was difficult to recruit students and companies to participate in the pilot because of COVID-19. One of the school coordinators indicated that any difficulties in getting the certificate discouraged participants. Some encountered an error message when they requested their own certificates from the system. Monitoring participation: All school coordinators found it easy to monitor participation because they could monitor participation rates for different user groups in real time through an interactive bar chart on the SELFIE WBL dashboard.
SELFIE WBL report	Many school coordinators participating in the qualitative part of the pilot study stated that the SELFIE WBL report was invaluable for schools to monitor their levels of infrastructure, equipment and technology use, and added that the reports would help schools to identify areas where they needed to foster the use of educational technologies. They indicated that the graphs for different areas and the language support made the reports useful for the schools. Similarly, many of the teachers participating in the qualitative part of the pilot study found the SELFIE report important to understand their current situation in terms of their use of digital technologies in education. Also, in-company trainers underlined the use of the reports for self-reflection. On the other hand, one of the school coordinators pointed out that schools are in need of more explanation to interpret the reports meaningfully. Also, the school coordinator in the focus group indicated that the labels for user groups should have been used in the bar graphs to make the reports clearer. Moreover, some of the teachers stated that it was difficult to suggest actionable practices based on the findings in the reports. For example, one teacher said that 'it has been determined that there are staff and students in our school who do not know information technologies sufficiently. How this situation will be resolved has not been fully determined.' In addition, one of the in-company trainers stated that more questions are needed on vocational and technical issues.
Recognition for taking part	Almost all school coordinators participating in the qualitative part of the pilot study stated that the badges and certificates of participation played an important

	role in getting users to participate in SELFIE WBL. However, some stressed that it should have been simpler to get badges for school participation. For example, one school coordinator said that 'badges should be automatically accessible from the system at the end of the survey instead of taking a separate action (sending an email to a new system, etc.)'.
Usefulness of SELFIE WBL	Similar to the overall high user satisfaction with SELFIE WBL shown by the quantitative results, the qualitative findings supported the usefulness of SELFIE WBL for schools. The focus group participants stated that SELFIE WBL met their expectations for feedback on infrastructure, equipment and technology use in their schools. In addition, they indicated that SELFIE WBL could identify strengths and weaknesses from the different perspectives of user groups (school leader, teachers, students, in-company trainers) with respect to the digital transformation in their schools. Likewise, the school coordinators also stated that SELFIE WBL would help schools to identify needs and deficiencies in the use of digital technology for teaching and learning and to monitor progress.
Current SELFIE WBL ecosystem	Although it is difficult for SELFIE WBL to create an ecosystem in the schools in a short time, the qualitative findings support that it is possible in the future. The participants in the qualitative part stated that schools could integrate the results of the SELFIE reports in their decision-making process and take decisions on the use of digital technology in teaching and learning based on the results. For example, one of the school leaders said that the 'school strategic plan will be updated, although it is already underway, and new practices will be shared with all stakeholders. An action plan will be prepared.'

6. LESSONS LEARNT AND SUGGESTIONS FOR FUTURE DEVELOPMENT

This section presents the main lessons learnt and suggestions for the future development of the tool.

Topics	Reflections and main findings
Process	The SELFIE WBL pilot has shown that it is important to provide all stakeholders with the necessary support for successful implementation of SELFIE WBL. For the pilot, a kick-off meeting was carried out to introduce the SELFIE WBL tool and explain the steps for using SELFIE WBL. A free, instant messaging application (i.e. WhatsApp) was used to promptly address any problems arising in the pilot. Also, the stakeholders benefited from guidelines, in Turkish, on the use of SELFIE WBL and from information on how to use SELFIE WBL successfully. The qualitative findings also underlined the importance of support for the successful implementation of SELFIE WBL.
SELFIE WBL tool	All stakeholders have a high level of satisfaction with the SELFIE WBL tool. The tool meets their expectations for the identification and monitoring of their strengths and weaknesses in different areas related to the use of technology. It is also likely that school leaders, teachers and in-company trainers will recommend SELFIE WBL to their colleagues. In addition, stakeholders are likely to become more involved in SELFIE WBL in the future. However, it is also clear that they should use SELFIE WBL much longer in order to identify their satisfaction with SELFIE WBL accurately. More quantitative indicators could be used to examine the usefulness of the SELFIE tool.

Content	The content of SELFIE WBL is detailed and comprehensive in order to enable the schools to monitor how technology is used. The customisation of the questionnaire is regarded as the most prominent feature of SELFIE WBL. The schools have requested an increase in the number of customisable questions. On the other hand, they also suggest that the SELFIE WBL questionnaire be shorter and that some questions be clearer and more comprehensible. Therefore, it can be suggested that the psychometric properties of the questionnaire items should be examined to select items that are effective for the areas focused on in SELFIE WBL and to identify any problematic ones. In other words, the construct validity of the questionnaire should be tested, even though the content validity is satisfactorily high. The results that the JRC will provide on the construct validity of the questionnaire will address this suggestion.
SELFIE WBL report	The SELFIE WBL report is useful for VET schools to identify and monitor their strengths and weaknesses in different areas related to the use of technology (i.e. infrastructure and equipment; leadership; collaboration and networking; continuing professional development; pedagogy: supports and resources; pedagogy: implementation in the classroom; assessment practices; and student digital competence) from the perspectives of different user groups (i.e. school leaders, teachers, students and in-company trainers). However, some stakeholders found it difficult to interpret the results and draw out practical implications based on the SELFIE report. Some also requested minor improvements in the output of the SELFIE report. One possibility is for them to customise the output of the SELFIE report based on their needs.
Features of SELFIE WBL (badge and certificate, possible suggestions for other features)	The badge and certificate of participation are the main incentives for schools and stakeholders to use SELFIE WBL. Therefore, it is important to bring schools using SELFIE WBL to the forefront in order to motivate them and other schools to take part in SELFIE WBL. The MoNE could share the success stories of these schools and their use of educational technologies in order to encourage other schools to use SELFIE WBL. In addition, based on the qualitative findings, it can be suggested that it should be much simpler for schools to get badges of participation from SELFIE.
Data	The data in SELFIE WBL were sufficient to enable schools to identify their strengths and weaknesses in each SELFIE area relating to the use of educational technology. However, further data could be collected for areas related to vocational and technical issues and the parental role in the use of technology.
Future SELFIE WBL ecosystem and possibilities of integrating SELFIE WBL in education and training policies	SELFIE WBL is likely to play an important role in creating effective digital learning environments at the local and national level. At the local level, stakeholders could use SELFIE WBL in making decisions on technology usage in teaching, learning and assessment, monitoring their progress, and reviewing decisions if needed. At the national scale, the Turkish MoNE could integrate the SELFIE WBL tool into other evaluation methods or other projects related to the use of educational technology. Therefore, SELFIE WBL could play a prominent role in guiding investment and support for the use of digital technologies in VET schools and WBL.

7. IMPLICATION OF COVID 19

In Turkey, the COVID-19 outbreak in 2020 had important implications for the increased use and relevance of SELFIE and digital education and for the challenges of implementing the SELFIE WBL pilot. Owing to COVID-19, schools were temporally closed in March 2020. The new school year 2020/2021 began on 31 August with a combination of TRT EBA TV, the EBA platform and virtual

classrooms. On 21 September, a hybrid model was implemented. In-company training carried on under strict COVID-19 measures. During the COVID-19 school closures, all education services have been provided at distance through EBA TV, the EBA platform and live classrooms. At the national level, students have received both online lessons through the Education Information Network and TV lessons through the country's public broadcaster (TRT EBA). At the local level, teachers have given their students live online lessons via the EBA or other video conferencing tools. School leaders have mostly completed all their administrative tasks through online tools. The role of digital technology in education, therefore, has never before been so important. It has become of utmost important for schools (including VET schools) to identify and improve their own digital capacity. SELFIE WBL makes it possible for schools to identify their strengths and weaknesses in different SELFIE areas from the perspectives of different user groups. In the SELFIE WBL pilot study, for example, the pilot VET schools started to prepare action plans to address the weaknesses in their use of educational technologies revealed in their SELFIE WBL reports. It is likely that the use of digital technology in education will become even more important after COVID-19, so the SELFIE WBL will be a vital tool for schools.

On the other hand, the COVID-19 outbreak posed several challenges for the SELFIE WBL pilot. There was a deviation from the initial plan for sampling schools and companies. The pilot study included the most accessible VET schools that had VET programmes in different economic sectors. Also, the school coordinators had difficulty informing teachers, students and in-company trainers about SELFIE WBL. It was possible to inform them briefly about the SELFIE WBL pilot through social media posts and instant messaging applications, but it was difficult to get students without computer and internet access to take part in the SELFIE WBL pilot. Moreover, the qualitative data obtained from students were excluded from the pilot study because it was difficult to obtain valid qualitative data from them. Owing to their heavy workload related to COVID-19, in-company trainers did not have much time for involvement in SELFIE WBL. Also, it was difficult to set a common date for the in-depth interviews with key stakeholders in the pilot. Therefore, open-ended questions were sent to the key stakeholders for them to respond in writing. Because of the heavy workload of the key stakeholders, only one focus group was conducted.

8. CONCLUSIONS AND FUTURE DIRECTIONS

8.1 Conclusions

Based on the SELFIE WBL pilot outcomes, this section presents a set of conclusions and recommendations for further implementation of the SELFIE WBL tool in Turkey, followed by recommendations for upscaling and integrating SELFIE WBL in the country's education and training systems.

Conclusions	Overall, the pilot study shows that all stakeholders have a high level of satisfaction with SELFIE WBL. Moreover, the schools find SELFIE WBL useful to identify and monitor their strengths and weaknesses in different areas based on participants' different perspectives on the use of educational technology. In particular, the customisation of the SELFIE WBL questionnaire is regarded as the most outstanding feature of the tool. In addition, the badges and certificates of participation were a very important motivator for the users to take part in SELFIE WBL. However, the length of the questionnaire and the difficulty of understanding some items discouraged them from using SELFIE WBL. The stakeholders also emphasised the importance of

	support for the successful implementation of SELFIE WBL. In addition, some minor improvements could be made to the SELFIE WBL report.
Recommendations	Based on the findings of the SELFIE WBL pilot, several recommendations can be offered. First, a support team for SELFIE WBL might be formed under the DG for Vocational and Technical Education in the Quality Assurance Department of the MoNE in order to implement SELFIE WBL successfully. The number of customised questions on the questionnaire should be increased. The process for obtaining a participation badge from the system should be made less complicated for VET schools. The SELFIE WBL reports should be customised based on the needs of VET schools. Further data could be collected through SELFIE WBL on areas related to vocational and technical issues and the parental role in the use of technology. Lastly, SELFIE WBL could be integrated into other evaluation methods and other projects offered by the MoNE.

8.2 Recommendations for upscaling

A follow-up study was conducted to identify recommendations and policy advice for a possible further implementation of SELFIE WBL. The study followed the methodology for upscaling and integrating SELFIE in education and training systems. Through focus group interviews with all stakeholders (i.e. policymakers, school leaders, school coordinators, teachers, students and in-company trainers), the follow-up study mainly explored how and why to implement, scale up and integrate SELFIE WBL at the school and national level. The themes from the focus group interviews have been organised in accordance with the eight-step methodology for scaling up and integrating SELFIE into education and training systems (see Figure 3; Bocconi and Lightfoot, 2021).

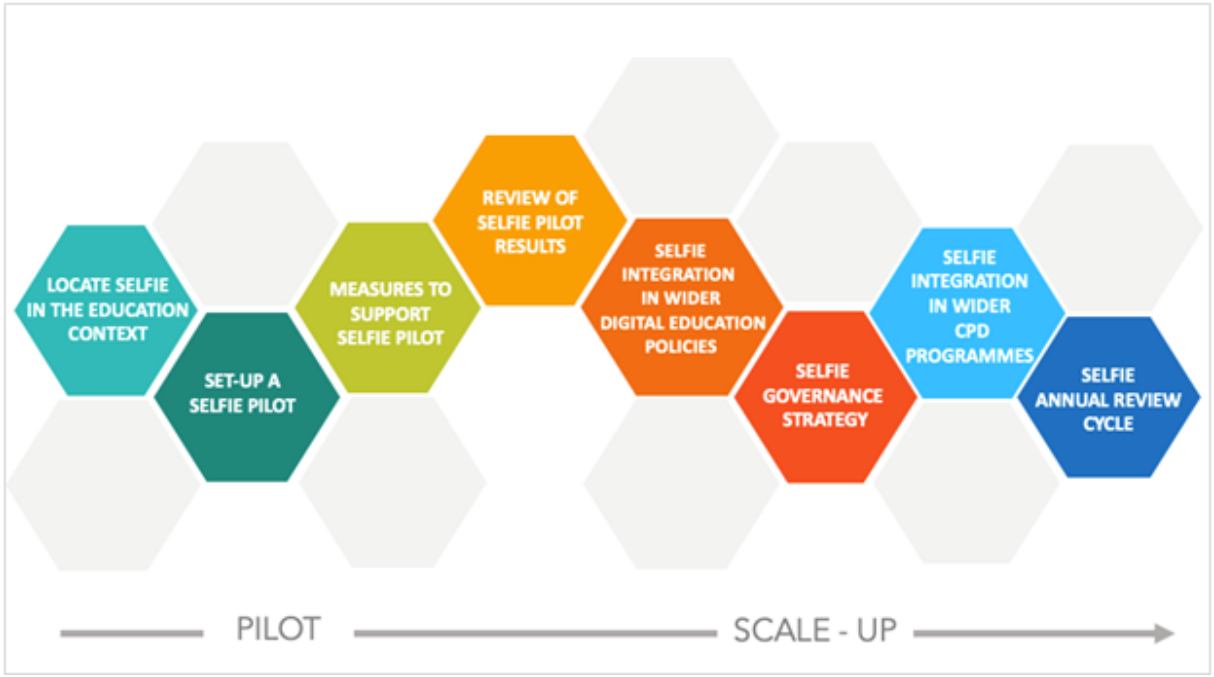


FIGURE 3. EIGHT-STEP METHODOLOGY FOR INTEGRATING SELFIE INTO EDUCATION SYSTEMS (BOCCONI AND LIGHTFOOT, 2021)

Below are the most important recommendations and policy advice based on the upscaling methodology for the SELFIE tool.

STEPS	Key recommendations and policy advice
STEP 1: Locate SELFIE WBL in the national, regional and local context	In the focus group interviews, the MoNE indicated that VET schools should voluntarily locate and implement SELFIE WBL in order to gain insight into the areas of SELFIE WBL. The MoNE is likely to provide limited incentives at the national level for schools to implement SELFIE WBL. In order to motivate VET schools to locate SELFIE WBL, it is important to inform them about the benefits of SELFIE WBL in supporting the integration of digital technology in schools and companies under a shared strategy for effective, innovative teaching and training. SELFIE WBL is regarded as an important tool for schools and companies to identify their strengths and weaknesses in the use of digital technologies for teaching, learning and assessment. The SELFIE WBL report helps schools to make data-informed decisions in their annual strategic plans and to satisfy needs for the use of digital technologies in their schools.
STEP 2: Set up the SELFIE WBL pilot	In setting up the SELFIE WBL pilot, it is important to provide VET schools and companies with the necessary support, such as introductory training sessions, guidelines and peer learning solutions (e.g. forums). Existing platforms such as the EBA, which is a digital education platform used by all learners in K–12 education, could be used to introduce SELFIE WBL to school leaders, teachers and students and to support them in their use of the tool. If possible, in-company trainers should be given access to the platforms. Although most school coordinators found it easy to register their school, enter school and company data, and generate links in SELFIE WBL, some supports (e.g. hints, cues, examples, flowcharts) could be integrated into the system interface and made available when and where they are needed depending on the task, so that there is no need for users to interrupt tasks in SELFIE WBL in order to find external resources who can give support. In addition, online videos on how to set up SELFIE WBL could be developed for the successful use of the tool.
STEP 3: Define measures to support the SELFIE WBL pilot	In the implementation of the SELFIE WBL pilot, cooperation among school leaders, SELFIE school coordinators and some teachers with leadership skills in the schools is important to reach the invited participants (i.e. teachers, student and in-company trainers) and inform them about the tool. Meetings with all stakeholders should be organised to introduce SELFIE WBL and present guidelines for use. The information and communication infrastructure of schools and the technology access opportunities of students should be taken into consideration for the successful implementation of SELFIE WBL. Teachers and students could find that the number of the items in the questionnaire is too high and that some items are too long, so it is important to motivate them to complete the questionnaire rigorously. Therefore, school leaders should constantly monitor progress in the implementation of SELFIE WBL and take action when necessary. Moreover, it is necessary to provide in-company trainers with specific information, guidelines and support for SELFIE WBL. They should particularly be aware of how they can contribute to VET schools through their involvement in SELFIE WBL.

STEP 4: Review SELFIE pilot results	SELFIE WBL results should be interpreted for each group and each area of SELFIE WBL separately and comparatively. Based on the SELFIE WBL results, the possible actions to improve a school's digital capacity should be identified in consultation with all stakeholders. In addition, teachers and students may have a bias against the use of digital technologies in education. Thus, it is important to consider their possible biases when interpreting the SELFIE results. In-company trainers should interpret the results in consultation with schools, taking into consideration their own resources and opportunities when providing WBL. SELFIE WBL reports should be presented to students to make them aware of digital technologies and innovative approaches. The MoNE has stated that the SELFIE WBL results are valuable for VET schools to evaluate and monitor their use of digital technologies in learning, teaching and assessment. It has also noted that schools should consider finding a way to improve the integration of digital technology in education on their own, because the MoNE is unable to provide support for VET schools, especially in some of the areas of SELFIE WBL (e.g. leadership).
STEP 5: Plan the upscaling and integration of SELFIE WBL in national, regional and local policies	The MoNE has pointed out that, at the national level, the results are not sufficient, even though they may provide some insights into the use of digital technologies in schools and companies. For scaling up and integrating SELFIE, it is crucial for the MoNE to conduct necessary, detailed and customised analyses of the SELFIE WBL data. Therefore, the raw data obtained from SELFIE WBL should be accessible to the MoNE. As underlined by MoNE officials, scaling up SELFIE depends largely on whether the MoNE can use the SELFIE WBL data to get results that are useful for the different units in the MoNE. In addition, the MoNE has a policy of integrating existing information systems and establishing an integrated educational data warehouse, as indicated in the 2023 Education Vision document. If SELFIE WBL is integrated with existing systems and provides data for the warehouse, the MoNE may regard it as a more prominent tool in support of policy development. However, it is important to underscore that anonymity is an essential characteristic of self-reflection in SELFIE-WBL. Sharing raw data with the MoNE violates this anonymity and may cause users to respond to questionnaire items in a biased way. Therefore, the development of a web-based or cross-platform service could offer a solution for sharing data between SELFIE WBL and other information systems within the MoNE in an anonymised, aggregated manner at the school level. The MoNE authorities have indicated that the participation of VET schools in SELFIE WBL should be voluntary. As a result, school leaders need to believe in the usefulness of SELFIE WBL. Otherwise, it will be difficult to convince them to use it. In order to scale up and integrate SELFIE in policies, it is important to introduce SELFIE WBL well to VET schools and share good examples of its implementation. In addition, it is suggested that schools could integrate the SELFIE WBL report into the annual strategic plans requested by the MoNE and obtain support from the MoNE based on their SELFIE WBL results. It is also suggested to use social media or national education platforms to inform user groups about SELFIE WBL. Schools could share their experiences, practices and resources with others through social media or national education platforms. Also, all students should be encouraged to participate in SELFIE WBL. Incentives (e.g. digital badges or certificates) play a prominent role in getting stakeholders to participate in SELFIE WBL, so it is important to explain to them the benefits of incentives for the purpose of scaling up SELFIE. Similarly, the MoNE has indicated that schools or school leaders place huge importance on

	obtaining the digital badge for their schools or acquiring the label of a 'SELFIE school'. Social media posts showing the schools that take part in SELFIE WBL may encourage other VET schools to participate. The cooperation of schools with in-company trainers is important for scaling up SELFIE. In-company trainers should be informed well about their responsibilities in the implementation of SELFIE WBL and involved in the interpretation of the results. The MoNE has indicated that although the SELFIE WBL pilot was implemented without any major problems, there may be important, unforeseen obstacles in the scaling up of SELFIE WBL because of the large number of VET schools in Turkey. It is suggested that the main obstacle could lie in the difficulty of persuading schools of the usefulness of SELFIE WBL. Incentives and support (e.g. financial support) could play an important role in encouraging schools to participate in SELFIE WBL. The MoNE authorities have suggested that financial support from the ETF could be provided to schools and would be likely to encourage them to implement the tool.
STEP 6: Establish the SELFIE governance strategy	In Turkey, the SELFIE governance strategy is likely to be decentralised. In line with the nature of self-reflection, schools should decide independently whether to engage in self-reflection on the use of digital technologies in learning, teaching and assessment, and how to take the necessary actions using their own internal resources. Therefore, SELFIE WBL should provide more and different incentives for schools and users to implement SELFIE WBL. SELFIE school coordinators play a critical role in the implementation of the SELFIE WBL at the school level. Regular meetings with companies could be organised to inform them of SELFIE WBL results and find out their expectations in each area of SELFIE WBL. SELFIE WBL could also help to identify activities to be integrated into training programmes to improve students' digital competence. In addition, it is suggested that SELFIE WBL should involve students' parents because of their critical role in supporting students' digital competence. Lastly, the MoNE has proposed that schools could use the SELFIE WBL results to find companies whose indicators are compatible with their own indicators in the SELFIE WBL areas.
STEP 7: Incorporate SELFIE WBL in the CPD programme	The SELFIE WBL results could be used to identify teachers' in-service training needs related to the use of digital technologies and remote teaching. SELFIE WBL could also raise teachers' awareness of digital technologies and innovative approaches for teaching and learning. In addition, teachers could use the SELFIE WBL report to evaluate themselves on how successfully they use digital technologies for teaching and learning. Teachers could find informal professional development opportunities that are suitable for them. The MoNE has suggested that SELFIE WBL should provide school leaders, teachers and in-company trainers with guidance on available professional development opportunities based on the SELFIE WBL results. The authorities have offered to integrate SELFIE WBL with a learning management system that includes professional development courses by using the anonymised and aggregated data obtained from SELFIE WBL. Based on the SELFIE WBL results, the learning management system could offer appropriate courses to users. In fact, SELFIE WBL could direct users to professional development opportunities in the EBA. These professional development opportunities could also encourage school leaders, teachers and in-company trainers to use SELFIE WBL. Lastly, companies could use SELFIE WBL to identify any human resource areas that need improvement and make investments in these areas in order to increase their capacity for digital technologies.

STEP 8: Set up a SELFIE annual review cycle to inform policies	The MoNE already implements a quality assurance system that involves self, internal and external evaluations for VET schools. Therefore, the schools could use the results of these evaluations to consolidate their SELFIE WBL results in order to gain additional insights into their use of digital technologies for learning, teaching and assessment. VET schools could use SELFIE WBL results in their annual strategic plans and evaluations to improve their digital capacity. This collective self-reflection process would make it possible to involve all stakeholders in the identification of the schools' strengths and weaknesses in their use of digital technologies for teaching and learning. Based on their SELFIE WBL results, schools could plan their investments to improve their weaknesses. In addition, SELFIE WBL could enable schools to include possible professional development interventions (e.g. online resources and online community of practice opportunities) in their strategic plans. Schools could also have annual meetings with companies to discuss their SELFIE WBL results and plan possible improvements in their in-company training offering. The MoNE has suggested that VET schools should use an external evaluator to validate their SELFIE WBL results. The results, which reflect the perceptions of user groups in the eight SELFIE WBL areas, could be validated with quantitative or qualitative data obtained from observations of the schools or companies and from interviews with the representatives of stakeholders. The qualitative data could not only eliminate any bias that users may have in their self-reflection but also provide schools with in-depth, rich and actionable information on the SELFIE WBL areas. The results of the external evaluation provide insight into how well SELFIE WBL reflects the current situation of schools in their use of technologies for teaching, learning and assessment. For their external evaluation, schools could cooperate with the MoNE or the provincial directorate for national education.

Key recommendations and policy advice, highlighting enablers and challenges

Based on the findings, this part of the report highlights and discusses what enables or hinders engagement, implementation and follow-up of SELFIE WBL at the school, company and national level.

Enablers:

The enablers for the SELFIE WBL implementation are set out below:

- Gaining an awareness of the benefits of SELFIE WBL could prompt VET schools to implement the tool. Especially because of the COVID-19 pandemic, VET schools have given much more attention to understanding their strengths and weaknesses in the use of digital technologies in education. It is expected that SELFIE WBL will make an important contribution to schools by improving their capacity with innovative practices and by supporting their development of digital competencies. SELFIE WBL could also provide the schools with evidence that is useful to understanding which innovations in teaching and learning result in better learning experiences and outcomes, what dynamics and characteristics explain the success of (digital) innovation, and what facilitates or hinders (digital) innovations in teaching and learning. In order to facilitate the use of SELFIE WBL in schools, therefore, introductory meetings could be organised to inform schools effectively about how SELFIE WBL can be used to improve their digital capacity.
- The identification of SELFIE school coordinators is an important step for the successful implementation of SELFIE WBL.

- The SELFIE WBL tool can be used on a voluntary basis, on different mobile devices, free of charge and anonymously. These features of SELFIE WBL are likely to facilitate the implementation of the tool in schools.
- Introductory training sessions and support facilities enable VET schools to implement SELFIE WBL successfully.
- SELFIE WBL enables schools to customise questions on the SELFIE questionnaire and gain access to the SELFIE WBL report in their national language at any time. These features of the tool prompt schools to get involved in the implementation of SELFIE WBL.
- Digital badges and certificates of participation are important to promote the participation of stakeholders in SELFIE WBL. Incentives to take part in SELFIE WBL are a key enabler in the implementation of SELFIE WBL.
- The use of SELFIE WBL makes it possible for companies providing WBL opportunities to increase their recognition and their cooperation with the MoNE.

Challenges:

On the other hand, the challenges for the SELFIE WBL implementation are set out below:

- In order to support the scaling up and integration of SELFIE WBL at the national level, it is important to make SELFIE WBL data accessible to the MoNE, integrate SELFIE WBL into existing systems and provide data for the warehouse.
- In the implementation of SELFIE, the information and communication infrastructure of schools and the technology access opportunities of students should be considered.
- It is important to make all stakeholders well-informed about SELFIE WBL because they could have some bias against the use of digital technologies in education. Although digital technologies have been a useful and necessary means for all stakeholders to continue teaching and learning during the COVID-19 pandemic, their experiences in emergency remote teaching and learning may not be sufficient to change their beliefs about the use of digital technologies in education in light of the educational and technological challenges they have faced during the transition to remote teaching and learning.
- At the school level, it is necessary to be well organised to involve all stakeholders in SELFIE WBL.
- Although the SELFIE WBL results reveal the strengths and weaknesses of schools in their use of digital technologies, they could increase the anxiety of schools to improve their weaknesses, especially where financial investment is required. This possibility raises the importance of the MoNE's role in the implementation of SELFIE WBL. The ETF could develop programmes to provide funds to VET schools based on their SELFIE WBL results.
- Since the high number of items on the SELFIE questionnaire and the length of some items could discourage some teachers and students from completing them, it is important to motivate these user groups constantly during the implementation of SELFIE.
- Owing to a lack of adequate time and staff in some companies, they may fail to support work-based learning sufficiently. This situation can make the implementation of SELFIE WBL challenging.

REFERENCES

European Training Foundation (2020). *Quality assurance in vocational education and training in Turkey*. Retrieved from: https://www.etf.europa.eu/sites/default/files/2020-10/quality_assurance_in_vet_turkey.pdf

JRC and ETF, Bocconi, S. and Lightfoot, M. with Brolpito, A., Giannoutsou, N., Hippe, R., & Kampylis, P. (2021). *Scaling-up and integrating the SELFIE tool for schools' digital capacity in education and training systems*. Turin: European Training Foundation. Retrieved from: https://openspace.etf.europa.eu/sites/default/files/2020-12/JRC_ETF_SELFIE_Final_report_DRAFT%20VERSION.pdf

Turkish Ministry of National Education (2018a). *Outlook of vocational and technical education in Turkey.* Retrieved from: https://unevoc.unesco.org/network/up/TURKEY_MoNE-_Outlook_of_Vocational_and_Technical_Education_in_Turkey-_Series_of_Education_Analysis_and_Assessment_Reports_No_1_November_2018.pdf

Turkish Ministry of National Education (2018b). *Turkey's education vision 2023.* Ankara: MoNE Publications. Retrieved from: https://2023vizyonu.meb.gov.tr/doc/2023_VIZYON_ENG.pdf

Turkish Ministry of National Education (2020a). *Kriptografi, bilişim ve siber güvenlik konusunda verilen eğitim içeriklerine ücretsiz erişim.* Retrieved from: http://mtegm.meb.gov.tr/www/kriptografi-bilisim-ve-siber-guvenlik-konusunda-verilen-egitim-iceriklerine-ucretsiz-erisim/icerik/2829

Turkish Ministry of National Education (2020b). *Sayılarla uzaktan eğitim.* Retrieved from: http://yegitek.meb.gov.tr/www/sayilarla-uzaktan-egitim/icerik/3114

Turkish Ministry of National Education (2020c). *Türkiye güvenli okullaşma ve uzaktan eğitim (SSDE) projesi.* Retrieved from: http://yegitek.meb.gov.tr/www/turkiye-guvenli-okullasma-ve-uzaktan-egitim-ssde-projesi/icerik/3050

LIST OF ABBREVIATIONS

MoNE	Ministry of National Education
VET	Vocational education and training
SELFIE WBL	Self-reflection on Effective Learning by Fostering the Use of Innovative Educational Technologies for Work-based Learning
DG	Directorate General
COVID-19	Coronavirus
AVP	Anatolian Vocational Programme
ATP	Anatolian Technical Programme
WBL	Work-based learning
EBA	Education Information Network
FATIH	Movement to Enhance Opportunities and Improve Technology
ETF	European Training Foundation
JRC	Joint Research Centre
EfVET	European Forum for Technical and Vocational Education and Training
TRT	Turkish Radio and Television Corporation

ANNEXES

Annex I – Key info on the WBL system

In total, there are 3 591 public vocational and technical secondary education institutions in Turkey (Turkish Ministry of National Education [MoNE], 2020). Of these schools, 69.23% are vocational and technical Anatolian high schools, 21.73% are multi-programme Anatolian high schools, and 9.02% are vocational training centres. In addition, there are 631 private vocational high schools. The total number of the students in public vocational and technical secondary education institutions affiliated to the Directorate General for Vocational and Technical Education is 1 421 704. Of the total students, 78.4% are enrolled in vocational and technical Anatolian high schools. There are 127 850 teachers and 62 540 classrooms in public vocational and technical secondary education institutions in Turkey. While Anatolian vocational and technical programmes are offered in 54 fields and 199 branches, vocational education centre programmes are offered in 27 areas and 142 branches (MoNE, 2018a). Anatolian vocational and technical schools run two types of programme: the Anatolian Vocational Programme (AVP) and the Anatolian Technical Programme (ATP). Internship is an integral part of the programmes. In the AVP, students in their last year receive theoretical training at schools for two days and practical training in workplaces for three days. In the ATP, students in the 10th and 11th grades are expected to complete an apprenticeship in companies during their summer break.

A committee in each VET school places students in companies that provide WBL. The VET school and the students sign a contract with the company (European Training Foundation, 2017). At least 30% of the net minimum wage is given to students, while their social security payments are covered by the MoNE. VET schools are responsible for the coordination of WBL, whereas the coordinating teachers in the schools supervise students during their WBL. Students are expected to prepare a work folder including projects, assignments and services during their WBL. At the end of their WBL, students in the AVP take skills exams that cover their internship in a company.

The 2023 Education Vision identifies seven main goals for vocational and technical education (MoNE, 2018b):

- increasing the value attributed to vocational and technical education
- increasing access to guidance counselling
- developing next-generation curricula
- developing the learning environment and human resources
- training vocational staff needed by businesses investing abroad
- fostering linkages between education, employment and production
- training qualified human resources needed by local and national defence industry

References

European Training Foundation (2017). *Work-based learning in EU candidate countries*. Retrieved from: https://www.etf.europa.eu/sites/default/files/m/333F8DD829CBDBDFC12581FE00299A16_Work-based%20learning_candidate%20countries.pdf

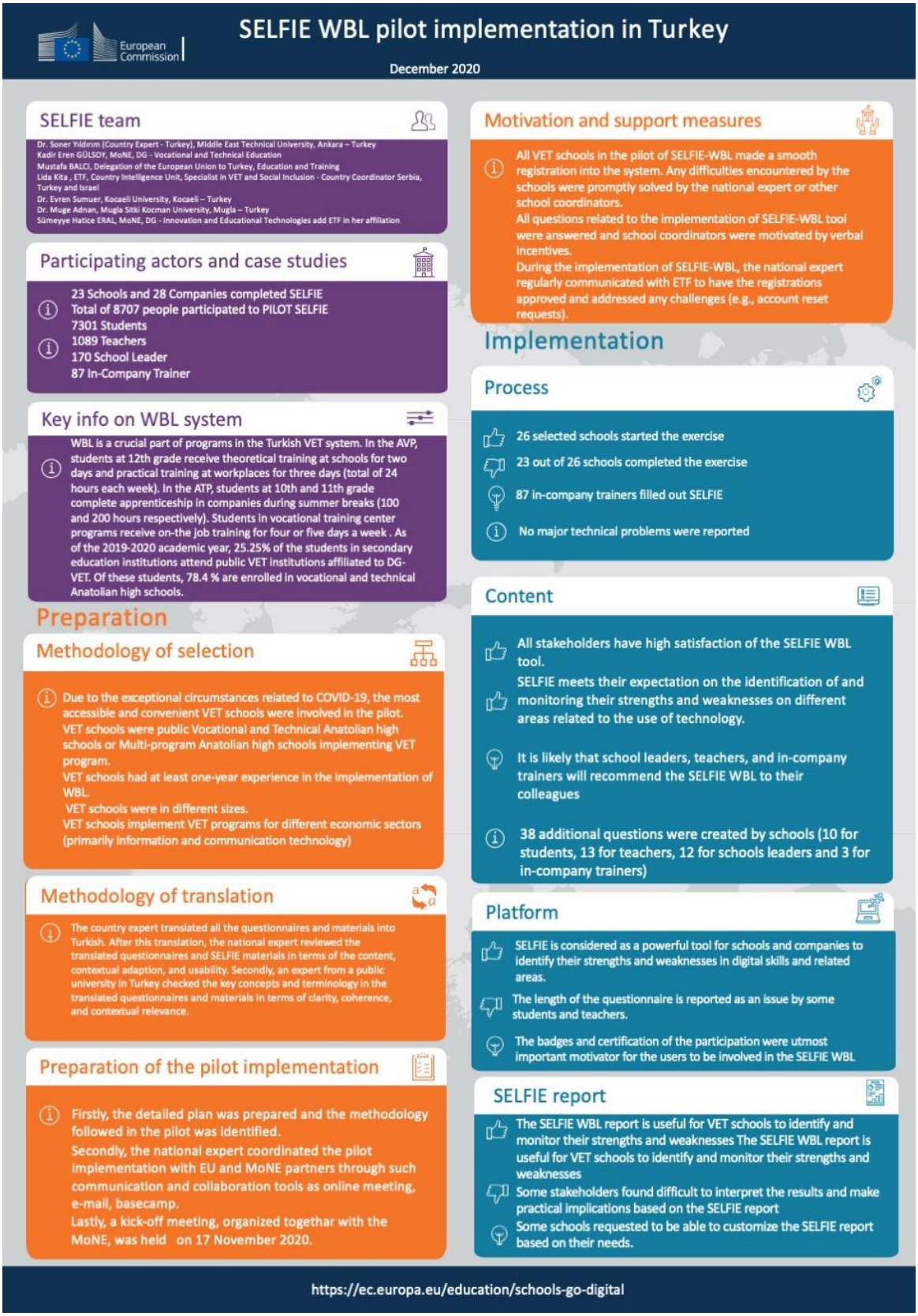
Turkish Ministry of National Education (2018a). *Outlook of vocational and technical education in* Turkey. Retrieved from: https://unevoc.unesco.org/network/up/TURKEY_MoNE-

_Outlook_of_Vocational_and_Technical_Education_in_Turkey-_Series_of_Education_Analysis_and_Assessment_Reports_No_1_November_2018.pdf

Turkish Ministry of National Education (2018b). *Turkey's education vision 2023*. Ankara: MoNE Publications. Retrieved from: https://2023vizyonu.meb.gov.tr/doc/2023_VIZYON_ENG.pdf

Turkish Ministry of National Education (2020). *Vocational and Technical Education During the COVID-19 Pandemic*. Retrieved from: http://mtegm.meb.gov.tr/meb_iys_dosyalar/2020_11/27153914_turkiye_raporu_ingilizce_23.10.2020.pdf

Annex II - Country fiche



SELFIE WBL pilot implementation in Turkey

European Commission

December 2020

Ecosystem measures

Development of dijital skills for students and teachers has been the focal point of several offical documents, including the MoNE's most current Vision2023 document. COVID-19 has brought this subject to the fore, and the vital importance of digital skills and competencies has been acknowledged by all stakeholders. In the Vision2023 document, under the "Digital Content and Skills-Backed Transformation of the Learning Process" section, there are two main goals and several objectives are stated:

GOAL 1: An Ecosystem Will Be Created For Development Of Digital Contents And Skills.

OBJECTIVES:

1. A National Digital Content Archive will be created so that content norms and quality standards support all possible use scenarios.
2. A national scale content development ecosystem will be created to support content diversity
3. By training leader teachers in the culture of efficiently using and developing digital content, this culture will be disseminated at schools.
4. Digital materials and printed materials will be linked to each other, and teachers will be provided with supporting materials in their efficient use. The use of digital materials as primary teaching materials will be mainstreamed.
5. Using digital content, platforms enabling customized learning experiences will be prepare
6. New generation digital measurement materials supporting meta-cognitive skills will be developed to help students achieve the desired results in international exams, such as PISA.

GOAL 2: Content Will Be Developed And Teachers Will Be Trained For The Development Of Digital Skills.

OBJECTIVES:

1. With the changes in the curriculum, concepts such as safe internet, cyber security, cyber bullying, and data security will be introduced in primary education courses.
2. Computer-free face-to-face in-service training programs aimed at teaching algorithmic thinking will be organized for class teachers.
3. Coding and 3D design activities will be carried out together with students in order to equip them with IT-based production skills.
4. Readily available content videos will be produced, and workshops will be organized so that our teachers can improve their skills in digital education
5. Face-to-face workshop training sessions will be organized for teachers of mathematics, natural sciences, physics, chemistry, biology, Turkish, social sciences, and geography in subjects such as interdisciplinary project development, 3D design, and smart devices.

Other

"Vocational and Technical Education Institutions Quality Assurance Directive" entered into force on 08.05.2019. Since then, studies are carried out to establish a quality assurance system in all our schools. In this context, a self-assessment study is carried out by VET schools once a year. Within the scope of the Quality Assurance System, approximately 1000 schools / institutions have been completed their self evaluation so far.

Overall evaluation and future directions

The average satisfaction of SELFIE WBL in Turkey was 7.14 out of 10 points. The user groups with the highest satisfaction score were in-company trainers (7.73) and school leaders (7.72). They were followed by teachers (7.46) and students (7.07).

At the MoNE level, policy makers are discussing on the strategies to make SELFIE a widely used assessment tool for VET schools.

In total, 23 Schools and 28 Companies completed SELFIE. Total of 8707 people participated to PILOT SELFIE:

- 7301 Students
- 1089 Teachers
- 170 School Leader
- 87 In-Company Trainer

The pilot of the SELFIE WBL in Turkey, the highest mean score was obtained in "Pedagogy: Supports and Resources" area (M = 4.17, SD = 1.12), followed by "Student Digital Competence" (M = 3.94, SD = 1.00), "Collaboration and Networking" (M = 3.94, SD = 1.21), "Pedagogy: Implementation in the Classroom" (M = 3.87, SD = 1.02), "Continuing Professional Development" (M = 3.82, SD = 1.02), "Leadership" (M = 3.79, SD = 1.04), "Assessment Practices" (M = 3.78, SD = 1.07), and "Assessment Practices" (M = 3.78, SD = 1.07). The lowest mean score was obtained in "Infrastructure and Equipment" area (M = 3.72, SD = 1.05).

Implications of COVID-19

Although VET schools and companies began face-to-face training with necessary COVID-19 measures in early October 2020, they have been temporally reclosed since mid-November 2020.

The SELFIE WBL makes it possible for schools to identify their strengths and weaknesses in different SELFIE areas from the perspectives of different user group.

The piloting VET schools have started to prepare their action plans to address their weaknesses in the use of educational technologies revealed in their SELFIE WBL reports.

The use of digital technology in education will be more important after COVID-19, so the SELFIE WBL might become a vital tool for the schools.

https://ec.europa.eu/education/schools-go-digital

Annex III – List of tools similar to SELFIE and other tools used in WBL

Turkish VET Map (meslekiegitimharitasi.meb.gov.tr)

A database containing all information about students in vocational education compatible with Industry 4.0, as well as the technology and production capacity of Turkey's provinces

My Job My Life platform (meslegimhayatim.meb.gov.tr)

A portal improving access to vocational and technical education, improving the relations of the education sector with the society and business sectors, and ensuring the employment of a qualified workforce

Quality Assurance System (http://ozdegerlendirme.meb.gov.tr/)

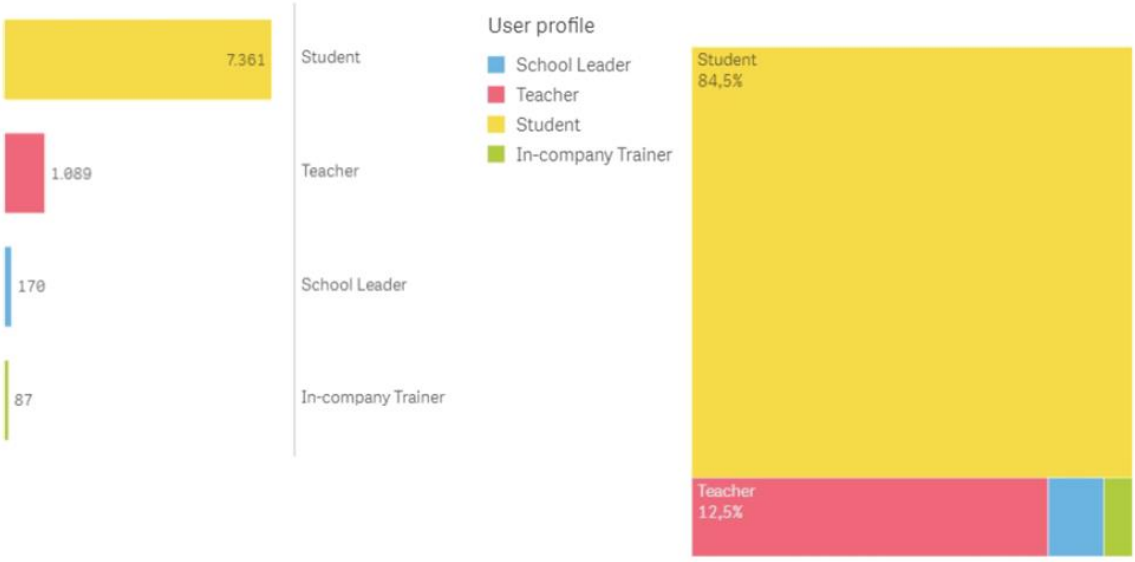
This system aims to monitor and improve the quality of VET using self-evaluation, internal evaluation and external evaluation

Annex IV – Overview of key quantitative outcomes in Turkey

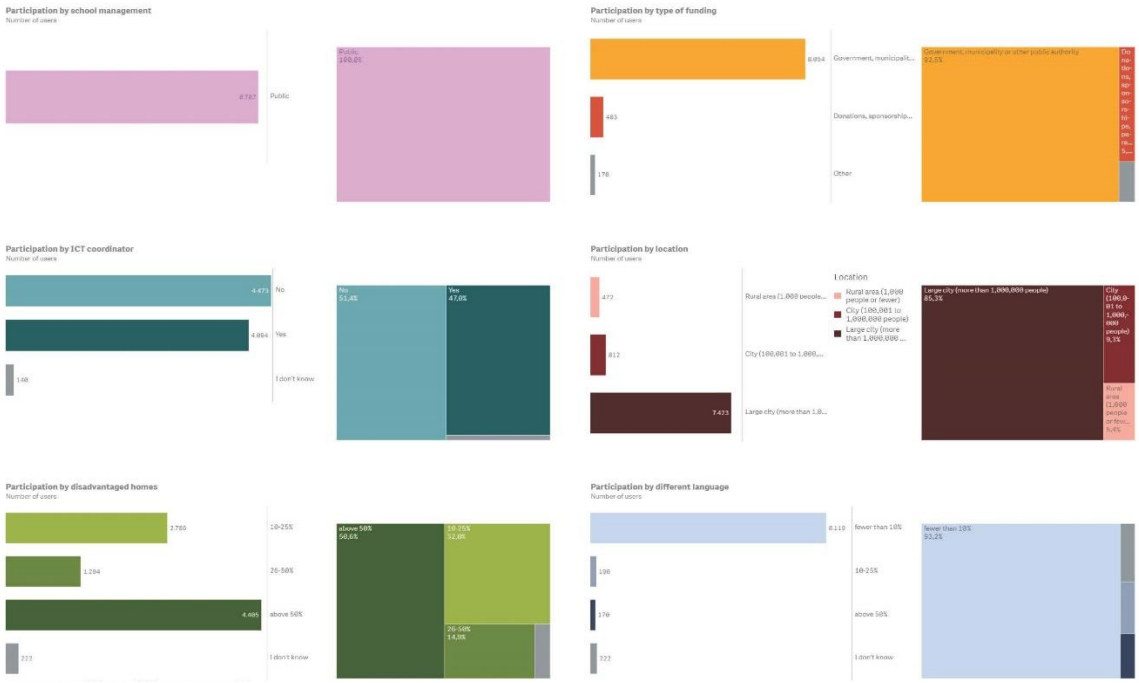
The outcomes of the pilot are not representative of the national education and training systems. They do, however, provide useful insights for schools and companies participating in the pilot and, overall, for schools and companies providing similar WBL programmes and belonging to the specific economic sectors covered by the pilot.

1. Participation

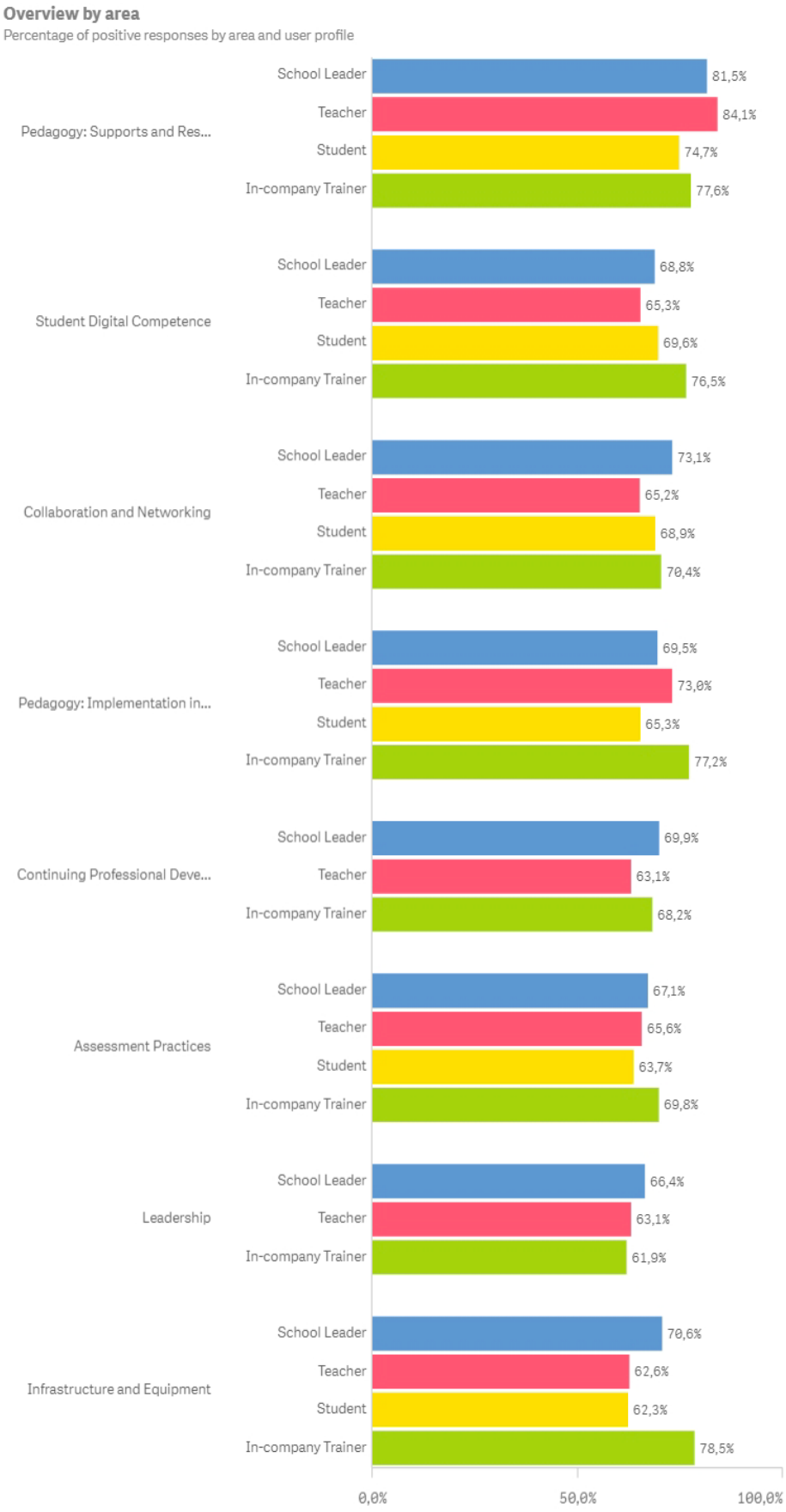
By user profile :



By schools (distribution by categories):



2. Main areas

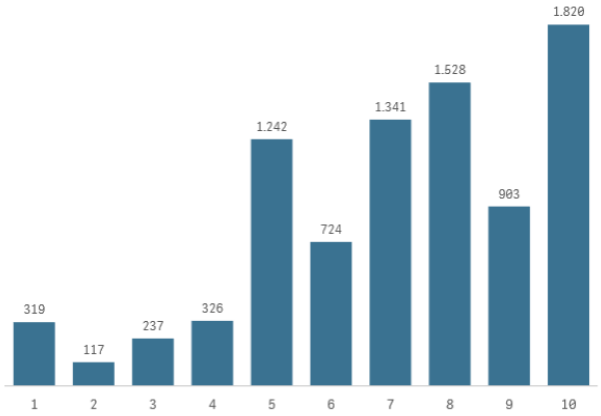

Overview by area
Percentage of positive responses by area and user profile
Pedagogy: Supports and Res...
School Leader 81,5%
Teacher 84,1%
Student 74,7%
In-company Trainer 77,6%
Student Digital Competence
School Leader 68,8%
Teacher 65,3%
Student 69,6%
In-company Trainer 76,5%
Collaboration and Networking
School Leader 73,1%
Teacher 65,2%
Student 68,9%
In-company Trainer 70,4%
Pedagogy: Implementation in...
School Leader 69,5%
Teacher 73,0%
Student 65,3%
In-company Trainer 77,2%
Continuing Professional Deve...
School Leader 69,9%
Teacher 63,1%
In-company Trainer 68,2%
Assessment Practices
School Leader 67,1%
Teacher 65,6%
Student 63,7%
In-company Trainer 69,8%
Leadership
School Leader 66,4%
Teacher 63,1%
In-company Trainer 61,9%
Infrastructure and Equipment
School Leader 70,6%
Teacher 62,6%
Student 62,3%
In-company Trainer 78,5%
0,0%
50,0%
100,0%


Question ranking.
Percentage of positive responses by user profile
Online educational resources
School Leader 84.7%
Teacher 90.8%
In-company Trainer 86.9%
Open educational resources
School Leader 88.5%
Teacher 86.1%
Communicating with the school c...
School Leader 85.3%
Teacher 84.1%
Creating digital resources
School Leader 72.4%
Teacher 83.2%
In-company Trainer 79.8%
Tailoring to students' needs in sch...
School Leader 74.1%
Teacher 81.3%
Digital devices for teaching
School Leader 84.7%
Teacher 76.6%
In-company Trainer 87.4%
Infrastructure
School Leader 82.9%
Teacher 73.3%
In-company Trainer 89.7
Responsible behaviour
School Leader 71.8%
Teacher 87.1%
Student 76.4%
Using virtual learning environments
School Leader 80.6%
Teacher 77.4%
Student 74.7%
In-company Trainer 79.7%
Valuing skills developed outside t...
Teacher 74.9%
New ways of teaching
School Leader 80.0%
Teacher 73.5%
Responsible behaviour in company
Student 74.3%
In-company Trainer 76.5%
Copyright and licensing rules
School Leader 74.3%
Teacher 73.3%
Communication
School Leader 80.6%
Teacher 71.6%
In-company Trainer 78.2%
Internet access
School Leader 76.5%
Teacher 71.9%
Skills for vocational qualification i...
Student 72.0%
In-company Trainer 90.9%
Learning to communicate
School Leader 72.9%
Teacher 71.5%
Student 72.1%
Digital assessment
School Leader 83.8%
Teacher 78.0%
Sharing experiences
School Leader 75.7%
Teacher 79.5%
In-company Trainer 78.8%
Safe behaviour
School Leader 68.8%
Teacher 66.7%
Student 71.7%
Engaging students
School Leader 72.4%
Teacher 76.3%
Student 69.4%
Skills for vocational qualification
School Leader 74.6%
Teacher 79.5%
Student 79.1%
Using data to improve learning
School Leader 80.9%
Teacher 68.6%
Documenting learning
School Leader 64.9%
Teacher 68.1%
Student 71.6%
In-company Trainer 61.5%
Safe behaviour in company
Student 69.6%
In-company Trainer 79.1%
Checking quality of information
School Leader 65.9%
Teacher 63.1%
Student 79.7%
0.0% 20.0% 40.0% 60.0% 80.0% 1
Question ranking.
Percentage of positive responses by user profile
Checking quality of information in...
Student 69.6%
In-company Trainer 73.4%
Work experience
Student 69.2%
In-company Trainer 83.3%
Simulation
School Leader 57.1%
Teacher 71.3%
In-company Trainer 59.8%
Digital devices for learning in com...
Student 69.8%
In-company Trainer 80.5%
Learning to Communicate in com...
Student 69.8%
In-company Trainer 76.5%
Discussion on the use of technolo...
School Leader 75.7%
Teacher 67.6%
Student 68.9%
Physical spaces
School Leader 83.9%
Teacher 65.4%
Giving credit to others' work
School Leader 65.3%
Teacher 63.0%
Student 68.1%
Organisation of alternance
School Leader 75.9%
Teacher 66.1%
In-company Trainer 63.5%
Giving credit to others' work in co...
Student 66.6%
In-company Trainer 74.7%
Student collaboration
School Leader 72.4%
Teacher 72.4%
Student 65.5%
Solving technical problems
School Leader 71.9%
Teacher 63.2%
Student 66.8%
Solving technical problems in co...
Student 66.2%
In-company Trainer 81.8%
Valuing skills developed outside a...
School Leader 80.6%
Student 65.8%
Digital skills across subjects
School Leader 74.7%
Teacher 64.5%
Student 66.1%
Creating digital content
School Leader 64.1%
Teacher 62.1%
Student 66.5%
Timely feedback
School Leader 65.9%
Teacher 72.1%
Student 64.8%
Feedback to other students
School Leader 59.8%
Teacher 62.4%
Student 65.8%
Technical support
School Leader 81.2%
Teacher 72.5%
Student 63.5%
Time to explore digital teaching
School Leader 80.6%
Teacher 63.0%
In-company Trainer 55.8%
Fostering creativity
School Leader 67.1%
Teacher 74.3%
Student 63.3%
In-company Trainer 75.9%
Strategy development with teache...
School Leader 62.7%
Teacher 64.9%
Technical support in company
Student 64.4%
In-company Trainer 80.5%
*Digital divide: support to address...
School Leader 77.8%
Teacher 61.9%
In-company Trainer 68.8%
Cross-curricular projects
School Leader 59.8%
Teacher 64.7%
Student 64.4%
School Leader 67.1%
0.0% 20.0% 40.0% 60.0% 80.0% 1


Question ranking.
Percentage of positive responses by user profile
Assessing skills
School Leader 67.1%
Teacher 64.4%
Student 64.8%
*Digital divide: measures to identi...
School Leader 85.2%
Teacher 59.9%
In-company Trainer 68.8%
*Synergies for Remote Teaching a...
School Leader 78.7%
Teacher 61.1%
In-company Trainer 64.7%
Data protection
School Leader 63.7%
Teacher 62.6%
In-company Trainer 89.5%
Tailoring to students' needs in co...
Student 63.6%
In-company Trainer 73.3%
Progress review
School Leader 65.5%
Teacher 63.2%
Tailoring to students' needs in inst...
Student 63.4%
Learning coding or programming
School Leader 62.8%
Teacher 64.1%
Student 63.0%
Internet access in company
Student 62.6%
In-company Trainer 86.2%
Timely feedback in company
Student 62.5%
In-company Trainer 67.1%
Self-reflection on learning in comp...
Student 62.4%
In-company Trainer 67.1%
CPD opportunities
School Leader 69.6%
Teacher 61.2%
Self-reflection on learning
School Leader 62.7%
Teacher 64.9%
Student 61.9%
CPD needs
School Leader 67.9%
Teacher 60.8%
Internet access in institution
Student 61.0%
Assessing skills in company
Student 60.9%
In-company Trainer 72.3%
Digital strategy
School Leader 61.8%
Teacher 60.8%
Career guidance
School Leader 74.5%
Teacher 58.5%
Student 60.9%
Participation in CPD
School Leader 66.3%
Teacher 59.7%
In-company Trainer 57.6%
Database of training opportunities
Teacher 47.5%
Student 62.2%
Co-design of assessment
School Leader 61.9%
Teacher 58.7%
In-company Trainer 74.1%
Bring your own device
School Leader 63.3%
Teacher 44.9%
Student 61.5%
In-company Trainer 62.5%
Partnerships
School Leader 65.5%
Teacher 58.4%
Digital devices for learning
School Leader 58.9%
Teacher 53.1%
Student 59.4%
Entry level of digital competence
Teacher 56.7%
In-company Trainer 72.7%
Online libraries/repositories
School Leader 44.8%
Teacher 43.6%
Student 60.3%
In-company Trainer 36.8%
Learning coding or programming i...
Student 55.8%
In-company Trainer 71.4%
Involving companies in strategy
School Leader 53.3%
Teacher 58.3%
In-company Trainer 64.4%
Database of training opportunities
School Leader 58.6%
Assistive technologies
School Leader 62.2%
Teacher 46.5%
In-company Trainer 42.9%
*Devices for students
School Leader 39.1%
Teacher 28.6%
Student 37.5%
In-company Trainer 42.9%
0.0% 20.0% 40.0% 60.0% 80.0% 1

3. Satisfaction

Frequency distribution
Number of times each score was selected



Participation
Number of users

8.557

Average
Average score

7,14

Number of countries

1

Number of schools and education...

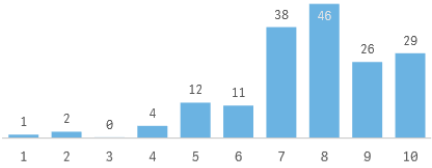
23

Frequency distribution by user profile

School leaders

Participation 169

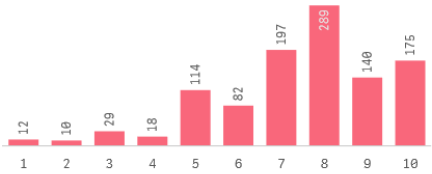
Average 7,72



Teachers

Participation 1.066

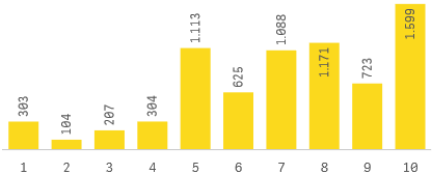
Average 7,46



Students

Participation 7.237

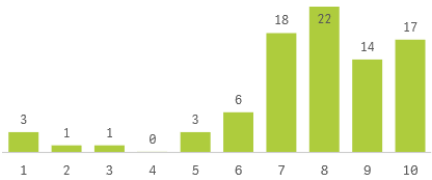
Average 7,07



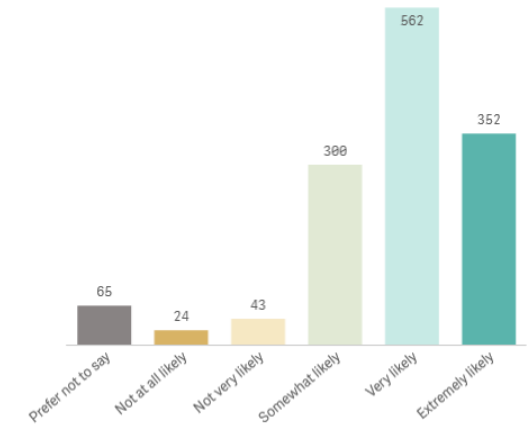
In-company trainers

Participation 85

Average 7,73



Frequency distribution
Frequency distribution



Percentage frequency distribution

Participation
Number of users

1.346

Average
Average score

3,73

Number of countries

1

Number of schools and education...

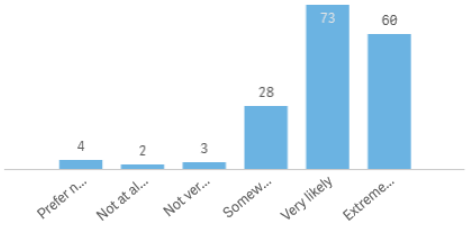
23

Frequency distribution by user profile

School leader

Participation
170

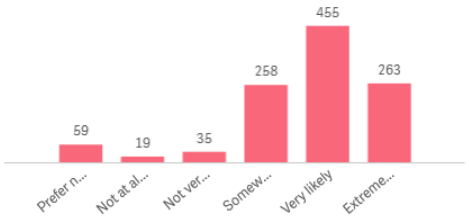
Average
4,02



Teacher

Participation
1.089

Average
3,67



In-company trainers

Participation
87

Average
3,86