ETF Working together Learning for life

DIGITAL FACTSHEET MAY 2018

DIGITAL SKILLS AND ONLINE LEARNING IN TURKEY

DIGITAL SKILLS FOR VET STUDENTS

Vision and policy

Turkey's Tenth Development Plan[1] acknowledges rapid changes in science and technology and calls for action in education: (i) integrate ICT into curriculum to increase education quality; (ii) reduce the difference in success levels between school types and regions; and (iii) enhance mechanisms to efficiently harmonise the education system and employment.

As a follow-up, the Ministry of National Education has launched a curricula renewal process that acknowledges digital skills and competences (DSCs) as key competences for all students, including those in vocational education and training (VET). In 2016, the curriculum for a new Computer Science course[2] – mandatory and delivered in the first two years of secondary education – was approved. Compared to the previous course, mainly focused on basic digital skills, the new curriculum is broader and includes programming and computational thinking[3]. The Board of Education is responsible for monitoring this curriculum as part of its legal obligations and the Ministry's General Directorate of Innovations and Education Technologies will update its content regularly.

Despite Turkey's strong commitment to improving students' DSCs, a recent OECD report[4] highlights that, to date, students' use of ICTs for educational purposes is significantly below the OECD average. The education system lacks a national framework defining the DSCs and the related proficiency levels that students should achieve.

Students, computers and the use of Internet[4]

	Turkey	OECD
Students-to-computer ratio	44.9	4.7
Students using computers at school (%)	48.7	72
Students with a computer at home (%)	70.7	95.8
Average daily time spent on the Internet (minutes)		
• at school (lower bound)	15	25
• outside of school (weekdays)	52	104
• outside of school (weekends)	78	138

Turkey's education system in figures

Schools

- 61 203 schools – from kindergarten to grades 1–12:
  6 788 pre-schools (11.09%),
  26 522 primary schools (43.33%),
  17 342 junior high schools (28.34%),
  10 551 high schools (17.24%)
- 5 239 vocational and technical secondary schools (8.56% ratio)

Teachers

- 993 794 teachers (54.92% female teachers)
- 184 232 vocational teachers (18.54% of all teachers)

Students

- 17 588 958 students in total (including vocational students), of which
- 2 760 240 vocational students (15.69% of all students, 46.65% girls and 53.35% boys)

Source: Ministry of National Education

[1] Covering the 2014–18 period, approved 1 July 2013 (p. 31).
[2] http://mufredat.meb.gov.tr/Default.aspx
[3] https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/developing-computational-thinking-compulsory-education-implications-policy-and-practice
[4] OECD, *Students, Computers and Learning: Making the Connection*, PISA, OECD Publishing, 2015. http://dx.doi.org/10.1787/9789264239555-en

DIGITAL SKILLS FOR VET TEACHERS AND TRAINERS

Vision and policy

Turkey's education system is mainly public and centralised.

In order to obtain a teaching certificate for vocational schools, candidate teachers must complete an Instructional Technology and Material Development course, which focuses on basic digital skills for office applications and the Internet. Continuing professional development (CPD) for VET teachers increasingly offers courses focusing on DSCs. For example, in 2016 the General Directorate of Vocational and Technical Education planned 96 face-to-face or online[5] CPD courses to improve DSCs. The majority of DSC trainings for teachers are organised centrally by the General Directorate of Innovations and Education Technologies[6], as part of the FATIH project[7].

However, these courses' content and methods are still far from supporting a pedagogical use of ICTs. Recent studies on teacher practices in Turkey[8] show that teachers use ICTs mostly for administrative purposes, highlighting the need to improve the quality of initial and continuing professional development courses in DSCs for teachers and trainers. The education system lacks a national framework defining the DSCs and the related proficiency levels that teachers and trainers should possess and develop during their professional career.

In addition to government initiatives such as the Education Information Network[9], several non-governmental organisations (NGOs), in collaboration with the Ministry of National Education, are providing additional CPD programmes, including online courses for digital skills.

In an ETF survey on CPD activities for VET teachers and trainers[10] carried out in Turkey in 2015, 66% of teachers reported that they had undertaken development activities in digital skills for teaching in the previous 12 months (the highest volume of participation).

Education Information Network (EBA)

EBA is recognised as the most important online platform in Turkey. Developed under the FATIH project[7], EBA allows teachers and students to create, share and exchange digital content. It also provides free access to tools to create multimedia resources (ideaLStudio, EBA Sunum, Eutdyo and Xerte). EBA is also a gateway to other online platforms such as Khan Academy, Da Vinci Learning and Lingus. Common criticisms suggest that there are no agreed standards for digital content in general, and that resources for vocational subjects in particular as well as interactions among users are relatively limited.

www.eba.gov.tr/

Teachers Academy Foundation (ÖRAV)

ÖRAV is an NGO established in 2008 to provide sustainable and continuing professional development for teachers. Since its foundation, more than 125,000 teachers participated in ÖRAV's programmes.

E-Kampus is ÖRAV's learning platform. Its 2015 activity report states that all teachers completing face-to-face training can access the platform to continue their professional development. The platform also provides teachers and trainers with a structure for 'communities of practice', organised by subject.

www.orav.org.tr/en/aboutus.aspx

[5] https://mebbisyd.meb.gov.tr/
[6] https://yegitek.meb.gov.tr/
[7] http://fatihprojesi.meb.gov.tr/en/
[8] Aydin, M.K., Gürol, M. and Vanderlinde, R., 'Evaluating ICT integration in Turkish K-12 schools through teachers' views', *Eurasia Journal of Mathematics, Science and Technology Education*, 12(4), 2016, pp. 747–66
[9] www.eba.gov.tr/ (in English also)
[10] www.etf.europa.eu/WEB.NSF/pages/CPD_Turkey

DIGITAL AND ONLINE LEARNING IN INITIAL VET

Vision and policy

In 2010, the Turkish Government launched an education project called FATIH[11] (referring to Mehmet II, one of the most influential Ottoman sultans).

Designed to provide every student in the country with the best education, the highest quality educational content and equal opportunities, the FATIH project can be considered as one of the largest and most comprehensive initiative about the use of technology in education and training in the world.

More specifically the FATIH project foresees a high-speed broadband Internet connection in all classrooms, interactive whiteboards in all basic education (grades 1–8) and high school classrooms, tablet PCs for all students – starting from the fifth grade – and support to teachers and trainers to become digital content creators.

The FATIH project's goals

For each school	For each classroom	For each teacher	For each student
Multifunctional printer	Interactive board	Tablet	Tablet
Infrastructure	Cabled/wireless Internet connection	EBA portal	EBA portal
High-speed Internet access	Classroom management	EBA market	EBA market
		e-mail account	Cloud account
		Content creation studio	Digital identity
		Cloud account	Sharing homework
		Learning management system	e-mail account
		Sharing course notes	Individual learning materials

Source: http://fatihprojesi.meb.gov.tr/en/?page_id=10

Facts

The FATIH project in vocational schools:

- Internet, system room and UPS and data sockets installed in 1,081 schools (yet only 200 schools have received fiber-optic Internet);
- 3,210 multifunctional printers distributed to 3,091 schools;
- 84,263 interactive whiteboards installed in 57,014 classrooms/ labs;
- 169,684 tablet PCs provided to VET students (grade 9);
- 101,339 tablet PCs provided to VET teachers.

The FATIH project was planned to be completed by December 2015 but only 10% of its goals had been achieved by the beginning of 2016. It seems that, in the majority of vocational schools, the project has not arrived yet; Internet access and the pedagogical use of ICTs for digital and online learning remain limited.

[11] http://fatihprojesi.meb.gov.tr/en/

DIGITAL AND ONLINE LEARNING IN CONTINUING VET

Vision and policy

The use of digital and online learning in continuing VET is an emerging opportunity in Turkey. The Ministry of National Education's General Directorate for Lifelong Learning aims to boost employability and entrepreneurship through basic and job-specific DSCs training that includes digital and online learning methods[12]. The Vocational Qualifications Authority (MYK) is in charge of determining job-specific DSCs.

Capacity development of employees and employers via ICTs

Funded under the IPA (Instrument for Pre-accession Assistance) Human Resources Development Component, the project aims to: (i) develop the infrastructure for online training in ICT-related subjects; (ii) develop teaching methods for online courses; (iii) develop curricula according to the various needs and segments of the labour market; and (iv) create a public online platform allowing citizens to follow interactive online courses (e.g. graphic design, web development, mobile applications development).

The project intends to train 400 employers and 2,000 employees in the provinces of Ankara, Istanbul, Izmir, Gaziantep and Eskişehir.

http://proje.bilgeis.net/en/project-overview/

Design of curriculum for woodworking CNC operators

This recent Erasmus+ Strategic Partnership project aimed to design a curriculum for woodworking computer numerically controlled (CNC) operators in Turkey. Under the project an electronic performance support system, on-the-job training materials and a platform for 'communities of practice' were developed for CNC operators as well as vocational students and teachers.

http://pro-cnc-sp.com/en/about/project-description/

Facts

- Due to socio-economic reasons, a large part of the population cannot attend regular secondary school. As an alternative to formal secondary education, the Ministry of National Education launched the Open Vocational High School[13] in 2016. The content of the programmes are the same as in formal vocational schools. The platform counts 333,712 registered users and mainly provides online textbooks. Interactive lessons are not available yet.
- In 2007, the Turkish Academy of Sciences (TÜBA) launched the massive open online courses (MOOC) movement in Turkey; 45 universities participated. Pioneering universities with distance education experience, such as Anadolu University (Eskisehir) and Atatürk University (Erzurum), provide online repositories of MOOCs (mostly in Turkish), covering also vocational subjects, and offer associate degrees, professional development courses and certificate programmes.
- Khan Academy[14] is another online repository available for teachers and students. It covers mostly elementary and high school curriculum, including vocational subjects.
- Although limited, an increasing number of initiatives involve also NGOs and private firms providing online courses for vocational occupations.

[12] www.myk.gov.tr/ http://hbogm.meb.gov.tr/modulerprogramlar/
[13] www.virtualschoolsandcolleges.eu/index.php/Open_Vocational_High_School
[14] https://tr.khanacademy.org/

@ European Training Foundation, 2018
Reproduction is authorised provided the source is acknowledged.