

Creating Innovative Structures in Workplace and Vocational Digital Learning to Ensure Social Distancing

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I. INTRODUCTION

- **The COVID-19 pandemic disrupted all types and levels of learning including Vocational Education and Training (VET) and workplace learning in companies.**
- **E-learning systems and other digital tools change the way people approach learning and training and could offer access to learning content to everyone.**
- **In this pandemic, digital systems may create new opportunities for equitable learning and stronger international collaboration.**
- **Many people with special needs (social or disabilities) should also be beneficiaries of e-learning systems because such systems offer the flexibility to adapt training programs to meet their specific needs.**
- **Special measures and innovations, also disruptive ones, are necessary so that all students and companies' employees do not suffer by learning continuity not being ensured through distance learning..**



I. INTRODUCTION

Following topics are presented:

- **The necessity and importance of disruptive digital innovation in education and some examples,**
- **Structures and social measures, which can be developed around improving learning in the COVID-19 crisis to ensure social distancing, particularly in Germany taken also within a workplace-oriented learning program for companies developed and tested during the COVID-19 pandemic within a European project and adapted for VET,**
- **Conclusions for educational institutions, companies and governments to improve education in the existing pandemic crisis with particular reference to e-learning.**



II. DISRUPTIVE INNOVATION IN EDUCATION

- **Disruptive innovations in education are intended to break with an established model and to introduce an improved one.**
- **Curtis Johnson, explains that the current form of teaching "is unable to provide today's pupils with the skills they need to master in order to interact with and within the digital society".**
- **Disruptive innovation has the capacity to improve education and outcomes if educators embrace a free-market mind.**
- **Disruptive technological innovations enable the use of e-mentors who are accessible to the masses independent of location. This includes all students with social problems or disabilities, not just a few.**
- **Disruptive innovation supports the creation of a personalized education system.**



II. DISRUPTIVE INNOVATION IN EDUCATION

Universities and other training institutions have a big role in disruptive innovations in education – also in workplace ones – and they have to adapt to changes like:

- **practice over theory,**
- **using multidisciplinary learning,**
- **improving digital innovations,**
- **realizing closer links with the job market,**
- **making competitiveness a priority.**



II. DISRUPTIVE INNOVATION IN EDUCATION

VET teachers and trainers have an important role in companies but

- **they face difficulties in their efforts to respond to the current crisis,**
- **COVID-19 consequences are seen at all levels of education but seem more severe for the workplace learning and VET sector,**
- **only 60% of teachers received professional development in ICT in the year 2019.**

Disruptive innovation in education should be combined with better socially oriented service models that are built around improved educational program quality for all.



III. THE SOCIO-ECONOMIC IMPACT OF COVID-19 ON THE MOST VULNERABLE LEARNERS AND CONTRIBUTION OF E-LEARNING

Social distancing measures have a big impact of the population who do not have access to suitable learning facilities or the required skills to use digital technologies.

Some tactical steps to protect learners with social problems and/or disabilities, adapt programs and delivery, and establish and expand virtual live learning:

- **within a European Erasmus+ project with a consortium with higher education institutes and research organizations, chambers of commerce and SME representative bodies from Germany, Ireland, Spain, Lithuania and Romania, a hybrid-training program for workplace-oriented learning has been developed supported by a digital platform and adapted for a special course within VET.**



III. THE SOCIO-ECONOMIC IMPACT OF COVID-19 ON THE MOST VULNERABLE LEARNERS AND CONTRIBUTION OF E-LEARNING

In order to create a comprehensive picture of how to adapt the training to the new environment of COVID-19

- **a cross-functional response team composed of members of the German partner responsible for the project, managers of some interested companies and VET has been formed,**
- **two persons with knowledge in this context have been invited to work in the team,**
- **two e-mentors supported the training program and a tutor - particularly for the learners with special needs, i.e. with registration, simplification of some activities and exercises, and e-mails to communicate more often with these learners.**



III. THE SOCIO-ECONOMIC IMPACT OF COVID-19 ON THE MOST VULNERABLE LEARNERS AND CONTRIBUTION OF E-LEARNING

Measures in Germany to ensure social distancing;

- “transition coaching” supports students at school to acquire general secondary education or to complete (assisted) VET or another form of upper-secondary education.
- to support apprentices at risk in Germany, a programme managed by [PES Germany](#) and co-funded by the European Social Fund offers a special form of support for disadvantaged young people to reduce early school leaving from VET, given this disruption to the apprenticeships of VET learners



III. THE SOCIO-ECONOMIC IMPACT OF COVID-19 ON THE MOST VULNERABLE LEARNERS AND CONTRIBUTION OF E-LEARNING

Events and projects:

- **Digital Day 2020 connected to 1,435 campaigns related to a social digitalization across Germany,**
- **2020 UNESCO Global Education Monitoring Report about Inclusion and Education,**
- **“Inclusion 4.0 Ruhr - Digital Support Systems for Employees with Cognitive Disabilities”, a network to teach employees with intellectual disabilities to secure and expand their jobs in workshops and companies by using e-learning and innovative digital assistance systems.**



IV. CONCLUSIONS

- **The COVID-19 pandemic has created the largest disruption of education systems in history, affecting nearly 1.6 billion learners in more than 190 countries and on all continents.**
- **During the COVID-19 pandemic, companies, VET institutions and other educational establishments have needed to address new issues.**
- **Massive efforts have been made in a short time to respond to the shocks to education systems.**

But

- **many teachers and trainers have to be reskilled,**
- **marginalized and vulnerable learners have to be involved in e-learning procedures,**
- **educational institutions have to think carefully about their choices regarding e-learning, particularly personalized forms, e-mentors and inclusive education technologies,**
- **disruptive innovations are necessary because the crisis has shown that no digital inclusion without measures to minimize social distancing exists.**



IV. CONCLUSIONS

Governments should consider

- **focusing on equity and inclusion,**
- **reinforcing capacities for risk management at all levels of the system, enhancing consultation and communication mechanisms,**
- **addressing learning losses and preventing dropouts,**
- **offering skills for employability programs,**
- **supporting the teaching profession and teachers' readiness,**
- **supporting flexibility across levels and types of education and training.**

