



ASIDE

Adult Social Inclusion in a Digital Environment

Exchange of Good Practices 2019-1-PL01-KA204- 065689

DIGITAL COMPETENCES

for social inclusion initiatives and services



Erasmus+

Project information

Project: Erasmus+

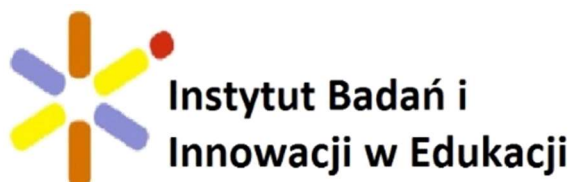
Project title: Adult Social Inclusion in a Digital Environment

Acronym: ASIDE

Project No.: 2019-1-PL01-KA204- 065689

Project coordinator: Research and Innovation in Education Institute, [INBIE], Poland

Project partners:



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Content

INTRODUCTION	4
Professional Engagement' & 'Digital Resources	5
1. Professional Engagement.....	5
2. Digital Resources	8
Teaching and Learning' & 'Assessment.....	15
1. Teaching and Learning for Adult Social Inclusion in a Digital Environment	15
a. Teaching for Adult Social Inclusion in a Digital Environment	15
b. Guidance for Adult Social Inclusion in a Digital Environment	17
c. Collaborative learning for Adult Social Inclusion in a Digital Environment	18
d. Self-regulated learning for Adult Social Inclusion in a Digital Environment.....	20
Assessment for Adult Social Inclusion in a Digital Environment.....	22
1. Assessment strategies for Adult Social Inclusion in a Digital Environment.....	22
2. Analysing evidence for Adult Social Inclusion in a Digital Environment.....	23
3. Feedback and planning for Adult Social Inclusion in a Digital Environment.....	24
Empowering Learners	27
4. Active learning and active learning strategies	31
Active learning	31
Active learning strategies.....	32
Facilitating Learners' Digital Competence'	38
1. The essence of digital competences	38
2. The perspective of the development of digital competences - key determinants.....	39
3. Supporting digital competences of adults - experiences from Poland.....	41
a. Project "Latarnicy2020.pl"	41
b. Festiwal Aktywności Cyfrowych 60+	42
c. Cyfrokлуб Seniora w Fabryce przyszłości.....	42
d. Cyfrowy Senior.....	42
e. Uniwersytety Trzeciego Wieku.....	43

INTRODUCTION

Evolution of the information society highlights the importance of acquiring the right digital competences to face today's social and technological challenges. Digital competences have different definitions, ranging from the instrumental use of technology to skills for creativity, communication and collaborative work, although the different definitions point to the exercise of digital citizenship, such as: the skills and abilities to use information appropriately and then transform it into knowledge with the aim of sharing it.

Digital competence encompasses not only instrumental knowledge but also an attitude towards the use of technology, because in the end it is the individual who decides which tools to use to achieve a specific purpose and not all technological tools are in line with personal needs. This implies that the acquired knowledge must be used in context in order to act consciously and effectively towards a purpose. There is no general consensus on the definition of digital competences although they are the basis for policies or practices applied to projects. Based on this idea, the definition of digital competence adopted at the University of La Sabana and which underpins the subject under which the experience was developed is the student's ability to deal critically and reflectively with academic and social situations in a digital environment.

In this sense, educational institutions have the responsibility to train and provide people with the tools and skills to function in society and therefore to promote strategies to achieve this. achieve this.

However, the lack of digital competences is a cause of a first social exclusion, understood as that which prevents the full development of people according to their true desires and abilities. Digital exclusion is another form of inequality that is comparable to exclusion based on race, gender, among other unfortunate forms, and this exclusion should not only be a matter of study for specialists, but should be broadened to include those who have a better command of digital skills and who have social and economic advantages over those who do not have these skills. This means that those who are digitally excluded will be conditioned by access to information in quality and quantity and "not considered useful to society, being excluded from the acquisition of digital competences for social inclusion participation and, above all, feeling insignificant. The increase of exclusion processes prevents an adequate management of coexistence, diversity and human development. If the definition of exclusion implies that there are obstacles to full development, this definition includes the misuse of technologies as a form of exclusion, which is dangerous for young people, as well as generating social violence.

Javier SANCHEZ GARCIA,
Fundacion Universitat Jaume I-Empresa - Spain

Professional Engagement' & 'Digital Resources

Yeliz NUR AKARÇAY,
Sarıçam Halk Eğitimi Merkezi Müdürlüğü - Turkey

1. Professional Engagement

The new technology in this digital era has made it compulsory for all citizens to use digital sources. It has come to a point that without the knowledge of basic digital skills, social inclusion cannot be possible. While people in various parts of the world have become active digital citizens, there are still many others who do not have the opportunity, facilities, or access to digital sources. Therefore, it is not possible to say that the full potential of digital technologies is utilized. Students and educators around the globe still require the creative use of technologies.

A full and active participation in the modern-day information societies now require digital competence as a pre-requisite skill because it helps individuals to cope with social and economic challenges. People's digital competence development demonstrates differences by several factors such as age, socio-economic conditions, place of living, and educational background. Many countries in the world aim to improve and support digital competences and thus develop national and international policies.

Ferrari (2012; p.30) defines digital competence as the set of knowledge, skills, attitudes, abilities, strategies, and awareness that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, and socializing" (p.30).

As indicated in the definition, digital competence is complex, multidimensional, associated with 21st century skills, and sensitive to socio-cultural issues. In addition, it requires critical and reflective use of technology in building new knowledge. Hence, teachers of today's world need to have digital competence and be prepared to use technology in meaningful and effective ways. The PISA report indicates that educators responsible for the education of the new millennium should have the ability to help their students with digital technologies in their journey of education.

Various studies reported that prospective teachers are generally ill-prepared when they teach with technology in classrooms (Angeli & Valanides, 2009; Kay, 2006; Sang et al., 2010;), and

that they graduate from teacher education programs with inadequate knowledge about how to use technology to facilitate student learning. Therefore, the conceptual framework of Technological Pedagogical Content Knowledge (TPACK) has been emphasized as a conceptual framework to refer to teachers' needs for knowledge to effectively teach with technology. According to some researchers, teacher educators need more professional development that focuses specifically on TPACK.

Educators who already teach digital natives in the digital era too need to have digital competencies in order to support their learners' digital learning and engagement. Educators who can use digital sources effectively are reported to transfer their knowledge into their students learning and make it more effective. To achieve this, educators need to be provided with trainings on digital competence. They need to develop knowledge and skills in order to integrate digital technologies into education in a meaningful way. It is also important to explore how educators demonstrate their digital competencies in educational environments. What educators should have include technological (T), pedagogical (P) and content (C) knowledge components to integrate technology into education. However, simply teaching educators how to use digital tools and resources is not sufficient. Any training to be provided to educators should go beyond them.

It is reported that teacher education programs often fail to provide prospective educators with essential digital competences as they mainly focus on certain technical skills and knowledge in the courses. The theoretical knowledge gained in the courses thus fail to be applied in practice. On the other hand, providing educators with such training is not that easy as it requires both transferring theoretical knowledge, and integrating digital technologies into learning-teaching processes. It is thus important to empower educators to create teaching content and assessment tools using a variety of technologies in different ways. Given that educators should be role models in terms of providing motivation for the effective use of technology, the importance of equipping them with technological knowledge can be understood better.

Professional engagement is associated with educators' identifying their learning needs, analyzing, evaluating and expanding their own professional learning. Such awareness could be considered at both collegial and individual level. Enhancing professional engagement in the digital era could be made possible through digital sources, which enables both individual and group learning activities.

Some of the skills to be possessed by educators in the digital era include but are not limited to the followings:

- using existing digital resources,
- making changes in existing digital resources,
- choosing digital resources related to learning objectives,
- making changes in digital resources according to learning objectives,
- creating new digital resources,
- integrating interactive elements into digital resources and
- sharing digital resources digitally.

As it is seen, digital skills required from educators go beyond what is simply teaching them how to use digital sources available. They should be able to integrate their knowledge of digital skills with teaching and learning objectives to make their teaching and their students' learning more effective. However, using digital sources effectively for assessment and evaluation purposes is another important issue for the educators. Various studies showed that educators had low skills in using digital sources for assessment purposes.

Particularly with the conditions caused by the pandemic, which required digital sources for the maintenance of education activities, education institutions have faced the challenges in implementing their activities in line with the recent technological and social changes. The competences that need to be acquired in this period could be considered within the framework of lifelong learning. Individuals' employability, creativity and prosperity are considered to be closely linked to these competences. Specific to educators' professional engagement, it is important to provide educators with training on information and communication technologies tools, enable access to quality digital services and technologies, and help them to integrate this technological knowledge with their pedagogical knowledge.

Foulger, T.S., Graziano, K.J., Schmidt-Crawford, D. & Slykhuis, D.A. (2017) lists some of the competences as follows:

- designing instruction that utilizes content-specific Technologies to enhance teaching and learning
- incorporating pedagogical approaches that prepare teacher candidates to use technology effectively
- supporting the development of knowledge, skills, and attitudes of teacher candidates related to teaching with technology

- using online tools to enhance teaching and learning
- using technology to differentiate instruction to meet diverse learning needs
- using appropriate technology tools for assessment
- using effective strategies for teaching online and/or blended or hybrid learning environments
- addressing the legal, ethical, socially-responsible use of technology in education
- engaging in ongoing Professional development and networking activities to improve integration of technology in teaching
- engaging in leadership and advocacy for using technology
- applying basic troubleshooting skills to solve any technological issues

If prospective teachers graduate with these skills, they could be more prepared for the requirements of this new technology age. Educators of the digitalized world could need guidance on new challenges as they need to reshape their professional activities and revise their repertoire of practices, design new pathways in line with the guidelines, or adapt their guidelines to their students and contexts, be engaged in ongoing professional development and networking activities so that they can integrate technology in their learning.

According to Watt and Richardson (2008), teacher professional engagement includes teachers' career motivations consisting of (a) professional development aspirations, (b) leadership aspirations, (c) planned persistence (career-longevity intentions), and (d) planned effort to teach. While many job-related issues such as intentions to leave the job, decreased commitment, absenteeism, etc. are correlated with burnout, professional engagement is associated with mental resilience. Studies show that professional engagement reduces the likelihood of the negative consequences of burnout such as mental distress. (Maslach & Leiter, 2008). The digital requirements of the new world could be very challenging and demanding for teachers all over the world, and the conditions caused by the pandemic, making digitalization a must, have caused a great chaos in the field of education. While it is necessary to provide future teachers with digital competence during their pre-service education, educators already working to teach various age groups in this age should also be provided with professional engagement activities to cope with the changes.

2. Digital Resources

Conditions caused by the COVID-19 pandemic has made it compulsory to utilize digital technologies in various areas of life including education. Learners of this era have had to be exposed to digitalized world more than any other generations. In such environment, educators

need to provide sustainable learning scenarios, implement teaching strategies to increase motivation, find ways to inspire creativity by using the digital tools. The new world of education thus seems to include hybrid options so that it can be possible to make young people, who are immersed in a digital culture, feel truly integrated. Such educational approach could require adaptations in the activities such as having discussions and share opinions in virtual spaces, communicating through hypertexts, viral apps, games, etc.

Digitally competent educators are expected to mobilize and transfer knowledge, strategies, skills and attitudes through the use of digital technologies to address specific situations. Hence, digital competences should help educators:

- a) to facilitate students' learning and the acquisition of their digital competence.
- b) to carry out processes for improving and innovating teaching according to the requirements of the digital era.
- c) to contribute to their professional development according to the changes in society and in schools.

Given the circumstances of the new world, educators' digital competences must demonstrate both their work capacity and ability to use digital competences to enhance their students' learning and improve their digital competence. With the digital sources available, educators are expected to:

- * use media languages effectively and with the awareness of socio-ethical implications,
- * have the capacity to teach the media by applying pedagogical and didactic knowledge to digital technologies,
- * have the ability to use media to teach a specific subject matter.

Educators' use of digital resources is related to creating and distributing digital sources for the identification of education resources. With so many sources available in the digital environment, finding and utilizing the most useful and effective ones should be the educator's responsibility and competence. The educator is also expected to use digital sources responsibly, administer the digital content, modify it if necessary, create and share it by making sure that it fits with the objectives of learning, learners' level and teaching style. In addition, while using the digital resources, educators should take guidelines of copyrights into consideration and protect personal data.

Process and progress should be considered individual, so educators could utilize digital technologies to enhance students' learning at their own pace and in line with their interests and

needs. Digital resources could provide more individualized content, but such opportunity can be made possible by educators who are competent about the effective use of digital sources for learning and teaching purposes.

There are many known advantages of digital resources for learners and educators since digital sources could be a window to the world of knowledge. However, it is necessary for educators and students to recognize the value of these resources and learn how to use them to enhance and develop their educational processes. While educators need to be aware of their own needs regarding the use of digital technologies in their profession for their personal growth, they are also expected to have a seamless collaboration with their students to enable their personal growth as well. These expectations can only be fulfilled through digital fluency, which indicates the ability to know that knowledge is never truly complete. Given that digital knowledge is changing rapidly, it should be noted that fluent users are those who acknowledge that they are never fully proficient and they must continuously improve their knowledge.

By identifying their strengths and weaknesses in the use of digital resources, educators can determine what steps they need to take to achieve full digital fluency, which is considered to provide advantages for both their professional engagement and the improvement of their students' knowledge and skills. In the digitalized world, which has become compulsory in almost all settings including education institutions, knowledge of educators is quite valuable in making the huge amount of information and sources on internet manageable and effective for both their professional engagement and students' effective learning.

While learning in this era includes knowing how to design, plan, and implement the use of digital technologies in the teaching and learning process, teaching includes supporting a change of student-centered approaches and methodologies through the use of effective digital resources.

Courses offered in professional development programs usually provide learners with content that emphasizes the technology more than the pedagogical approaches to its use. Knowing the technology and using it for education purposes are not the same things. A digital education resource refers to source consisting of graphic, text, digital, speech, music, video, photo and other information aimed at realizing the objectives of modern education. When the digital education resources are used right, they are considered to enhance active learning, independent search, logical processing of information and the development of creativity and critical thinking.

An initiation of providing teachers with training on how to use digital technologies is a complicated process that requires differential training; it needs to consider various fields into which technology can be integrated. Lawless and Pellegrino (2007) reports some issues related to the integration of education technology into instruction as follows:

- a) focus of professional development
- b) delivery mechanism (face-to-face or online)
- c) skill development and pedagogy enriching
- d) linkages to theories on how people learn and how to assess this learning.

These constructs likely have effects on how, when, and how often technology is integrated in classroom practice. The training program to be provided should aim to increase teachers' motivation, knowledge, and skills in selecting and using digital content for education purposes. For instance, teachers could be provided with training on the evaluation of digital content to improve their technological pedagogical and content knowledge. Such training on digital sources requires critical thinking and activates technological pedagogical and content knowledge

Studies show that teachers who have high digital competence are usually more willing to use digital resources for their learning, teaching, assessment and administrative processes. However, studies also reported inadequate training of teachers about utilizing information and communication technologies for professional and educational purposes or for their professional development.

Maybe the greatest technological advancement of the 20th century is the internet. With many texts, videos, and images available, accessing information has and content in miscellaneous fields have never been this easy. While this easy access to huge amount of information seems like a great advantage for educators and learners, it also poses a major disadvantage due to the information overload factor. Although the digital sources available may present a range of new learning possibilities, the effectiveness and quality of the digital sources lies within the educator's ability to use them. Those who do not want to get lost in this information overload can cope with this problem through a process called curation.

Digital content curation is defined as the act of collecting, organizing, and sharing of specific information and resources based on the intentions, needs, and, goals of the curator (BurnettLemon, 2012). In other words, content curation is not associated with collecting links or creating information packs. One needs to put them into a content with organization and selection of most relevant resources on a very specific topic or theme.

Societies have been going through changes over time, and the information society is a learning society which has knowledge and competences evolving continuously. Teachers at all levels of education can be considered as the most important asset in such society. Educators need comprehensive and ongoing professional development as well as learning opportunities so that they can be successful in their profession. Digital sources should be utilized to help educators to access, form, and manage their learning. Through these kinds of trainings, teachers are expected to develop and master skills related to their daily teaching practices.

Increased awareness and competence of educators in using digital resources is associated with the integration of digital resources into their classrooms in more authentic and meaningful ways. Increasing educators' digital literacy is considered to increase the quality and quantity of digital integration into classroom instruction. Although no one exactly know what changes will happen in the education system due to the circumstances caused by the COVID-19, it seems that technology will maintain its place for instructional delivery and digital resources will be a key factor for both teaching and learning. Educators could be better prepared to use digital resources to engage in professional development and enhance their own and their students' digital skills, which is considered to lead to student success.

Teachers and teacher educators require critical evaluation skills in order to assess online resources and make good decisions about technology use (Peck, Augustine & Popp, 2003). Ultimately, their analysis of resources must include not just consideration of basic qualities of web design, but also awareness of the structures and processes that provide opportunities for teacher and student learning, and consideration of artifacts of resource use such as examples of student work, project ideas, lesson plans or rubrics.

REFERENCES

1. Angeli, C., & Valanides, N. (2009). Epistemological and methodological issues for the conceptualization, development, and assessment of ICT-TPCK: Advances in technological pedagogical content knowledge (TPCK). *Computers & Education*, 52(1), 154-168.
2. Brantley-Dias, L., & Ertmer, P. A. (2013). Goldilocks and TPACK. Is the construct 'just right? *Journal of Research on Technology in Education*, 46(2), 103-128.
3. Brun, M., & Hinostroza, J. E. (2014). Learning to become a teacher in the 21st century: ICT integration in initial teacher education in Chile. *Journal of Educational Technology & Society*, 17(3), 222-238.
4. Burnette-Lemon, J. (2012). The collector: Pearltrees' Oliver Starr explains how content curation works for both individual users and companies. Retrieved from <https://www.questia.com/read/1G1-275920967/the-collector-pearltrees-oliver-starr-explains-how>

5. Caena, F., & Redecker, C. (2019). Aligning teacher competence frameworks to 21st century challenges: The case for the European digital competence framework for educators (DigcompEdu). *European Journal of Education*, 54(3), 356–369. <https://doi.org/10.1111/ejed.12345>.
6. Cabero-Almenara, J., Gutiérrez-Castillo, J. J., Palacios-Rodríguez, A., & Barroso-Osuna, J. (2020). Development of the teacher digital competence validation of DigCompEdu check-in questionnaire in the university context of Andalusia (Spain). *Sustainability*, 12(15), 6094.
7. Dias-Trindade, S., & Gomes Ferreira, A. (2020). Digital teaching skills: DigCompEdu CheckIn as an evolution process from literacy to digital fluency.
8. Dinçer, S. (2018). Are preservice teachers really literate enough to integrate technology in their classroom practice? Determining the technology literacy level of preservice teachers. *Education and Information Technologies*, 23(6), 2699–2718. <https://doi.org/10.1007/s10639-018-9737-z>.
9. Falloon, G. (2020). From digital literacy to digital competence: The teacher digital competency (TDC) framework. *Educational Technology Research and Development*. <https://doi.org/10.1007/s11423-020-09767-4>.
10. Ferrari, A. 2012. *Digital Competence in Practice: An Analysis of Frameworks*. Joint Research Centre. Luxembourg: European Union. Retrieved from: <http://ftp.jrc.es/EURdoc/JRC68116.pdf>
- Foulger, T.S., Graziano, K.J., Schmidt-Crawford, D. & Slykhuis, D.A. (2017). Teacher Educator Technology Competencies. *Journal of Technology and Teacher Education*, 25(4), 413-448. Waynesville, NC USA: Society for Information Technology & Teacher Education. Retrieved from <https://www.learntechlib.org/p/181966/>.
11. Hatlevik, O. E. (2017). Examining the relationship between teachers' self-efficacy, their digital competence, strategies to evaluate information, and use of ICT at school. *Scandinavian Journal of Educational Research*, 61(5), 555–567. <https://doi.org/10.1080/00313831.2016.1172501>.
12. Hansen, F., & Silva, R. P. V. (2016). Um caminho de superação pedagógica: os Naipes da Comunicação como dispositivos de atenção. *Revista Comunicação & Sociedade*, 38(3), 271-298.
13. Howard, S. K., Tondeur, J., Ma, J., & Yang, J. (2019). Seeing the wood for the trees: Insights into the complexity of developing pre-service teachers' digital competencies for future teaching. In Y. W. Chew, K. M. Chan, & A. Alphonso (Eds.), *ASCILITE 2019: 36th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education* (pp. 441–446). ASCILITE.
14. Instefjord, E., & Munthe, E. (2017). Educating digitally competent teachers: A study of integration of professional digital competence in teacher education. *Teaching and Teacher Education*, 67, 37–45. <https://doi.org/10.1016/j.tate.2017.05.016>.
15. Lawless, K. A., & Pellegrino, J. W. (2007). Professional development in integrating technology into teaching and learning: knowns, unknowns, and ways to pursue better questions and answers. *Review of Educational Research*, 77(4), 575–614.

16. Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology*, 93(3), 498-512. doi:10.1037/0021-9010.93.3.498
17. Reisoğlu, İ. (2021). How Does Digital Competence Training Affect Teachers' Professional Development and Activities?. *Tech Know Learn* (2021). <https://doi.org/10.1007/s10758-021-09501-w>
18. Watt, H. M. G., & Richardson, P. W. (2008b). Professional Engagement and Career Development Aspirations Scale [Database record]. Retrieved from PsycTESTS. doi: 10.1037/t25659-000

Teaching and Learning' & 'Assessment

Javier SANCHEZ GARCIA,
Fundacion Universitat Jaume I-Empresa – Spain

1. Teaching and Learning for Adult Social Inclusion in a Digital Environment

Digital technologies can enhance and improve adults teaching and learning strategies in many different ways. However, whatever pedagogic strategy or approach is chosen, the educator's specific digital competence lies in effectively orchestrating the use of digital technologies in the different phases and settings of the learning process, this is especially important when teachers are working with adults about digital competences, when they are no digital natives. The fundamental competence in this area – and maybe of the whole framework - is 3.1: Teaching. This competence refers to designing, planning and implementing the use of digital technologies in the different stages of the adults learning process. Competences 3.2 to 3.4 complement this competence by emphasizing that the real potential of digital technologies lies in shifting the focus of the teaching process from teacher-led to learner-centred processes. Thus, the role of a digitally-competent educator adults is to be a mentor and guide for learners in their progressively more autonomous learning endeavours. In this sense, digitally-competent educators need to be able to design new ways, supported by digital technologies, to provide guidance and support to learners, individually and collectively (3.2) and to initiate, support and monitor both self-regulated (3.4) and collaborative (3.3) learning activities, for Adult Social Inclusion in a Digital Environment.

a. Teaching for Adult Social Inclusion in a Digital Environment

To plan for and implement digital devices and resources in the teaching process, so as to enhance the effectiveness of teaching interventions for Adult Social Inclusion in a Digital Environment. To appropriately manage and orchestrate digital teaching interventions to improve social inclusion of adults. To experiment with and develop new formats and pedagogical methods for instruction focus on adults.

Activities for Adult Social Inclusion in a Digital Environment

- To use classroom technologies to support instruction to adults to foster social inclusion, e.g. electronic whiteboards, mobile devices.
- To structure the lesson so that different (teacher-led and learner-led) digital activities jointly re-inforce the learning objective focus on the adult's social inclusion.
- To set up learning sessions, activities and interactions in a digital environment of adults with need of social inclusion.
- To structure and manage content, collaboration and interaction in a digital environment of adults with need of social inclusion.

- To consider how educator-led digital interventions – whether face-to-face or in a digital environment - can best support the learning objective of adults with need of social inclusion.
- To reflect on the effectiveness and appropriateness of the digital pedagogical strategies chosen and flexibly adjust methods and strategies taking in account the especial needs of adults in risk of social exclusion.
- To experiment with and develop new formats and pedagogical methods for instruction (e.g. flipped classroom) adapted to adults with needs of social inclusion.

Progression		Proficiency statements
Newcomer (A1)	Making little use of digital technologies for instruction of adults.	I do not or only very rarely use digital devices or digital content in my teaching.
Explorer (A2)	Making basic use of available digital technologies for instruction of adults.	I use available classroom technologies, e.g. digital whiteboards, projectors, PCs. I choose digital technologies according to the learning objective and context.
Integrator (B1)	Integrating available digital technologies meaningfully into the teaching process of adults.	I organise and manage the integration of digital devices (e.g. classroom technologies, students' devices) into the teaching and learning process of adults. I manage the integration of digital content, e.g. videos, interactive activities, into the teaching and learning process of adults.
Expert (B2)	Using digital technologies purposefully to enhance pedagogic strategies between adults.	I consider appropriate social settings and interaction modes when integrating digital technologies between adults. I use digital technologies in teaching to increase methodological variation between adults. I set up learning sessions or other interactions in a digital environment between adults.
Leader (C1)	Orchestrating, monitoring and flexibly adapting the use of digital technologies to enhance pedagogic strategies focus on adults.	I structure learning sessions so that different (teacher-led and learner-led) digital activities jointly re-inforce the learning objective focus on adults.

		<p>I structure and manage content, contributions and interaction in a digital environment focus on adults.</p> <p>I continuously evaluate the effectiveness of digitally enhanced teaching strategies and revise my strategies accordingly focus on adults.</p>
Pioneer (C2)	Using digital technologies to innovate teaching strategies for adults.	<p>I provide full courses or learning modules in a digital learning environment for adults.</p> <p>I experiment with and develop new formats and pedagogical methods for instruction for adults.</p>

b. Guidance for Adult Social Inclusion in a Digital Environment

To use digital technologies and services to enhance the interaction with learners (adults in risk of social exclusion by lack of digital skills or competences), individually and collectively, within and outside the learning session. To use digital technologies to offer timely and targeted guidance and assistance. To experiment with and develop new forms and formats for offering guidance and support.

Activities for Adult Social Inclusion in a Digital Environment

- To use digital communication tools to respond promptly to learners' questions and doubts, e.g. on homework assignments (adults in risk of social exclusion by lack of digital skills or competences).
- To set up learning activities in digital environments, having foreseen learners' needs for guidance and catering for them (adults in risk of social exclusion by lack of digital skills or competences).
- To interact with learners (adults in risk of social exclusion by lack of digital skills or competences) in collaborative digital environments.
- To digitally monitor student (adult in risk of social exclusion by lack of digital skills or competences) behaviour in class and offer guidance when needed.
- To use digital technologies to remotely monitor student (adult in risk of social exclusion by lack of digital skills or competences) progress and intervene when needed, while allowing for self-regulation.
- To experiment with and develop new forms and formats for offering guidance and support, using digital technologies between (adults in risk of social exclusion by lack of digital skills or competences).

Progression		Proficiency statements
-------------	--	------------------------

Newcomer (A1)	Making little use of digital technologies for interacting with learners (adults in risk of social exclusion by lack of digital skills or competences).	I do not or only very rarely communicate with learners-adults through digital means, e.g. e-mail.
Explorer (A2)	Employing basic digital strategies to interact with learners (adults in risk of social exclusion by lack of digital skills or competences).	I use digital technologies, e.g. e-mail or chat, to respond to learners' (adults) questions or doubts, e.g. on homework assignments.
Integrator (B1)	Using digital technologies to enhance interaction with learners (adults in risk of social exclusion by lack of digital skills or competences).	I use a common digital communication channel with my learners-adults to respond to their questions and doubts. I am frequently in contact with learners-adults and listen to their problems and questions.
Expert (B2)	Using digital technologies to enhance monitoring and guidance to adults in risk of social exclusion by lack of digital skills or competences.	I interact with learners-adults in the collaborative digital environments I use, monitoring their behaviour and providing individual guidance and support as needed to adult learners. I experiment with new forms and formats for offering guidance and support, using digital technologies to adult learners.
Leader (C1)	Employing digital technologies strategically and purposefully to provide guidance and support to adults in risk of social exclusion by lack of digital skills or competences.	When I set up learning activities in digital environments, I foresee learners' needs for guidance and cater for them, e.g. with a help or FAQ section, or with video tutorials. These needs are analysed from the perspective of adult learners. When I implement digital learning activities in class, I make sure I am able to (digitally) monitor student behaviour, so that I can offer guidance when needed.
Pioneer (C2)	Using digital technologies to innovate guidance provision to adults in risk of social exclusion by lack of digital skills or competences.	I develop new forms and formats for offering guidance and support, using digital technologies, from the perspective of adult learners.

c. Collaborative learning for Adult Social Inclusion in a Digital Environment

To use digital technologies to foster and enhance learner collaboration between adults that need social inclusion from the perspective of digitalization. To enable learners to use digital technologies as part of collaborative assignments, as a means of enhancing communication, collaboration and collaborative knowledge creation.

Activities for Adult Social Inclusion in a Digital Environment

- To implement collaborative learning activities between adults with risk of social exclusion in which digital devices, resources or digital information strategies are used.
- To implement collaborative learning activities between adults with risk of social exclusion in a digital environment, e.g. using blogs, wikis, learning management systems.
- To employ digital technologies for collaborative knowledge exchange among learners-adults.
- To monitor and guide learners-adults in their collaborative knowledge generation in digital environments.
- To require learners-adults to digitally present their collaborative efforts and assist them in doing so.
- To use digital technologies for peer-assessment and as a support for collaborative selfregulation and peer-learning focus on adults with risk of social exclusion in a digital environment.
- To use digital technologies to experiment with new formats and methods for collaborative learning between adults with risk of social exclusion.

Progression		Proficiency statements
Newcomer (A1)	Making little use of digital technologies in collaborative learning activities between adults with risk of social exclusion.	I do not or only very rarely consider how students (adults) could use digital technologies in collaborative activities or assignments.
Explorer (A2)	Encouraging learners to use digital technologies in their collaborative activities between adults with risk of social exclusion.	When implementing collaborative activities or projects, I encourage learners (adults) to use digital technologies to support their work, e.g. for internet search or to present their results.
Integrator (B1)	Implementing digital technologies into the design of collaborative activities between adults with risk of social exclusion.	I design and implement collaborative activities, in which digital technologies are used by learners (adults) for their collaborative knowledge generation, e.g. for sourcing and exchanging information. I require learners (adults) to document their collaborative efforts using digital technologies, e.g. digital presentations, videos, blog posts.
Expert (B2)	Using digital environments to support collaborative learning between adults with risk of social exclusion.	I set up collaborative activities in a digital environment, e.g. blogs, wikis, moodle, virtual learning environments. I monitor and guide learners' collaborative interaction in digital environments. I use digital technologies to enable learners to share insights with others and receive peer-feedback, also on individual assignments.
Leader (C1)	Using digital environments for learners' collaborative knowledge generation and	I design and manage diverse collaborative learning activities, where learners use a variety of technologies to collaboratively conduct research, document findings and

	peer assessment, between adults with risk of social exclusion.	reflect on their learning, both in physical and in virtual learning environments. I use digital technologies for peer-assessment and as a support for collaborative self-regulation and peer-learning.
Pioneer (C2)	Using digital technologies to innovate learner collaboration, between adults with risk of social exclusion.	I use digital technologies to invent new formats for collaborative learning.

d. Self-regulated learning for Adult Social Inclusion in a Digital Environment

To use digital technologies to support self-regulated learning processes to foster social inclusion of adults, i.e. to enable learners to plan, monitor and reflect on their own learning, provide evidence of progress, share insights and come up with creative solutions.

Activities for Adult Social Inclusion in a Digital Environment

- To use digital technologies (e.g. blogs, diaries, planning tools) to allow learners (adults) to plan their own learning.
- To use digital technologies to allow learners (adults) to collect evidence and record progress, e.g. audio or video recordings, photos.
- To use digital technologies (e.g. ePortfolios, learners' blogs) to allow learners (adults) to record and showcase their work.
- To use digital technologies to enable learners (adults) to reflect on and self-assess their learning process.

Progression		Proficiency statements
Newcomer (A1)	Making little use of digital technologies for selfregulated learning, between adults with risk of social exclusion.	I do not or only very rarely consider how students (adults) could use digital technologies in self-regulated activities or assignments.
Explorer (A2)	Encouraging learners (adults) to use digital technologies in selfregulated learning activities.	I encourage learners (adults) to use digital technologies to support their individual learning activities and assignments, e.g. for information retrieval or presenting results.
Integrator (B1)	Implementing digital technologies into the design of self-regulated learning activities, between adults with risk of social exclusion.	I encourage learners to use digital technologies to collect evidence and record progress, e.g. to produce audio or video recordings, photos, texts. I use digital technologies (e.g. ePortfolios, learners' blogs) to allow learners (adults) to record and showcase their work.

		I use digital technologies for learner self-assessment.
Expert (B2)	Using digital environments to comprehensively support self-regulated learning, between adults with risk of social exclusion.	I use digital technologies or environments (e.g. ePortfolios, blogs, diaries, planning tools) to allow learners (adults) to manage and document all stages of their learning, e.g. for planning, information retrieval, documentation, reflection and self-assessment. I help learners (adults) in developing, applying and revising suitable criteria for self-assessment, with the support of digital technologies.
Leader (C1)	Critically reflecting on the digital strategies used to foster self-regulated learning, between adults with risk of social exclusion.	I reflect on the appropriateness of my digital strategies in fostering self-regulated learning and continuously enhance my strategies.
Pioneer (C2)	Developing new digital formats and/or pedagogic approaches for self-regulated learning, between adults with risk of social exclusion.	I develop new digital formats and/or pedagogical approaches to foster self-directed learning, adapted to adult needs.

Assessment for Adult Social Inclusion in a Digital Environment

Javier SANCHEZ GARCIA,
Fundacion Universitat Jaume I-Empresa - Spain

1. Assessment strategies for Adult Social Inclusion in a Digital Environment

To use digital technologies for formative and summative assessment. To enhance the diversity and suitability of assessment formats and approaches. Assessment is a critical point among adults, it must always be analysed by trainers from the point of view of the special characteristics of this segment of the population, it must never be an element of demotivation.

Activities for Adult Social Inclusion in a Digital Environment

- To use digital assessment tools to monitor the learning process and obtain information on learners' progress, never like an element of demotivation.
- To use digital technologies to enhance formative assessment strategies, e.g. using classroom response systems, quizzes, games. The use of games adapted to adults would be a motivating element.
- To use of a variety of digital and non-digital assessment formats and be aware of their benefits and drawbacks for the specific segment of adults.
- To critically reflect on the appropriateness digital assessment approaches and adapt strategies accordingly.

Progression		Proficiency statements
Newcomer (A1)	Making little use of digital technologies for assessment of adults.	I do not or only very rarely use digital assessment formats between adults.
Explorer (A2)	Integrating digital technologies into traditional assessment strategies of adults.	I use digital technologies to create assessment tasks which are then administered in paper-format. I plan for students' use of digital technologies in assessment tasks, e.g. in support of assignments.
Integrator (B1)	Employing and modifying existing digital assessment tools and formats taking in account adult's characteristics.	I use some existing digital technologies for formative or summative assessment, e.g. digital quizzes, e-portfolios, games. I adapt digital assessment tools to support my specific assessment goal, e.g. create a test using a digital test system.
Expert (B2)	Strategically using a range of digital assessment formats taking in account adult's characteristics.	I use a range of e-assessment software, tools and approaches, for formative assessment, both in the classroom and for learners (adults) to use after school. I select between different assessment formats the one that most adequately

		captures the nature of the learning outcome to be assessed. I design digital assessments which are valid and reliable.
Leader (C1)	Comprehensively and critically selecting, creating and adapting digital assessment formats taking in account adult's characteristics.	I use a variety of digital and non-digital assessment formats, aligned with content and technology standards, and am aware of their benefits and drawbacks. I critically reflect on my use of digital technologies for assessment and adapt my strategies accordingly.
Pioneer (C2)	Developing innovative assessment formats, using digital technologies taking in account adult's characteristics.	I develop new digital formats for assessment, which reflect innovative pedagogic approaches and allow for the assessment of transversal skills.

2. Analysing evidence for Adult Social Inclusion in a Digital Environment

To generate, select, critically analyse and interpret digital evidence on learner (adults) activity, performance and progress, in order to inform teaching and learning.

Activities for Adult Social Inclusion in a Digital Environment

- To design and implement learning activities which generate data on learner activity and performance, motivating adults to improve digital competences.
- To use digital technologies to record, compare and synthesize data on learner (adults) progress.
- To be aware that learner (adults) activity in digital environments generates data that can be used to inform teaching and learning, this data should be used to improve social inclusion.
- To analyse and interpret available evidence on learner (adults) activity and progress, including the data generated by the digital technologies used.
- To consider, combine and evaluate different sources of evidence on learner progress and performance, trying to measure social inclusion of adults involved.
- To critically value the evidence available to inform teaching and learning, focusing on social inclusion of adult's learners.

Progression		Proficiency statements
Newcomer (A1)	Making little use of digital data for monitoring progress.	I do not or only very rarely refer to digitally recorded data to understand where my students (adults) stand.
Explorer (A2)	Evaluating basic data on learner (adults)	I evaluate administrative data (e.g. attendance) and data on student performance (e.g. grades) for individual feedback and targeted interventions.

	activity and performance.	I am aware that digital assessment tools (e.g. quizzes, voting systems) can be used within the teaching process to provide me with timely feedback on learners' progress, mainly focus on the improve of the level social inclusion.
Integrator (B1)	Evaluating a range of digital data to inform teaching.	I evaluate the data (about social inclusion) resulting from digital assessments to inform learning and teaching. I am aware that the data (about social inclusion) on my learners' activity, as it is recorded in the digital environments which I use with them, can help me monitor their progress and provide them with timely feedback and assistance.
Expert (B2)	Strategically employing digital tool for data generation.	I use digital technologies (e.g. quizzes, voting systems, games) within the teaching process to provide me with timely feedback on learners' progress. I use the data (about social inclusion) analysis tools provided by the digital environments I use to monitor and visualise activity. I interpret the data and evidence (about social inclusion) available in order to better understand individual learners' needs for support.
Leader (C1)	Using digital data to reflect on learning patterns and teaching strategies.	I continuously monitor digital activity and regularly reflect on digitally recorded learner data to timely identify and react upon critical behaviour and individual problems. Furthermore, I also create indexes about social inclusion related with digitalization. I evaluate and synthesize the data generated by the various digital technologies I use to reflect on the effectiveness and suitability of different teaching strategies and learning activities, in general and for certain learner groups.
Pioneer (C2)	Innovating data generation and evaluation.	I implement advanced data generation and visualisation methods into the digital activities I employ, e.g. based on learning analytics. I critically assess and discuss the value and validity of different data sources as well as the appropriateness of established methods for data analysis.

3. Feedback and planning for Adult Social Inclusion in a Digital Environment

To use digital technologies to provide targeted and timely feedback to learners. To adapt teaching strategies and to provide targeted support, based on the evidence generated by the digital technologies used. To enable learners to understand the evidence provided by digital

technologies and use it for decision-making. Adult's learners should see the evolution in the digital social inclusion that they have.

Activities for Adult Social Inclusion in a Digital Environment

- To use digital technology to grade and give feedback on electronically submitted assignments about digital social inclusion.
- To use assessment management systems to enhance the effectiveness of feedback provision about digital social inclusion.
- To use digital technologies to monitor learner progress and provide support when needed to foster digital social inclusion.
- To adapt teaching and assessment practices, based on the data generated by the digital technologies used to improve digital social inclusion.
- To provide personal feedback and offer differentiated support to learners (adults), based on the data generated by the digital technologies used.
- To enable learners (adults) to evaluate and interpret the results of formative, summative, self- and peer-assessments.
- To assist learners (adults) in identifying areas for improvement and jointly develop learning plans to address these areas.
- To use digital technologies to enable learners (adults) to remain updated on progress and make informed choices on future learning priorities, optional subject or future studies.

Progression		Proficiency statements
Newcomer (A1)	Making little use of digital data for feedback and planning to evaluate digital social inclusion.	I am not aware how digital technologies can help me in providing feedback to learners (adults) or adapting my teaching strategies.
Explorer (A2)	Using digital technologies to inform feedback about digital social inclusion.	I use digital technologies to compile an overview on learners' progress (adult's progress), which I use as a basis for offering feedback and advice.
Integrator (B1)	Using digital technologies to provide feedback about digital social inclusion.	I use digital technology to grade and give feedback on electronically submitted assignments. I help students (adults) to access information on learners' performance, using digital technologies.
Expert (B2)	Using digital data to enhance the effectiveness of feedback and support about digital social inclusion.	I adapt my teaching and assessment practices, based on the data generated by the digital technologies I use to foster social digital inclusion. I provide personal feedback and offer differentiated support to learners (adults), based on the data generated by the digital technologies used. I use digital technologies to enable learners (adults) to remain updated on progress and make

		informed choices on future learning priorities, optional subjects or future studies.
Leader (C1)	Using digital technologies to personalise feedback and support about digital social inclusion.	<p>I assist learners in identifying areas for improvement and jointly develop learning plans to address these areas, based on the evidence available.</p> <p>I use the data generated by digital technologies to reflect on which teaching strategies work well for which kind of learners and adapt my teaching strategies accordingly.</p>
Pioneer (C2)	Using digital data to evaluate and improve teaching to foster digital social inclusion	I reflect on, discuss, re-design and innovate teaching strategies in response to the digital evidence I find, as concerns learners' preferences and needs (adult's preferences and needs) as well as the effectiveness of different teaching interventions and learning formats.

Empowering Learners

Emil VELINOV,
ITC International - Czech Republic

It is obvious that students in higher learning institution are supposed to be creative, proficient, and problem solver in their area of study. In order to happen so, the teaching-learning process in higher learning institutions has to be implemented properly and use the suitable teaching methodology in relation to the nature and content of the course or subject. Across the countries of the world, education is now shifting towards new approaches and methods in teaching and learning to make the learners creative and competent which is active learning (student-centered method) because the traditional teaching method (lecturing) is not adequately preparing students for the real world of business. The new practices of teaching that active learning is focused on are creativity and problem solving if it is properly implemented. In higher education institutions and other education levels (i.e., primary and secondary schools), student-centered methodology specifically active learning is recommended to make the learners creative and proficient in their learning. Active learning is an innovative model for the provision of high-quality, collaborative, engaging, and motivating education. It engages learners in the process of learning through activities and/or discussion in class, and it increases learners' higher order thinking as compared to passively listening to a lecturer.

The rapid changes taking place in higher education have placed increasing emphasis on the role of universities in national, and indeed European, economic competitiveness. There is growing pressure on universities to demonstrate accountability for tax-payers' money and, increasingly, for growing student contributions to the cost of higher education. Economic competitiveness requires a well-educated workforce and this, along with the growing consumerist rhetoric in higher education, is leading to more emphasis on responding to student needs. 'Empowering learners' is a phrase that is growing in currency in academic debates about the future of higher education. However, empowering learners means many different things and it is debatable how seriously we really are about giving students control over the educational process and their post-educational lives. There are four ways in which learners can be empowered, through:

- choice within the curriculum;
- feedback designed to monitor service provision and the learning experience;
- representation;
- the development of a critical, transformative approach to learning.

It is assumed that the more choice learners have within the curriculum the more they are empowered. This is misleading and is a restatement of the consumerist myth that equates

choice, from within a dominant frame of reference, with power (to transcend that frame). The selection of a curriculum usually means, in practice, choosing which teaching programmes to attend and thus which assessment to undertake. While superficially liberating this does not necessarily empower the student. The American experience suggests the contrary. An unstructured collection of small units, which the student selects from a bewildering array of available options, often results in lack of coherence and progression in a programme of study. Recent American research has suggested that where there is a return to a coherent 'course' graduates are intellectually better than their peers on 'cafeteria' programmes with virtually unlimited choice. A more empowering variation on the theme of choice is the development of a learning contract. While apparently more restrictive, a learning contract has a much greater potential to empower students. The student does not simply choose which teaching programmes to attend but negotiates a learning experience. The teacher is seen as a facilitator. The object of the programme is to achieve specified learning objectives through the identification of required knowledge, abilities and skills. The learning contract, negotiated between student and facilitator, identifies how the required outcomes can be achieved. The student controls how they learn and when and how it is assessed. In an extreme case there could be no lectures or seminars at all. Monitoring Student evaluations of service provision, including the teaching and learning experience, are increasingly evident in higher education institutions. Indeed, many national systems of external quality monitoring require that such systems are in place. Broadly speaking, there are three types:

- student evaluations of the teaching (and learning) at a unit or program level;
- evaluations of the wider student experience, including all those elements of their experience that impinge upon their learning such as, program organization, the library, information technology provision, through to the cafeteria and the car parks;
- monitoring of the 'contractual provision' guaranteed by institutions in the form of 'charters'. Student evaluation of teaching performance often relies on 'happy forms'.

These are simple questionnaires which ask whether the teacher presents well, is enthusiastic, turns up on time, makes useful comments on assessed work, and so on. Although student feedback on teaching and learning is important, such stylized forms of student monitoring of teacher performance is a limited form of empowerment for several reasons. First, as a procedure it tends to be effective in identifying very bad teachers but far less effective in identifying the

mediocre and good. More importantly, it is not an effective means for suggesting how improvements can be made. Nor is it a method for ensuring such changes are put in place rapidly, or even at all. Learners are often not involved in formulating the questionnaires and the questions tend to represent the interests of teachers or of their managers. Finally, and most damning, 'happy forms' rarely ask student to reflect on their learning, rather than the lecturers' teaching. Broader evaluations of the learning experience, through such things as institution wide student satisfaction surveys offer a means of ensuring a student voice and a continuous process of monitoring and improving provision in respect of all aspects of the learning experience.

However, this is only an effective form of empowerment if learners are involved in the identification of the areas of concern and if there is a clear process of accountability and action that follows the analysis of student views. Such an action cycle requires the involvement of senior management and a procedure for ensuring that appropriate action takes place. However, even in such ideal circumstances, this is a limited form of learner empowerment as its focus is on the continuous incremental improvement of the learning context rather than the direct empowerment of the learner.

Representation Student representation provides another potential form of empowerment. It is vital that students are represented on higher education committees and decision-making bodies, not least so that they can monitor and report back on the procedures and outcomes. Ideally, it would be preferable if students on such decision-making bodies also had an effective voice. All too often, students are not only in a tiny minority but are not able to engage effectively because of the infrequency of the meetings, the rapid turnover of students and the lack of opportunity to prepare themselves for the style and content of meetings. Even when students are listened to, it is often the case that the points they are making are not heard because they lie outside the frame of reference or taken-for-granted of the meeting.

There is a danger that representation apparently empowers but, in practice, disempowers. In reality, learners need to have equal representation on decision-making bodies if the learner perspective is to be heard. Critical While each of the above approaches offers some control over the education process it is debatable how far they go to empowering learners in their post-education careers. The fourth approach attempts to do both. Students, it argues are empowered by developing their critical, reflective and transformative abilities. This requires an approach to teaching and learning that goes beyond requiring students to learn a body of knowledge and be able to apply it analytically.

Developing a critical approach to learning is about challenging preconceptions, both those of the learner and the teacher. It is about being able to develop opinions and be able to justify them, to be able to think about knowledge as a process not some ‘thing’ they tentatively approach and selectively appropriate. A critical approach is about students having the confidence to assess and develop knowledge for themselves rather than submitting packaged chunks to an assessor who will tell them if it sufficient or ‘correct’. It requires students to self-assess, to be able to decide what is good quality work and to be confident when they have achieved it.

In short, it is an approach that treats students as intellectual performers rather than as compliant audience. It transforms teaching and learning into an active process of coming to understand. It enables students to go beyond the narrow confines of the ‘safe’ knowledge base of their academic discipline to applying themselves to whatever they encounter in the post-education world. Increasingly, in a world of change, in which flexibility is a watchword, learners need to be able to help the organizations in which they work after graduate to transform in the face of this rapid and continuous change. They will not be able to do that if they are not able to work in teams, communicate well, analyses, and synthesize. More importantly the future graduate needs to be self-transformative, which requires reflective and critical abilities. Emphasizing the need for the development of critical, reflective, empowered learners raises fundamental questions about traditional forms of teaching in higher education and the priorities of higher educational institutions. In so doing it asks some difficult questions about ‘real’ empowerment of learners

In active learning, students’ activity and commitment in the teaching-learning process are key elements. Active learning involves students in their learning using different activities such as reading, writing, discussion, or problem solving, which promote analysis, synthesis, and evaluation of class content and engages students in two aspects, i.e., doing things and thinking about the things they are doing. In addition, the students can also engage in the assessment and feedback process.

The assessment and feedback which are implemented in the active learning classroom have also its own contribution for the empowerment of students. If the instructors are using authentic assessment methods and provide effective feedback and if the students participated in the assessment and feedback process, it is possible to increase their performance and confidence in their learning.

Currently, higher education institutions face challenges with skill for learning, skill for life, and skill for work. Many higher education institutions are responding to this challenge by implementing strategies designed to empower learners, i.e., giving them more autonomy, ownership, and responsibility for their learning.

Using active learning in the classrooms, laboratories, and fields (practical sites), it is possible to empower students in their learning. In the teaching-learning process, when the learners are empowered using the appropriate teaching methodology, they feel a sense of confidence, competence, and self-esteem, enabling them to meet life's challenges more effectively. Therefore, a shift in theory (education theory) to a more student-centered approach using active learning is recommended because this approach has its own contribution to make the students creative and proficient in their study.

Thus, this chapter tried to address the contribution of active learning to empower learners in higher education institutions. In addition to this introduction section, the following is the list of possible topics which will be treated in the chapter.

4. Active learning and active learning strategies

Active learning

A Chinese philosopher Confucius from 551 to 479 BC (in the fifth century BC) wrote the following quotation: "I hear and I forget; I see and I remember; I do and I understand," and this quote is highly related to active learning. As to Hativa, this quotation indicated that students learn meaningfully only when they are doing something either physically or mentally with the information and learning materials. In active learning the learners are the main agents in the learning process not the instructors. Hativa added that it is through involvement and doing that learners truly contribute in the learning process. So, for learning to be active, students do more than listening; they have to read, write, discuss, or be involved in problem-solving activities.

The fundamental concept of active learning is to advance the learning experience of learners and the teaching experience of instructors. When learners are active in the classroom, they are engaged in higher-order thinking (analysis, synthesis, evaluation) and in a variety of activities such as reading, discussing, writing, and problem solving. Such classroom activities put the student at the center of the learning process enabling them to improve their critical thinking skills. Active learning can be realized by any method of teaching which actively involves students in the real learning process.

Studies indicated that active learning has a greater impact on student mastery of higher and lower level cognitive skills. It increases students' performance across the different disciplines. On average, students who learn in conventional lecture courses are 1.5 times more likely to fail than students who learn in courses with only active learning. Mickelson et al. also indicated that active learning shows that student involvement in the learning process leads to deep learning.

Active learning strategies

In the teaching-learning process, instructors in higher institutions are required to use different active learning techniques or strategies to empower students in their learning. The selection of the techniques depends on the nature and content of the subject they are teaching. The active learning strategies comprise different activities that share the common elements of involving learners in doing things and thinking about the things they are doing. The use of different active learning strategies can significantly improve the teaching-learning process.

Different authors, Mocinic and Oliveira et al., proposed the following list of active learning methods to be used by instructors in higher learning institutions to make the students creative and proficient in their learning:

- Collaborative learning
- Discussion methods: discussion, case study, and brainstorming
- Role play
- Games involving simulation of imaginary situations
- Problem-based Teaching
- Projects (individual or group)
- Peer teaching
- Discussions
- Short demonstrations followed by class discussion, etc.

Integrating the above-listed active learning methods in the instructional process based on the nature and contents of the course will make the student's learning successful and competent. For example, collaborative learning is one of the best methods of active learning which can facilitate learner's critical thinking. Peer interactions during collaborative learning can be helpful for the learner's development of critical thinking [13]. Therefore, as Eison [14] stated, the above-listed active learning strategies increase students:

- Creativity

- Critical thinking
- Discussion or speaking with other students, in a small group, or with the whole class
- Exploring personal attitudes and values
- Providing and receiving feedback
- Expressing ideas through writing

Hence, to have the above-listed benefits, using different active learning strategies properly inside and outside the classroom is very important specifically for the learners. Eison suggested that instructors have used larger proportion of time in helping students to develop their understanding and skills and a lesser proportion of time in transmitting information when they use active learning strategies appropriately. In this strategy (active learning), instructors provide opportunities for learners to apply and demonstrate what they are learning. In addition, they provide opportunities for learners to receive feedback from peers and/or the instructors themselves. In general, the active learning strategies have the following characteristics in promoting students' learning in the classroom:

- Students are actively involved in the instructional process more than just listening.
- More emphasis is given on advancing students' skills, and less is given on transmitting information.
- Students are involved to develop their higher order thinking skills.
- Students are actively involved in different activities (e.g., writing, discussing, and reading).
- Emphasis is placed on the learners' investigation of their attitudes and values.

Empowerment in the academic setting is the approach and practice of supporting learners to become able to shape their learning and study for a sustainable future. So, learner empowerment is giving more autonomy and ownership for the learners in their learning in the instructional process and ultimately produces an intrinsic desire to learn. Learners become effective in their learning when they are empowered. Learners should be empowered for every activity in the instructional process. When learners are empowered, they become motivated, work harder, and strive for a better performance. For this to happen, the role of the instructors involves guiding and facilitating rather than transmitting information to the learners. This means the instructor has to make the teaching-learning process more active to empower the learners.

Furthermore, as to Schrodttet al., empowered learners should:

- Be more likely to see the meaningfulness of the course content and activities.
- Feel a greater sense of self-efficacy in performing classroom tasks.
- Be more likely to perceive that learning course content can have an impact.

In relation to this, Kirk et al. found out “that highly empowered students reported better grades, fewer behavioral incidents, increased extracurricular participation and higher educational aspirations than students who were less empowered.”

Therefore, empowerment is a process enabling the learner to think, believe, and carry out an activity and criticize his/her own work and made decisions autonomously. Thomas and Velthos as cited in Frymier and Houser, empowerment consists of four dimensions:

Meaningfulness—considers the value of tasks in relation to one’s own beliefs, ideas, and standards. If the work is not meaningful, the students will not be motivated to generate high-quality work (Glasser as cited).

Competence—means that the person feels qualified and capable to perform the necessary activities to achieve the goal. The feelings of empowerment are decreased when the individual lack self-confidence in their skills and feel intimidated by the task or goal.

Impact—means that the accomplishment of a task is perceived to make a difference in the scheme of things. The more impact individuals believe they have, the more internal motivation they should feel.

Choice—refers to the degree to which persons self-determine their task goals or methods for accomplishing them. This model predicted that great choice contributes to feelings of increased empowerment (Thomas and Velthouse as cited).

Therefore, empowerment can be seen as a goal aimed at cooperation, based on mutual respect, discovery of perspectives, development of vision, and provision of options for reaching creative solutions. Angela mentions that learner empowerment is both a means and an end. As a means, it helps learners to attain and enjoy quality learning. As an end, student empowerment is a desirable goal that all teachers should pursue because, when students feel that they can do something and do not feel powerless in their learning environment, the quality learning begins.

Angela further explains the important components of student empowerment: empowerment through involvement and empowerment through partnership. Firstly, student empowerment is possible only through active involvement in their learning, and the best ways to empower

students are to allow them prearranged and to let them make their own decisions. Secondly, student empowerment is not a one-party activity. It requires genuine understanding and acceptance on the part of the school authority, including teachers and the school administration. Without partnership, student empowerment in the school setting is impossible. To this effect, empowering students are essential, and the students should have confidence in the knowledge and skill they possess. This happens when they are empowered through a range of assessment methods.

The active learning methods that the instructors are using in the classroom have huge contribution to the empowerment of learners. To empower students in their learning, instructors should apply multiple strategies in the classroom and in the field (practical sites). If the instructors use different strategies of active learning, the involvement of students in their learning becomes high, and there is a chance for the students to be proficient in their learning and real world of work. As to Bonwell and Eison, students' involvement in their learning can be further improved by the instructor's use of different active learning strategies. If the students are actively involved in active learning process using different strategies, they develop higher order thinking tasks as analysis, synthesis, and evaluation. Therefore, these higher order thinking tasks increase the learner's creativity and make them empowered in their learning.

It is clear that learning can be empowering and active learners know this. They are used to succeed and praise for their accomplishments. However, there are a few students in every classroom who tend to learn differently than their most successful classmates. In the instructional process, the instructors should give chance for learners to cooperate with each other using different strategies. The learner's cooperation in the learning process helps them to share their experiences and improve their learning. Active learning is contributed for the active participation of students in class discussions and to improve their understanding of class contents. In general, if active learning is properly implemented in the instructional process in higher learning institution and other education levels, it develops student's skills for critical thinking and increases their competency. Critical thinking is one of the skills in which student-centered learning promotes and this learning approach shifts the focus of power, in terms of what is learnt and how it is learnt, from the instructor to the student. Therefore, the development of higher order thinking skills, critical thinking skills, creativity, and competency is the result of proper implementation of active learning, and this empowers student's learning and study.

Assessment and feedback are the fundamental tools in active learning and a base to the empowerment of learners if they are properly implemented. The assessment methods which are

developed in relation to any teaching mode should be aligned with the learning outcomes which will be measured. As to Sluijsmans et al., assessment as a tool for learning has a great impact on the students' learning and development into reflective practitioners.

Empowering learners in the assessment process encourages or engages them in real-life situations. Empowering learners with different assessment methods has a major impact on their results, and learners should be empowered for every activity in the teaching and learning process. Angela as cited in noted that learner empowerment is possible only through active involvement in their learning.

In active learning, the two forms of assessment, that is, formative and summative assessments, can be used and play a valuable role. According to Gibson and Shaw , formative assessment can be achieved through the observation of classroom activities such as discussions, student presentations, self- and peer assessments, and group work. Obviously, formative assessment does not often occur in lecture-based teaching where communication is one way, with little or no input from the learners. Active learning techniques, however, provide more opportunities for formative assessment to take place as the instructor observes student performance and modifies the learning experience accordingly. However, unlike formative assessment, summative assessments are not used to adjust instruction during learning; instead, they are more likely to be used to determine student scores and grades.

The active learning process invites learners to assess their own and others' work, which means self- and peer assessments are the dominant assessment methods in the empowerment of students. Amo and Jareno noted that self- and peer assessments are being increasingly used in higher education to help students learn more efficiently. Assessment can provide feedback to the instructor themselves to improve their instructional process and to check how the learning is going on. Recent research results showed that for student-centered teaching (active learning), alternative assessment strategies such as authentic assessment can be used to evaluate both student's active learning process and their learning outcome. Authentic assessment is a form of assessment in which learners are asked to perform and establish meaningful application of essential knowledge, attitudes, and skills to the real-life situations.

References:

1. Amo E, Jareno F. Self, peer and teacher assessment as active learning methods. *Research Journal of International Studies*. 2011;18:41-47
2. Chan YF, Sidhu GK, Lee LF. Active learning in higher education: A case study. In: Tang SF, Logonnathan L, editors. *Taylor's 7th Teaching and Learning Conference 2014 Proceedings, Holistic Education: Enacting Change*. Singapore: Springer; 2015. pp. 519-528
3. Gibson K, Shaw C. M. Assessment of Active Learning [Internet]. 2010. Retrieved from: <http://webs.wichita.edu/depttools/depttoolsmemberfiles/carolynshaw/Gibson%20Shaw%20compendium.pdf>
4. Hativa N. *Teaching for Effective Learning in Higher Education*. Tel Aviv: Springer; 2000
5. Kim AK, Davies J. A teacher's perspective on student centered learning: Towards the development of best practice in an undergraduate tourism course. *Journal of Hospitality, Leisure, Sport & Tourism Education*. 2014;14:6-14
6. Litchfield BC, Dempsey J. Authentic assessment of knowledge, skills, and attitudes. *New Directions for Teaching and Learning*. Wiley Periodicals, Inc.; 2015. p. 142. DOI: 10.1002/tl.20130
7. Sewagegn A. Student empowerment through instructor's assessment practices at a University in Ethiopia [thesis]. Pretoria: University of South Africa; 2016
8. Schrodt P, Witt PL, Myers SA, Turman PD, Barton MH, Jernberg KA. Learner empowerment and teacher evaluations as functions of teacher power use in the college classroom. *Communication Education*. 2008;57(2):180-200. DOI: 10.1080/03634520701840303

Facilitating Learners' Digital Competence'

Renata OCHOA-DĄDERSKA, Zofia GRÓDEK-SZOSTAK, Luis OCHOA SIGUENCIA,
Gabriela OCHOA-DĄDERSKA, Instytut Badań i Innowacji w Edukacji - Poland

1. The essence of digital competences

The development of digital competences is important not only in the perspective of the continuous development of new technologies, but also the possibility of using them in various areas of life in order to deal more effectively with various types of challenges. Digital technologies permeate - or rather can penetrate - every aspect of our lives, often allowing for faster and more convenient coping with everyday tasks: from shopping, through arranging social meetings, work and education - which is especially visible during the COVID pandemic - 19 - after paying the bills.

In Poland, we are dealing with a large group of people (in 2014, it was 12 million) who do not use new technologies, i.e. people who are digitally excluded (Framework catalogue of digital competences, 2016). According to the report Information Society in figures of the Ministry of Administration and Digitization (2014): "We define digital competences as a set of information competences including the skills of searching for information, understanding it, as well as assessing its credibility and usefulness, as well as Information technology competencies, which include computer and other skills. electronic devices, using the Internet and using various types of applications and software, as well as creating digital content ”.

On a more general level, it can be said that Information technology competencies consist of skills related to the proper use of hardware, software and the Internet. Information technology competencies understood in this way are a component of all kinds of digital competences.

It can be said that they are both a starting point and permeate other types of competences related to digital technologies. In turn, information literacy is defined in many ways, but the most complete definition was developed by the American Library Association in 1989. According to it, information literacy is understood as a set of skills that allow the user to identify when information is needed and to find, evaluate and use information from various sources. In 2014, the Institute for Prospective Technological Studies (IPTS) of the European Commission developed, as part of the DIGCOMP project, a comprehensive model of IT and information competences. The Digital Competence Framework (DIGCOMP) model synthesizes the existing

models, while developing them into a complex model that divides 21 key competences into 5 areas and different levels of advancement.

Functional digital competences are based on IT and information competences, which are the basis for the implementation of specific activities and obtaining benefits through the use of digital technologies.

2. The perspective of the development of digital competences - key determinants

The second decade of the twenty-first century has shown, as never before in the history of the Internet, that digital competences have a dominant influence on the quality of life and professional position. Having them today is a guarantee of good remuneration and a strong position on the labor market. Meanwhile, as many as 9 million Poles aged over 50 are functionally digital illiterate. The problem was noticed by politicians, hence the allocation of significant funds for the organization of appropriate training in the EU's Digital Poland Operational Program. This educational intervention continues, but we do not know its results. Experience from training projects implemented in recent years and research results show, unfortunately, that educational campaigns undertaken in a traditional form do not bring measurable and future-oriented results (Digital Poland).

A significant part of Polish society does not understand the nature of the current civilization changes, in which digital technologies play a crucial role in the development of products and services addressed to large groups of consumers. These limitations in the perception of the actual state of affairs, recently eagerly referred to in Poland as a deficit of digital awareness, are largely associated with the identification of computerization only with the simple conversion of activities from analog to digital while maintaining their historical logic. As a result, digital technologies for millions of adult Poles are only a replacement of the traditional form of providing services, communicating and using resources into an "computerized" form. For them, this process usually means replacing a working, known, relatively easy to implement service for an operation of uncertain effectiveness, burdened with the inconvenience of operating a previously unknown application. As a result, large groups of adult Poles who have experienced or heard of the inconvenience of using such difficult-to-implement services are now infected with aversion to digital solutions and do not attempt to acquire the skills necessary to navigate the world of the Internet.

Digital transformation processes are a serious challenge for the Polish economy (including the labor market), politics and education. The position in the world depends on the ability to meet them. The rapid digital transformation of the economy means that almost all jobs today - as well as participation in society in general - require some digital skills. Digital skills are now as important as literacy and mathematical reasoning, so Europe needs people with digital competences who are not only able to use these technologies, but also to innovate and play a leading role (COM, 2018).

The right approach to building digital competences is a challenge to which many developed countries respond with an appropriate strategy or multi-annual program of activities. In Poland, such a document has not yet been created, although the need for it is recognized by more and more experts, organizations and institutions working for development. In 2018, work on it began at the Ministry of Digital Affairs. There are, however, two documents in the Polish development management system that define the strategic framework for the issue of digital competence development:

- Strategy for Responsible Development until 2020 (with a perspective until 2030) (MIR)
- Integrated State Informatization Program (GOV)

The Strategy for Responsible Development, adopted by the Council of Ministers on February 14, 2017, is a binding document of the Polish state in the area of medium and long-term economic policy and a strategic instrument for managing development policy. In turn, the PZIP is a document of a medium-term operational plan for the government administration department.

The Strategy for Responsible Development is of key importance (Digital Poland):

- transversal skills - enabling the performance of social and professional functions / roles in various contexts, independent of a given sector / industry or profession, used in various situations;
- digital skills - which are necessary to function in the modern world, regardless of age or physical fitness, allow you to learn about digital content and assess its credibility, and use it in everyday life. They expand the demand for e-services, contribute to economic development and the achievement of the Strategy's goals
- professional skills - in particular for the sectors listed in the Strategy as key.

As part of the Human Capital area in the SRD, the need to improve the education system towards a more practical approach to education and its better adjustment to the requirements of the modern labor market was indicated. The SRD also proposes the development of such skills as: creativity, problem solving, team work, preparation for lifelong learning. Vocational education requires special support, because - apart from higher education - it has the greatest impact on the preparation of modern human resources for the Polish industry.

The scale of digital exclusion of the group of people over 50 in Poland is one of the largest among the European Union countries and is one of the most important barriers to economic and social development. Age is the most important determinant of digital divide, the importance of which has grown in the last decade. People over 50 are the largest group of excluded people in Poland - over 77 percent (Czapiński, 2015).

The 50+ generation is characterized today, on the one hand, by a fairly common lack of digital competences, not only professional, but also functional, personal, facilitating everyday life, and on the other hand - an attitude of differently motivated distancing from the digital world, depreciating its importance.

3. Supporting digital competences of adults - experiences from Poland

Institutions and non-governmental organizations implementing projects co-financed from public funds play an important role in supporting the development of digital competences of adults in Poland. The most interesting initiatives are presented below:

a. Project "Latarnicy2020.pl"

It is one of the largest initiatives for digital education of adults in the country. The substantive foundations of the activities were developed as part of a project implemented by the Association "Cities on the Internet" together with the Ministry of Administration and Digitization in 2011-2015 under the slogan: POLISH DIGITAL OF EQUAL OPPORTUNITIES. The main objective of the project is to acquire and increase the level of digital competences by 29,464 project participants - residents of voivodeships covered by the project activities, and to increase the use of information and communication technologies. The general objective will be achieved through the implementation of a number of detailed activities:

- appointment and training of a group of 250 professional digital educators (so-called Lighthouse Keepers of Digital Poland) who will provide training support to project participants,
- implementation of the "lantern method" - a model of adult education developed in the PCRS project,
- increasing the level of digital competences of important professional and social groups - officials, teachers, employees of local government institutions, councillors and village leaders, who will motivate adult residents to use Internet resources,
- reducing the scale of social and digital exclusion of people with disabilities.

The project will have a significant impact on improving the operation of local government units by increasing work efficiency (improving employee competences) and increasing the ability to create and develop public e-services, and to integrate people with disabilities with people without disabilities thanks to creating opportunities for wider social interactions through the use of The Internet.

b. Festiwal Aktywności Cyfrowych 60+

The Digital Activities Festival 60+ (organized by the AgeHub Foundation) is a series of free classes for seniors on new technologies and their use in everyday life. In addition to the Festival, the Foundation carries out:

- free computer and Internet courses for people aged 60+. The courses are conducted on two levels of advancement: beginner groups are aimed at people who have had no or very little contact with computers, and intermediate groups are aimed at seniors who know basic computer skills, navigate the Internet at a basic level, but need reminders and develop their skills;
- individual consultations, one-on-one meetings with the trainer;
- Computer and Internet Operation Guide - manual distributed free of charge.

c. Cyfrokлуб Seniora w Fabryce przyszłości

This initiative is carried out in Tarnów, it is a place where seniors can learn skills that are useful in everyday life, but also pursue their hobbies and individual needs by accessing Internet resources. The Digital Club is equipped with laptops, tablets, x-box kinect console, a scanner and printers, which can be used freely during opening hours. The organizers of the Cyfrokлуб want to adapt the activities to the individual needs of seniors. In turn, the Digital Senior Toolroom is a consultancy point and practical exercises in the use of electronic devices, such as digital cameras, smartphones and tablets, scanners and printers in everyday life. Seniors also take part in projects carried out at the Factory with the support of modern digital tools.

d. Cyfrowy Senior

The main goal of the project is to activate people of all ages, mainly people 65+ in the area of digital competences, through training and animation activities in the Podlaskie Voivodeship. The result of the project will be the inclusion of seniors in building the information society, developing digital competences, acquiring the skills to use e-services, creating permanent mechanisms for increasing digital competences at the local level.

e. Uniwersytety Trzeciego Wieku

Internet for seniors workshops, offered as part of the Jagiellonian University of the Third Age, are to "ensure that the Participants learn about the functions of the Internet that they can use on a daily basis. (...) The students will acquire skills that will enable them to navigate the Internet on their own". The workshops are aimed at seniors who already have basic skills in the use of computer equipment, so it is focused only on issues related to navigating the Internet. As part of other cycles, e.g. the IT Seminar, students have the opportunity to learn, among others, support for laptops, tablets, digital cameras or operating systems (Klapper, 2015).

On the basis of the analysis of instruments supporting the digital competences of seniors, it should be stated that seniors want to learn and develop their competences at all three levels (this is evidenced by the vast majority of people who, for example, use smartphones, giving up fixed-line phones), and the University of the Third Age meets them. It is of great importance to create such programs and workshop plans so that they fill the information gaps of seniors as accurately as possible. Due to the limited duration of this type of classes, a much better solution is to specialize the courses in terms of specific topics, degree of difficulty and expectations of seniors. It is impossible to learn about the Internet if its users do not have the necessary computer skills.

REFERENCES

1. <https://www.digitalpoland.org/assets/publications/kompetencje-przyszlosci-w-czasach-cyfrowej-dysrupcji/kompetencje-przyszlosci-w-czasach-cyfrowej-dysrupcji-raport.pdf>
2. Komisja Europejska, Zalecenie Rady w sprawie kompetencji kluczowych w procesie uczenia się przez całe życie, COM(2018) 24 final, Bruksela, 17 stycznia 2018
3. <https://www.mii.gov.pl/strony/strategia-na-rzecz-odpowiedzialnego-rozwoju/>
4. <https://www.gov.pl/cyfryzacja/program-zintegrowanej-informatyzacji-panstwa>
5. <https://www.digitalpoland.org/assets/publications/kompetencje-przyszlosci-w-czasach-cyfrowej-dysrupcji/kompetencje-przyszlosci-w-czasach-cyfrowej-dysrupcji-raport.pdf>
6. Czapiński J., Panek T., (red.) *Diagnoza społeczna 2015. Warunki i jakość życia Polaków. Raport*, Warszawa: Rada Monitoringu Społecznego, 2015
7. Klapper, Mariusz (2015). Seminarium informatyczne. <http://www.utw.uj.edu.pl/ksztalcenie/seminaria-fakultatywne-2015> (odczyt 26.08.2021).

LIST OF AUTHORS

Renata OCHOA-DĄDERSKA, Instytut Badań i Innowacji w Edukacji - Poland

Javier SANCHEZ GARCIA, Fundacion Universitat Jaume I-Empresa - Spain

Yeliz NUR AKARÇAY, Sarıçam Halk Eğitimi Merkezi Müdürlüğü - Turkey

Luis OCHOA SIGUENCIA, Akademia Wychowania Fizycznego im. Jergo Kukuczki
w Katowicach, Poland - Poland

Emil VELINOV, ITC International - Czech Republic

Zofia GRÓDEK-SZOSTAK, Uniwersytet Ekonomiczny w Krakowie - Poland

Gabriela OCHOA-DĄDERSKA, Instytut Badań i Innowacji w Edukacji - Poland