EUROPEAN
COMMISSION

Brussels, 5.8.2021
SWD(2021) 219 final

PART 5/5

COMMISSION STAFF WORKING DOCUMENT

Accompanying the document

Proposal for a Council Recommendation

on blended learning for high quality and inclusive primary and secondary education

{COM(2021) 455 final}

Competence in the design of blended learning

Teachers need a certain level of experience and professional competence to identify learning tasks that are complementary and coherent across learning environments. Designing for distance learning is not merely a case of replicating school site practice. Nor is the embedding of new tools as easy as using those that are more familiar.

In consultation, stakeholders highlighted that Initial Teacher Education programmes should reflect the needs of staff for blended learning design and prepare new teachers to design with such blends.

Given that teachers are likely to encounter an increasing number of new tools, they will need to continuously evaluate and update their own competences to ensure their own effectiveness in designing and facilitating learning[1]. It is not sufficient that the teacher him/herself is able to understand, make informed decisions about, and use the various tasks for learning. He/she also has to be able to support their *learners* to engage with and be capable of managing their learning within a blended learning approach, including how to use technology and diverse learning resources in productive ways[2].

Assessment processes and tools should be coherent between school site and distance tasks and give all pupils sufficient opportunity to demonstrate and understand their progression and future needs (see section 3.2.1 on the Design of Learning). Teachers may need additional professional development support in this specific area or may have designed approaches as part of their recent experience of remote teaching that could help the development of their school and other schools in this respect.

Stakeholders emphasised that the confidence and competence of teachers go hand in hand, particularly regarding the use of digital tools.

If a teacher has developed particular expertise, they may be encouraged to take a leading role amongst their peers. This may also lead to greater motivation as a professional. The concept of "distributed leadership" describes where teachers can further their knowledge and skills by taking decisions, individually and collectively within a clearly defined framework of school leadership[3]. This is particularly important in blended learning that requires, in addition to teaching skills, a vision, high working ethics, team skills, judgement and assessment skills and organisational skills and collaboration in order to make blended learning effective[4]. Teachers taking on a leading role in the use of digital technology may be given specific recognition [5]

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[1] iNACOL *Blended Learning Teacher Competency Framework.* Accessed at : https://files.eric.ed.gov/fulltext/ED561318.pdf

[2] Lund, A., Furberg, A., Bakken, J., Lyngvær Engelien, K. (2014) What Does Professional Digital Competence Mean in Teacher Education? *Nordic Journal of Digital Literacy*, 04 / 2014 (Vol. 9).

[3] See http://cstp-wa.org/cstp2013/wp-content/uploads/2014/06/Teacher-Leadership-Framework.pdf

[4] See https://www.ets.org/Media/Research/pdf/RR-10-27.pdf

[5] Within SELFIE for Teachers (https://digcompedu.jrc.es) a leader teacher is expected to lead collaborative tasks with colleagues using digital technologies (e.g. collaboration and co-creation of learning designs, implementation of joint projects), while engaging in reflective practice by supporting and providing advice to colleagues about improving their digital professional practice through critical reflection (e.g. through discussion forums, blogs, social networks, online professional communities).

"Teachers should be given time to study, to research, to update their knowledge… and strategies and not do it on weekends or after working hours." *(Teacher)*

Professional development and attitudes to innovation and collaboration

As organising blended learning requires constant adaptation of teaching, teachers' different attitudes towards education and willingness to change become relevant.[6] Not all teachers think about the design of blended learning in the same way, and findings have shown that most teachers are led by practical considerations rather than attending to individual students' needs. This may be a prevailing problem with the terminology – where "blended" seems to be associated with simply "adding more tools" to the learning process. Addressing this issue may be done through dialogue with peers in order to dispel anxieties, share challenges and solutions with their peers regarding their *designs* for learning, and better reach a shared vision about the different ways in which learning can take place.

It is unrealistic to expect all teachers to be suddenly highly experienced and competent in blended learning approaches in the space of a few months. They also work in different contexts. Therefore, teachers should have the opportunity, collaborative support, and willingness to take risks and innovate in order to adapt their pedagogical approaches in a way that is effective for their own learners. Innovative models of teacher professional learning and development can help and support the uptake of new instructional practices.[7]

Blending learning environments and tools – particularly if it is a new approach for the school – requires constant adaptation of teaching based on reflection (self-evaluation and by others) and feedback, in order to respond to the learners' needs effectively. This is an established part of managing one's own professional development.[8]

Embedding a blended learning approach across a whole school – or a whole education system - requires a significant amount of innovation on the part of teachers and is likely to feel like rapid change. The importance of sharing practice is, therefore, heightened in these more exceptional circumstances. Teachers should recognise their role within the school as a "learning community"

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[6] Studies addressed different typologies of beliefs about designing blended learning, differentiating three profiles of instructors: a disregard profile – instructors believe that additional support is not necessary; an adaptation profile – instructors are open to adjustments to existing learning arrangements; and a transformation profile – instructors believe that blended learning arrangements should be designed in a completely different way, and be tailored to the characteristics of the specific learner group. See Boelens et al. (2018), *The design of blended learning in response to student diversity in higher education: Instructors' views and use of differentiated instruction in blended learning.* https://doi.org/10.1016/j.compedu.2018.02.009

[7] Vuorikari, R., Innovating Professional Development in Compulsory Education - An analysis of practices aimed at improving teaching and learning, EUR 29622 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-79-98876-9, doi:10.2760/948518, JRC115292. https://publications.jrc.ec.europa.eu/repository/bitstream/JRC115292/jrc115292_innovating_pd_analysis_final_upload.pdf

[8] See Chapter 6 and 7 in Supporting teacher and school leader careers: a policy guide. Available at: https://op.europa.eu/en/publication-detail/-/publication/6e4c89eb-7a0b-11ea-b75f-01aa75ed71a1/language-en

to include peer observation, mentoring and coaching as well as co-designing lessons and resources.[9] How such collaboration can be achieved at a distance may need the use of additional tools, and time. Indeed, an increased familiarity and creativity with different learning tools may be transferred to professional development and vice versa. Online "teach meets", webinars and courses will also expand the size of an individual's professional community. For example, it was widely reported that members of the eTwinning European online community were better prepared and able to cope with the change to teaching remotely in spring 2020.

Some teachers who were consulted suggested that it may be usful for systems to consider a "cascade" design for professional development courses: the teachers who follow the course, in turn, become facilitators with colleagues in their school, thus creating wider and wider circles of learning and training.

Beginning teachers, who have just completed their diplomas will be joining schools and the wider profession with potentially limited recent practical experience. They are unlikely to be fully experienced in blended learning from a teacher's perspective, although they may have more recent experience themselves as a learner in higher education compared to their new colleagues. These professionals may require even more support than normally offered to confidently develop appropriate pedagogical approaches that suit their own context and capacity.

Supporting pupils as individuals and as a class community

Consideration may be given as how to maintain regular contact with pupils, such as arranging for supportive one-to-one communication, as well as communication with the learning group[10]. Teachers may also consider how to create and maintain a culture of collaboration and trust[11] – through dialogue as well as learning tasks – that contribute to the sense of community, transcending different learning environments. This facilitation may also help dispel the teacher's own anxieties around different (potentially more distant) relationships with pupils who are less frequently on the school campus.

As highlighted elsewhere, communication and liaison with stakeholders in the wider school community is important for the continuity of learning across different environments. How to effectively achieve this is a key consideration. Direct communication and guidelines may be considered for families – or those who are most likely to supervise the work of pupils, particularly younger pupils – in order that the distance learning tasks are fully understood and

[9] European Commission (2018) Boosting Teacher Quality: pathways to effective policies. Accessible at: https://op.europa.eu/en/publication-detail/-/publication/95e81178-896b-11e8-ac6a-01aa75ed71a1

[10] Roszak, M. & Kołodziejczak, B. (2017) "Teachers' skills and ICT competencies in blended learning", Department of Computer Science and Statistics, Poznan University of Medical Sciences. Available at: https://pdfs.semanticscholar.org/e3b1/70e64eb0d55dd55fece59fb939a620a9549c.pdf

[11] Experts propose the approach of using the acronym "TRICK," which stands for trust, respect, independence, collaboration, and kindness. See Wojcicki, E., Izumi, L., and Chang, A. (2015) Moonshots in Education: Blended Learning in the Classroom, Pacific Research Institute.

supported. The use of Learning Management Systems (LMS)[12] have been effectively deployed in higher education, however schools or systems that already had such software in place could easily continue to do so during the pandemic restrictions.[13]

There may be measurable cognitive benefits. An analysis of the TIMMS 2019 responses by the International Education Association (IEA) suggests that students with a higher sense of school belonging performed better in mathematics and science (see figure 22 below).[14]

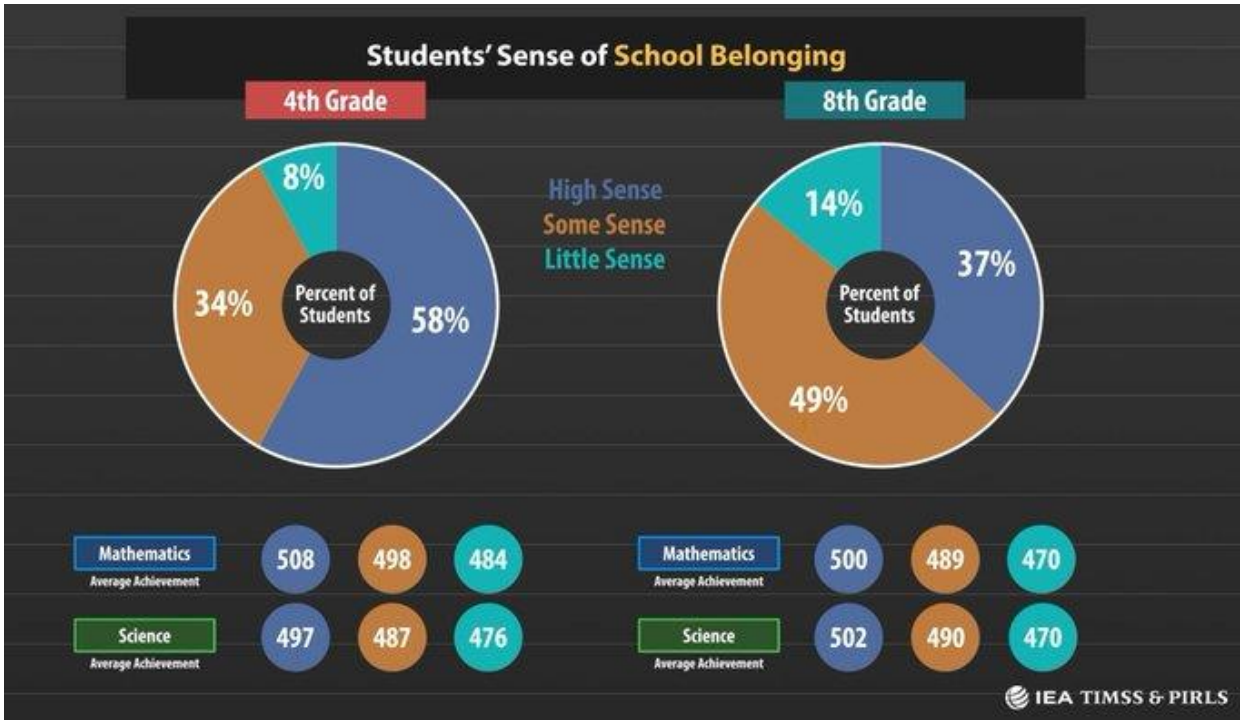

Figure 24: Students with a higher sense of school belonging performed better in mathematics and science

However, important as it is, a "sense of belonging" is complex and many factors may fall outside of the teacher's direct influence. It may be characterised as including: students' sense of being able to make friends; sense of being liked and accepted by the school community; their

[12] A Learning Management System (LMS) is software that not only helps to deliver a course of study; it can also assist with the processing of different kinds of data (including learner assessment), with reporting, and with communication with external stakeholders, including parents and education authorities. Well-known software includes – but is not limited to – Moodle, Blackboard, Schoology and Edmodo.

[13] See, for example, Finland in data collected by the World Bank in March-June 2020. Accessible at: https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic

[14] Reported in the video TIMSS 2019 International Results: Home, School, and Classroom Contexts for Teaching and Learning. Published at https://www.youtube.com/watch?v=M6JOHTdFOCk on 8 Dec 2020

connectedness to the school; as well as their individual feelings of alienation, isolation, and loneliness at school.[15]

Communicating and collaborating with the wider community

Teachers should be able to reach out to the wider community, and also welcome in members of the community. This not only improves the learning in different environments but also enables learners to be inspired by practitioners in other fields, as well as contributing to the professional development of the teacher.

Supporting such collaboration may require a specific reference within school education professional frameworks. This is the case in Australia within the professional standards for teaching[16], where community engagement has a greater emphasis as teachers progress to higher stages of professionalism.

One example of supported collaboration is the European Commission's "re@ct" pilot project[17] in Belgium to explore ways to bring Marie Skłodowska-Curie (MSC) researchers closer to learners in schools and universities. This initiative is planned to continue in the future involving researchers across Europe.

Stakeholders have highlighted that experts from outside of the school can make important contributions to the learning and not only for core subjects. However, they stressed that this should ideally not be one-off or for a short time. External practitioners (such as scientists, doctors, historians, musicians, writers) should be involved in the learning design and over time. This includes the planning, contributing to the process of teaching and learning, and even the formative assessment.

"The school and cultural parties involved need to agree on a mutual goal. Each party can have their own reasons to be involved, but they need be in agreement of what they are trying to achieve." *(Network of education and culture ministry representatives)*

EXAMPLE K: Supporting school education and cultural partnerships in Norway and Latvia

[15] Hristova, A. and Tosheva, E. (forthcoming) *Quality of School Life in Europe in the Light of Large-Scale International Assessments - Report*, European Expert Network on Economics of Education.

[16] https://www.qct.edu.au/standards-and-conduct/professional-standards#:~:text=The%20Australian%20Professional%20Standards%20for%20Teachers%20%28APST%29%20are,teachers%20should%20know%20and%20be%20able%20to%20do

[17] Information on the European Commission's "Researchers at school and at university" project is available at https://ec.europa.eu/research/mariecurieactions/events/20160503-react_en

The Cultural Rucksack is a political collaboration between the **Norway** Ministry of Culture and the Ministry of Education and Research, to ensure that students in primary and secondary schools have an opportunity to experience professional artistic and cultural productions during school hours several times a year. Artists can visit the school for a shorter or longer period, or students and teachers participate in arrangements outside the school, or a combination of the two.

One objective of the Cultural Rucksack is to be a supplement to the arts subjects taught in the schools, while not being a substitute for them. Another objective of the programme is to ensure that students have access to professional arts and culture of high quality during school hours.

With the pandemic restrictions, infrastructure has been redirected into production of digital learning products with funding that would normally have been used for travel as part of the programme.

2015 report on the initiative: https://www.kulturradet.no/documents/10157/a7464045-2cb6-4988-9948-ffd834508a5d

In **Latvia**, the project „Latvian School Bag" provides an opportunity for pupils to experience a variety of activities and events of art and cultural heritage, science, and nature within the educational framework, with access guaranteed by the state. In addition to access to cultural events and processes, artists and creative professionals are supported to visit schools, promoting cooperation among education and culture specialists and developing local involvement and ownership.

More information: http://lv100.lv/programma/latvijas-skolas-soma/

Managing one's own working conditions

All teachers should be clear on the expectations (of school management team and education authorities) of their school site and distance working conditions. This may include establishing ways to keep to contracted hours, support for their own "distance teaching" where this is required/possible, and support for extra costs such as devices, technological support, or travel.

According to ministry and stakeholder organisation representatives consulted, the role of the teacher in giving personal and social support to their colleagues and to their learners should be emphasised, where it is not already highly apparent and valued. According to stakeholders, previous attitudes have changed to be more in favour of the teacher, sparked by the forced distancing by school site closure. The social role of the teacher goes hand in hand with the social dimension of the school, which is perhaps now valued more highly after long periods of full- and part-closure. This requirement should be treated with care when designing a blended learning strategy for a school. The strong social role of teachers should not completely rule out the benefits of more flexible learning arrangements; nor should the attractiveness of integrating distance learning work against the delicate and crucial existence of the school as a community.

What was reported as a concern was – like all cases where work is from a home office – that there is a sense of "the endless day" for teachers, compounded by the increased workload. There was less sense of "being in school" or, rather, being able to step back and refresh, or adequately juggle their out-of-work responsibilities. Where distance environments become more dominant, boundaries may need to be re-established. This may not be of a concern if the school staff are predominantly on the school campus; however, following the experience of the pandemic, care should be taken with those teachers, support staff, and learners, who are members of the school community but spend much of their working time at a distance.

Figure 25: A perspective on teacher competence in blended learning[18]

The attractiveness of the school education profession

One question for policy makers is whether the new concept of online and on-site teacher is attractive or off-putting in terms of recruiting new entrants to the school education profession. On the one hand, teaching could be seen as interesting and challenging if being "in school" is not just about being in lessons within the four walls of a classroom. On the other hand, those who envisaged a career of working constantly in a shared and personal space – i.e. a classroom or studio – may be deterred by the idea of being more remote from some pupils some of the time, or interacting through an online platform.

There are cultural and personality preferences that may affect the attitude to distance and online learning – expressing oneself with the whole body can be lost, and therefore frustrating or feel abnormal. The natural movement of a teacher around the space, having more close discussions with a small group whilst still keeping one eye on the whole class, is not easily replicated. Therefore, the considerations of learning design need to include an appreciation of how this

[18] Source: iNACOL Blended Learning Teacher Competency Framework. Available at: https://files.eric.ed.gov/fulltext/ED561318.pdf

affects teacher-pupil relationships and also the teacher's own sense of identity and place in the class community.

In terms of what digital technology can offer, it may be suggested that schools could access teacher support that is not immediately available locally. Connecting with a teacher who is remote to the school may permit smaller groups of students in schools to take courses of study in minority subjects, which was not previously possible. This may open up new opportunities for teachers of certain subjects to work in the system or teachers who for various reasons cannot travel to the school site.

3.2.3 School leadership: creating the appropriate school climate and culture

Image: Marius Fiskum, EDUCATION.NO (Norway)

This section considers the role of and particular challenges for school leaders and school heads in a blended learning approach

Stakeholders highlighted the importance of the school culture (its values, beliefs, expectations, organisational behaviour, and sense of community) and school climate (how it feels to teach and learn there) to the effectiveness of a blended learning approach. This includes the school leadership (school heads and other school leaders) which helps to establish a clear vision but also enables some flexibility of approach by the staff team.

Four types of leadership competence[19] can be identified as being particularly relevant to recent experiences in schools:

1. **Rapid or large-scale change management leadership:** more recently may be understood as a competence to lead in an emergency or crisis but could still be necessary in more stable times to support significant changes to the school organisation;

[19] Originally proposed by M.Snoek, Hogeschool van Amsterdam, as part of the ET2020 Working Group Schools thematic discussions on blended learning.

2. **Leadership on expertise**: i.e. recognising the strengths of staff and where development could be effective;
3. **Social and emotional well-being leadership**: i.e. empathy for others; caring about staff beyond their core work outputs, which is different than crisis management.
4. **Reflective leadership**: How do we learn from all the new experiences we have/ get new insights? i.e. reflection and observation on what is happening in order to inform how to move forward. Reflection needs dialogue.

Whilst school education may hope or prefer not to describe itself in a period of "crisis", these different competences have been identified as important. The need not be encompassed in one school head but it could be useful to have shared leadership roles at the school level.

With a necessary greater focus on the role of parents, and for better supporting students to learn in different environments, this may (further) shift the role of "school" head into a "community leader".

This would potentially alter – or increase - what school heads and their leadership team are responsible for, including diverse learning environments inside and outside of the school campus. According to stakeholder discussions, it may require significant school community and whole-system courage and determination to discover new routes for school education. This may include radical reform of some traditional measure on which confidence in school systems has been based. For instance, sending external inspectors to observe teachers on the school campus may no longer effectively monitor or support the broad scope of the organisation and design of learning (see section 3.2.6 on Quality Assurance for more on this topic).

In implementing a blended learning approach, school leadership[20] is key in ensuring that there is a culture and climate for continuous improvement and that school level barriers for blended learning are addressed. It will be the school leadership who define the specific goals of blended learning – in cooperation with teachers – and will have the responsibility of ensuring that professional development needs are examined and addressed[21].

Developing a shared vision for the implementation of blended learning

[20] **School leader:** Those who hold a formal position of responsibility for the management of the school. School leaders are also teachers, as they are also still involved in learner development, both in and out of the classroom. There needs to be certain career support to reach a leadership role.
School head: The most senior school leadership position - the person with overall responsibility for the pedagogical and administrative management of the school or cluster of schools. This role might also be referred to as 'head teacher', 'school principal' or 'school director'. They can also be included in the broad definition of 'school leader'. See European Commission (2020) *Supporting teacher and school leader careers: a policy guide – Summary.* Available at: https://op.europa.eu/en/publication-detail/-/publication/f02d4648-7a07-11ea-b75f-01aa75ed71a1/language-en

[21] iNACOL, The International Association for K–12 Online Learning, *Promising practices in blended and online learning - Blending Learning: The Evolution of Online and Face-to-Face Education from 2008–2015*
Evergreen Education Group www.inacol.org , originally published May 2008. Available at: https://files.eric.ed.gov/fulltext/ED560788.pdf

Schools are generally expected to regularly reflect on their successes and challenges and create a strategic development plan – to act as a "school as learning organisation".[22] As is true for any innovation in school practice, a clear sense of direction from the school head and a shared vision held by the school community is crucial for effective problem solving that will be an ongoing part of adapting to blended learning approaches.[23] Such a vision may require a significant shift in mind-set concerning staff responsibilities, and concerning the increase in leader-centred approaches and learner independence.

Since the role of parents and carers in blended learning is, in most cases, enhanced, it also is important that that the school leadership builds relationships, not only inside the school, but also outside the school community[24]. School heads and leaders may reach out for support from other schools or provide support to others (networking).

School heads are a crucial link to the rest of the education system. They may need to interpret new regulations and other requirements that come into force regarding blended learning (See Chapter 4 for more on "legislation"). Vice versa, they may also need to signal additional needs in order to obtain the necessary support from authorities.

Supporting teachers to make autonomous decisions within a collaborative school culture

Implementing a blended learning approach within a school may require a considerable amount of designing and decision-making by teachers, drawing on their full range of professional competences. Empowering teachers to take that responsibility is best supported when leadership is school in distributed and when leadership is based on trust and where learning environments are flexible. Nevertheless, teachers should also not feel alone or isolated.

Teachers and school leaders have experienced a unique period of discovery and innovation during the shift to distance learning. Sharing this expertise, and that which will be built during the new academic year, will be important to developing effective blended learning approaches that best fit each school community. [25]

EXAMPLE L: Portugal's website "Support for Schools", created in 2020

The website "Support for Schools" provides all students, teachers, principals, parents and guardians, and the rest of the school community with a comprehensive set of resources to support

[22] See European Commission (2018) *Teachers and school leaders in schools as learning organisations : report of the ET2020 Working Group Schools*: https://www.schooleducationgateway.eu/downloads/Governance/2018-wgs4-learning-organisations_en.pdf

[23] See European Commission (2017) *Study on School Innovation in Europe*: https://www.schooleducationgateway.eu/en/pub/resources/innovation.htm

[24] Education Development Trust (2016) *Successful school leadership,* UK: Reading, Berkshire www.educationdevelopmenttrust.com. Available at: https://files.eric.ed.gov/fulltext/ED565740.pdf

[25] Pont, B., Nusche,D., Moorman, H. (2008) *Improving School Leadership volume 1: policy and practice,* OECD

learning and school management, in order to enrich and enhance teaching and learning processes in the recent challenging times.

Created in 2020 by the Directorate-General for Education, in conjunction with the National Agency for Qualification and Vocational Education, IP, in response to requests from schools at the beginning of the pandemic crisis, "Support for Schools" is believed to have surpassed all expectations, having become a reference, both in terms of the use of distance learning methodologies by schools, and in terms of assessment, among other areas.

https://apoioescolas.dge.mec.pt/

Supporting the design of learning

Whether or not a school has a high degree of autonomy over the curriculum, some responsibility will likely lie with the school leadership to ensure that all aspects can be effectively covered. Shifting some learning to distance environments or expanding the variety of learning tools (including digital technology) may involve more fundamental shifts in the curriculum in terms of:

- structure – for example as modules rather than year-long courses;
- formulation of learning outcomes - for example on competences rather than subject knowledge;
- expansion – for example, being able to offer new courses in subjects not previous possible;

In consultation, stakeholders emphasised that guidelines are useful but need to come with freedom and flexibility for local learning design choices. Any vision generated for the whole system needs to be accompanied with support and clear sense of expectations (i.e. what is expected of all schools, all teachers.

Blended learning will likely require the use of new software, resources, and data systems, and new ways of understanding the learning process. Professional development opportunities will need to be signposted and supported. Internal and external tools and processes for determining capacity may be useful, such as structured self-evaluation questionnaires[26] or peer dialogue.

An inclusive blended learning strategy should be designed - and systematically assessed and adjusted - by a multidisciplinary team, with provision for individual tutoring/support to be delivered by the most appropriate actors. Disadvantage is a complex and multidimensional issue, it can only be addressed with an integrated holistic approach, and with the involvement of all

[26] For example, SELFIE is a free European tool for schools to self-evaluate their capacity in digital education. https://ec.europa.eu/education/schools-go-digital_en

relevant stakeholders. Stakeholders outside the school - psychologists, Special Educational Needs specialists, social services, local authorities, youth services, NGOs – may be approached and activated by school leaders.[27] Local community practices developed during the period of school site closure could be further supported and scaled up.[28]

Supporting the leaders

Considerations about leadership concern not only school leaders but also those who have the capacity and responsibility to support them.[29]

Specific questions may guide reflection on how leadership in schools can be supported when dealing with change:

- What do leadership teams need in order for blended learning to be meaningful and inclusive?
- Aside from guiding them in "what to do", what else do they need in their own professional development?
- What kind of professional characteristics do we expect of leaders in blended learning?

At the start of the pandemic, it was reported that a popular decision was to give more autonomy to school heads, which national guidelines were intended to support. This was seen as a positive change. However, when school sites re-opened it was noted that many heads were allowing their schools to automatically return to full-time school site approaches and not necessarily changing their organisation (of the school or learning). This attitude by school leaders was perhaps understandable following a period of great stress, however, with the constant changes in restrictions over an entire year, systems may be lamenting the missed opportunity to help leaders and schools to shift to more flexible learning approaches.

First, leaders need clear guidance from the authorities in the system, be it at school board, regional or national level. Stakeholders report that developing a clear vision and developing a school strategy is very difficult if the guidance and expectations from the system are unclear or change constantly.

Second, as with the teacher, school leaders need to have "design" capacity for reinventing education. Centres for School Leadership can provide an immediate opportunity for dedicated professional development if their offer can be easily combined with school-based work.

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[27] European Commission (2015) *A whole school approach to tackling early school leaving.* Available at : https://ec.europa.eu/assets/eac/education/experts-groups/2014-2015/school/early-leaving-policy_en.pdf

[28] Examples : https://www.schooleducationgateway.eu/en/pub/resources/toolkitsforschools/detail.cfm?n=12485 and https://www.schooleducationgateway.eu/en/pub/resources/toolkitsforschools/detail.cfm?n=12564

[29] Acree, L., Gibson, T., Mangum, N., Wolf, M.A., Kellogg, S. & Branon, S. (2017). Supporting School Leaders in Blended Learning with Blended Learning. *Journal of Online Learning Research, 3*(2), 105-143. Waynesville, NC USA: Association for the Advancement of Computing in Education (AACE). Retrieved June 5, 2020 from https://www.learntechlib.org/primary/p/171355/

Third, it is also important to consider the same mental health issues and need for working boundaries of school heads and refer them to specific support. With a shared leadership approach, some of that burden can be eased, but may be difficult to suddenly introduce such an approach in a culture which is used to and heavily relies upon hierarchical decisions.

3.2.4 Well-being of staff and pupils

Image: pixabay.com

This section considers the mental, physical and emotional well-being of both school staff and pupils

By moving to a blended learning approach, routines will change and pose specific challenges to the well-being and mental health of education staff, learners and parents. The move to blended learning will equally affect the ability of schools to respond to these challenges and provide support to students and staff. The COVID-19 crisis added extra mental health and well-being concerns[30] for schools and schools continue to play an important role in mitigating the negative psychological effects of the crisis.

A survey focused on learners' worries during spring 2020 and how they were feeling during remote schooling. Across participating countries, 24%-43% of respondent learners expressed concerns about getting poor grades because of online activities due to the COVID-19 pandemic (Figure 23 below). Only in a small number of countries (50% in Austria, 52% in Slovenia), around half of the respondents disagreed with the statement "I worry that I will get poor grades because of online activities". Moreover, between 20 and 32% in all countries responded the statement being "partly not true, partly true."

For students to make the most out of new technologies for learning, previous studies show that developing positive attitudes towards learning can help. In blended learning, they can also be crucial in supporting learners to overcome some of the potential challenges, for example, those

[30] According to World Health Organization, coping with stress and anxiety represents the main mental health challenge of the COVID-19 pandemic. http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/mental-health-and-psychological-resilience-during-the-covid-19-pandemic

posed by online learning.[31] Parents, together with teachers, play a fundamental role in supporting students to develop these attitudes. The results of this study show that designing targeted activities and support material (for example, guidelines), which aim to reduce the burden on parents and teachers, would be needed to maximise the potential of remote schooling when regular in-person instruction cannot take place.

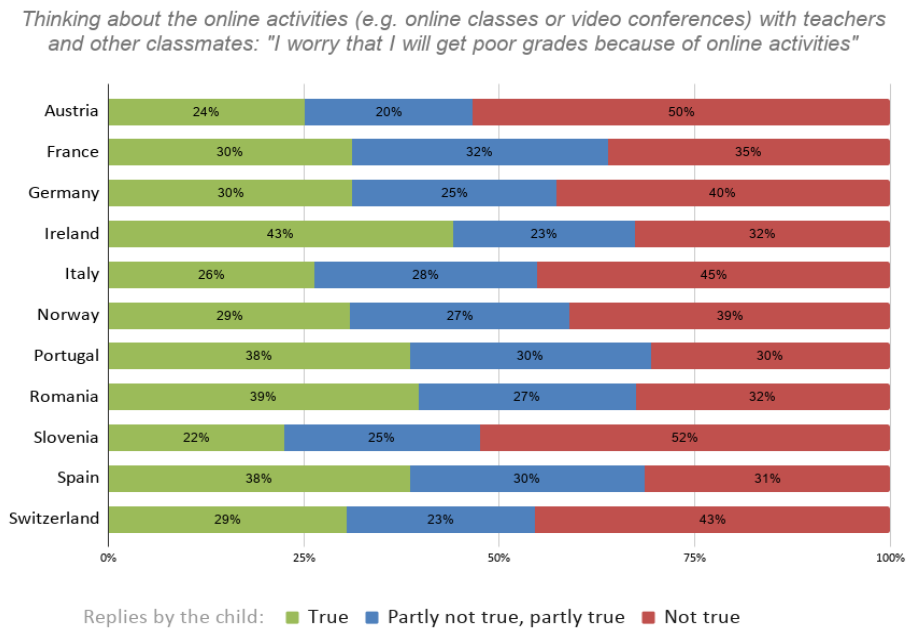

Figure 26: Student concerns about getting poor grades because of online activities

Within the Digital Education Action Plan open public consultation, almost 40% of education institutions reported that they would have liked to have received more guidance on how to support mental health and well-being of staff and learners.

To help address the issue of mental health related to the spread of the COVID-19 virus, a temporary network of European not-for-profit organizations was established on EU Health Policy platform.[32] The objective of the network is to share knowledge and practices on COVID-19-related mental health issues and develop a set of guidance documents that can help address the mental health aspects of the COVID-19 pandemic.

Identifying causes of anxiety and stress

[31] OECD (2020). Strengthening online learning when schools are closed: The role of families and teachers in supporting students during the COVID-19 crisis. https://read.oecd-ilibrary.org/view/?ref=136_136615-o13x4bkowa&title=Strengthening-online-learning-when-schools-are-closed

[32] Requests to join networks on the EU Health Policy platform can be made at https://webgate.ec.europa.eu/hpf/networks

There may be various reasons for increase in anxiety levels and concerns, not only in the context of a crisis that would force full distance learning,[33] but still potentially also in any blended learning approach. Anxiety and stress can lead to de-motivation in both teaching and learning, and further isolation. The causes include:

- Potential loss of immediate contact with friends or colleagues;
- Increase of workload and responsibility caused by the change in approach (e.g. more project-based, more preparation) or by "adding on" distance learning tasks, rather than co-ordinating between the environments;
- Concerns about how work will be assessed, and efforts recognised;
- Concern about the impact on university (final year students) or career prospects (pupils and teachers) if the distance learning aspects are not embedded or valued;
- Loss of structure that school can provide – and equally the stress of changes to familiar rules and routines;
- Loss of a 'safe' place away from difficult or dangerous home environments for some children;
- Extended exposure to digital screens or stress caused by cyber-bullying.

Simply identifying the possible causes is the first step to developing ways to prevent, mitigate or overcome such problems.

Developing guidance for the whole school community

A well-being approach, including for blended learning, will need to take into account children, teaching staff as well as parents and administrative and management staff. One cannot ensure the well-being of one group without paying attention to the well-being of all the other groups in a schools' eco-system.

Guidance may be provided – by the school or local/national authorities - on an array of issues to help pupils and teachers cope with any amount of reduced time on the school campus, such as:

- Maintaining individual social contacts and a sense of being a part of the school community (see chapter on School Community);
- Managing own expectations and motivations for development and time management for completing school tasks;
- A positive use and personal management of digital tools and social media; and supporting the application of data protection rules to children

[33] The ETUCE study on "Occupational health and safety of teachers, academics and other education personnel in times of COVID-19" identifies the main challenges of emergency online teaching and learning from the perspective of teachers and other education personnel. Available at: https://www.csee-etuce.org/en/policy-issues/covid-19/4326-new-study-on-vaccination-of-teachers-by-etuce

- Balanced diet and daily exercise.[34]

Developing competences for life

In this context, the key competence "Personal, Social and Learning to learn"[35], as described in the 2018 Council Recommendation on Key Competences for Lifelong Learning[36] becomes relevant to look at. This competence is defined as "*the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one's own learning and career".* Specifically, attention can be directed towards the following:

- Personal area, including self-regulation, flexibility and wellbeing;
- Social area, including empathy, communication and collaboration;
- Learning to learn area, including growth mind-set, critical thinking and managing learning.

In a blended learning approach, consideration will have to be given to how this competence can be effectively nurtured and (self-) evaluated in both the school site and other environments. The environments are complementary and a blended approach may be beneficial in bringing the two closer together. Given the emphasis on self-direction and reflection, the competence is a necessary part of ensuring blended learning works well. In other words, the competence is developed both *for* and *through* blended learning.

Promoting a healthy lifestyle through sports and physical activity

Formal school education contributing to encouraging lifelong habits and attitudes to a healthy lifestyle

School education contributes by offering a shared space for physical and social interaction, typically in the form of physical play. The breaks in between lessons are an important time to be outdoors, be physically mobile, and enjoy games that are governed by certain rules (make believe or simple challenges, as well as sports). This may be complemented by lessons or school campaigns that focus on a balanced diet or understanding the importance of regular exercise.

[34] Evidence shows that physical activity is associated with improvement of brain functioning, cognition and school results. The annex to the Report of the European Commission Expert group on "health-enhancing physical activity" (2015) gathers scientific evidence on the links between children's level of physical activity vs. sedentary and their school results. https://eacea.ec.europa.eu/sites/eacea-site/files/recommendations_pe_at_schools_2015.pdf

[35] Further information available at: https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/lifecomp-european-framework-personal-social-and-learning-learn-key-competence

[36] Further information available at: https://ec.europa.eu/education/education-in-the-eu/council-recommendation-on-key-competences-for-lifelong-learning_en

Physical activity in young people fell away during the pandemic, and yet a healthy body is needed to combat viruses. The pandemic has contributed to the rethink on making the most of time on the school site and is a serious consideration in the design of blended learning. Schools also need to have at least a basic level of safe and well-functioning equipment and spaces for such activities.

> ***"My two daughters, high school students in second and final this year, have been living distance learning intermittently since last year. The eldest takes several kilos … because it is the way she has found to compensate for the stress of this isolation."*** (Parent)

School education contributing to skills development in sports and other games

Schools are partly responsible for developing the motor and tactical skills of young people that can help them participate in individual and team activities in their lives. Physical education is part of the curriculum (although whether it is core, wider or extra-curricular may vary between schools, regions or systems).

Schools are able to introduce young people to a wide variety of sports and activities – indoors and outdoors, with or without equipment - that may spark and interest to pursue one or more outside of school. This then needs some continuity with parents and community organisations to support the child to participate if they express an interest.

Some schools offer their campuses for vacation activity camps. This can help draw children from the local area to a familiar and accessible environment to continue these physical and social activities outside of the school semester.

Some schools work in partnership with local sports clubs or arts organisations, where teachers and pupils can benefit from working with professional players/artists or coaches/workshop leaders. The Council conclusions on the role of coaches in society[37] and on access to sport for persons with disabilities[38] recognise the role of coaches in promoting sport and physical activity particularly among children and adolescents.

School education supporting young people in high-level performance programmes

Some children have particular talents and are part of regional or national programmes to accelerate their development for national representation or leading to a professional contract. These young people need help to balance their daily training with continuing their general education.

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[37] https://data.consilium.europa.eu/doc/document/ST-14210-2017-INIT/en/pdf

[38] https://data.consilium.europa.eu/doc/document/ST-9156-2019-INIT/en/pdf

This is a minority group of learners but no less important. There are European examples, such as the Estonian gymnasium where athletes in the Olympic programme can study at a distance and still be part of the school (see Example K below). "Voetbal Vlaanderen"[39] is another example from the Flemish Community of Belgium, supporting the combination of school and football training.

Making time for dialogue within the school day

Blended learning could act as a catalyst for extra opportunities to support the well-being of pupils and teachers, in that the increased attention to effective modes of communication may inspire the use of tools (for example, well-being apps or social media groups) that can offer more individualised support to each person and situation.

However, the importance of in-person (same physical space) contact and socialising - by pupils with pupils, teachers with pupils, teachers with families, and teachers with teachers - cannot be underestimated. In a blended learning approach the "on-site" contact time could usefully prioritise opportunities for pupils and school staff to have informal exchanges and discussions about experiences and strategies for well-being, alongside curriculum lessons.

Inspiration may be taken from research[40] that has documented responses to crises and from guidelines on well-being that were developed during the COVID-19 pandemic (see example below).

EXAMPLE M: Websites for well-being at home – Luxembourg [41]

In the wake of the COVID-19 crisis, the web portal **schouldoheem** was created, with simple guidance and resources to improve well-being. The aim was to support teachers, learners and parents with concrete pieces of advice for the period of confinement. A series of articles has been elaborated by experts from the socio-educational sector in Luxembourg, and is updated regularly, including with videos. The web portal https://www.schouldoheem.lu is available in five languages, Luxembourgish, English, French, German and Portuguese.

[39] https://www.voetbalvlaanderen.be/voetbal-en-school

[40] Polizzi, C., Lynn, S.J., Perry, A. (2020). Stress and Coping in the Time of COVID-19: Pathways to Resilience and Recovery. *Clinical Neuropsychiatry*, 17 (2), 59-62. https://doi.org/10.36131/CN20200204

[41] Irish authorities prepared a similar set of webpages with guidelines for parents/guardians of primary school pupils on the continuity of learning and including advice on well-being. The portal is multilingual: besides Irish and English, it is also available in Albanian, Arabic, Farsi, French, Georgian, Kurdish, Pashto, Somali, Spanish and Urdu. www.gov.ie/en/collection/965639-continuity-of-schooling

3.2.5 Inclusion and targeted support to learners

Image: commons.wikimedia.org

This section discuss both the benefits and challenges of blended learning for learners in particular circumstances.

Inclusion in education may be understood broadly as a system in and around schools which places strong emphasis on supportive, quality learning environments. Students' emotional, physical, cognitive and social needs are addressed, and each student's talents are recognised. Students have opportunities to have their opinions heard. Parents and wider multidisciplinary teams and agencies actively participate in the school community. Schools actively seek to prevent discrimination and to meet diverse needs of marginalised and vulnerable students. School climates are learner-centred, welcoming and caring environments

Inclusive systems seek to prevent discrimination. Inclusive systems in and around schools especially prioritise the differentiated needs of marginalised and vulnerable groups, including those at risk of early school leaving and alienation from society.[42]

Recognising the centrality of a relational school climate, the ET2020 Working Group Schools report on tackling early school leaving treats learner-centred, welcoming and caring

[42] Downes, P. and Nairz-Wirth, E. (2017). 'Structural indicators for inclusive systems in and around schools'. Luxembourg: Publications Office of the European Union, https://nesetweb.eu/wp-content/uploads/2019/06/NESETII_Structural_Indicators.pdf

environments as part of inclusive education.[43] Important in any school or system strategy for blended learning will be how to take a balanced approach to supporting learner needs (meaning social and emotional as well as cognitive), ensuring that students have agency and are supported in any learning environment, creating positive interactions through the use of different tools.

Benefits of blended learning to learners in specific circumstances

Online and distance learning can have benefits for specific groups of learners, for example: those who are hospitalised; those who follow high performance sports programmes; or those who cannot attend school for other reasons.

Some schools who have a full-functioning on-site campus offer a full-time distance learning option for certain pupils. These schools do not necessarily offer a blend of environments during a period of study but they are able to include pupils who would not otherwise attend.

EXAMPLE N: Campus schools with a full-time distance learning option

The International School of Berne in Switzerland have an "online school" which caters for students who cannot attend the campus except for occasional activities and graduation. These students include those on high-performance sports programmes. The online programme is run by an external company based in Dubai, UAE.

The **Audentes School** in Tallinn, Estonia, combines an International (IB) school, with an e-gymnasium (online). It has been created especially for all student athletes who might miss classes due to systematic training. It gives students the unique chance to acquire secondary school education online, without going to school on a daily basis. The Audentes Sports School focuses on the principles of wisdom, health and balance, and for that reason, educators encourage an active lifestyle, practising sports from an early age. E-gymnasium teachers have long-term teaching experience, both in the classroom and in a virtual learning environment, and have followed several training courses for teaching and mentoring. The resulting e-learning environment offers:

- Affordable education for all ages and levels

- Flexibility in learning

- Thorough support during students' learning experience through clear action plans and a counselling system

[43] European Commission (2015) A whole school approach to tackling early school leaving - Policy messages. ET 2020 Working Group on Schools. Available at: https://ec.europa.eu/education/resources-and-tools/document-library/schools-policy-a-whole-school-approach-to-tackling-early-school-leaving_en

- Opportunities for higher education.
https://audentes.ee/

A well-known distance learning example with a 70-year history is the Australian "School of the Air". This was developed in 1951, using the existing radio communication of the Royal Flying Doctor Service. Although pupils are hundreds of kilometres apart from each other and their teachers, the "School of the Air" at Alice Springs makes a concerted effort to maintain a sense of school identity and community. They offer residential camps each year so that the pupils can interact in a shared physical space.

There are schools across Europe and the world that may be termed "virtual" schools because they do not have a campus and yet offer a full curriculum with teacher support.[44] They depend on support from families, which can include financial cost to maintain the school as an online organisation. This can be a popular option for parents who wish to teach their children at home and yet need support themselves.

EXAMPLE O: "Bednet" for pupils with a long-term illness or recuperation

With the help of Bednet, pupils with a long-term illness or in extended recuperation can continue to receive education. Bednet connects the sick student to their class group via computer: it creates a live connection between them and their classmates, whereby the absent child is visible on a flat screen at the back of the classroom. Not only does the student keep up with the curriculum, they also keep in touch with the class. Bednet is available for pre-school children from the age of 5, as well as primary and secondary school pupils in all certified state-subsidised schools in Flanders and Brussels. Equipment and counselling are free for schools and families for as long as they are needed. Since 2005 when Bednet was launched, 1,593 children have used it in 1,111 Flemish schools.

https://www.bednet.be/bednet-english

There are examples of schools – both with a campus or who visit the pupil in their own environment – that cater for children in particular circumstances. These include: "Bednet" [45] in Flanders, Belgium, for hospitalised and chronically ill children (see example above); "@uora" in Italy for young people in prisons and young offenders institutions[46]; and "iScoil" [47] in Ireland for children aged 13-16 who have disengaged with mainstream education (see example below). A

[44] For example: Nettiperuskoulu in Finland; Rīgas Tālmācības Vidusskola in Latvia; Wolsey Hall in England, UK; and Oak Meadow in the USA.
[45] https://www.bednet.be/bednet-english
[46] https://www.istruzione.it/archivio/web/istruzione/piano_scuola_digitale/aurora.html
[47] https://iscoil.ie/

number of schools for the children of circus performers are members of the European Network for Traveller Education.[48]

EXAMPLE P: 'iScoil' for disengaged learners

iScoil is a non-profit online learning service addressing the problem of early school leaving and educational disadvantage in Ireland, so that young people can achieve their full potential. iScoil has a fully online approach and a blended approach that combines in-centre and online learning.

In partnership with local services and agencies, iScoil has created a safe place to learn, where young people receive personalised learning programmes based on their unique needs, interests and abilities. Each day, online tutors and mentors review the student's work, provide feedback on it, and adapt the next day's learning plan as needed. Apart from re-engaging students with education, this service also offers employment opportunities by building a portfolio of work for students. Since its launch, iScoil has awarded 1146 certificates to 437 young people.

The evidence is that the approach is effective but such organisations are not technically "schools". iScoil grew out of a project in the UK, called NotSchool, led by Stephen Heppell: http://www.naec.org.uk/ultralab/ww3/projects/notschool/

For more information, see:

https://iscoil.ie/

https://youtu.be/6Hiql3Q_1fE

Young carers are children and young people under the age of 18 who provide care for a parent or relative in the community, usually within their own home. They can be required to perform personal and practical tasks for their parents or other family members, often without any help or support from welfare agencies. Many children provide care at great personal expense – they are deprived of their childhood, many miss out on educational opportunities, few have established friendships or other support networks. Young carers are at greater risk of not completing their formal education and are less able to enter into higher education reducing their life chances and increasing their social exclusion.[49]

Disadvantaged learners during the pandemic

[48] https://ente.education/partners
[49] https://eurocarers.org/young-carers/

With the move to Emergency Remote Teaching in spring 2020 and the potential for further disruption in the 2020–21 school year, there were concerns that disadvantaged learners will fall behind and inequalities will grow. Stakeholders have noted the need to ensure access to digital devices and connectivity, as well as to ensure the quality of instruction.

The COVID-19 pandemic is believed to have exacerbated already existing socio-economic inequalities in children's learning opportunities at home. A recent study[50] from Denmark finds that the difference in takeout of digital children's book from libraries between more and less advantaged families was higher during the early periods of lockdown compared to the pre-pandemic period. There is also evidence that during the lockdown children from higher socio-economic status have spent more time in learning than those from lower socio-economic status. A survey carried out in the UK during the months of April and May 2020 shows that while students from households in the top income quintile spend about 5.8 hours per day on educational activities, the corresponding figure for those in the bottom income quintile is approximately 4.5 hours[51]. As a result of a home environment less conducive to learning and less time spent in learning, students from less advantaged backgrounds are likely to have suffered a particularly significant learning loss. This conclusion is supported by a Dutch study[52] showing that the learning loss experienced by primary school students from homes with lower levels of formal education is up to 55% larger than that suffered by their more advantaged peers.

Attention to students at-risk of early school leaving was recognised as particularly important. At-risk students include those with low socio-economic status, special education needs, ethnic minorities, migrants, and/or living in rural and remote areas, including the outermost regions and island communities. Some students are unable to learn effectively independently and were therefore disengaged from their studies during school shutdown. The key issue is the availability of another to act as mentor. If students are learning in a distance environment, they may need someone to provide additional pastoral support.[53]

> ***"There is a need to train and employ more Roma and other minority staff in in-person and online educational settings, including teaching and learning support workers. This would make a strong statement about the commitment to diversity and inclusion but, most importantly, it would go a long way in better integrating minority students and responding to their unique needs."*** (A European organisation supporting Roma communities)

[50] Jæger, M. M., & Blaabæk, E. H. (2020) *Inequality in Learning Opportunities during Covid-19: Evidence from Library Takeout*. Research in Social Stratification and Mobility, 68, 1-5.

[51] Andrew, A., et al. (2020). Learning during the lockdown: real-time data on children's experiences during home learning. IFS Briefing Note BN288

[52] Engzell, P., Frey, A., and Verhagen, M.D. (2020). "The Collateral Damage to Children's Education During Lockdown." *VoxEU.*

[53] The eHub Project in Ireland includes such mentoring but it is also coming to the fore in online schooling in NZ, US, Canada and Australia. More information available at: https://michiganvirtual.org/blog/what-does-research-say-about-mentoring-online-students/

Ongoing support for special needs education was also considered to be vital. Children who have learning difficulties are potentially the most at-risk students in a context of isolation. Many parents are not equipped to assist special needs children. Where available, adaptive technologies can work very well for many, but not all. For example, many children with behavioural problems cannot work well in an online setting. Strategies to address the needs of these at-risk learners and their families are vital.

Eurochild's *Growing Up in Lockdown* report[54] reflects on the impact of the pandemic on children. It compiles information gathered from 25 countries across Europe, and provides recommendations for improving public policies in the short and long-term to support better outcomes for children and families. For children already living in poverty it meant increased hunger if they missed out on free school meals. The impact of the pandemic on children in alternative care education had to be provided online which staff were not always equipped to deal with. Just as parents in family homes struggled with home schooling, staff in residential facilities do not necessarily have the teaching skills, digital skills or equipment needed to support online education. Unaccompanied minors who were studying have lost their opportunity to participate in educational activities. There were also positive developments and examples of good practice to emerge from this situation. In Belgium, for example, community organisations joined forces to put pressure on public authorities, as a result of which there has been more attention to children and their rights.

Assistive technologies for learners with physical disabilities, autism and other needs

Assistive technologies have the potential to expand access for learners with physical disabilities as well as those with autism and other learning needs. Technologies and digital instruction applications may be adapted to meet a spectrum of learner needs.

Stakeholders have noted, however, that some learners - for example, those with behavioural challenges - have not been able to continue learning in a fully online environment, and they and their parents/carers may need additional support to benefit from blended learning environments. Research has found that home visits that focused on providing information to parents and helping them to cope could support improved cognitive and social behavioural outcomes for learners (based on 36 two -hour visits a year)[55].

Additional concerns have to do with the expense of some technologies. While some Member States fully fund assistive technologies for learners with disabilities, this is by no means widespread[56].

[54] Eurochild (2020) Growing up in Lockdown. Available at Growing up in lockdown: Europe's children in the age of COVID-19 – Eurochild

[55] Black, M.M. (1991). Early intervention services for infants and toddlers: A focus on families. *Journal of Clinical Child Psychology*, 20 (1), 51 – 57.

[56] Pastor, C. (2009) *ICT Assistive Technology industry in Europe*. Tecnalia: Donostia-San Sebastian.

A key feature of inclusive learning environments lies in the accessibility and usability of blended learning tools. Not only do students from lower socio-economic status need to have access and be able to use digital technologies, but this should also hold for other categories of disadvantaged students such as those with learning difficulties or special needs. In this context, the concept of 'universal design' plays an important role as it refers to those apps or websites that can be accessed by students with disabilities without assistance[57].

Creating online learning materials in line with universal design means that these products should be usable by all students including those with physical, visual, hearing, learning, and attention problems. In an attempt to fulfil this need, the Universal Design for Learning (UDL) framework[58] stresses the importance of setting up a curriculum that provides multiple means of : a) representation (that give learners different ways to acquire knowledge and information), b) expression (that give learners various tools to express themselves and communicate their thoughts and ideas), and c) engagement (different ways are used to encourage learners to complete a task or, more in general, to motivate them).

Amongst other recommendations, experts call for a guarantee of pedagogical and speech therapy reinforcement, with each student with hearing impairments given support to transfer both tools and techniques from the school site to distance learning environments and online learning.[59].

Individual support and personal tutoring

There is evidence that disadvantaged learners benefit from individual support and personal tutoring. This might traditionally take place mostly in school, complemented by visits from home-school liaison officers who work also with the families to better support their own children's learning. Consideration should be made as to how such individual support by trained staff can most effectively operate when the teaching and learning is both on the school site and also at a distance, for example in maintaining home visits and online individual sessions.

EXAMPLE Q: Home-School Liaison Scheme (HSCL), Ireland

The HSCL Scheme is a preventative strategy, targeted at pupils who are at risk of not reaching their potential in the education system, due to circumstances in their background. It focuses directly on the adults in children's lives, in order that they may be better able to support the children's attendance, participation and retention in the education system. The Scheme seeks to promote partnership between families and schools, bring parents closer to their children's learning and build parent capacity for learning support, so that they are enabled to contribute to

[57] Bose, I.K. (2014) "Planet school": Blended learning for inclusive classrooms. An Enriched ePub eBook for Screen Reader Users, 3-14

[58] Rose, D. (2000) Universal design for learning, Journal of Special Education Technology, 15(3), 45-49.

[59] In 2020, Confederación Española de Familias de Personas Sordas FIAPAS published a guide on "Supporting hearing-impaired students in the covid-19 context". Available at https://bibliotecafiapas.es/en/publication/practical-guide-for-supporting-hearing-impaired-students-in-the-covid-19-context/

children's successful experience in the education system. Children at risk of Early School Leaving are identified in consultation with School Management.

HSCL Coordinators are teachers who receive 4 days induction training upon appointment to the HSCL position. In addition, the Senior Management Team liaises directly with schools and HSCL cluster groups to ensure that there is consistency of approach and to jointly select and implement initiatives which are agreed to be most appropriate for a specific school or area.

Continuous Professional Development (CPD) is ongoing for all HSCL Coordinators and practitioners to deliver high quality modules, both at national and local level. As part of the school staff, HSCL Coordinators also receive training in relation to Child Protection and Special Educational Needs.

https://www.schooleducationgateway.eu/en/pub/resources/toolkitsforschools/detail.cfm?n=297

Engaging at-risk students through extra-curricular activities

Blended learning also extends to community-based activities. For many learners, extra-curricular activities in community centres may support motivation and engagement. Extra-curricular activities support identity formation, the development of social competences and achievement orientation. Research has found positive benefits from extra-curricular programmes with high levels of organisation, structure and regularity and which emphasise age-appropriate goal setting, development and which involved leadership by one or more competent adults.[60]

Supporting pupil sense of identity and belonging

Pupils may benefit from additional measures – both on the school site and in distance environments - to ensure their sense of value and belonging to the school community as an important part of motivation for learning. Attention may be paid to the (short) time delay in giving feedback on some distance learning tasks, compared to shared space (teacher and pupils together) where feedback is more immediate. Some learning tasks may also be more deliberately set as group tasks to compensate for other times where learning is highly independent. Other opportunities outside of structured learning tasks may also be considered for pupils to communicate (with each other and with school staff or external stakeholders) on a range of topics that are meaningful to them, but which add to their sense of belonging to a supportive school community.

[60] Lewis, M. and Samesl, S.J. (2004). The relation between extracurricular activities with academic and social competencies in school-age children: A meta-analysis. Unpublished PhD., Texas A&M University, TX, cited in Hattie, J. (2009). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. Routledge.

Parental involvement

A blended learning approach may call on greater parental engagement in their children's learning. Younger children in early childhood education and care and primary levels will require greater parental guidance and support. Learners in lower and upper secondary school levels may be perceived as more "mature" and therefore better able to work without parental supervision, however this cannot be assumed.

Schools may work in close partnership with parents to set high expectations for their children's learning, which, together with greater student ownership for their own studies (rather than parental surveillance), is associated with better learning outcomes.[61] Parents should be supported to learn the 'language of learning' so that their children have consistent messages of support[62].

There are ways in which schools and municipalities may take a differentiated and systemic approach to parental involvement in education to prevent early school leaving[63]. These may include community-based family support centres where multidisciplinary teams focus on child and parent mental health, emotional support and school attendance; and, community-based lifelong learning centres providing both non-formal and formal learning. Community centres may be co-located with schools as a way to open schools to the local community after school hours.

Parent support may be particularly necessary where the child learner has physical disabilities or the family has a very low income, both of which may lead to reduced access to learning environments and tools compared to other families.

While this might be at the boundaries of a blended learning approach within the school's remit for learning, it is an important way to engage with parents and build bridges with municipalities. Following the view that "schools do not define education, and they are not the only institutions in which learning takes place"[64], a blended learning approach may enable this to become a reality by allowing a school or system to redefine school both in terms of the environment (where) and the tools (with what). However, this is only possible with the necessary support and resources.

Involvement of other stakeholders

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[61] Hong, S. and Ho, H-Z (2005). Direct and indirect longitudinal effects of parental involvement on student achievement: Second-order latent growth modeling across ethnic groups. *Journal of Educational Psychology*, 97(1), 32 – 42.
Jeynes, W.H (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education*, 42 (1), 82 – 110.
Hattie, J. (2009). Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement. Routledge.

[62] Clinton, J.M. and Hattie, J. (2013) New Zealand students' perceptions of parental involvement in learning and schooling, *Asia Pacific Journal of Education,* 33 (3), DOI: 10.1080/02188791.2013.786679

[63] Downes, P. (2011). Towards a Differentiated, Holistic and Systemic Approach to Parental Involvement in Europe for Early School Leaving Prevention. European Commission.
https://www.schooleducationgateway.eu/files/esl/downloads/17_PREVENT_Parental_Involvement.pdf

[64] Sefton-Green, J. (2012) Learning at Not-School: A Review of Study, Theory, and Advocacy for Education in Non-Formal Settings. MacArthur Foundation. https://mitpress.mit.edu/books/learning-not-school

Cooperation with professionals and services in different areas (such as social workers, youth services and organisations, intercultural mediators, nurses and doctors, psychologists and other therapists, NGOs and other community-based organisations from sport, cultural environment and active citizenship sectors, police, local authorities, and others) can be very beneficial to support the learners and support schools also in the design and the implementation of blended learning.

Hindered progression: addressing fears of "learning loss"

Some stakeholders are reported to have expressed a concern that learners may experience significant setbacks as a result of the recent experiences of predominantly distance learning. These concerns may prevail and cause a reluctance to intentionally develop any form of similar blended learning approach.

Research on 'learning loss' following summer holidays may be relevant to these concerns but it is inconclusive. For example, one study in the US found that students at higher grade levels are more likely to experience learning loss following summer holidays (with results for gender and ethnicity constant).[65] However, following the earthquakes in Christchurch, New Zealand, there was no evidence of learning loss, even though schools were closed for weeks.[66]

In July 2020, UNICEF published a paper on trends and emerging "good" practices to support the most vulnerable children when re-opening school sites.[67] Whilst this provides an overview of typical concerns measures, the context is of the early months of the pandemic. Nevertheless, its overarching recommendations may be understood as useful principles for any situation where there is a concern for certain pupils being at a disadvantaged following a period away from school; to:

- identify and reach out to vulnerable pupils;
- make support available;
- leverage existing initiatives;
- continue to monitor the effectiveness of initiatives.

Expressing where a learner *is expected to be* in terms of competence development or curriculum content goals compared to where they *are* is not the same as "losing" knowledge or a skill, which implies *no longer* being able to recall or do something that was previously known or done. The difference between these two concepts should be acknowledged when analysing evidence or

[65] Cooper, H.M., Nye, B., Charlton, K., Lindsay, J. and Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. Review of Educational Research, 66(3), 227- 268.
[66] https://www.abc.net.au/news/2020-04-17/will-missing-school-due-to-covid-19-matter-for-school-students/12154266
[67] UNICEF (2020) COVID-19: How are Countries Preparing to Mitigate the Learning Loss as Schools Reopen? Trends and emerging good practices to support the most vulnerable children. Available at https://www.unicef-irc.org/publications/pdf/COVID-19-How-are-Countries-Preparing-to-Mitigate-the-Learning-Loss-as-Schools-Reopen.pdf

planning action. In this context, the concept of "loss" may be misleading. Furthermore, the speed at which a learner may return to a previous (higher) level of competence is not necessarily the same as the first instance of progression.

Another potentially misleading narrative is the perceived "loss of earnings" (negative impact on future income from employment) that has been used by journalists, policy makers and parents alike to justify arguments against school site closures. Unfortunately, no conclusive evidence is available until the children of current school age reach the age of employment. Economists and other researchers do regularly update their opinion on what a year of schooling equals in monetary terms, or the "return on investment".[68] However, this has been newly put alongside figures describing how many days pupils have not been on the school site in order to calculate a perceived impact of school site closures on those children's future income. It assumes that schools and teachers will have largely failed in their efforts of Emergency Remote Teaching and will be unable to help students to "catch up" to expected learning outcomes in the future.

The concern for disadvantaged learners is not new, and with some evidence. The Education Endowment Foundation has tried to quantify "learning loss" during the pandemic in a recent report.[69] It claims to confirm learning loss which is increased due to disadvantage. However, the report does not link this to future earnings.

Any hindering of learner progression resulting from prolonged school closure in 2020 and 2021 is likely to have been compounded by stress related to the crisis. Research from this period may not be useful to predict what is likely to happen if blended learning is embedded in a more strategic and gradual way.

To address the more immediate concerns, it will be vital for teachers and school to assess gaps in learner competence and to develop plans for remediation. Attention to essential elements of curricula may also be important. Studies have focused on the "over-crowding of curricula" that is common across countries, and suggested that a focus on core concepts is more effective than broad coverage. The counter concern is that a narrowing of the curriculum will have a negative impact on the broad competence development of future generations.[70]

Learning software that scaffolds learning according to individual needs may support learners to address gaps in their learning according to what the curriculum expectations are for their age group. For example, some learning programmes automatically direct learners to additional learning materials where their responses demonstrate a need for other prior learning before progressing to new learning tasks.

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[68] https://www.tandfonline.com/doi/abs/10.1080/09645292.2018.1484426?journalCode=cede20

[69] https://educationendowmentfoundation.org.uk/public/files/Publications/Covid-19_Resources/Impact_of_school_closures_KS1_interim_findings_paper_-_Jan_2021.pdf

[70] OECD (2020), Curriculum Overload: A Way Forward, OECD Publishing, Paris, https://doi.org/10.1787/3081ceca-en.

Learners may also benefit from peer support – either in conversation with senior pupils in the school or using social media tools (e.g. discussion boards, blogs, wikis, shared ePortfolios).

Many examples of ways to address the needs of individual learners, developed during projects and initiatives, exist in the **European Toolkit for Schools** (see Chapter 4 and footnote).[71]

[71] https://www.schooleducationgateway.eu/en/pub/resources/toolkitsforschools.htm

3.2.6 Quality assurance and building evidence for future development

Image: stem.T4L on unsplash.com

This section focuses on the ways in which established quality assurance processes may be usefully adapted to support blended learning.

Ministries recognise that guidance is crucial for supporting teachers, schools, and parents in their collective endeavour for maintaining and further developing quality education. During the period of school site closures and re-openings in 2020, topics within national published guidelines included: what and how to plan reopening of the school; teaching and learning processes; well-being and psychological support; pupils with Special Education Needs; and communication with parents.

Conditions for effective quality assurance for school development include ensuring ownership of the process through meaningful dialogue and actions, and an opportunity for 'out of the box' thinking and creativity, with an emphasis on improvement more than quality 'control'.[72] Recent research-based recommendations point towards an effective interplay between internal and external quality assurance mechanisms – in order to ensure that they best serve school development and innovation. Blending internal and external evaluation and feedback would seem to make sense where the teaching and learning is also taking place in diverse environments.

Stakeholders emphasised that processes and people should avoid judgmental approaches and encourage the sharing of professional practice in a critically reflective manner. For example, the

[72] https://www.schooleducationgateway.eu/downloads/Governance/2018-wgs2-quality-assurance-school_en.pdf

shift to Emergency Remote Teaching has prompted systemic change in the work of the inspectors in Ireland.[73] Inspectorates may themselves provide guidelines and tools such as frameworks with quality indicators which also take into account blended learning to be used in school self-evaluation, or toolkits and guidance documents. These will ideally include the same indicators used by inspectors.

There are five areas for consideration in which established quality assurance processes may be usefully adapted to support a new blend of school site and distance learning:

1. How to evaluate, feed back on, and adapt the teaching and learning that happens outside of school, including assessment, and the combination of school site and distance teaching and learning
2. How to evaluate, feed back on, and adapt the school climate/culture from a school site and distance perspective (sense of community and identity, students' and teachers' well-being, working conditions, relationships with stakeholders)
3. How to evaluate, feed back on, and adapt the management of staff ;
4. How to monitor practices and new developments across the system that takes into account both distance and school site teaching and learning
5. How to manage and incorporate evaluation and feed back of/via other providers (e.g. broadcast media, publishers, private organisations)

[73] See, for example, Ireland's change from inspections to "advisory visits" including health and safety advice/inspections to give reassurance to the public. See https://www.schooleducationgateway.eu/en/pub/viewpoints/experts/quality-learning-covid-19.htm

Figure 27: Five areas for adapting established quality assurance processes

Teaching and learning that happens outside of school, and the combination of school site and distance teaching and learning

If distance learning is not included in quality assurance – i.e. not inspected or at least self-evaluated and reported – it not only misses an opportunity for valuable feedback but also runs the risk of a poor reputation compared to other "regulated" learning environments.[74] Actions that could be considered include self-evaluation by the teachers, with or without self-reflection tools, and peer evaluation by other teachers (internal evaluation).[75] This could be complemented by inspectors (external evaluation) joining online sessions[76] as well as classroom visits and guidelines to teachers on how to evaluate their own practices in blended learning. Inspectors' advice can help schools to develop the most appropriate strategy for their learners, and help teachers to design a blended learning process that is fully inclusive, engaging and effective.

[74] Bacsich, Paul. (2012). Virtual schools and colleges providing alternatives for successful learning volume 1. p. 113 https://www.researchgate.net/publication/339537812_VIRTUAL_SCHOOLS_AND_COLLEGES_PROVIDING_ALTERNATIVES_FOR_SUCCESSFUL_LEARNING_VOLUME_1

[75] In August 2020, new questions on distance and blended learning were added to the European Commission's self-reflection tool on the digital capacity of schools (SELFIE). https://ec.europa.eu/education/schools-go-digital_en

[76] https://www.khda.gov.ae/CMS/WebParts/TextEditor/Documents/Distance-Learning-Evaluation-Tool-English.pdf

EXAMPLE R: Distance Learning Evaluation Tool

The Distance Learning Evaluation Tool is a joint initiative between the UAE Ministry of Education (MoE), the Knowledge and Human Development Authority (KHDA), the Abu Dhabi Department of Education and Knowledge (ADEK) and the Sharjah Private Education Authority Ministry of Education (SPEA) designed to evaluate the quality of distance learning provided by public and private schools in the UAE.

Teams from these organisations interviewed principals and teachers at public and private schools across the UAE to discuss the implementation of distance learning by their schools, and to gain an understanding of how it can be improved. The evaluation covers: a) Students' distance learning and wellbeing, b) Teaching and monitoring of students' learning c) Leading and managing students' learning. Each of these zones is subdivided into themes, which are supported by descriptors. Evaluation criteria and processes were developed and piloted with a number of public and private schools and insights gained during these pilot evaluations were used. Each school evaluation will be conducted remotely and is expected to take approximately five hours. It will include online meetings with the principal and senior leadership team, as well as remote observation of lessons.

https://www.khda.gov.ae/CMS/WebParts/TextEditor/Documents/Distance-Learning-Evaluation-Tool-English.pdf

Learning Management Systems (LMSs) may be used to track key indicators regarding pupil progression in both school site and in distance learning environments. LMSs may be used to highlight students who are at risk of disengaging from school[77], although this will not happen automatically and requires a conscious focus by the teacher or school to analyse the data.

Although constructed with an older age group of students in mind, the various guidelines for the quality assurance of distance and e-learning in higher education can still be very relevant and useful. ENQA's 2018 *Considerations for quality assurance of e-learning provision* outlines a number of different considerations and indicators for external and internal evaluation of processes and programmes. For example:

> "As with traditional, campus-based provision, external quality assurance will take into account an institution's particularities – e-learning included. Usually the procedure will include the involvement of relevant stakeholders at all levels. The teaching and learning process, the learning resources, the VLE [virtual learning environment], and the student support system for e-learning will be additionally considered. It is a good opportunity for institutions to demonstrate their involvement in pedagogical

[77] For example, see J Chung, J.-Y and Lee, S. (2019). "Dropout early warning systems for high school students using machine learning,: Children and Youth Services Review, 96, pp. 346-353, https://doi.org/10.1016/j.childyouth.2018.11.030

innovation projects and the involvement of stakeholders (students and teaching staff involved with e-learning) in the design of methodologies."[78]

Evaluating the school climate/culture from a school site and distance perspective

Evaluating the sense of community and identity, students' and teachers' well-being, working conditions, and relationships with stakeholders needs to be done from both a school site and distance perspective.

As an internal (within the school community) approach to generating data and facilitating useful dialogue, existing networks and organisations could be activated to gather feedback and offer advice and support to staff and pupils.[79] The inclusion of student voice – through student councils and other informal surveying – may be particularly valuable.

External evaluation of the school climate also requires coherent processes that can generate data about not only teaching and learning across the different environments, but also how the blended approach is working effectively in terms of staff and pupil well-being and the sense of community. Stakeholder engagement in school evaluations - to understand the impact of distance learning on teacher and student well-being and achievement - can support efforts to engage parents and other community stakeholders, including researchers, in improvement and innovation.

[78] https://enqa.eu/indirme/Considerations%20for%20QA%20of%20e-learning%20provision.pdf

[79] For example, in Estonia, the "Masters teachers" network has been activated to gather feedback from teachers and students about their distance learning experiences and to offer support and advice. Reported in European Training Foundation webinar, 26 May 2020 – Supporting Vocational Teachers under the Lock Down. https://openspace.etf.europa.eu/events/vocational-learning-distance-supporting-vocational-teachers-under-lock-down

Evaluating the management of staff

The combination of school site and distance learning poses challenges in terms of organisation of work and workload of teachers. Teachers' work needs to be organised in such a way as to provide the best education to all students, with additional support to the most vulnerable. This may be added to existing evaluation of staff resources. Workload is related to teacher well-being and may also be considered when evaluating the broad school climate/culture (see above).

Effective links between the school strategy for learning and the professional development of its staff should also be evaluated and improved where appropriate.

Monitoring practices and new developments across the system

National surveys help to gain diverse perspectives on a broad range of topics.[80] During the school site closures and since, numerous international and national surveys have been deployed[81] as a way of better understanding school, teacher and student experiences. Without overburdening stakeholders with feedback mechanisms, such practices may be usefully continued in order to monitor the ongoing situation.

In the short-term, evaluations may address what has worked well in the context of Emergency Remote Teaching and other innovations that might be carried forward in the context of developing a blended learning approach. Identification of areas for improvement and remediation to address any learning losses and impacts on well-being are also important.

Inspectors themselves may also share effective practices based on their broad view of schools working in a range of contexts. They may also share their own insights and professional judgment on elements of an effective practice which are relevant for a particular school, and how these may be tailored to the school's own context.

High-quality qualitative and quantitative data on school performance provided to schools in user-friendly formats may support their analysis of successes and areas for improvement. Data should be relevant, valid and reliable. Digital tools and artificial intelligence have the potential to support systems in interpreting large amounts data, to compare their progress with schools working in similar contexts, and to track the school performance over time. However, such analysis across the system should take into account the specific context of each school as ideally providing unique learning experiences tailored to the needs of their learners.

Resources developed through a process of in-depth consultation with education practitioners and that provide sufficient flexibility for schools to adapt them to their own context are likely to be more user-friendly and relevant across a system.

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[80] ET2020 Working Group Schools (2018). European ideas for better learning: the governance of school education systems, Brussels, p. 16. Available at https://www.schooleducationgateway.eu/en/pub/resources/governance-of-school-edu.htm

[81] For example: https://www.schooleducationgateway.eu/en/pub/viewpoints/surveys/survey-on-online-teaching.htm

As emphasised within the stakeholder consultation, it is equally important to exchange on which approaches have not worked so well, as much as the "success stories" to prevent same mistakes being made.

Evaluation and feedback of/via other providers

As reported above, numerous countries activated broadcast media (television and radio) to provide learning content to a mass pupil audience.[82] However, in the context of quality assurance, how those providers are evaluated alongside other education providers is less clear and may need to be reviewed.

Also as reported above, private organisations (website hosts, software developers, app designers) can help to shape learning experiences. Strict protocols on data protection withstanding, these providers may generate useful feedback to systems and schools. This could be generated directly from learner responses, for example "likes", comments, and quiz responses.

External partners – or "critical friends"[83] - such as teachers and school leaders from other schools, representatives of a local authority, or researchers may also provide external advice. They are seen as trusted peers from outside the school who can provide evaluative feedback and bring new insights while also developing their own evaluation skills. It may be that the community of critical friends is extended to include educational technology developers and NGOs that have a good level of expertise in online learning and the use of digital tools.

[82] See https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic

[83] The ET2020 Working Group Schools (2018-2020) used the term "critical friends" to describe external partners in quality assurance and define their role as being more positive and reflective that negative and judgemental.

4. Supporting the development of blended learning within primary and secondary education

4. Supporting the development of blended learning within primary and secondary education

This chapter outlines potential first steps in addressing the design, implementation and monitoring of blended learning in primary and secondary education. It describes existing EU frameworks and tools that can support the European school education community.

The Recommendation is based on the premise that, to be more inclusive, and to enable broad competence development, teachers and schools need to better integrate (blend) different environments and tools within engaging and effective learning tasks.

In consultation with the ET2020 Working Group Schools in 2020 (representatives of ministries of education and European education stakeholder organisations) it was emphasised that, to make such a blended learning approach effective, schools and systems need to continually develop their approaches to both the **design of learning** (the learning process that is created by the teacher) and the **design of schooling** (the way that schools and systems are organized and managed). The main stakeholders involved are **pupils, teachers, school leaders** and **parents/families**. This ongoing developmental work should be supported by **collaboration within and between communities** and **quality assurance** mechanisms.

As described in Chapter 2, blended learning is not new. Young people have been learning on and away from the school site – at home; in museums and sports centres; at famrs, factories and other work places – for decades. The questions it raises are also not new: how can schools embed different tools, including powerful digital technology, and different tasks into pedagogical practice, in order to extend learning beyond the physical classroom and maximise its role in teaching, learning and assessment? How can systems move beyond a learning design that is dominated by older tools, such as paper textbooks? How can learners take more ownership of their learning in advance of class and how can the teacher become more of a facilitator than dominating the process? How can they connect with other learners and inspiring experts who are outside the walls of their classroom? How can meaningful learning experiences be created where learners are equipped with the confidence and competences to become lifelong learners?

What the recent experiences have highlighted is that these questions cannot be answered by teachers alone - action needs to be embedded into all aspects of the school education system.

This chapter highlights potential first steps in addressing the implementation and monitoring of blended learning in primary and secondary education. It describes existing EU frameworks and tools that can support the European school education community.

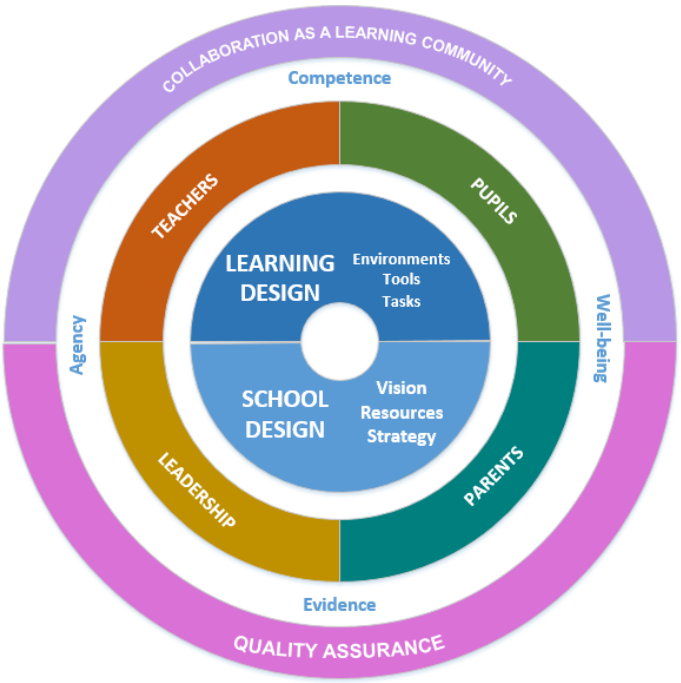

Figure 28: Considerations for a blended learning approach and ongoing school education development

4.1 Challenges for implementation

A clear lesson that has been learnt – not only from the pandemic but also from recent reforms – is that change in education requires a clear vision and a co-ordinated approach by the whole of the system. This includes ongoing dialogue with all stakeholder groups to ensure that their needs are reflected in any changes, that decisions are informed by evidence, and that stakeholders can take forward the work, motivated with a sense of ownership.

In 2020, a number of systems brought in new legislation to give a legal basis for permitting and supporting certain practices and levels of decision-making by schools and local authorities. This experience is one that could be a useful basis for the future development of school education.

Another challenge, well-known but highlighted by the pandemic, is ensuring and prioritising sufficient investment in not only learning tools and environments, but also in the existence, working conditions and professional development of qualified staff (as explored in Chapter 3).

This section briefly explores these challenges, highlighting the key areas that Member States may take into consideration.

4.1.1 Clear vision and co-ordinated approach by the whole of the system

> ***"First, the big vision and the big picture should be laid out in an overall document, such as a master plan. Above all, this document should set out in a well-founded way how the individual ideas and measures it contains are meaningfully interrelated and mutually supportive. Second, it needs sufficient space and resources for communication. Hierarchical and systematic communication with [ministry] departments is just as important here as exchange at the level of specialist expertise in a horizontal manner with stakeholders and experts. Third, all activities should tie in as much as possible with developments and processes already in the system."***
>
> *(Ministry representative)*

As highlighted in consultations with stakeholders, the importance of having a clear rationale and set of goals for any change cannot be underestimated. This needs to be explored and articulated by, and on behalf of, all stakeholder groups. This does not necessarily need to be a complete change of approach but may be linked with existing developments and priorities. With research literature highlighting sources of teacher and school leader stress and burnout as being the increase of bureaucracy and delivery demands with fewer resources[84], it would seem prudent to consider how new national plans are communicated and what the expectations are.

Figure 27 (below) presents different elements of the system that need to be engaged in developing a blended learning approach:

- Governing bodies: the Ministry of Education and other system authorities;
- Evidence and monitoring: research community, expert networks and quality assurance agents (including inspectorates);
- Formal education institutions: early learning settings, schools, VET institutions and universities and colleagues (higher education);
- Wider community: support organisations (which may include trade unions), families, and public services;
- Resources industry: providers of tools and environments, taking into account the needs of people within the system.

Whilst each element is known in isolation what must happen in order to better integrate distance learning environments and a range of learning tools is to have **more effective relationships**

[84] OECD (2020) Teachers' well-being: a framework for data collection and analysis. OECD Education Working Paper No. 213. Available at: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/WKP(2020)1&docLanguage=En

between these elements. These relationships will need to be articulated and supported at national level, which can also be supported at EU level.

For example, the important **role of the education resources industry**, particular education technology, should be acknowledged. On one hand, the education technology industry can provide ready-made hardware and software, and, on the other, effective dialogue could help to design solutions to issues such as rethinking approaches to assessment for a whole system. There also needs to be a **close relationship between research, the governing bodies and the institutions** in order to support the continual emergence of evidence and inform policy-making as well as local practice.

Networking on regional levels can also help with maintaining these relationships and with adapting and implementing national plans.

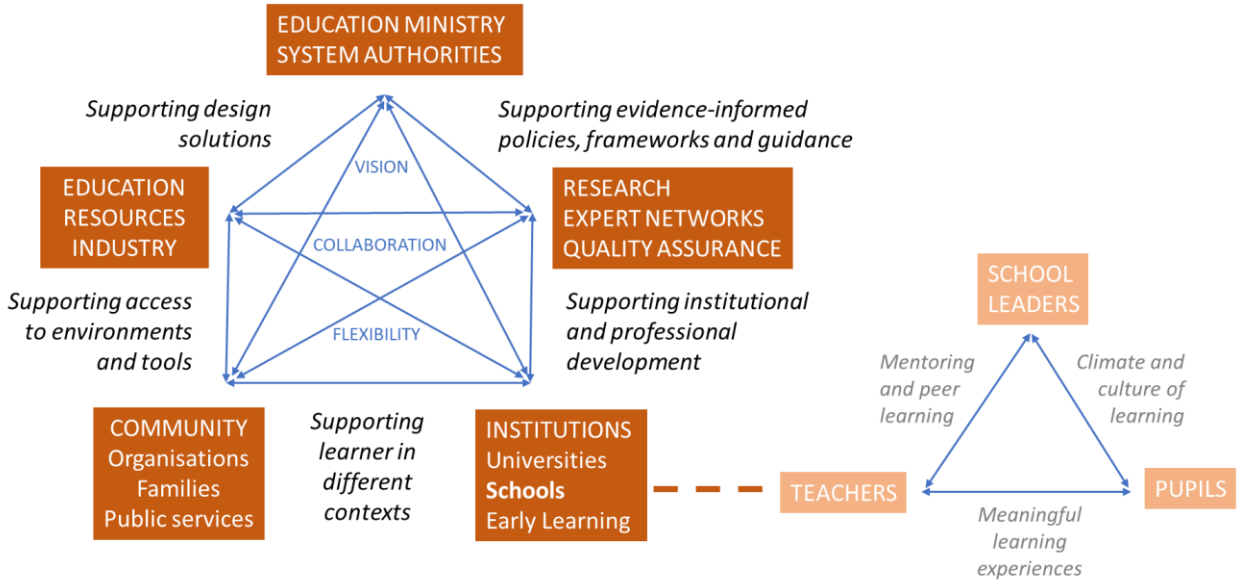

Figure 29: The roles and relationships between education stakeholders[85]

As described in Chapter 2 (2.1.2), the experiences of education stakeholders during the pandemic may have a strong impact on their motivation for and against areas of development or "change". Those leading future action – whether a central authority, municipal director, or school head – will need to be sensitive to very different points of view. It will be important to engage with stakeholders to reflect on recent and ongoing experiences in order to create a collective positive approach to developing learning design and schooling. These approaches should acknowledge

[85] Inspired by A. McCoshan, Dublin City University (2021 stakeholder consultation discussion) and Machumu, H.J. and Zhu, C. (2019) Ch.2 - Building a Conceptual Relational Model Among Blended Learning Aspects in K-20 Education, Emerging Techniques and Applications for Blended Learning in K-20 Classrooms, ed. Kyei-Blankson, Lydia, Ntuli, Esther, Nur-Awaleh, Mohamed A. IGI Global.

evidence from the local level and appreciate what is possible based on any new competences and relationships that have been developed by schools and educators.

4.1.2 Developing a legal basis for enabling and supporting blended learning

Legal frameworks set out expectations and principles for school education and create a, potentially flexible, structure - a "frame" – for the governing authorities (local authorities, school board, and school leadership team) carry out the necessary actions and other specific measures, in the most appropriate way.

As blended learning may be a significant change in practice for school communities, legislation may be a pre-requisite for enabling change to happen but should also be viewed as positive support and offering protection for all stakeholders.

A legal framework might, therefore, be considered useful for:

i. **Authorising the use** of blended learning as part of "school" education and formally valuing it for both primary and secondary education;

ii. Establishing clear expectations for all schools that gives confidence to the community and system of **guaranteeing the same core provision to all** educators and learners;

iii. **Recognising the evidence base** for blended learning guidelines and expectations (e.g. recent national or international research; pilot projects; planned review process for future development);

iv. Describing how **curricula and assessment** may be approached or adjusted to function effectively through both school site and distance learning;

v. Setting **guidelines for school organisation** (for example, the division of responsibility between school site and other environments; the use of Learning Management Systems and other resources; minimum or maximum hours/days of distance learning per semester) whilst being flexible and encouraging innovation of practice;

vi. Requiring that teachers and school leaders have **access to high quality professional development** and other support for blended learning; formally establishing collaborative peer learning networks, and adapting Initial Teacher Education and teacher competence frameworks, if appropriate;

vii. Defining **related legal requirements** that support blended learning to be effective (e.g. availability of support in the community; expectations for home environment; access to meals; setting boundaries or guidelines for private and non-profit providers; formal agreements with cultural organisations and broadcast media);

viii. Identifying the necessary **adaptation of established quality assurance processes**;

ix. Ensure that expectations for blended learning in school education are **coherent with existing frameworks at other education levels** (VET, Higher Education and Adult Learning).

Legislation should be transparent about the roles and relationships between different stakeholders. Ministries, education authorities, training providers, school leadership, and the various policies and frameworks may be in a position of power or authority in the process. However, change is not possible without - and may in fact be initiated by - the teachers and their self-development and collaboration. Pupils play an equal part in enabling blended learning to function as an approach as it also depends on their own capacity to actively participate as individuals and groups in a spirit of creativity and inquiry.

4.1.3 Infrastructure: the need for investment

As Figure 27 (above) indicates that there are different areas and roles within the broad education system which each may be assumed – or designated – as responsible for improving school education.

An essential consideration is who is responsible for financing the necessary investment. During consultation discussions, stakeholders stressed that schools cannot always pay for "additional" items and families sometimes have to bear this cost.

Embedding a blended learning approach may encourage schools to work effectively with outdoor education, businesses, and cultural organisations. This may include national guidelines or specific investments like transport costs to bring pupils to new environments.

Whilst investment in human and social capital is necessary to promote a different teaching and learning culture, investment in connectivity (broadband) and digital devices is important for equity.

Open education networks may help with access to resources and open source software can lower costs. Guidance in navigating these will be necessary because it requires public institutions (local authorities and schools) negotiating with private companies. National or European standards that platforms - commercial or open source - are required to follow may help in this respect.

"The infrastructure in schools and on learning facilities outside schools should be improved, so that blended learning in different environments can be structurally implemented… This should be stimulated and facilitated by governments and supported financially." *(Teacher)*

4.2 European frameworks – competence and strategic guidance

Frameworks can guide professional development and curricula by defining competences. They can also guide organisational practice by defining strategies or quality standards. Whilst Member States are likely to have their own frameworks, this section describes the various EU frameworks that exist and that could be used as a reference for developing a framework at a national level for a blended learning approach.

European Commission's Digital Competence Frameworks

Digital competence is one of the eight Key Competences for Lifelong Learning described by the European Commission (see Chapter 2.2).

The **Digital Competence Framework for Citizens**[86] is a five dimension framework including: (1) Information and Data Literacy, (2) Communication and Collaboration, (3) Digital Content Creation, (4) Safety, and (5) Problem Solving. The framework helps to assess the development of citizens' competences, career guidance, and promotion using learning outcomes. Ideally its use will help to harness digital technologies for innovation and training in a process of lifelong learning to manage the need for new and changing digital skills for professional and personal development and social inclusion.

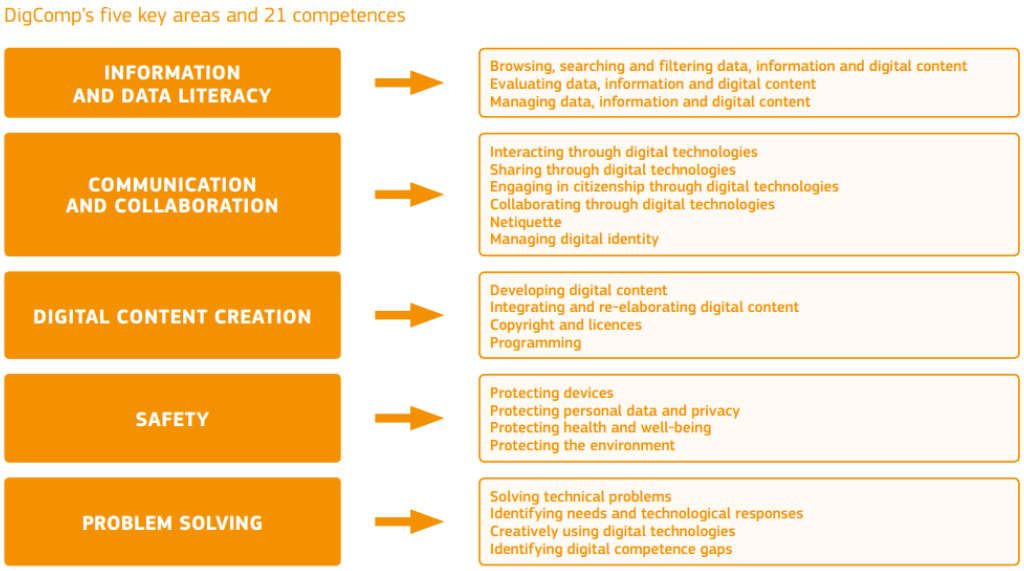

Figure 30: Schematic View of European Commission's Digital Competence Framework for Citizens.

[86] https://ec.europa.eu/social/BlobServlet?docId=15688&langId=en

The current version is labelled DigComp 2.1 and it focuses on expanding the initial three proficiency levels to a more fine-grained eight level description as well as providing examples of use for these eight levels. Its aim is to support stakeholders with the further implementation of DigComp[87]. It has been the basis for the development of a Digital competence framework for educators (DigCompEdu), for educational organisations (DigCompOrg), and consumers (DigCompConsumers).

As evidenced in the OECD Learning Compass 2030[88] and many of the other frameworks, digital technology pervades many aspect of the education system, in both formal and non-formal learning. As such, the **European Commission's DigCompOrg framework[89]** aims to support a change in teaching and learning by enhancing the organisations' capacity for innovation and to best integrate and utilise digital tools. This approach can add value through its promotion of transparency, comparability and peer-learning.

[87] The framework is currently under review and a new version is planned for release in the course of 2021.
[88] https://www.oecd.org/education/2030-project/teaching-and-learning/learning/
[89] https://ec.europa.eu/jrc/en/digcomporg/framework

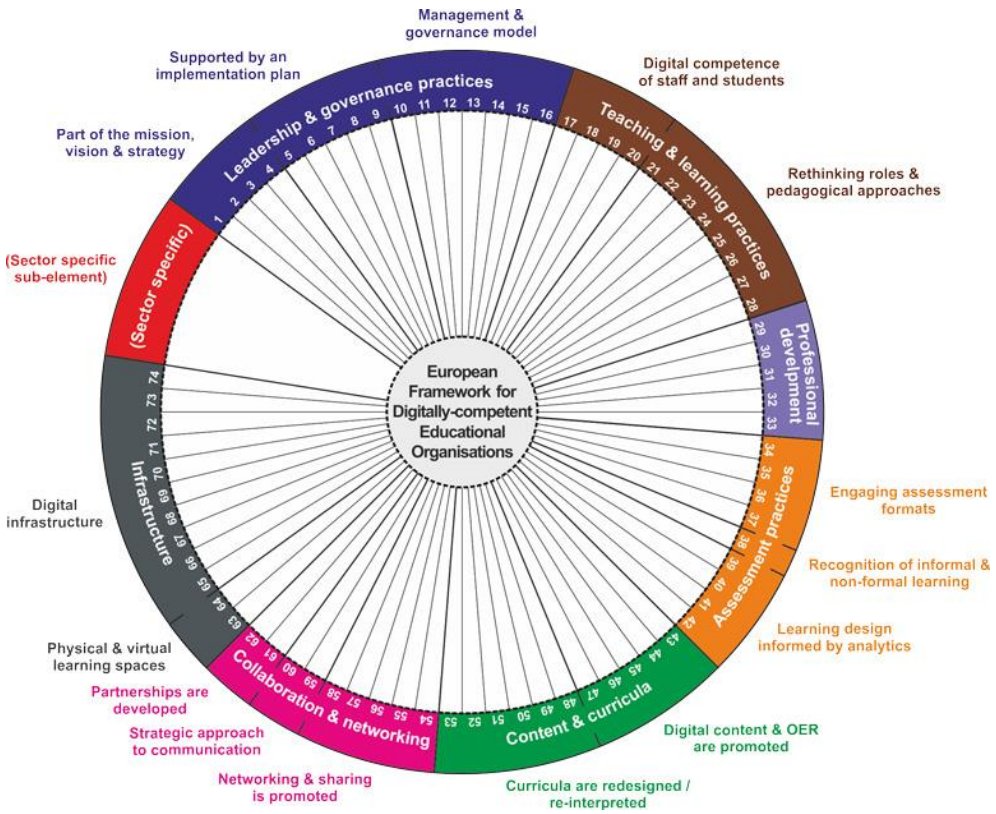

Figure 31: Schematic View of European Commission's Digitally Competent Educational Organisations (DigCompOrg) Framework.

The **European Framework for the Digital Competence of Educators**[90] addresses the key digital competences an educator should have, as a professional in his/her professional context, as well as a facilitator for the development of the learners' digital competence. The framework describes the educators' digital competences under 6 areas: professional engagement, teaching and learning, assessment, digital resources, empowering learners and facilitating learners' digital competence.

The importance of DigCompEdu[91] in the context of teacher professional development is that it describes a spectrum of digital engagement, ability, and confidence. Not all educators can be expected to be highly competent in all areas and using such a framework for self-evaluation can help individuals and institutions plan their development and training needs. For this purpose, the DigCompEdu also includes a progression model.

[90] https://ec.europa.eu/jrc/digcompedu
[91] https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/european-framework-digital-competence-educators-digcompedu

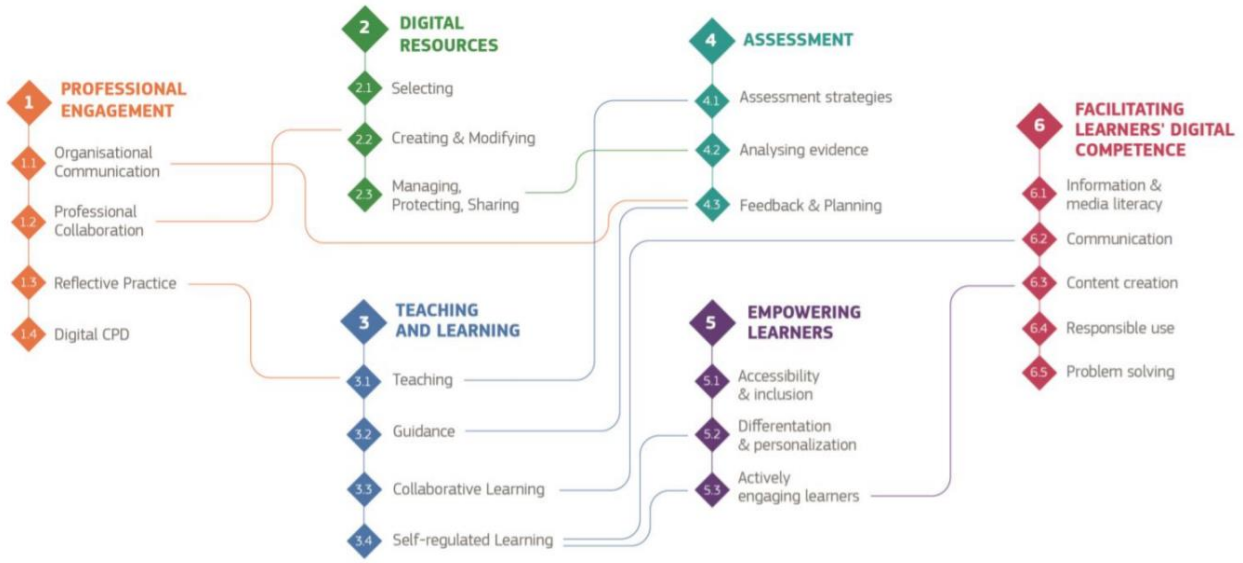

Figure 32: Schematic view of European Commission's Digital Competence Framework for Educators

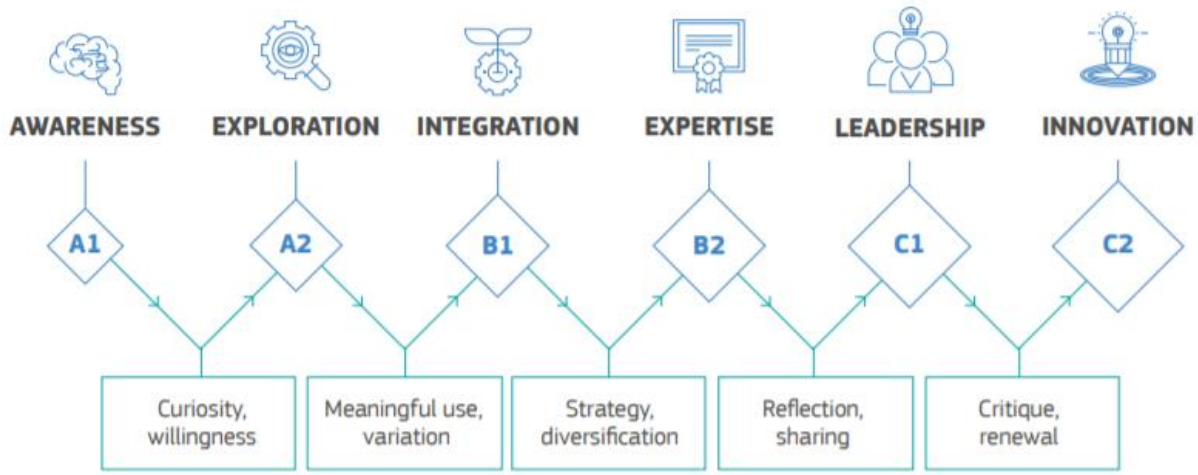

Figure 33: Progression model of the European Commission's DigCompEdu

Personal, Social & Learning to Learn Competence Framework (LifeComp)

Personal, Social & Learning to Learn competence is one of the eight Key Competences for Lifelong Learning described by the European Commission. 'LifeComp' - the European

framework for Personal, Social and Learning to Learn key competence - is a recognition that this key competence is inextricably linked to – and enables - the other eight key competences.[92]

LifeComp is made up of three intertwined competence areas: 'Personal', 'Social', and 'Learning to Learn'. Each area includes three sub-competences: Self-regulation, Flexibility, Wellbeing (Personal Area), Empathy, Communication, Collaboration (Social Area), Growth mind-set, Critical thinking, and Managing learning (Learning to learn Area). Each sub-competence has, in turn, three descriptors which generally correspond to the 'awareness, understanding, action' model.

These are not to be understood as a hierarchy of different levels of relevance, whereby some are prerequisites for others. Rather, all of them are to be considered complementary and necessary.

As discussed in Chapters 2 and 3, these competence areas are a pre-condition for, and can be further developed within, learning within a blended learning approach.

Figure 34: Framework for the Personal, Social & Learning to Learn Key Competence (LifeComp)

[92] https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/lifecomp-european-framework-personal-social-and-learning-learn-key-competence

4.3 European tools that support the broad school education community

This section outlines the European Commission tools that already exist to offer direct support to different education stakeholders.

Erasmus+: blended mobility and capacity building

The previous Erasmus+ programme (2014-2020)[93] has offered many opportunities to support the development of schools, school education professionals, and pupils. These opportunities will be reinforced in the new programme (2021-2027) around three main strands, and could support the development of a blended learning approach:

I. **Partnerships for cooperation** for any kind of school education organisations to exchange good practices, experiences and design together innovative teaching methodologies and products with their peers in other European countries. Such cooperation is an effective way to be inspired and develop competences in pedagogical approaches.

II. **Professional development through mobility activities**: a period spent in another school abroad or in a training course enables teachers and school leaders to develop their competences. Mobility activities are a means to address individual training needs in specific areas such as digital skills, necessary for organising blended learning.

III. **Blended mobility**: The Erasmus+ programme supports blended mobility, which is the combination of physical mobility of teachers or learners with a virtual component facilitating collaborative online learning exchange (for example through eTwinning - see below). Blended mobility makes an additional contribution to improving digital competence due to the online element. The next programme will strengthen and further encourage the use of virtual cooperation to complement physical mobility.

Online professional development and collaboration

eTwinning

[93] See the Erasmus+ homepage, available in different languages https://ec.europa.eu/programmes/erasmus-plus/node_en

eTwinning[94] is the community for schools in Europe, offering teachers and school staff a safe platform for collaboration and professional development free of charge. Teachers from 34 Erasmus+ programme countries and 10 Erasmus+ partner countries are able to develop projects and take part in thematic discussion groups, webinars and other learning events, both online and on-site. Due to its range of online tools and services, eTwinning is well-placed to support a blended learning approach.

In the "eTwinning Live" restricted area, teachers can search for other registered eTwinners and schools, connect with them and follow their activities. Teachers can access all of the online and on-site events created by eTwinners, and can also create their own. Teachers can create their own projects and activities on different topics by collaborating with two or more teachers and their students. In the "TwinSpace", visible only to those participating in a specific project, teacher and students can meet and collaborate with peers from their partner schools.

The European Commission's School Education Gateway platform (www.schooleducationgateway.eu), offers Massive Open Online Courses (MOOCs) developed by a team of online learning experts with the support of a Professional Development Advisory Board. It has now further developed its professional development offer to include both long (4-6 week) and short (1-2 week) courses for teachers, school leaders and other education staff from across Europe, plus regular webinars featuring guest experts and collaborative project leaders on different topics.

The offer includes a new long course on "Bridging Distance and In-School Learning: Blended Learning in Practice," launched at the end of March 2021.[95]

In 2022, the two platforms – eTwinning and School Education Gateway – will be integrated into a single European online platform offering a vast array of resources, tools and events to support professional, school and system development.

European Toolkit for Schools

The online European Toolkit for Schools[96] offers concrete ideas for improving collaboration within, between and beyond schools with a view to enabling all children and young people to

[94] See the eTwinning platform, available in different languages https://www.etwinning.net/en/pub/index.htm
[95] https://www.schooleducationgateway.eu/en/pub/teacher_academy/catalogue/detail.cfm?id=177634

succeed in school. School leaders, teachers, parents and other people involved in different aspects of school life can find helpful information, examples of measures and resource material to inspire their efforts in providing inclusive school education.

The Toolkit features a **self-assessment questionnaire**[97] to help schools evaluate their current capacity and identify areas for improvement and contains a variety of resources, ranging from research studies, project reports, to specific examples of school practices, describing how each measure was successfully implemented. It has a particular focus on measures to prevent Early School Leaving, which can have a broader application to improving the school climate and community.

SELFIE – self-evaluation tool for schools supporting a whole-school approach to technology use, digital competence, and blended learning

SELFIE (Self-reflection on Effective Learning by Fostering the use of Innovative Educational Technologies)[98] is a tool designed to help schools embed digital technologies into teaching, learning and student assessment. It can highlight what is working well, where improvement is needed and what the priorities should be. The tool was launched in 2018 and is currently available in more than 30 languages.

SELFIE gathers – anonymously – the views of students, teachers and school leaders on how technology is used in their school. This is done using short statements and questions and a simple 1-5 agreement scale. The statements cover areas such as leadership, infrastructure, teacher training and students' digital competence. Based on this input, the tool generates a report – a snapshot "selfie" - of a school's strengths and weaknesses in their use of digital technologies for teaching and learning. The report can help to start a conversation on technology use and develop an action plan for the school. SELFIE can then be used at a later stage to gauge progress and adapt the action plan.

As part of the new Digital Education Action Plan 2021-2027, more features are planned for the tool regarding online and blended learning.

In the September 2020 release of the tool, following consultation with experts and schools, a number of questions for students were added on home learning[99] for example:

- Do students have an appropriate space for study?

[96] https://www.schooleducationgateway.eu/en/pub/resources/toolkitsforschools.htm
[97] https://www.schooleducationgateway.eu/en/pub/resources/toolkitsforschools/self-assessment.htm
[98] https://ec.europa.eu/education/schools-go-digital_en
[99] SELFIE questions on remote learning https://ec.europa.eu/education/sites/education/files/document-library-docs/selfie-questions-remote-sept20_en.pdf

- Can they use the digital tools and apps needed for learning?
- What do they do if they need technical help?

Further questions were added on resilience and student autonomy:

- Are students learning to handle challenges and difficulties they face in remote learning?
- How do they manage their time and structure learning?

Any school using the tool can create up to 10 questions of their own. In the case of a blended learning strategy this could include additional questions on local community partnerships or student well-being.

A new tool, **SELFIE for Teachers**[100], aims to support educators' leadership competence as well their role as innovation and change agents in their school. Through their self-reflection on their digital skills, teachers can identify their strengths and gaps to further develop their digital competence, including blended learning approaches. Through, the tool proficiency levels, educators are prompted to a progression from awareness to exploration, integration to expertise and leadership to innovation. Educators' proficiency is also extending from teacher's individual capacity to the school collective capacity, contributing to the school collaborative learning culture. Moreover, educators' proficiency, is progressing from everyday blended learning practices to strategy practices on school level and beyond, enabling educators as change agents in their school community.

SELFIE for Work-Based Learning (WBL) was piloted between September and December 2020 involving around 35,000 participants from around 150 VET schools and 300 companies in 9 countries (Germany, France, Hungary, Poland, Romania, Georgia, Montenegro, Republic of Serbia, Turkey). This was undertaken by the Joint Research Centre in partnership with EfVET and the European Training Foundation and national coordinators in each country. Responses gathered so far show that many schools also intend to use SELFIE WBL once it is officially released. After further improvements, SELFIE WBL is planned to be available by mid-2021.

European Week of Sport and Healthy Lifestyle for All

The **European Week of Sport** was launched in 2015 to build awareness of how important an active lifestyle is for everyone.[101] The **European School Sports Day**[102] aims to: raise the profile of physical education (PE) and sport in schools; create fun and enjoyment through physical activity for young people; promote health and wellbeing for lifelong learning; encourage social inclusion and develop social competence amongst students; and connect schools across other

[100] https://digcompedu.jrc.es
[101] European Week of Sport - https://ec.europa.eu/sport/week_en
[102] European School Sports Day - https://www.essd.eu/

European countries. The event is supported by co-ordinators and a website where schools can access resources and connect with other schools.

Following the 2017 Tartu Call for a Healthy Lifestyle[103], the new initiative, **"HealthyLifestyle4All"** will be launched in 2021 and will focus on the promotion of sport, physical activity and healthy diets. The campaign will invite Member States, regional and local governments, and civil society representatives to work together.

4.4 Monitoring and evaluation of developments in blended learning

The Recommendation proposes to support Member States in monitoring the development of blended learning in the future. This is important to ensuring the legacy of the Recommendation and supporting action at local, national and European level.

There are tools available that could help in this regard:

Countries and systems may share findings from their own quality assurance mechanisms and complementary research via European **peer learning and peer counselling**, supported as part of the new Strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030).[104] The Council Resolution defines that "the strategic framework should draw on peer learning, peer counselling and the exchange of good practice, with particular focus on the dissemination and clear visibility of outcomes, as well as national impact." Furthermore, it describes that "European cooperation in the aforementioned priority areas should be carried out by such means as peer learning and peer counselling activities, conferences and seminars, workshops, high level fora or expert groups, panels, studies and analyses, web-based cooperation and, where appropriate, with the involvement of relevant stakeholders."

The European Commission's **Education and Training Monitor**[105] gathers a wide range of evidence to indicate the evolution of national education and training systems across the European Union. The report measures countries' progress towards agreed targets and European cooperation in education and training. It also provides insights into measures taken to address education-related issues as part of the European Semester process.[106] The Monitor offers suggestions for policy reforms that can help to make national education and training systems

[103] Tartu Call for a Healthy Lifestyle - https://ec.europa.eu/commission/presscorner/detail/en/IP_19_3028
[104] 2021/C 66/01 – legal text available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021G0226%2801%29
[105] https://ec.europa.eu/education/policy/strategic-framework/et-monitor_en
[106] The European Semester provides a framework for the coordination of economic policies across the European Union. It allows EU countries to discuss their economic and budget plans and monitor progress at specific times throughout the year. https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester_en

more responsive to societal and labour market needs. Furthermore, the report helps to identify where EU funding for education, training and skills should be targeted through the EU's next long-term budget, the Multiannual Financial Framework. The Monitor comprises a cross-country comparison and 27 in-depth country reports.

As part of the Digital Education Action Plan 2021-2027, a new **European Digital Education Hub** is proposed, in order to link national and regional digital education initiatives and actors; and support cross-sector collaboration and new models for exchange of digital learning content, addressing issues such as common standards, interoperability, accessibility and quality-assurance. This may also be a useful vehicle for the monitoring and evaluation of specific digital elements of blended learning.[107]

4.5 European funding for developing blended learning in primary and secondary education

Erasmus+[108] is the EU's programme to support education, training, youth and sport. It has a budget of €26.526 billion, compared with €14.9 billion for 2014-2020. This will be complemented by about €2.2 billion from the EU's external instruments. It will provide opportunities for millions of participants to study, train, gain experience, and volunteer abroad. In addition to offering grants, Erasmus+ also supports teaching, research, networking and policy debate on EU topics.

In 2018 the Commission proposed an ambitious research and innovation programme - **Horizon Europe**[109] - to succeed Horizon 2020. It has a budget of €95.5 billion to tackle climate change and help to achieve the UN's Sustainable Development Goals, and to boost the EU's competitiveness and growth. The programme facilitates collaboration and strengthens the impact of research and innovation in developing, supporting and implementing EU policies while tackling global challenges. It supports the creation and better dispersing of excellent knowledge and technologies.

The **Recovery and Resilience Facility**[110] will make €672.5 billion in loans and grants available to support reforms and investments undertaken by Member States. The aim is to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. Member States will prepare recovery and resilience plans that

[107] Further information will be available at https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en
[108] https://ec.europa.eu/programmes/erasmus-plus/node_en
[109] https://ec.europa.eu/info/horizon-europe_en
[110] https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

set out a coherent package of reforms and public investment projects. To benefit from the support of the Facility, these reforms and investments should be implemented by 2026.

The **European Social Fund** (ESF)[111] is Europe's main instrument (EUR 98 billion in current prices, complemented by EUR 0.54 billion to be directly managed by the Commission) for supporting jobs, helping people get better jobs and ensuring fairer job opportunities for all EU citizens. It works by investing in Europe's human capital – its workers, its young people and all those seeking a job. There is a great variety in the nature, size and aims of ESF projects, and they address a wide variety of target groups. There are projects aimed at education systems, teachers and schoolchildren; at young and older job-seekers; and at potential entrepreneurs from all backgrounds. People are the focus of the ESF.

The **European Regional Development Fund** (ERDF)[112] invests in education infrastructure and equipment and creates incentives for educational reforms in the Member States. Nearly EUR 7 billion of ERDF resources have been invested in education, training and lifelong learning in the 2014-2020 programming period. This includes mainly infrastructure support, for example for early childhood education and care, primary and general secondary education, and vocational and adult education, but also e-learning equipment. This type of support will continue in the 2021-2027 period, with an ERDF specific objective aiming at improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and on-line education and training. In this context, ERDF could support, for example, school and out-of-school infrastructure and/or equipment to build inclusive and quality education and training, including through the provision of accessible remote learning opportunities. It could also be used for providing conditions for digital education, including access to internet, purchase of digital equipment and e-learning applications and platforms for schools, with a particular attention to marginalized students, including those living in rural and remote areas including the outermost regions and island communities.

The **Technical Support Instrument** (TSI)[113] is the EU programme (€864 million for the period 2021-2027) on the basis of which the Commission provides tailor-made technical expertise to EU Member States to design and implement reforms. The support is demand driven and does not require co-financing from Member States. It is an important pillar of the EU's initiative to help Member States recover from the COVID-19 crisis in a way that embraces the digital transformation. The Commission stands ready to provide Member States expert support for reforms in digital education, reskilling and upskilling educators, including through cross-country technical support projects, whenever Member States deem it suitable. The TSI enables Member States to enhance the structural transformation of their education systems so that education systems adapt and thrive The Commission is already supporting a number of Member States to enhance the digitalisation of their education system, including through national curriculum

[111] https://ec.europa.eu/esf/home.jsp?langId=en
[112] https://ec.europa.eu/regional_policy/index_en.cfm
[113] https://ec.europa.eu/info/funding-tenders/funding-opportunities/funding-programmes/overview-funding-programmes/technical-support-instrument-tsi_en

reforms, educational media strategies, the digital transition of schools and reforms of teacher education.

5. A framework for Blended Learning

5.A framework for Blended Learning

This framework provides a definition of blended learning that encompasses a broad understanding of learning environments and tools, appropriate to a variety of school education context and learner circumstances.

This framework also outlines a set of challenges and proposals for policy measures to ensure effective blended learning for high quality and inclusive primary and secondary education.

Based on the examples and evidence discussed in the other sections of this document, it provides policy makers with guidance and examples of good practice on 10 specific areas in order to: support competence and willing practitioners; ensure access to and a competent use of appropriate learning environments and tools; support all schools within the education ecosystem, including closely-related sectors.

Definition of blended learning

Blended learning happens when an educator or learner takes more than one approach to the learning:

- Blending school site and distance[114] learning environments;
- Blending different tools for learning that can be digital (including online) and non-digital[115].

Using their professional judgement, teachers and schools will select and facilitate the use of these in a variety of combinations as part of engaging and effective learning tasks that support broad competence development, as appropriate to the age, capacity and circumstances of the learners and intended learning outcomes.

In a blended learning approach, all environments that are an effective shared space for learning are given equal importance and consideration, in order to make the most of the opportunity for interaction between pupils, between staff, and between pupils and staff.

[114] The **distance learning environment** may include: the home; public libraries, museums and galleries; farms, factories, and other places of work; parks, forests and waterways; hospitals (in the case of sick or injured children), or sports centres and film studios (in the case of children on professional contracts).

[115] **Online learning** is defined as that which takes place with the use of digital technology to connect different devices and to facilitate an interaction between the learner and: other learners; learning programmes; and other content as sources of information. **Digital learning tools** do not always need to be connected to the Internet and can include: smart boards and projectors for collaboration in classrooms; mobile devices and laptops with applications for designing, exploring and sharing work; television and radio for following recorded programmes; and Augmented Reality and Virtual Reality tools and application for enhanced interactivity.

Other tools include: scientific equipment, sports equipment, craft tools, realia (objects found and used in everyday life), published texts, and writing and visual arts tools.

Blended learning strongly relies on the capacity of teachers and learners to be able to use and adapt the environments and tools as appropriate to the learning task and desired learning goal. Specifically, teachers and learners need to be able to:

- Work confidently and competently with peers and independently when necessary;
- Manage the learning process for oneself or on behalf of others;
- Be familiar with, and safe within, a range of environments and tools;
- Communicate ideas and ask for assistance when needed, either in person or via communication tools;
- Trust and collaborate with others in the wider school community, for example cultural professionals or work-place mentors;
- Carry a sense of learning and development across a number of different occasions, recognising how one has developed and where to progress next.

A blended learning approach can be applied at the micro level – designed as a learning process with a group of learners - , the meso level - a strategic approach by a school to facilitate blending learning -, and the macro level – embedded as a system-wide approach.

Policy measures

1) **Equal right of all learners:**

Systems need to support the right of all leaners to quality and inclusive school education, and ensure opportunities for all learners to develop a broad range of key competences, irrespective of their circumstances and according to their learning needs.

This ongoing challenge of inclusion was heightened by pandemic restrictions that prevented access to a variety of environments and tools and narrowed the scope of school education for all learners.

Whilst blended learning has many benefits, there is a challenge to provide sufficient targeted support to learners who may still be disadvantaged whilst learning in different environments and with different tools.

Good practice:

a) **Promoting and reinforcing the blending of school site and distance learning environments in order to create more flexibility and appropriate conditions for learning.**

b) **Supporting the development and embedding of different tools for learning, including digital tools where appropriate, in order to provide opportunities for individual and collaborative investigation and expression and to support creative learning across different environments, depending on the age, capacity, and specific learning needs of the pupils.**

c) **Ensuring targeted support to young learners facing disadvantages, or having special educational needs, to fulfil their potential within a blended learning approach, including: language learning; additional individual support in whole class situations; emotional support; assistive technology; access to learning tools and content; peer coaching; transport costs and costs of accessing different learning environments. Ensure that teacher professional development fosters a better and more widespread understanding of these different forms of support.**

2) **System-wide approach:**

Blended learning requires a system-wide approach to be inclusive, effective and engaging for all learners, and to keep pace with economic and social changes. This is a problem for education systems as they can be isolated from other sectors.

Developing an effective blended learning approach for a whole education system requires input from a range of stakeholders in order to generate useful feedback and ideas for future development or policy reform.

Different elements of the education system can also be isolated from each other, whereas they must work in synergy, with no one element left unsupported. This became obvious during the pandemic by the gaps that appeared and grew, and by the increased stress suffered by teachers and school leaders, pupils, and their families. Not restricted to the pandemic, change without dialogue and engagement has faced resistance and lack of implementation.

Good practice:

a) **Supporting collaboration on educational challenges between a wide range of cross-sectoral stakeholders, including teachers and school leaders, and engage them in system development processes regarding blended learning.**

b) **Encouraging schools to collaborate more closely with local community stakeholders in order to ensure the continuity and improvement of learning in school site and distance learning environments and with different tools.**

c) **Recognising and valuing school leaders and teachers as the key "change makers", and providing them with enhanced support to develop their practice in a blended learning approach and address local-level challenges in the most appropriate way.**

d) **Acknowledging the expertise of some schools and organisations with extensive experience in blended learning, including schools in rural and remote areas, and those supporting learning full-time in the home or other alternative learning environments.**

e) **Supporting collaboration with the educational resources industry (including technology, publishing, and other curriculum equipment) and educational research.**

3) **Supporting educators:**

Educational staff need help to design for blended learning design as appropriate to their learning context. They need help to be competent in facilitating learning with a range of indoor and outdoor environments, tools and tasks.

One size does not fit all. Education staff need to be able to learn from others and then develop their own blended learning approach in their specific contexts. The development of innovative approaches should be guided by – and provide further - robust evidence of improving inclusion and broad competence development. Teachers can benefit from partnerships with external learning facilitators to mutually develop their practices.

Good practice:

a) **Providing access to centres of expertise, and to appropriate resources that guide pedagogical design.**

b) **Embedding blended learning design in statutory Initial Teacher Education and Continued Professional Development programmes.**

c) **Facilitating staff exchanges and peer learning, networks, collaboration projects, and communities of practice on blended learning to improve pedagogical practice.**

d) **Encouraging teacher participation in exploratory projects or scientific research as part of school and professional development, for example: testing the use of tasks in other learning environments and testing different ways of using of digital technology to support learning.**

4) **Collaboration:**

Blended learning depends greatly on the effective collaboration within schools and between schools and the wider community. In the pandemic, educational staff were cut off from other local stakeholders and need increased efforts to repair the gaps and collaborate better in the future.

Diverse environments may be particularly lacking in socio-economically deprived areas or due to geographical location. Teachers and learners are then placed at a disadvantage in competence development compared to other schools.

Blended learning can support those who are part of traveller communities; young carers; those with health issues or residing in hospitals and care centres; those engaged in high-performance training; and those in long periods of vocational training or paid work. The challenge is that intermediaries are often needed to liaise between schools and families/children.

Good practice in school education:

a) **Supporting teachers and school leaders to work effectively with local employers and work-place trainers, cultural practitioners, and social partners (including in health, welfare, youth, migration).**

b) **Improving parents' and families' understanding of learning environments, tools and tasks via system and/or the school communication and guidance.**

c) **Supporting effective partnerships for infrastructure and resources between different education providers, including from business, arts, cultural heritage, sport, nature, higher education, and research institutes.**

d) **Supporting school and system collaboration with private organisations or public agencies that provide or oversee school-level education for young people who cannot attend the school site on a full-time basis.**

5) **Access:**

Even before the pandemic, some schools, teachers and learners were reported to have limited access to different learning tools: digital devices including smart white boards and projectors; equipment for practical science investigations; arts and crafts materials; musical instruments; sports equipment for different games; and simple electronics and construction tools.

Learners need a range of tools to develop a broad range of competences, including different modes of investigation and expression. They will have had limited access for over a year or may have had limited access their entire school career.

Good practice:

a) **Invest in a range of learning tools that enhances both theoretical and practical knowledge and understanding.**

b) **Provide guidance to schools and professionals as to how such tools can be used across the curriculum.**

6) **Well-being:**

School site closures increased the belief in the need of the school as a community for leaner mental health and emotional well-being. Reduced contact and exchange had a negative impact on the mental health and well-being of learners, teachers and families. Furthermore, "learning together" and a "sense of belonging" is an important experience that supports competence development and was reduced during the pandemic. The challenge is to rediscover and further

promote social learning. Stakeholders call for supporting a school culture that promotes emotional well-being and a healthy lifestyle.

The pandemic revealed that many learners were unprepared to manage their own learning. On the other hand, there were reports that teachers and pupils discovered and benefitted from new ways to learn, independently and collaboratively, and the challenge is to build on this positive change and address any low levels of capacity.

An effective blended learning approach requires both collaborative and independent learning, adapted to the age and capacity of students. Blended learning also further develops these capacities through experience.

Good practice:

a) **Encouraging schools to provide adequate opportunities for social learning in different environments and with different tools in order to enhance learner well-being.**

b) **Including student well-being in school objectives, monitoring and quality assurance processes; developing guidance material on supporting mental health and wellbeing at schools;**

c) **Assigning dedicated staff to supporting student and teacher well-being and facilitating access to qualified mental-health professionals.**

d) **Providing support to learners to develop their Personal, Social and Learning to Learn competence (one of the eight Key Competences for Lifelong Learning) which can enhance the ability of pupils of different ages to learn in different contexts.**

e) **Ensuring that all schools and learners have access to well-functioning indoor and outdoor spaces and equipment for physical education (motor skills tasks, games, sports, dance) to be blended with other learning tasks.**

7) **Digital technology and content:**

The pandemic made it clear that learners, educational staff, families and other learning providers need to know better how to use digital technology and digital content where appropriate as part of blended learning. The pandemic also highlighted that online learning is severely hampered where there is a lack of Internet connectivity.

Initial VET learners greatly suffered from a lack of access and continuity during the pandemic, which could have been partially avoided if the use of digital tools had been more widespread. It is not just Initial VET learners that would benefit from software such as AR and VR to simulate real-world scenarios, but all school pupils.

Good practice:

a) **Systems developing a comprehensive national digital learning strategy for school education, which includes supporting the development of teacher and learner digital competence.**

b) **Complementing the strategy by the use of self-assessment tools, such as the SELFIE tools for schools and teachers or participation in EU initiatives such as Code Week and the Digital Education Hackathon.**

c) **Including guidance or investment in effective Learning Management Systems that support communication and organisation during the learning process in such a national strategy.**

d) **Ensuring equitable access to digital tools and software that are safe and effective for online learning, and that provide appropriate data protection.**

e) **Investing in high-speed internet connectivity of school site and distance learning environments.**

f) **Investing in digital tools, notably in affordable Augmented and Virtual Reality software and hardware, that can simulate real-world scenarios, and other tools such as ePortfolios.**

8) **Curricula and assessment:**

Even if they want to innovate their pedagogical practice, staff are constrained by rigid curricula demands that can limit the scope of learning design and stifle innovation and broad competence development.

Pedagogical change is severely hindered by narrow approaches to assessment. During the pandemic education site closures, systems and institutions were forced to consider and develop different assessment that is more appropriate to blended but were still constrained by a lack of alternatives and by a favouring of high stakes written examinations. Even before the pandemic, education stakeholders have been seeking better ways to capture the multiple dimensions of learner progression, in both school site and distance learning settings.

Good practice:

a) **Providing guidance for educational staff on what is possible within the confines of the curriculum.**

b) **Allowing for more flexibility with autonomy within school and national curricula.**

c) **Developing new approaches to assessment and final examinations with suitable tools for formative and summative assessment, that are appropriate for different levels of school education and equally valid for school site and distance learning settings.**

d) **Making better use of digital technology for different types of assessment.**

9) **School strategy and leadership:**

Reports from the pandemic highlighted that schools could better adapt when they could design a clear strategy and rapidly reorganise their resources and routines as appropriate to their own staff and learners.

Change at school level requires effective leadership but not all school heads and leaders have the necessary competences, particularly for embedding a blended learning approach.

School heads and leaders have suffered equally with "emergency" approaches that are not necessarily of high quality or sustainable.

Good practice:

a) **Ensuring a sufficient level of autonomy for school-level decision-making (by school boards, heads, leaders) regarding the timing, logistics and resources for learning.**

b) **Supporting schools and associated education providers to reflect on a blended learning approach within their own strategic planning, in a way that is coherent with system development. This may include the use of self-assessment tools to guide school and staff development.**

c) **Supporting school heads and school leaders in managing organisational change to facilitate blended learning, with dedicated professional development and guidance for their roles.**

10) **Monitoring:**

Supporting positive change across the system also requires a regular generation of data that can contribute to the ongoing monitoring of blended learning practices and new developments across the system.

The great concern in the pandemic was an inability to generate data and robust analyses that could inform decision-making. School evaluations and inspectorates were not set up to appropriately support positive change, although a small number of systems are known to have addressed this.

Good practice:

a) **Monitoring and reporting on experiences and progress in developing a blended learning approach in primary and secondary education.**

b) **Combining system-wide collaboration with the timely generation of a range of data and feedback that creates "real-time" evidence of recent developments and current needs.**

c) **Considering including a focus on the blend of learning environments and tools to annual school evaluation (by the school or inspectors). Such internal and/or external reviews and school development planning should also consider the school climate and culture from both a school site and distance perspective: sense of community and identity, student and teacher well-being, working conditions, and relationships with stakeholders.**

d) **Considering including external resource providers in school evaluation.**

e) **Considering complementary approaches to monitoring, such as a call for research proposals.**

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