

# Opening schools: Embracing learner's and society's mutual imprint

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## QUEST

# Opening schools: Embracing learner's and society's mutual imprint

#### **Executive Summary**

In a fast-changing society, learners need more than knowledge to fulfil their potential and concretely engage in shaping better futures. However, while students seem to have gained a strong awareness of global issues, they remain reluctant to take action or perceive themselves as responsible actors in finding sustainable solutions. The 2018 PISA survey, for instance, outlined that only about 58% of interviewed students strongly agreed with the idea that they could do something about world issues. Generally, schools are not yet suited to accompany students in being satisfied about their life<sup>2</sup> or later in their jobs<sup>3</sup>, even more so when taking into account gender and broader socio-economic disparities.

"One of the biggest barriers to educational innovation is not the lack of great

teachers or even the access to proper tools, it is the isolationist structure and dispersed nature of many schools and school authorities<sup>4</sup>" states the Open Schools for Open Societies project. Indeed, if schools remain closed upon themselves, how can we expect children to develop a strong sense of attachment and initiative in their wider communities?

This poses important reflections on the place schools can take in promoting children and youth's active engagement in their communities, and contribution answering in challenges more broadly. First, because, as reminded during the 2023 Sustainable Development Goals Summit, without children and youth's meaningful participation and needs' consideration, global sustainable goals' implementation will remain incomplete<sup>5</sup>. Indeed, as John relation Dowey pointed out in democracy. without education accompanying learners in understanding

ation-at-the-un/.

<sup>&</sup>lt;sup>1</sup> OECD (2021), 21st-Century Readers: Developing Literacy Skills in a Digital World, PISA, OECD Publishing, Paris,

https://doi.org/10.1787/a83d84cb-en.

<sup>&</sup>lt;sup>2</sup> OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, <a href="https://doi.org/10.1787/acd78851-en">https://doi.org/10.1787/acd78851-en</a>.

<sup>&</sup>lt;sup>3</sup> Gallup, Inc. (2023) State of the Global Workplace Report - Gallup, Gallup.com. https://www.gallup.com/workplace/349484/stat e-of-the-global-workplace.aspx?thank-you-rep ort-form=1.

<sup>&</sup>lt;sup>4</sup> Open Schools for Open Societies Project (2023). *Open school model* https://www.openschools.eu/open-schoolmodel/.

<sup>&</sup>lt;sup>5</sup> "Nothing about us without us": Youth demanding meaningful participation at the UN – Quality Education for Sustainable Social Transformation (2023). https://quest-eu.org/policy/nothing-about-us-without-us-youth-demanding-meaningful-particip

their rights and their responsibility towards others, sustainable societies cannot develop nor endure.6 At the individual level, low levels of social have additionally engagement physical correlated with inactivity, prolonged sitting time, unhealthy sleep duration. perceived depression, poor self-rated health and low quality of life.<sup>7</sup> Therefore schools' openness to the world does not solely matter in terms of collective growth, but also favours learners' well-being and achievements in the long-run.

In 2001, the OECD imagined 6 future scenarios for education by 20208, updated twenty years later into 4 scenarios<sup>9</sup>. In both instances, we still seem far from the vision of schools as "core social centres" and "learning hubs", where schools, sharing extensive responsibilities and knowledge transmission capacities with a diversity of community groups, guarantee quality education by answering to community challenges and promoting learners as agents of change in their communities. ln 2015. the EU Commission's expert group on science education encouraged for the first time

the adoption of an open-schooling approach to education. However, education systems in the EU have not yet embedded the open-schooling approach in their learning cultures and systems.

Open-schooling refers as much to schools' integration of society as society entering schools. Schools can notably embrace open-schooling through the promotion of experiential learning and the incorporation of learner-centred real-life experiences into pedagogical frameworks. This should be done in cooperation with external stakeholders working collaboratively for the well-being of society. In this position paper, we will adopt the following definition of open-schooling:

Open Schooling is an open, curious, welcoming, democratic environment which supports the development of innovative and creative projects and educational activities. It is an environment which will facilitate the process for envisioning, managing and monitoring change in school settings by providing a simple and flexible structure to follow, so school leaders and teachers can innovate in a way that's appropriate for school local needs.

QUEST believes open-schooling should be promoted, at multiple levels, through 5 key priorities:

- 1. Forging community belonging
- 2. Education for intercultural dialogue
- 3. Opening schools to nature
- 4. Opening learning to transversal skills
- 5. Adopting self-directed learning

https://doi.org/10.1787/32b6cdcf-en.

<sup>&</sup>lt;sup>6</sup> QUEST (2023) Research Report on Democratic Education in Schools. Forthcoming.

<sup>&</sup>lt;sup>7</sup> Luo, M. et al. (2020) 'Social engagement pattern, health behaviours and subjective well-being of older adults: an international perspective using WHO-SAGE survey data,' BMC Public Health, 20(1).

https://doi.org/10.1186/s12889-019-7841-7.

8 OECD (2001), What Schools for the Future?, Schooling for Tomorrow, OECD Publishing, Paris.

https://dx.doi.org/10.1787/9789264195004-en.

<sup>&</sup>lt;sup>9</sup> Burns, T. and Fuster, M. (2020b) 'Back to the future of education: Four OECD scenarios for schooling,' in *Educational research and innovation*.

#### Community belonging: a school objective

Belonging is a human need, and even a human right in some countries<sup>10</sup>. It relates to a feeling of connectedness and importance to others, to the maintenance "relationships based trust. support"11. acceptance. love and Belonging is essential for individuals' well being, as it ranks third on Maslow's hierarchy of needs<sup>12</sup>. In 2022, the Council recommendation on School Pathways to success<sup>13</sup>. has indeed recognised well-being as a key component for school and life success, while simultaneously acknowledging the reduced sense of belonging perceived in schools by learners in the EU. Therefore, we believe a stronger attention and investment should be granted to holistically guarantee learners' sense of belonging at school and beyond, throughout the EU education landscape.

bonding with their parents, in shaping their

later connection capacity to others<sup>14</sup>, self-esteem long-term and overall well-being<sup>15</sup>. More broadly, a sense of belonging developed with adults outside of the parental sphere has been linked to children's promoting resilience adversity16, which is essential for their mental, emotional and physical well-being in a context of increasingly complex global challenges.

At the school level, belonging fosters achievement. adjustment. aspirations and retention in the school system. 17 Students experiencing greater senses of belonging have, for instance, reported greater reading and education outcomes in the long-term, as well as higher cooperation levels with their peers. 18 On the other hand, when lacking, children tend to grow with a feeling of loss, and rejection, later facing difficulties

https://doi.org/10.1787/acd78851-en.

https://doi.org/10.1037/h0054346.

One's own feeling of belonging to a community affects its development in the long-term. For instance, attachment theory specifies the importance of children's

<sup>&</sup>lt;sup>14</sup> Catalano, R.F. et al. (2004) 'The Importance of Bonding to School for Healthy Development: Findings from the Social Development Research Group,' Journal of School Health, 74(7), pp. 252-261. https://doi.org/10.1111/j.1746-1561.2004.tb082 81.x.

<sup>&</sup>lt;sup>15</sup> Conley, C.S. et al. (2014b) 'Negotiating the transition to college,' Emerging Adulthood, 2(3), pp. 195-210.

https://doi.org/10.1177/2167696814521808. <sup>16</sup> Catalano, R.F. et al. (2004) 'The Importance of Bonding to School for Healthy Development: Findings from the Social Development Research Group,' Journal of School Health, 74(7), pp. 252-261. https://doi.org/10.1111/j.1746-1561.2004.tb082 81.x.

<sup>&</sup>lt;sup>17</sup> Strayhorn, T.L. (2012) College Students' Sense of belonging: a key to educational success for all students. http://ci.nii.ac.jp/ncid/BB14101787. <sup>18</sup> OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris,

<sup>&</sup>lt;sup>10</sup> The right to belong (1997). https://humanrights.gov.au/about/news/speech es/right-belong.

<sup>&</sup>lt;sup>11</sup> OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en. <sup>12</sup> Maslow, A.H. (1943) 'A theory of human

motivation.,' Psychological Review, 50(4), pp. 370-396.

<sup>&</sup>lt;sup>13</sup> Council of the EU (2022). Council Recommendation on Pathways to School Success.

in developing healthy relationships.<sup>19</sup> Within the school context, this has been correlated with a decreased engagement and interest in ordinary life activities, dissatisfaction, depression, overall feelings of marginalisation, and even suicide.<sup>20</sup>

"School cultures that foster trust and draw the strenaths of communities contribute to the development of young people's sense of agency and belonging."21 Therefore belonging should not only be promoted within the education system, but taken as a part of the key rationale behind schools' greater role as "agents of community well-being". In fact, both educators and learners can increase their levels own happiness community-serving projects<sup>22</sup>. Additionally, open schools, embracing creativity and

risk-taking as means towards learning<sup>23</sup> within and for collective gains can foster the entrepreneurship attitudes needed from young generations to carry out a sustainable digital and inclusive transition.

QUEST believes that schools should contribute to learners' sense of belonging and experience within diverse human societies. Being exposed to new ideas, subjects, socioeconomic, cultural and historical realities, can indeed boost both educators and student's critical thinking. empathy and understanding of the world as a complex interdependent system, made of a variety of individuals with their own understanding of the world. Therefore. following UNESCO's considerations on rethinking education, the EU should reaffirm "a humanistic approach to education", where learning is both lifelong and life-wide.<sup>24</sup>

Project-based learning answering to concrete social needs is an opportunity for them to develop technical skills, including green and digital competences, as well as soft skills, such as curiosity, social engagement and cooperation. Open school systems, promoting societal awareness through self-directed and experiential learning can thus increase learners' opportunities to develop future work ambitions at school as well as their inner drive for social entrepreneurship.

This societal openness should translate transversally throughout the education

https://doi.org/10.1002/jclp.2007.

https://doi.org/10.1016/j.jesp.2018.02.014.

<sup>&</sup>lt;sup>19</sup> Frey, L.C. *et al.* (2008) 'Achieving permanency for youth in foster care: assessing and strengthening emotional security,' *Child & Family Social Work*, 13(2), pp. 218–226. https://doi.org/10.1111/j.1365-2206.2007.0053

<sup>&</sup>lt;sup>20</sup> Hagerty, B.M., Williams, R.C. and Oe, H. (2002) 'Childhood antecedents of adult sense of belonging,' *Journal of Clinical Psychology*, 58(7), pp. 793–801.

<sup>&</sup>lt;sup>21</sup> Riley, K. (2019) 'Agency and belonging: What transformative actions can schools take to help create a sense of place and belonging?,' *Educational and Child Psychology*, 36(4), pp. 91–104. https://doi.org/10.53841/bpsecp.2019.36.4.91. <sup>22</sup> Curry, O.S. *et al.* (2018) 'Happy to help? A systematic review and meta-analysis of the effects of performing acts of kindness on the well-being of the actor,' *Journal of Experimental Social Psychology*, 76, pp. 320–329.

European Commission, Directorate-General for Enterprise and Industry, (2014)
 Entrepreneurship education: a guide for educators. Publications Office.
 https://data.europa.eu/doi/10.2769/51003
 UNESCO (2015). 'Rethinking education: towards a global common good?' in UNESCO eBooks. https://doi.org/10.54675/mdzl5552.

system - as a means towards reaching learning objectives rather than extra-curricular add-on. Strategies should then be put into place to integrate society within schools' organisational cultures, in cooperation with other social units - such associations, museums, entrepreneurs, municipalities, regions... At multiple levels, public institutions such as governments, regions and municipalities should also establish dedicated strategies to include education systems, through both formal and informal learning, to answer social problems collectively. In that regard, additional funding and training should be granted to schools at the national and EU levels, in order for them to mobilise expert consultants when needed propose increasingly ambitious real-life projects.

Case example - The Municipality of Rome<sup>25</sup>

The municipality of Rome has initiated discussions on how to promote schools as "places of culture, art, support, community building". The initiative, more broadly, seeks to define how schools, municipalities, city halls, parents associations and students can collaborate to answer social realities. In that light, schools are being rethought as spaces for the creation of equality and fight against educational poverty.

The Roman Open and Participatory Schools Network, regrouping over 40 open schools in the municipality, already gathers good practices of open schooling. The writing of news journals by students, the welcoming of migrant children during the school year or the

disposal of school laboratories to the broader community are concrete examples of how to link the scientific and broader societal spheres with schools, and most importantly learners.

Yet, despite the EU's recommendation to spread open-schooling<sup>26</sup>, in other words letting the school entering society and society entering the school<sup>27</sup> by integrating real-life projects to pedagogical frameworks, conventional schools remain largely closed. Indeed real-life projects remain sporadic, and concrete strategies on how to promote schools as societal agents are rare.

This can be explained by the pressure to fulfil yearly learning objectives, leading schools to consider outdoor, sustainable and entrepreneurial projects extracurricular activities or as relying on extra-european funding. This decision often falls on the educator, already facing professional challenges such as work overload, lack of training and lack of curriculum freedom. Academic excellence, as it retains the priority in many education systems, leaves less resources allocated to ensure the long-term well-being of children, to which belonging contributes.

<sup>&</sup>lt;sup>25</sup> Una scuola aperta grande come Roma - Comune-info (2022).

https://comune-info.net/scuole-aperte/una-scuola-aperta-grande-come-roma/.

<sup>&</sup>lt;sup>26</sup> European Commission, Directorate-General for Research and Innovation, (2015) *Science* education for responsible citizenship: report to the European Commission of the expert group on science education. Publications Office. https://data.europa.eu/doi/10.2777/12626

<sup>&</sup>lt;sup>27</sup> Kreivinienė,B and Paone, M. New approach towards soft skills acquisition in children: building skills through training therapy animals. Bridge Journal. Forthcoming

## Education for Intercultural dialogue

In 2021, UNESCO envisaged a new social contract for education. One in which "pedagogy should be organised around principles of cooperation and solidarity, building the capacities of students to work together to transform the world."28 As a space for learning and personal growth, schools should indeed ensure the construction of strong feelings of belonging as well as values of cooperation between learners and their environment. Belonging does not only shape secure attachment models for children to rely on, it also anchors them in a multicultural reality, allowing them to find their place and identity within changing spaces. Additionally, the nature of knowledge and learning themselves is to be inherently understood in relation to others.<sup>29</sup>.

On the long-term, intercultural dialogue "fosters constructive engagement across perceived cultural divides, reduces intolerance, prejudice and stereotyping, enhances the cohesion of democratic societies and helps to resolve conflicts"<sup>30</sup>. However intercultural dialogue can be

impeded by historic adversarial and competitive perceptions of the other, feelings of identity as defined in contradiction to the other and fears of the other. This exact reason justifies the importance of embedding a culture of intercultural dialogue through schools, while children's perceptions, abilities and sensory systems are developing<sup>31</sup>.

Schools can and should be the space for intercultural dialogue, within and outside the classroom. Through the identification. the design and the implementation of projects within their community, children can encounter socio-economic realities acquainted with cultural and get differences in a safe and autonomous way. Doing so, they can deepen their understanding of the world, of themselves and others, their critical thinking, overall technical knowledge and adopt the values needed to put into practise a culture of democracy. To name a few : empathy, openness, civic-mindedness, tolerance, responsibility and self-efficacy.

#### Case example BUSTA Project<sup>32</sup>

Within the BUSTA Project, students from Lithuania, Bulgaria and Belgium, discovered through animal-assisted therapy the needs and life contexts of persons with disabilities. Developing their own compassion and communication skills, they learned what special needs meant in terms of accessibility to ordinary life activities and

<sup>UNESCO (2021) Reimagining our futures together: a new social contract for education. https://doi.org/10.54675/asrb4722.
Greveson, G. and Spencer, J. (2005)
Self-directed learning - the importance of concepts and contexts,</sup> *Medical Education*, 39(4), pp. 348–349. https://doi.org/10.1111/j.1365-2929.2005.02115.x.

<sup>&</sup>lt;sup>30</sup> Bodo, S. and Milano, C. (2008) 'Council of Europe, White paper on intercultural dialogue: living together as equals in dignity ERICarts, Sharing diversity: national approaches to intercultural dialogue in Europe,' *Economia Della Cultura*, (3), pp. 460–461. https://doi.org/10.1446/27889.

<sup>&</sup>lt;sup>31</sup> ZaporozhetS, A.V. (2002) 'The development of sensations and perceptions in early and preschool childhood,' *Journal of Russian and East European Psychology*, 40(3), pp. 22–34. https://doi.org/10.2753/rpo1061-0405400322. <sup>32</sup> BUSTA (Building Skills Through Training Therapy Animals) Project Impact Report (2023). https://easpd.eu/project-detail/busta/.

gained a strong appreciation for the abilities and strengths of persons with disabilities. Co-designing creative solutions, with an exposure to digital tools, students also developed their curiosity and collaborative skills in multi linguistic and multicultural contexts.

However, a healthy intercultural dialogue is not always an easy outcome. Indeed, risks of misunderstanding miscommunication, of divergence from the main topic of discussion to larger doctrinal and ethical beliefs, of impeded interaction due to preconceived ideas or even of conflict creation are concrete be taken into account<sup>33</sup>. limits to Educators therefore need both training for themselves and for learners to enable trustful and safe spaces for inter-cultural dialogues.

QUEST recommends the set-up of real-life projects giving space for learners to evolve within intercultural dialogues, with individuals from diverse socio-cultural economic backgrounds. More than solely should be conversing, learners encouraged to understand their needs, reflect on them collectively and find, in partnership with them, innovative answers to their problems. To do so, schools must first have the time and funding needed to provide training for both learners and educators. Efforts should additionally be made from schools reaching partnerships with a multiplicity of public and social actors, associations and individuals promoting the rights of social groups.

#### Opening schools to nature

Open schooling does not only take root in societies but in human broader environmental contexts. It also means bringing the school back to natural spaces. In other words: allowing learners to explore, connect, observe, mimic and experience learning in various natural environments. To reach the strong climate and biodiversity objectives set by the EU through the European Green Deal<sup>34</sup> and the EU Biodiversity Strategy for 2030<sup>35</sup>, we need to "step up efforts to promote learning for the green transition", as stated in the 2022 Council Recommendation on learning for the green transition and sustainable development<sup>36</sup>.

Yet, promoting a green and sustainable transition, first means embedding values of human interconnectedness and respect towards nature. In this regard, outdoor learning strengthens learners' emotional

https://data.europa.eu/doi/10.2775/373022

#### https://data.europa.eu/doi/10.2779/677548

https://data.europa.eu/doi/10.2766/02392

<sup>&</sup>lt;sup>33</sup> The risks of dialogue (2008). https://www.iemed.org/publication/the-risks-of-dialogue/.

<sup>&</sup>lt;sup>34</sup> European Commission, Directorate-General for Communication, (2021) *European green deal delivering on our targets*. Publications Office of the European Union.

<sup>&</sup>lt;sup>35</sup> European Commission, Directorate-General for Environment, (2021) *EU biodiversity* strategy for 2030: bringing nature back into our lives. Publications Office of the European Union.

<sup>&</sup>lt;sup>36</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, (2022) Learning for the green transition and sustainable development: staff working document accompanying the proposal for a Council recommendation on learning for environmental sustainability. Publications Office of the European Union.

and physical health<sup>37</sup>, prosocial behaviour<sup>38</sup>, awareness and connection<sup>39</sup> to nature. A weekly exposure of at least 2 hours has indeed been correlated with increased probabilities of individuals reporting good health and life satisfaction.<sup>40</sup>

In outdoor settings, as playfulness with flexible and unstructured materials stimulate their creativity, improvisation problem-solving skills<sup>41</sup>, children gather experiential knowledge about the world. A knowledge they will later build on innovative tools when forging and technologies, inspired by nature's mechanics, to answer real-life challenges. process. called biomimicry, is indispensable to guarantee a sustainable digital transition, where new technologies are collectively created with respect to natural ecosystems.42

<sup>37</sup> White, M.P. *et al.* (2019) 'Spending at least 120 minutes a week in nature is associated with good health and wellbeing,' *Scientific Reports*, 9(1).

https://doi.org/10.1038/s41598-019-44097-3. <sup>38</sup> Bølling, M. *et al.* (2019) 'Association of Education Outside the Classroom and Pupils' Psychosocial Well-Being: Results from a school year implementation,' *Journal of School Health*, 89(3), pp. 210–218.

https://doi.org/10.1111/josh.12730.

<sup>39</sup> The DEN Project Research Report on Democratic Education in Nature (2023). http://denproject.eu/wp-content/uploads/2023/06/DEN-RESEARCH-REPORT.pdf

White, M.P. *et al.* (2019) 'Spending at least 120 minutes a week in nature is associated with good health and wellbeing,' *Scientific Reports*, 9(1).

https://doi.org/10.1038/s41598-019-44097-3.

<sup>41</sup> Guerra, M. (2021) Creativity and outdoor education in primary schools: a review of the literature.

http://www.reladei.com/index.php/reladei/article/view/362.

<sup>42</sup> The OUTSIDE - Open Communities for Sustainable Development - Project (2022)

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*Training Toolkit for Teachers*. https://www.outsideproject.eu/.

#### Case example - L'Arbre des Possibles<sup>43</sup>

L'Arbre des Possibles is a Belgian Democratic School where, twice a week, and independently of the weather, children go explore and learn in the next door forest. In a safe and rich environment, grounded in multi-age and self-directed interactions, children can freely connect, observe and get inspired from nature's mechanics. With the guidance of trained educators, children can thus benefit from the physical, emotional and mental benefits of being in nature, while building a strong environmental awareness positioning themselves within a greater environmental context. This exposure also grants them the ability to find solutions from nature in their everyday

### Case example 2 - The GREEN FINGERS - Oasis For Children Project<sup>44</sup>

Outdoor activities can also transversally integrated within school ecosystems in urban contexts. The GREEN FINGERS - Oasis For Children Project, for instance, anchors children's reconnection to nature through the creation of garden schools, workshops festivals in collaboration with multi-country volunteers. Thus promoting intercultural dialogue and learning, the linguistic project accompanies learners in the adoption of technical gardening skills, school curriculum competences (biology, sciences, environmental awareness) as well soft skills (patience, perseverance, social & communication responsibility, self-initiative...). skills,

Nonetheless, schools' openness to natural processes remain majoritarily in the classroom, especially in urban contexts. A lack of training and confidence in educators' own outdoor schooling capacities is part of the explanation, with concerns relating to children's safety regularly evoked.<sup>45</sup>

QUEST encourages the transversal and systematic use of outdoor learning, allowing for free and self-directed learning diverse environmental backgrounds. Schools, and other education organisations, should formulate their own strategy as to how to involve outdoor learning as a way to promote children's connection to nature and transversal skills learning regularly throughout their curricula. This means first and foremost enabling schools to define their curricula more freely at national levels, in order for them to allocate time for real-life projects and outdoor learning. Dedicated funding, from national and european sources, would additionally allow for open-schooling greater ambitions and training for teachers.

## Opening learning to transversal skills

Skills shortages represent a serious problem in the EU<sup>46</sup>. Lacks in digital

https://europa.eu/eurobarometer/surveys/detail/2994.

L'Arbre des Possibles (no date).
 https://www.larbredespossibles.be/pedagogie.
 Green Fingers - Oasis for Kids Project
 (2023). Oasis for Kids - Udruga O.A.ZA.
 https://oazainfo.hr/oasis-for-kids/.

<sup>&</sup>lt;sup>45</sup> The OUTSIDE - Open Communities for Sustainable Development - Project (2022) *Training Toolkit for Teachers*. https://www.outsideproject.eu/.

<sup>46</sup> Eurobarometer(2023). Flash Eurobarometer 529 European Year of Skills: Skills shortages, recruitment and retention strategies in small and medium-sized enterprises.

literacy<sup>47</sup>, sustainability competences<sup>48</sup> and transversal skills have notably been reported, with an historic EU-wide vacancy rate of 3%<sup>49</sup> as the employment sector quickly changes. In the meantime, while the European Skills Agenda and the 2023 European Year of Skills have granted EU-wide attention to adult training, education systems remain unadapted to prepare the new generations to fill a fast-evolving employment market.

Both the GreenComp Framework and the Lifelong Learning Competence Framework promote the adoption of soft and transversal skills such as Citizenship, Entrepreneurship, Cultural awareness and expression competences<sup>50</sup> or systems and critical thinking, futures literacy and adaptability<sup>51</sup>. Yet, globally, education

systems still privilege cognitive learning at the expense of the emotional, social and behavioural dimensions of education for sustainable development.<sup>52</sup> primary school teachers, for instance, defend the need for renewed learning around empathy, collaborating and living with the understanding of the equality of people.53 all Simultaneously, neuroscientists shown have importance of emotions in orientating cognitive endeavours through selective attention and memory encoding.54

Open schools, through the adoption of competence-based education, learners to a diversity of skills, values and perspectives, which represent a great opportunity to prepare learners for a fast-evolving labour market. Through encounters with and contribution to society, learners adopt both technical and soft skills, and expand their own realities. Additionally, competence-based education promotes "responsible action and stimulating[s] willingness to take or demand action at local, national and

Luxembourg, 2022, ISBN 978-92-76-46485-3, doi:10.2760/13286, JRC128040.

https://doi.org/10.3390/su141811267.

<sup>&</sup>lt;sup>47</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, (2022) *Education and training monitor 2022: comparative report*. Publications Office of the European Union.

https://data.europa.eu/doi/10.2766/117416

48 Markkanen, S., Zálnoky, K., Giannelli, F., (2022). The Path Towards a Socially Just Fit for 55 Package. Policy Study. Brussels: Foundation for European Progressive Studies, Friedrich Ebert

Stiftung.https://feps-europe.eu/wp-content/uplo ads/2023/02/The-path-towards-a-socially-just-Fit-for-55-PS.pdf.

<sup>&</sup>lt;sup>49</sup> Eurofound (2023), Measures to tackle labour shortages: Lessons for future policy, Publications Office of the European Union, Luxembourg.

<sup>&</sup>lt;sup>50</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, (2019) *Key competences for lifelong learning*. Publications Office.

https://data.europa.eu/doi/10.2766/569540
<sup>51</sup> Bianchi, G., Pisiotis, U. and Cabrera
Giraldez, M (2022).GreenComp The European
sustainability competence framework, Punie,
Y. and Bacigalupo, M. editor(s), EUR 30955
EN, Publications Office of the European Union,

<sup>&</sup>lt;sup>52</sup> UNESCO (2021). Learn for our planet: a global review of how environmental issues are integrated in education. United Nations Educational, Scientific and Cultural Organization, Paris.

<sup>&</sup>lt;sup>53</sup> Lorente-Echeverría, S., Lacruz, I.C. and Murillo-Pardo, B. (2022) 'The Vision of Future Primary School Teachers as to Education for Sustainable Development from a Competency-Based Approach,' *Sustainability*, 14(18), p. 11267.

<sup>&</sup>lt;sup>54</sup> OECD (2021), *21st-Century Readers: Developing Literacy Skills in a Digital World*, PISA, OECD Publishing, Paris, <a href="https://doi.org/10.1787/a83d84cb-en">https://doi.org/10.1787/a83d84cb-en</a>.

global level". 55 School therefore becomes a space for democratic expression and interaction, bringing up learners as agents of positive change.

To be optimal, however. this competence-based approach needs a greater integration into national education systems. For one, time must be given to teachers and students to adopt transversal skills and technology-enhanced learning methods, often complex to put into place and additional training<sup>56</sup>. requiring Project-based learning and assessments, also take into consideration learners' ages, promote equity and collaboration between learners of different ages.

Second, conventional evaluation systems must be adapted to coherently outline progress made in terms of soft and transversal skills acquisition. Integrating the space for learners to reflect on the subjects they seek to research on, on the goals they wish to achieve, on how to measure their own success and design their project's overall cycle can, for instance, greatly promote learners' capacity to build and lead a project, whether being a personal one or a social one. The adopted skills. such organisation, planning, dialogue flexibility can then be mobilised again on a lifelong learning basis.

Centre, (2022) *GreenComp, the European sustainability competence framework*.

Publications Office of the European Union. https://data.europa.eu/doi/10.2760/13286

The Assessment of Transversal Skills Project Recommendations

<sup>55</sup> European Commission, Joint Research

(2020).http://www.ats2020.eu/images/deliverables/D5.4\_PolicyRecommendations\_QualitativeQuantitativeDimension.pdf.

In that sense, QUEST supports the adoption of blended learning and evaluation approaches - combining summative, formative and self-directed assessments - to measure the long-term acquisition of soft skills.

### Case example - The Assessment of Transversal Skills Project (ATS 2020)<sup>57</sup>

The ATS2020 Project aims to develop and assess transversal skills in 10 to 15 years old students in 11 EU countries. Skills linked to information and digital literacy, autonomous learning, communication & collaboration. creativity & innovation are thus taught through a learner-centred learning model in which students take an active role in their education. Indeed, the teacher coaches and assesses when necessary. The student, on the other hand, assesses its prior knowledge on the subject, sets the learning goals and criteria, develops learning success strategies, self-evaluates once results are obtained and so on.

## Self-directed learning : the method to open schools

In 2021, UNESCO outlined the relevance of participatory and cooperative learning, at all ages and levels of education, within formal and informal education settings<sup>58</sup>. Yet, today, although research has shown that traditional top-down approaches to learning tend to lead to low retention and

<sup>&</sup>lt;sup>57</sup> The Assessment of Transversal Skills Project Brochure (2020).

http://ats2020.eu/images/promotion/ATS\_brochure.PDF.

<sup>&</sup>lt;sup>58</sup> CO (2021) Reimagining our futures together: a new social contract for education. https://doi.org/10.54675/asrb4722.

motivation levels<sup>59</sup>, they represent the main approach to learning in the EU.

On the other hand, learners' active engagement in their own learning process remains low or sporadic. This bears important implications for their lifelong learning opportunities, as one student out of two, today, believes they have no agency over their own intelligence levels<sup>60</sup>. When schools promote a culture of performance, based mainly on knowledge assessments and passive students are less likely to develop confidence in their own potential. Therefore, promoting children and youth's active engagement in their learning process is essential to quarantee their motivation, their educational outcome and overall confidence in their capacity to succeed in life.

Adopting a self-directed approach can, on other hand, enhance students' initiative, collaborative, problem solving and reflective skills in complex situations. Indeed. studies define self-directed learning as either a prerequisite or a contributing factor to lifelong learning, promoting openness to development and change, capacity on how to organise and learnings, self-confidence, apply awareness and willingness to learn<sup>61</sup>. Additionally, self-directed learning fosters

<sup>59</sup> Bidokht, M.H. and Assareh, A. (2011) 'Life-long learners through problem-based and self directed learning,' *Procedia Computer Science*, 3, pp. 1446–1453.

https://doi.org/10.1016/j.procs.2011.01.028. 60 OECD (2019), PISA 2018 Results (Volume III): What School Life Means for Students' Lives, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en. 61 Askin Tekkol I and Demirel M (2018) An

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internal locus of control, motivation, performance, support and self-efficacy, essential for future evolutions in the workplace<sup>6263</sup>. Improved teacher-student relationships, stronger understandings of the subject, long term creative thinking abilities, communication and group interaction skills, as well as knowledge retention were also listed as consequences of self-directed learning.<sup>6465</sup>

Concretely, self-directed learning refers to "a process where individuals take primary charge of planning, continuing and evaluating their learning experiences. In self-directed learning, the responsibility to learn shifts from an external source (teacher, parent, etc.) to the individual."66. In the context of open schooling, studies define "openness"67 as one of the key values produced and followed by the

Boyer, S. L., Edmondson, D. R., Artis, A. B., & Fleming, D. (2014). Self-Directed Learning: A Tool for Lifelong Learning. Journal of Marketing Education, 36(1), 20-32. https://doi.org/10.1177/0273475313494010

<sup>63</sup> Minhas, P., Ghosh, A. and Swanzy, L. (2012) 'The effects of passive and active learning on student preference and performance in an undergraduate basic science course,' *Anatomical Sciences Education*, 5(4), pp. 200–207. https://doi.org/10.1002/ase.1274. <sup>64</sup> Gade, S. and Chari, S. (2013) 'Case-based

learning in endocrine physiology: an approach toward self-directed learning and the development of soft skills in medical students,' *Advances in Physiology Education*, 37(4), pp. 356–360.

https://doi.org/10.1152/advan.00076.2012. <sup>65</sup> Denervaud, S. *et al.* (2021) 'Education shapes the structure of semantic memory and impacts creative thinking,' *Npj Science of* 

Learning, 6(1).

https://doi.org/10.1038/s41539-021-00113-8.

Democratic Education in Schools.

<sup>67</sup> Oddi, L.F. (1987) 'Perspectives on Self-Directed Learning,' *Adult Education Quarterly*, 38(1), pp. 21–31. https://doi.org/10.1177/0001848187038001003

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Investigation of Self-Directed Learning Skills of Undergraduate Students. Front. Psychol. 9:2324. doi: 10.3389/fpsyg.2018.02324

self-directed learning process. Within broader societal contexts, it can be introduced through the **problem-based methodology**, defined by Hosseini Bidokht and Assareh as embracing learners' active role as "problem-solvers confronted with an ill-structured situation that simulates the kind of problems they are likely to face as future managers in complex organisations" 68. This methodology is based on the following key aspects:

- "Learning occurs within the contexts of authentic tasks, issues, and problems that are aligned with real world concerns.
- Students and the instructor become co-learners, co-planners, co-producers, and co-evaluators as they design, implement, and continually refine their curricula.
- The problem-based approach is grounded in dynamic academic research on learning and on the best practices that promote it. This approach stimulates students to take responsibility for their own learning, since there are few lectures, no structured sequence of assigned readings, and so on.
- The problem-based approach is unique it fosters in that collaboration among students. development stresses the problem solving skills within the context of professional practice, promotes effective reasoning and self-directed learning, and is aimed motivation increasing for life-long learning."

<sup>68</sup> Bidokht, M.H. and Assareh, A. (2011b) 'Life-long learners through problem-based and self directed learning,' *Procedia Computer Science*, 3, pp. 1446–1453. https://doi.org/10.1016/j.procs.2011.01.028. Through real-life projects, children and youth can learn, in accordance to their age and capacity, how to identify and research socio-economic and environmental problems, design, plan and implement solutions - on their own or collectively and therefore contribute to their broader community. Doing so, they increase their sense of belonging and self-confidence, simultaneously developing both technical and transversal skills fitting the subject of study. As shown in the Assessment of Transversal Skills Project, children and youth can also contribute to defining the learning objectives and evaluation criteria, as well as in assessing their level of completion. Self-assessment has indeed correlated with students' involvement and inclusion in their own learning process, an increased sense of identity and belonging, as well as a challenge-seeking and mastery oriented response to failure despite perceived abilities. 6970

The EU Commission itself, has outlined the importance of actively and directly involving citizens in science research and innovation projects<sup>71</sup>. In this regard, QUEST believes the word "citizen" should

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<sup>&</sup>lt;sup>69</sup> Bourke, R. and Mentis, M. (2013)

<sup>&#</sup>x27;Self-assessment as a process for inclusion,' *International Journal of Inclusive Education*, 17(8), pp. 854–867.

https://doi.org/10.1080/13603116.2011.602288

<sup>&</sup>lt;sup>70</sup> Elliott, E. and Dweck, C.S. (1988) 'Goals: An approach to motivation and achievement.,' *Journal of Personality and Social Psychology*, 54(1), pp. 5–12.

https://doi.org/10.1037/0022-3514.54.1.5.

<sup>&</sup>lt;sup>71</sup> European Commission, Directorate-General for Research and Innovation, (2015) *Science* education for responsible citizenship: report to the European Commission of the expert group on science education. Publications Office. https://data.europa.eu/doi/10.2777/12626

systematically encompass children and youth. Indeed, they should no longer be considered as half-way citizens or citizens in the making. On the contrary, they should be granted the opportunities to express their fundamental right to active participation, therefore defining their place within a broader European democratic society, and acting responsibly towards resolving community challenges.

Therefore, QUEST supports the direct inclusion children and youth, accompanied by teachers, in their own learning paths within broader societal and environmental contexts. Schools should create spaces for blended learning, where passive education serves to inform active participation of learners in their education process. Within these spaces, learners could choose their subject of interest, and define the relevant actions to be taken in response to greater societal goals. Doing so, education systems would actively start preparing students for a fast-changing and skill-demanding employment sector, and promote their abilities to find innovative solutions to complex crises.

Self-directed learning in this sense, should be comprehended as a key means towards promoting the adoption of soft and transversal skills. OUEST therefore recommends the creation or updating of national strategies promoting adoption of transversal skills in education through blended education, with a special focus on self-directed learning to further students' well being and life success. QUEST also calls for an EU-wide strategic recommendation to be made on the integration of self-directed learning throughout a lifelong learning perspective including early childhood education.

#### Case example - OUTSIDE Project

The OUTSIDE Project sought to promote youth-led community-serving entrepreneurial projects within school systems. Through the integration of the 17 SGDs into education systems, students mapped local needs, opportunities and challenges of their communities' environment in order to turn them into business opportunities.

A toolkit for educators was created as a way towards accompanying them in opening school ecosystems to the broader community. Concrete examples and resources were given as inspiration. In Portugal, for instance, students researched how bees were treated and what was the state of the bee population in their communities. Developing investigative skills and environmental awareness, learners then engaged with the community to find solutions on how to improve bees' consideration.

