
RESEARCH EVALUATION REPORT



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TABLE OF CONTENTS

Introduction:	3
What the youth said in the YPR:	4
Method	4
Analysis	5
What the data tell us	6
Mobile phones or not?	9
Discussion	10
References	12

INTRODUCTION:

This report is the second research evaluation report in the DigiLives project. It follows up on findings from report no. 1: Youth Perspective Report (Iversen and Leth, 2023) and compares the current project results with those findings. The overall objective of DigiLives was to develop digital and analogous tools to prevent student drop-out from VET schools and to contribute to supporting inclusion, diversity and student well-being. This is in itself a rather ambitious objective originating in high student drop-out rates seen in the partnering VET schools.

As was also mentioned in the Youth Perspective Report, the core research method of the project is co-creation (see e.g. Iversen & Stavnskær, 2017) This choice was made with the intention of involving students in the partnering VETs as co-creators of the tools that would be the key intellectual output of the project (IO2). We have taken as a premise that the students are experts in their student lives and that as such, they can provide essential input to the part of the project that involves knowledge creation as well as to the development of tools.

Before the tool development phase was initiated, we conducted a survey among the participating students on the basis of two overall research questions: 1) What is the students' perspective on study start? and 2) What is the students' perspective on study climate? These overall questions were further specified in a number of questions focusing on the student-teacher relation, student-to-student relations, safety, and well-being and inclusion. In addition to these questions, the survey featured open response options where students could go into further detail. As predicted – and fully in line with one of the project focus areas, namely diversity – we saw a high degree of diversity among the students. However, we did also see patterns emerge. These can be found described in depth in the first report and briefly summarised below. These patterns in our findings were fed into the development of tools. In this way, it was our intention to allow the student perspective to form the starting point for the continued development process. The degree to which this was successful will not be the focus of this report. However, it should be stated that the end result does somewhat diverge from our initial expectations.

In brief, we developed a website where schools can access an open and very simple design platform. On the platform, students and teachers can type games and exercises into a template. The text will generate a QR code that can be scanned to make the game or exercise appear. The QR codes are meant to be printed and hung in different places around the school or the local area as a kind of orienteering race. This way, the design responsibility will rest with the users, which would not have happened if more specific tools were developed as part of the project as was originally our intention. One might say that this turn of events increases the chances of perceived contextual relevance and shifts the tools into physical space where people interact with each other in real life (IRL) instead of digitally. This change of direction of the project will be discussed in the Discussion section.

At the time of writing, the project is drawing to a close. The design platform (hereafter referred to as the DigiLives tool) and a number of analogous tools have been tested on several occasions by students and teachers in the VET partnering schools and adjusted continuously according to the co-creation method. As a follow-up to these tests, the students answered a second survey. The overall research focus of this survey was *the extent to which students feel that the developed tools may contribute to reducing drop-out as well as promote well-being, inclusion and diversity*. In other words, we returned to the overall project objective to investigate the extent to which the project had succeeded in developing tools that resonated with the starting point of the project. Whether this turned out to be the case will be described in the following pages.

This report is divided into four parts: first a brief summary of the significant findings of the Youth Perspective Report (YPR), this is followed by a Method section, the Analysis and finally a Discussion section in which we attempt to situate DigiLives within the temporal and cultural context of the project.

WHAT THE YOUTH SAID IN THE YPR:

From the perspective of the youth – the students –, what was particularly important concerning study start was that 1) the fundamental facts should be well and clearly communicated Where should I go? What is going to happen? What is expected of the students? In other words, measures that will minimise the initial feeling of insecurity in a new setting where everything is unfamiliar. Feeling a sense of belonging was stressed as an important factor in the student experience. In addition, a surprisingly large number of students spontaneously described themselves as introverted with the associated difficulties in socialising – particularly with new people. This means that study start activities should consider that students do not necessarily form bonds by merely being together.

Another noticeable thread in the responses was that a good relation between teachers and students is characterised by mutual respect, an interest in the individual student and support for students when needed. According to the students, teachers should be more than just professionals who present the learning material. Students believe that if teachers invest themselves, are engaging, attentive and caring, this helps to create a sound study climate.

METHOD

The data underlying this report is a survey conducted among the students who took part in testing the DigiLives tool. The survey was put together on the basis of findings from research report no. 1 and the overarching purpose of the DigiLives project.

When collecting data for the YPR, it became clear to us that we would have to take linguistic barriers in the partnering countries into consideration. In both surveys the students were supposed to answer the questions individually, but since the survey language was English, the teachers had to assist the students to some extent. To do this, the students answered the survey in class. For this reason, influences from student to student and from teacher to student may have occurred. We also had to consider the risk of the students' possible difficulties in understanding and expressing themselves when they answered the survey. This was a general condition for DigiLives, and for this reason we have strived to use simple and understandable language. However, there is some uncertainty attached to the validity of our data as we have no possibility of checking the extent to which the questions were fully understood and similarly the extent to which the students were able to adequately formulate their answers (in the open comment fields).

To support the students' in answering the survey, the project partners were sent a power point presentation to give out to those teachers who were testing the digital tool with the students. All questions in the survey were stated in the power point presentation, allowing the teachers to go over the questions and help the students translate and understand them before they were to answer the survey. Furthermore, the teachers were instructed to assist the students in answering the survey immediately after testing the tools. The students got access to the survey with a QR code.

We would also like to point out that being an open design platform, the tool gave us no insight into which games the students had tried and subsequently evaluated. For these reasons, we had to operate with the

answers as general ones in our analysis. This also meant that the data includes a 'hidden' factor, namely which specific games or exercises the students had evaluated. We cannot access information about which students tested which specific games or exercises, and this fact partially affects the validity of the data, and it partially affects the specific applicability of the research results produced in this research report.

The questions we asked the students in survey no. 2 were expressed and put into categories based on the YPR and the overarching purpose of the project. The questions were constructed on the basis of recurring questions that were thematically adapted. This means that the survey questions were divided into two parts. In part 1 questions were specifically asked on the basis of the students' replies in the YPR. In part 2, the questions were based on the overall project objectives.

In part 1, we asked about the extent to which the students found that the digital solutions they had tested in DigiLives:

1. ... made the student feel welcome at the school.
2. ... helped the student to navigate and find their way around the school.
3. ... supported the forming of relations between students.
4. ... helped the student to form relations with teachers.
5. ... made the student feel supported as a student at the school.
6. ... gave the student a feeling of self-worth and self-confidence at the school.

There were four possible answers: To a very high extent; To a high extent; To some extent; Not at all. Subsequently the students could elaborate on their answers in an open comment field (*Other comments?*).

In part 2 the first half of the question was: *Based on the answers you have already given; do you believe that the DigiLives tools can help to:*

1. ... support the inclusion of all students?
2. ... prevent school drop-out?
3. ... create room for diversity at the school?

Again, students had four answers to choose from (as above), and part 2 was also completed with an open, general comment field: *Do you have additional comments to the DigiLives tool(s)?* This meant that we were operating with a combination of quantitative and qualitative methods.

We accessed the data directly through the software that was used for distributing and answering the survey. One of the functionalities of that software is a feature that automatically counts the responses given, converts them to percentages and finally organises and displays them thematically.

As for the open comment fields and the qualitative data they provided, we chose to take an inductive approach looking for patterns and common threads across the responses.

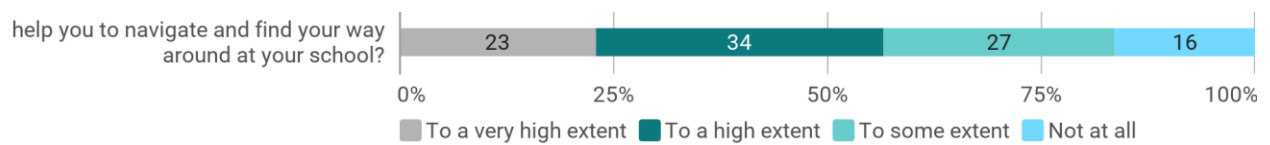
ANALYSIS

The analysis opens with a presentation and review of the graphics accumulated on the basis of the students' responses to the questions above. We have decided to include all graphics to provide an insight into the specific responses and to ensure transparency. Then follows a short overview of student responses in the open comment fields.

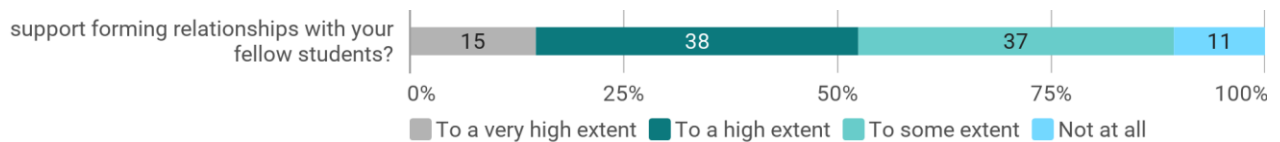
We sent out a total of 138 surveys of which 16 were unanswered, which gave us a response rate of 86. Four students answered the first five questions and left the remaining questions unanswered. These partial responses were not included in the data.

WHAT THE DATA TELL US

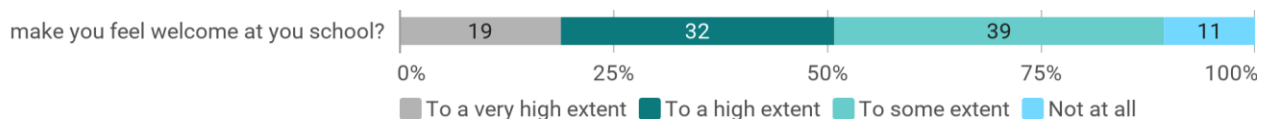
In the students' evaluation (achieved by adding the scores of *To a very high extent* and *To a high extent*), what ranks the highest is the tools' usability in terms of finding one's way or navigating the school premises. Only 16% of the students answered *Not at all*, and more than half were very positive. Given that the tool takes on the nature of an orienteering race with QR codes spread across different locations at the schools, this does not come as a surprise.



The second highest rating was given to the tool's usability in terms of supporting students in establishing relations with each other. From our first research report (YPR), we knew that social activities and forming relations between students should be facilitated to a degree that schools may be unaware of and therefore do not provide. In that light, the DigiLives tool may provide the settings for different kinds of activities in which students solve tasks together in a congenial and playful atmosphere.

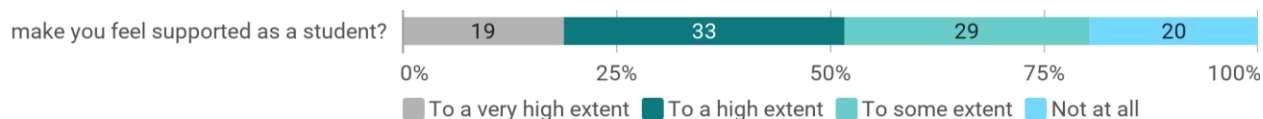


The tool's relevance in terms of making students feel welcome at the school was evaluated positively. Once more, this corresponds with data from the YPR in which students accentuated the importance of being received in a friendly climate while also expressing the need for being seen and recognised as individuals by teachers and fellow students. The DigiLives platform encourages users to design games and exercises that are relevant to the context and take the target group into consideration. Who are the students? What do they need to experience or learn at this time in their course of study? And so on.

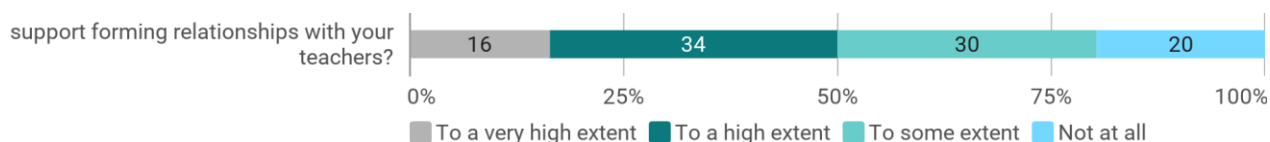


Asked about whether the tool makes the student feel supported as a student, 20% of the students answer *Not at all*. This was close to being double the above (feeling welcome), which might be explained in the way the questions were targeted. Because there is a qualitative difference in feeling welcome and feeling supported. Psychodynamically speaking, feeling supported is relatively more complex than feeling welcome. From the YPR, we know that a fairly large amount of students feel vulnerable and request that approaches

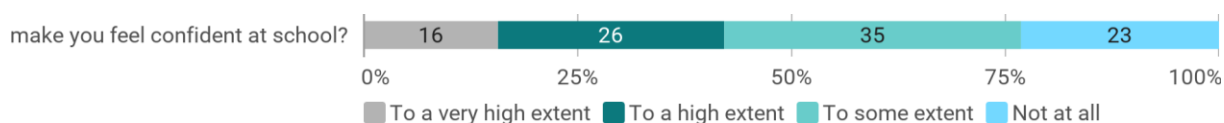
to students are differentiated according to individual needs. The DigiLives tool was designed to create group activities in a relaxed atmosphere. This does serve some purposes, but it is likely that it does not necessarily meet the need for differentiated support.



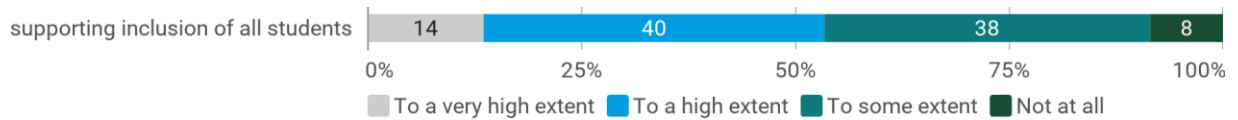
Teachers can use the DigiLives tool by themselves or in collaboration with students to design games or exercises. So when students feel to a lesser extent that the tool supports the establishment of relations with teachers, this may be ascribed to at least two circumstances. Firstly, the participating teachers chose not to use the DigiLives tool in collaboration with students in the development phase. This means that the students did not have the opportunity to establish a relation with teachers in this phase, which may explain their responses. Secondly, the DigiLives tool encourages users to use it in places where teachers are not present. This way students do not have the experience of being able to form a relation with their teachers while they are using the tool. We will go further into this in the discussion section about digital tools' response to the need for communities and belonging as felt by the youth.



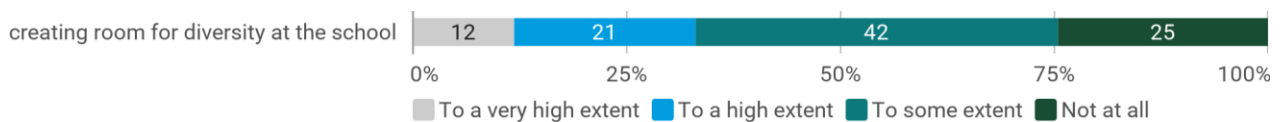
The amount of students who assessed the tool as being suited for building self-confidence in students is fairly low with 23 % responding *Not at all* and less than half falling into the two positive categories. Again, it is very likely that the question is aimed at a complex psychodynamic phenomenon that comprises individual and – presumably – highly differentiated needs. Self-confidence builds over time in supportive environments, and although games and exercises can be adapted both to contexts and target groups, they will remain individual, one-off activities, nonetheless.



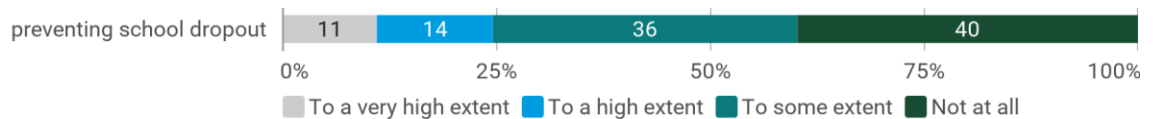
As mentioned earlier, the second part of the survey was focused on the overall objectives of the project: Promoting inclusion, diversity and preventing drop-out in partnering schools. Here, what ranked highest was the tool's ability to promote the inclusion of all students. Only 8% of the students responded *Not at all*, and more than 50% answered either *To a very high extent* or *To a high extent*. With reference to the above analytical points, we have reason to assume that the social and collaborative nature of the tool is the reason for these responses.



Only 33% of the students believe that the tool creates room for diversity at schools either to a very high extent or to a high extent. At the opposite end of the scale, 25% responded *Not at all*. Similar to building self-confidence, diversity is also a more complex phenomenon. Social games or small subject-related exercises may accommodate diversity because they have been planned specifically for that particular target group. From the data that was used in the YPR, it was clear that there was a high degree of diversity among the students. A relatively large number of the students characterised themselves as being 'introverted'. They stated that it is difficult for them to be in new contexts with new people, and that it takes them a long time to feel safe. For this reason we may assume that building self-confidence as well as creating room for diversity require longer-lasting and more extensive efforts than what the DigiLives tool brings about.



And finally, when it came to the question whether the DigiLives tool may prevent drop-out, the students were sceptical. Forty per cent responded *Not at all* and only 25% of the responses fell into the positive categories. As already mentioned, we do not know specifically which games or exercises the students tested. However, in this case too we have reason to believe that the nature of the tool was deemed unable to facilitate measures that target complex issues.



When we looked at the responses in the open comment fields there was not much to go on. First of all, there were only very few answers, and secondly, the answers that we found were either not sufficiently detailed or they were not serious. Some answered that they had no comments, a few answered that the tool was useless, one answered that the rules should be clearer to prevent cheating. One student wrote: *It was fun, but when others make fun of you for having a good time and being yourself, that doesn't exactly build confidence :).* With this comment, the student describes the vulnerability that is always present in any social setting and touches on several of the themes of both the project and the survey. At the same time, the response brings the importance of the actual design of exercises and games into attention. Because the make-up of student groups is not without importance. Additionally, the design of exercises should involve inclusion and diversity while also facilitating the formation of relations between the students. Take as an example an exercise involving competitive elements to be solved against the clock. This kind of exercise would put pressure on the participants causing hierarchies to form and discouraging the more reluctant students. What may at first glance seem easy – making up a few exercises and sending the students hunting for the QR codes – really is a far more complex task. At least if the full potential of the DigiLives tool is to be achieved.

MOBILE PHONES OR NOT?

The most remarkable and frequent responses in the comment fields were surprising. Of a total of 35 comments, as many as 17 said that they are not allowed to use mobile phones on school premises. More of them added that there is no WIFI available at their school. A quick investigation shows that in Italy restrictions were adopted as early as 2007 (Minister of Education., 2022), and that similar rules were adopted in France in 2018 (Directorate for Legal and Administrative Information, 2022). At the time, Italian Minister of Education, Giuseppe Valditara, said about the use of digital devices in schools that they were *“an element of distraction for oneself and for others and a lack of respect towards the teachers, to whom it is a priority to restore authority”* (Minister of Education, 2022). In other words, in those two countries, harsh restrictions were already in place at the time when DigiLives received its research grant which was paradoxically given on the basis of the project's digital approach to the problems seen at the partnering VET schools. It may come as a surprise that this knowledge was not discussed during the project, and perhaps particularly so during the development of tools. One partner school attempted to solve the issue by acquiring a small number of mobile phones and offering students to borrow them for the project. Despite this, we find that the national restrictions in France and Italy may become an issue when the time comes for distributing and using the DigiLives platform and its tools. However, the project website also contains a long list of analogous tools tailored for study start and study climate activities that can be readily used by students and teachers.

The third partner country, Denmark, is also seeing a growing political and public scepticism towards the profound impact of digital and social media on the everyday lives of children and young people. According to research by the national daily newspaper Politiken, a rising number of Danish government-funded schools have decided to make school hours 'mobile free' (Center for Digital Dannelse), a trend which is also beginning to show in youth education. Simultaneously to this development in the field of schools and education, researchers are now beginning to prove connections between the use of mobile phones and increasing cases of prolonged stress, anxiety and depression among young people (see e.g. Fynbo/VIVE, 2022) It seems there are many indications that the rapture with technology seen in the first decades of the digital age is now increasingly being replaced by scepticism and associated restrictions. At the same time, doubt is cast on whether children and youth can manage their own 'digital education', here used in the sense that they will learn how to act and behave properly on social media and learn to use and navigate digital resources in a sensible and critical way. Furthermore, there is also doubt about the quality of the 'education' that takes place within digital universes. In this way, one might say that DigiLives is at the same time both in line with and contrary to development trends in the societies of the partnering countries. The platform promotes physical activity and formation of relationships IRL (In Real Life) but the use of most of the platform tools requires students to have access to a mobile phone. Perhaps one might even say that the project and the project trajectory traces the dilemmas related to the digitalisation of societies, youth life and education.

Bans on mobile phones in schools may however to some extent go against the core method of the project: co-creation. Authorities are signalling to youth that they are incapable of controlling their own use of mobile phones and that 'adults' must take over. When asked about this, young people say they find themselves torn between two aspects: on the one hand, rules about the use of mobile phones may be a relief and a welcome way to find a breathing space from 24-7 FoMo (Fear Of Missing Out) brought about by certain kinds of social media among young people; on the other hand, they consider themselves sufficiently capable and knowledgeable to control their digital lives (Fynbo/VIVE, 2022). Against the backdrop of this knowledge and the experience accumulated through DigiLives, we recommend that students – and young people in general – should be involved when legislation and policies dealing with digitalisation are developed further.

DISCUSSION

As indicated by the title of the project, the intention behind DigiLives was to develop digital tools to support students (and their teachers) in those aspects of student life in VET schools that we know from experience may be problematic. Those aspects were the identified dramatic drop-out rates in schools as well as general well-being and inclusion. Methodically, we selected co-creation to involve students in the development of tools; to recognise their expert knowledge about life as a student and to ensure that the developed tools would be relevant. Our hypothesis was simply that student input and participation would qualify project output. In a number of interactive workshops, we tested and developed exercises, tools and ideas. The students had an array of suggestions for which digital approaches would support study start and study climate in schools: e.g. digital maps of the school, social testing environments with avatars, and digital group spaces in which students could work 'unmonitored'. The students' ideas ranged greatly in terms of digital sophistication.

Before the workshops, the students had answered a survey questionnaire and taken part in two on-line events with the overall purpose of investigating their perspectives on study start and the study climate. The results were published in research report 1: Youth Perspective Report (Iversen and Leth, 2023). Research report no. 2; Research Evaluation Report, investigates, as already mentioned, the degree to which the project output mirrors the various input that were given during the process. We surveyed the students again, and the results are shown in the analysis section of this report. However, some elements to the progression of the project remain 'invisible'. There is very far from being a 1:1 ratio between input and output, so to speak. As described, the project result deviates from our initial expectations. We did not develop a toolbox with various digital tools, but instead we developed a simple platform for do it yourself-designing of social games and exercises. In this light, it would be appropriate to ask about how and why the result came out as it did. However, this is not a simple question to answer.

From the student inputs, we extracted what might be called an essence of messages. The clearest message of them all was that the most important thing is how people meet and how people are met. The fundamental human needs of feeling seen, being recognised as an individual and being respected by other students and teachers alike runs like a golden thread through the student input. The same is true for feeling a sense of belonging and safety. So, parallel to the many, good and concrete suggestions that the students made for digital tools, another significant factor appears: being present and being oneself in a safe, supportive and developing environment with others. This brought us to raise another question: If this is the message that students send, are digital tools what they really need, or do they need to be present together in something as analogous as a physical space? That the project result was a platform for game design could be considered an operationalisation of the answer to that question.

The restrictions on the use of digital devices and the associated growing scepticism in a time of quickly accelerating digitalisation represents a paradox that is not only seen in the DigiLives project and the EU project call that funded it. We are left to wonder why the project partners in DigiLives did not notify us of the national restrictions during the process to allow an adaptation of the tools to fit the current situation of the partnering countries. If we look at the paradox of the project from the perspective of sociology or cultural analysis, DigiLives can be seen as a microcosm of a societal and cultural phenomenon that is occurring on a global scale. We are digitalising at full steam; more and more of our social lives is shifted into the digital universe, with AI at ChatGPT knowledge is accumulated at a speed that is incomprehensible to the human brain. Students can prompt their way to a complete written assignment in any subject and their personal formation of character and experiential education and formal education are thus moved into a digital space that is uncontrolled. In discourses in society, more and more voices are warning against the consequences of this rapid development. Researchers, teachers, psychologists and other professionals are worried about the quickly deteriorating mental well-being in children and youth. We sense that there is a

connection between digitalisation and the deterioration in mental well-being, but we cannot and will not stop development. The paradox is crystal clear.

Returning to the data that was accumulated in our work on the two research reports, the students' vulnerability and diversity are among the significant findings. As to vulnerability, it might be tempting to take measures that would 'protect' our youth. In DigiLives, we have seen a great wealth of ideas among the students when it came to the development of ideas and tools. At the same time, we heard the students express their appreciation of being asked and involved. From one of the participating teachers, we learnt that the dialogue between teachers and students in DigiLives gave teachers an insight into much more than the tasks that we defined beforehand. When students are invited in as equal parties to the dialogue about their lives at school, they are able to contribute relevant and valuable knowledge. In this context, it is worth noting that vulnerability is not a personality trait or an immanent condition, but a consequence of circumstance. This is where the student voice adds to our knowledge about how schools can create settings that will reduce vulnerability. Seen in this perspective, we recommend that students – and that children and youth more broadly – should be involved in the development of incentives aimed at the use of digital services and social media. This is also where diversity in the young population should be taken into consideration.

In our evaluation of the DigiLives tool, we saw that students remained fairly sceptical to whether the tool would be able to prevent drop-out, promote inclusion and create room for diversity. We put forward an analytical hypothesis that the tool would be less apt for dealing with these more complex issues. However, we should add that in fact the open nature of the tool is what makes it possible to design a series of exercises or games to deal with complex issues such as building self-confidence or preventing drop-out. Working on purpose-built designs in this way does however require teachers to possess didactic and pedagogic skills.

As for co-creation and the possible involvement of students as co-creators of exercises or games, we are under the impression that it was first of all teachers and other staff who designed the games that were tested and evaluated by the students in DigiLives. One could imagine, however, (and recommend) that students should be involved as co-designers in the future. There would be several advantages to this approach: firstly, the actual co-creation process could enhance relation building between teachers and students; secondly, the games that would be designed would likely reflect student needs and their current situation better.

However, no matter the approach, using the DigiLives tool does take some resources. Time must be set aside for it and the content must be a priority. Since teachers are responsible for taking the initiative to using the tool, they must find the tool relevant. This goes for the social aspects of school life as well as the vocational ones. For instance, students might learn subject-specific concepts and skills with the tool. Or they might familiarise themselves with various support services at their schools through an orienteering race with built-in exercises. There are many possibilities.

Lastly, on the basis of feedback from teachers, we recommend the individual schools to each build a catalogue of exercises for online access. These may be step-by-step instructions, supplied with descriptions of didactic and pedagogical considerations when relevant. This kind of local catalogue of exercises could be used in addition to the many exercises that are accumulating on the DigiLives website.

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