

# Access21: Empowering Students

(Co-)funded by the Erasmus+ programme

Access21 Survey Report on Teachers' Attitudes and Practices in the field of the three 'Core Practices': Mentoring, Pathways to College, and Leadership in Learning (which comprises student-led projects and teacher-led classroom-based pedagogies).

The Access21 project partners have conducted a survey of teachers in three European schools; in Ireland (in a Trinity Access-linked school), and in Italy and Spain, which measures their knowledge of and attitudes towards the Trinity Access 'core practices'. The purpose of the survey was to establish a baseline of the practical usage of these practices in these schools, at the beginning of the Access21 project. Results indicate that a majority of teachers in these schools have a very positive outlook toward the three practices, yet their knowledge and awareness of the specifics of these practices varied within each school. The detailed results of the survey are published in this report, which provides for educators a high-level overview of the current state of teachers' familiarity with the core practices in three European schools.



Project title:

## **Access21: Empowering Students**

### **Project Information**

Project no. 2018-1-IE01-KA201-038794

Project acronym: Access21

Start date of project: 01/09/2018

Duration: 39 months (3 months extra given due to Covid-19 pandemic)

**Funding Programme:** Erasmus+ KA2: Cooperation for Innovation and the Exchange of Good Practices - Strategic Partnerships for School Education.

### **Information about the Report**

Associated with Output O1: Baseline Analysis

Report title:

## **Report on Teachers' Knowledge and Awareness of, and Attitudes towards, the Trinity Access Core Practices in three Project Schools**

### **Contact Information**

Coordinator and Lead Partner on this Output:

Trinity Access and the Trinity Centre for Research in IT in Education (CRITE)

Schools of Education and Computer Science & Statistics

Trinity College Dublin, the University of Dublin

College Green, Dublin 2

Ireland

Ciarán Bauer ([ciaran@ta21.ie](mailto:ciaran@ta21.ie)), and Dr. Jane O'Hara ([jane@ta21.ie](mailto:jane@ta21.ie)).

Website: [Access21-project.scss.tcd.ie](http://Access21-project.scss.tcd.ie)

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## 1. Report Overview

The enclosed output includes the results of a study measuring the use of and attitudes towards the practices of Mentoring, Pathways to College, and Leadership in Learning (both student-led and teacher/classroom-led). This survey was conducted at the beginning of the Access21 Erasmus+ project in 2018/19. This project involves a partnership of educators in Ireland, Italy and Spain, and it focuses on the development of innovative pedagogies, learning materials and resources to support the integration of the Trinity Access 'core practices' in second level schools across Europe.

The purpose of the study reported on here was to establish the current attitudes toward these core practices, as well as the frequency of their use, across all teaching staff in the three schools involved in this project. It was thought that the information collected could help the leading project partners identify in which key areas and particular skills the project teachers would need guidance and support, and to assist all partners in coming to a shared understanding of the core practices. These results could also be used as a baseline against which to measure any changes in these metrics at the end of the Access21 project.

In order to collect this information, a survey was designed, which used a combination of several items from other validated instruments in the field. The survey, which consisted of both quantitative and qualitative items, was distributed online; participants included the teachers directly involved in the Access21 project, as well as colleagues in their respective schools. A total of 67 teachers participated in the study. Data was analysed using computer software, and averages and percentages are presented.

From the survey results, we broke the analysis down by school and for each of the three schools looked at the core practice that they had been tasked with leading in the Erasmus project. The main findings of the survey were that within each school, numerous activities were occurring that fall under the umbrella of the core practices, but that teaching staff didn't have a uniform awareness of the specific details of these practices. However, they were largely positive in outlook towards the practices in terms of their actual or projected benefits to students. This provided a wide base of information for the project leads to collaborate with each school on the best possible strategies for further development of the core practices throughout the life of the project.

## 2. Access21 Project Overview

This project aims to address educational inequality through widening the participation of students from disadvantaged socioeconomic backgrounds in further and higher education across Europe. By working directly with both university-level educators and second-level teachers across Europe, this project aims to develop, expand and adapt an existing “widening participation” programme (Trinity Access 21) in both the Irish education context and other European countries, ultimately helping more students achieve their potential. It is widely recognised that low educational attainment influences other socioeconomic factors, such as unemployment and the risk of poverty or social exclusion. Higher levels of education prepare people to participate more fully in society and the economy (Jerrim, 2013; moreover, people with post-secondary education report higher levels of life satisfaction and personal well-being (Jongbloed, 2018). The Europe 2020 Strategy has set a target of ‘reducing the share of early leavers of education and training to less than 10%’ (Europe 2020, 2010), and the UN has established a goal to ‘Ensure inclusive and quality education for all and promote lifelong learning’ (UN, 2015).

Though higher education participation rates in general have expanded over the last few years, a pattern of inequality in access to and completion of quality post-secondary education/training persists among students, based on their socioeconomic status (SES) (Jerrim, 2013). In several countries across Europe, less than 5% of low SES students develop the high standard of academic skills needed to enter and succeed in high-status universities—as compared to more than 15% of high SES students (Jerrim, 2013). There are various structural barriers to the educational development of low SES students, including: access to information about further education options; educational guidance being replaced by counseling for critical personal issues; access to available trusted role models from similar communities who have progressed to higher education; and learning environments that tend to be teacher—rather than student—directed.

Trinity Access 21 (formerly/colloquially known as TA21) is one project, led by TCD, working to address this inequality. TA21 partners with schools in disadvantaged areas of Ireland, aiming to prepare students to make informed post-secondary educational choices and to support them to realise their full educational potential. To meet these aims, TA21 helps schools develop three ‘core practices’. Since we began this Erasmus Plus project, four core practices have been distilled into three, to better focus our message and facilitate the use of the practices by educators. The three core practices are:

(1) Pathways to College: students are provided with information about college options, the application process, and financial supports; this includes visits to college campuses and career networking events.

(2) Mentoring: students are paired with trustworthy role models to cultivate good relationships and share important college going information.

(3) Leadership in Learning:

a) One aspect of this practice is classroom-based, innovative methods used by teachers to educate students. Teachers are prepared to integrate such methods in their classrooms and develop their students' '21<sup>st</sup> Century teaching and learning' (or 21CL) skills (e.g. communication, collaboration, technical and problem solving skills). The Bridge 21 model (Trinity Access, 2021), which is cross-curricular, technology-mediated, team and project-based, underpins this practice.

b) The second aspect of this practice involves putting students in charge of designing, planning and delivering a community service project. Through this process, they develop their leadership and project management abilities, and many of the same 'key skills' that they encounter in the classroom-based part of the Leadership in Learning core practice. The TA21 project began in 2014 and has tracked the educational outcomes of 1,100 students from 11 schools involved. The data reveal positive impacts on whole school culture: it is increasing college-going aspirations in students, and supporting the increased use of innovative, 21CL teaching practices.

The Access21 Erasmus Plus project aims to build on this success and has three primary objectives:

1. Expand and adapt the TA21 model for the social/educational context of other European countries
2. To further refine the core practices of the TA21 programme by learning from the expertise of the partners
3. To develop adaptable resources for other schools/universities to utilise in order to establish their own widening-participation programmes.

A transnational, multi-level approach brings together leaders in various fields; the four partner organisations are based in three countries and have differing levels of expertise related to leadership in learning, mentoring, and pathways to college. Through this collaboration of universities and second-level schools, best practices and resources can be developed, enabling more educators to help their students achieve their educational aspirations and potential.

The Access21 project is designed to have lasting impact: it will guide the participating teachers in developing the three core practices in their schools, but it will also prepare those

teachers to educate others in developing these core practices. Thus, these practices will continue to evolve, and a wider range of students will benefit from the efforts of their teachers.

The three European partner schools in this project are based in Dublin, Ireland, Pinzolo, Italy, and Barcelona, Spain, and all of these have different educational practices and cultures. The Irish school, Mercy Inchicore, have been working with TCD as a part of the TA21 research project since its inception. Therefore, they have significant experience in developing the three core practices, compared with the other two partner schools. However, the elements of these practices are not necessarily unique or exclusive to TA21-linked schools, so we also wanted to take into account any initiatives that all three schools were undertaking before the project began, which may fall under the broad categories of Pathways to College (or to Further Education), Mentoring and Leadership in Learning.

Thus, to garner a baseline measurement of the current knowledge and understanding within these three schools in relation to the three core practices, a survey was developed and administered at the start of the project to teachers in partner countries. It was envisioned that the results of the survey would provide a shared understanding for all partners of what is involved in the three core practices, as well as a means to compare their use in the three schools. Therefore, the project leads could tailor the programme activities towards the greatest areas of need in the project schools. Additionally, the baseline results can be contrasted with the teachers' knowledge and understanding of the core practices by the end of the project.

### 3. Context of the Partner Schools

Each of the three partner secondary schools took ownership of one each of the core practices. Mercy Inchicore in Dublin led the Pathways to College core practice; Istituto Val Rendena in Pinzolo led the Mentoring core practice; and Institut Ribera Baixa in Barcelona led the Leadership in Learning Core Practice. All three schools serve a population of students who experience varying levels of social disadvantage or marginalisation within their geographical region. We wanted to ask all the teachers (not solely those involved directly in the Erasmus project) for their opinions about the core practice that their team has particularly been assigned to lead; this is what the results of the survey will focus on.

## 4. Methodology

### 4.1 Design of Survey Tool

The first part of the survey gathers general demographic information from the respondents, including age, gender, length of time teaching, and subjects taught.

Section 2 addressed the '21<sup>st</sup> Century skills' or key skills, and the frequency of activities used by teachers which require and encourage the use of these skills.

The Trinity Access group has previously published studies on the importance of 21<sup>st</sup> Century Skills. We have also led on two Erasmus+ projects, now completed, which focused on the development of these skills, through the use of technology-mediated, team- and project-based pedagogical methods, such as the Bridge21 model. Internationally, a common set of skills that exist in most standards has been identified. These commonly include the capabilities to: communicate effectively; collaborate to solve problems; think critically and act creatively; work alone or with a team; and use technology proficiently (Dede, 2010; Voogt & Roblin, 2012).

A previous report, by Kearney et al. (2017), compiled as part of the *Teaching for a Sustainable Tomorrow (TfaST)* project, cited a discrete list of '21C' skills published in 2012 by Ravitz et al. They include:

1. **Critical thinking** (CT) – analysis of complex problems, investigation of questions for which there are no clear-cut answers, evaluation of different points of view or sources of information, and use of appropriate evidence to draw conclusions;
2. **Collaboration** (CO) – ability to work together to solve problems or answer questions, working effectively and respectfully in teams to accomplish a common goal, and assuming shared responsibility for the completion of a task;
3. **Communication** (CM) – ability to organise thoughts, data and findings and to share these effectively through a variety of media, including oral presentations and written reports;
4. **Creativity & Innovation** (CR) – generation of solutions to complex problems or tasks based on analysis and synthesis of available information, and combination or presentation of the results in new and original ways;
5. **Self-direction** (S) – taking responsibility, both for one's own learning through the identification of topics to pursue and processes for learning, and for reviewing one's own work and responding to feedback;

6. **Using technology** (T) – management of learning and creation of products using appropriate information and communication technologies;
7. **Local Connections** (L) – application of what has been learned, within local contexts and communities.

A questionnaire to measure the frequency of usage of these skills was created by Ravitz and used in the TfaST project to survey the participating teachers. We have used part of this survey again in the Access21 baseline survey, as part of the analysis of the 'Leadership in Learning' core practice. We also added new questions in all sections of this survey, to analyse the other core practices.

We also enquired about barriers to facilitating the development of these skills and to using 21CL practices. These barriers include lack of access to technology; insufficient instructional time during class; lack of space in an exam-focused curriculum; the need for professional development in both using new technologies and in pedagogies for teaching with technologies (Donnelly, McGarr & O'Reilly, 2011; European Commission, 2013; Somekh, 2008). The barriers commonly cited by teachers can be synthesised into three groups: issues with the schools system, resources, or individual teacher (Euler & Maaß, 2011). These various barriers result in the same effect: teachers' inability to implement fully the intention of modern curriculums across Europe and to use 21CL practices frequently in their teaching.

Section 3 of the survey was focused on the Pathways to College core practice. Teachers were given a description of this core practice as well as some example activities within it: "This section relates to teachers' practices that encourage their students' awareness of their options when they leave school (including progression to post-secondary education). Examples of these practices are: visiting local university campuses, conducting research on available post-secondary courses, filling in mock post-secondary applications, conducting research on internships/apprenticeships."

They were then asked questions about any university or further education institutes that are near to their school, and the nature and frequency of any interactions the school has with such institutes. They were also asked whether and how often they organise any of the above named examples of Pathways to College activities, and how beneficial they deem these to be for their students.

Section 4 of the survey dealt with the Mentoring core practice. Again a description of the practice was provided: "this section relates to any formal or informal mentoring activities

that happen in your school, that aim to increase students' awareness of their post-secondary options (including further education and employment). A mentor is a person with more experience than the student, who acts as an advisor and guide.”

Questions were then posed about the nature and frequency of any mentoring activities that took place in each school, and teachers were asked how beneficial they think these activities are, or would be, for their students, and why.

The final piece of the survey, section 5, was concerned with ‘Leadership through Service’ projects. (The following description of these service projects was given: “This section relates to the establishment of leadership projects in your school whereby students design, plan and deliver projects of their choice, in order to make a positive change in their school or local community. Leadership projects are led by the students, not by teachers, and take place outside normal classroom hours.”

Questions posed focused on the implementation of any such leadership projects in the schools, as well as the perceived importance or benefits of these type of activities.

Note: this core practice was later incorporated with the 21CL skills practice to form one ‘Leadership in Learning’ practice, so it will be discussed this way in the results section.

Throughout the survey, three-point or five-point Likert-type items were used to generate quantitative data, where relevant. For the sections related to teachers’ *Beliefs about 21C Teaching & Learning* and *Barriers to implementation of 21CL practices*, items were rated along a scale of ‘strongly disagree’ to ‘strongly agree.’ For the final part of the survey, which related to teachers’ *Frequency of usage of 21CL practices*, items were rated on a scale from ‘never’ to ‘every day.’ See the appendix for the complete questionnaire. For the other sections, frequency of use was measured on scales such as ‘every year’ or ‘a one-off session’ to ‘once or a few times a year’ to ‘never’. The questions about practices being beneficial or not to students were measured along a scale of ‘strongly disagree’ to ‘strongly agree.’

## 4.2 Data Analysis

The data collected was collated into an Excel spreadsheet. Items were organised by category (frequency of practice of 21C teaching and learning; beliefs about barriers to implementation; frequency of activities related to pathways to college, mentoring and leadership in learning; and beliefs about how beneficial these practices are). Responses

were transformed to numbers in order to quantifiably interpret results and calculate averages and percentages of participants responding a particular way.

The findings have been analysed and are presented by first a general overview of results for the whole group of 67 teachers for each category and subcategory. Results are also compared in order to demonstrate relationships among the categories, as well as identify some discrepancies.

## 5. Survey Results

### 5.1 General Information

Access21 Project administrators and teachers in each of the three schools were responsible for recruiting survey participants from among their teaching colleagues. Colleagues were contacted in person, by email or through relevant groups, and were requested to complete the online questionnaire. The survey was administered through the use of an online survey software, Qualtrics, and it was available online from November 2018 to January 2019. All of the responses were provided voluntarily.

In total, 67 European teachers responded. The numbers of respondents from each school is proportional to the size of the school staff. 40 respondents were female; 27 were male. Teachers had a range of years of experience from 1 to 40 years, with the highest number of respondents having between 4-10 years of experience. There was also a wide range of ages, but the majority of participants were between ages 25-54. Finally, teachers who completed this survey teach a range of subjects.

**Table: Geographic Representation of Survey participants**

Country	Number of Teachers
Ireland	11
Italy	25
Spain	31

**Table: Teaching Experience (Years)**

Number of Years	Number of Teachers
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Less than 1	3
1-3 yrs	7
4-10 yrs	25
11-20 yrs	18
21-30 yrs	8
31-40	6

## 5.2 Pathways to College Core Practice: Mercy Secondary School, Inchicore, Dublin, Ireland

### Introduction

The Pathways to College core practice involves coordinating activities that provide students with a chance to explore post-secondary options. Engagement in this core practice equips students with the knowledge to make informed choices regarding subjects and subject levels for junior and senior students — in the context of exploring post-secondary educational and career options. Activities include, for example, projects relating to college/course choices, mock applications, campus visits, careers fairs, talks by professionals and workplace visits.

In TA21 Schools, all students, from 1st to 6th year, consistently engage in activities that promote college-going. They create and adapt materials that promote college in an inclusive way so that students of diverse backgrounds are encouraged to consider college as an option for them. Thus, the idea of progressing to college is promoted and highly visible in the school and community.

More information about how to run a Pathways to College Programme, as well as a Case Study by Mercy Inchicore Secondary School, can be found in our Access21 Coursebook (Practitioner’s Guide to the Core Practices) (Output 6).

### Pathways to College Results from the Baseline Survey

11 teachers from Mercy Inchicore Secondary School filled out this survey in 2019. It is a small school, with a small number of staff. All teachers surveyed were aware of Pathways to College activities taking place within the school. As mentioned previously, this is to be expected as the school had actively engaged with the Trinity Access 21 project for several years at this point (although not all staff were directly involved with the project).

Teachers were asked to list the university campuses/post-secondary institutes that are nearest to their school. All respondents listed one or more such institutes, with a wide range shared. These included: Trinity College Dublin, Dublin Institute of Technology, University College Dublin, the National College of Art and Design, Inchicore College of Further Education, Pearse College, Crumlin College, Dublin Business School, Liberties College Dublin, and Ballyfermot College of Further Education.

The next question was whether the school has any interactions with any of these post-secondary institutes. All respondents answered in the affirmative. They were asked to rate the nature and frequency of the interactions, under the following categories:

1. Students visit a post-secondary campus
2. Post-secondary/university students or staff visit our school, to speak to students about post-secondary courses/careers

The results were somewhat mixed: most teachers answered that these activities occurred every year; however it was not clear whether they meant that every year group do these activities every year, or that every year at least one group of students takes part. A smaller number answered that these activities take place once during the school career of each student, and one teacher only answered that the visits of students or staff from a post-secondary institute never happens. The latter may indicate that this teacher is not aware of such visits occurring.

Next, teachers were asked how often the following activities are organised:

1. Students research post-secondary education courses. This might include different entry routes and financial supports for post-secondary education
2. Students fill in mock application forms for post-secondary courses

This time, the results were quite a bit more mixed, indicating perhaps that teachers in the school have different levels of awareness of these activities, but that they are definitely happening in some classes.

These questions were followed up with an enquiry about how beneficial teachers believe these types of activities to be for students. Out of those teachers who were aware of the Pathways activities that were taking place, all teachers strongly agreed that they were very beneficial for students. Some reasons included:

“These activities are very beneficial because they break down the barriers between students and college.”

“They help them understand the process and see the possibilities.”

“It helps the students to visualise the path they need to take to actualise their dreams.”

Students get an insight to life in college and it helps them to make the best decision for them.”

“Students who are currently attending these universities visit our girls and it allows our girls to see that people from the same background and area etc. as them can go to college too. It opens their eyes to more options.”

Some who do not do Pathways activities or are not aware of them agree that they would be very beneficial for students, with one reason given as:

“It gives them an idea what university is all about and will encourage them to apply.”

One disagreed and said that: “I found have that too much information on going to College has encouraged [students] to do less work in class if they discover your subject is no longer needed for their course.”

### 5.3 Mentoring Core Practice: Istituto Comprensivo Val Rendena, Pinzolo, Italy

#### Introduction

The Mentoring core practice in TA21 Schools involves various types of mentoring programmes, designed to foster academic and personal growth among all students. It includes, for example, college-focused mentoring, peer-to-peer mentoring, and career-focused mentoring. Mentoring provides all students with a supportive relationship with a more experienced individual who can serve as a role model — such as teachers, community leaders, peers, adults, and/or college students.

Good mentoring programmes are well structured, build trust through which information can be transferred, and enable students to develop self-esteem and confidence. Mentoring is not a once-off activity; it involves a mentor engaging with a mentee/small group of mentees over a length of time. In TA21-linked schools, the aim is that all students would participate in long term mentoring programmes as both mentees and mentors, that mentoring becomes integrated in school planning, and that community partners form part of the mentoring structure.

More information about how to run various types of Mentoring Programmes, as well as a Case Study by ICVR School in Italy, can be found in our Access21 Coursebook (Practitioner’s Guide to the Core Practices) (Output 6).

### Mentoring Results from the Baseline Survey

25 teachers from the Italian school filled out the survey. The context of the school is important, as it's a 'middle school' or 'lower secondary school' in the Italian school system. This means that students attending are aged 10-14. After they leave this school level, they go on to an upper secondary school. There are several choices of upper secondary school, including schools which prepare them for university, and vocational schools. This means that mentoring students around their choices of post-secondary school is an important aspect to the curriculum.

Here is the analysis of their responses about mentoring. We began by asking whether the school has a programme of mentoring, whereby people in the school (older students and/or staff) or people from outside the school (college students and/or outside experts) help their students become ready for college and/or a career. 12 respondents, almost half, indicated that there was such a programme in the school. 6 responded that there was not. 4 didn't know, and 2 people didn't answer the question. As with the Pathways to College questions, these answers indicate that sometimes teachers are not aware of every type of activity that goes on within a school.

They were next asked how often they organised the following types of different mentoring activities (this question was directed at the respondents who were aware of or involved in mentoring-style programmes):

1. Older students from this school mentor younger students, talk to them about post-secondary plans (peer mentoring)
2. Staff at the school mentor students in our school (teacher mentoring)
3. Past students from this school, who have studied at post-secondary level, come to our school to meet our current students/talk to them via Skype (or other online platform)
4. Experts from outside the school mentor students in our school

11 teachers responded that peer-mentoring style activities existed in the school. 10 indicated that teacher mentoring occurred. 6 responded that past students acted as mentors to current students, and finally 11 indicated that outside experts were involved in mentoring in this school. Again, the results were varied in terms of how often teachers thought that these types of activities happened.

We then asked about the perceived level of benefits to students of these types of mentoring activities. All but one person who answered the question either agreed or strongly agreed

that they are beneficial. Some reasons were given, which detail the benefits both for mentors and mentees:

“Because it's like a peer education. Older students can tell younger students about their schools, about the difficulties they have found and about the positive and negative aspects. They can be more persuasive.”

“It's good for my students. They can ask about post-secondary school to older students and it's easier for them.”

“I think the guys who played the role of peer tutor during the reception day, have had great satisfaction and have increased their self-esteem.”

“At our level of education mentoring can be useful, in order to get an indicative idea of their interests for the future.”

“It's important for the students to know not only the possibilities but also the experiences of people that have already experimented with these possibilities.”

Teachers who don't run mentoring activities also agreed broadly that such programmes would be useful and beneficial to students, for similar reasons as the above.

#### 5.4 Leadership in Learning Core Practice: Institut Ribera Baixa, El Prat de Llobregat, Barcelona, Spain

##### Introduction

The Leadership in Learning core practice involves teachers guiding students in ways that help develop students' autonomy and self-direction, as well as skills such as collaboration, communication, creativity and critical thinking/problem-solving.

In TA21-linked schools, teachers use an innovative, student-centred pedagogy — Bridge21 — to provide a framework for students to develop skills within the context of both:

- Engagement in student-led community service projects
- Teaching & learning in the formal curriculum

The Leadership in Learning core practice is distinct from Pathways and Mentoring in that it has components aimed both directly at students and at supporting teacher professional development.

More information about how to run various types of Leadership in Learning Programmes, as well as a Case Study by IRB School in Spain, can be found in our Access21 Coursebook (Practitioner's Guide to the Core Practices) (Output 6).

## Leadership in Learning Results from the Baseline Survey

### **PART ONE**

Beginning with student-led community service projects, we asked the teachers in Institut Ribera Baixa in Spain several questions, beginning with “Within the school, do your students take part in any leadership projects (either in the school or the local community)?” 31 teachers responded. Out of these, 10 responded Yes, 4 No and 10 didn’t know. The rest left the question blank so perhaps didn’t understand it or didn’t know the answer. The following description of what counts as a leadership project was provided before the question:

“Leadership projects are those whereby students design, plan and deliver projects of their choice, in order to make a positive change in their school or local community. Leadership projects are led by the students, not by teachers, and take place outside normal classroom hours.”

What counts as a leadership project can vary hugely, so although a description was provided, some teachers may have been unsure if anything that falls under this category was happening in the school.

We next asked them to briefly describe the type of projects that are going on, and the responses included the following:

“Sharing to learn: Students prepare reading activities in English and put them into practice with primary school students.”

““Connecta Jove”: Students teach adults computer programmes.”

“There is a project where they give support to older people.”

“Students have groups in which they take action with: Festivities and events; sustainability and the environment; community service volunteering.”

The teachers were then asked about their belief that such activities are beneficial to students. Almost all agreed that they are.

Reasons given included:

“It helps them widen their view beyond school and become active members of their community.”

“Students understand how important they can come to be within their community by considering their own abilities.”

“Getting involved is important for them.”

“Because students learn the importance of helping others.”

Additionally, a question was asked to those who don't think leadership projects are happening or aren't aware of them; this group of respondents also mostly agreed that they would be important and beneficial. The reasons given included:

“Because the students that get involved in their local communities become responsible adults in the future. It makes them aware of the importance of belonging to a community and it provides the local communities a different point of view and even solutions to problems they haven't thought of.”

“They feel important and more responsible when they know they can help other people in different ways.”

I think that when students are directing and managing these projects themselves, they really make it their own and internalize the results.”

“If all the schools all over the world would do such projects, the world would be a better place.”

## **PART TWO**

Going on to teaching & learning in the formal curriculum, we gathered information related to the frequency with which teachers use practices, strategies and pedagogies that foster the development of students' 21<sup>st</sup> Century or key skills. There were a total of 27 items in this section, with 3-4 items for each of the seven 21C skills – Critical thinking (CT), Collaboration (CO), Communication (CM), Creativity & Innovation (CR), Self-direction (S), Using technology (T), and Local Connections (L) – as outlined and articulated by Ravitz et. al (2012) (see section 4.1 for definitions and details of these skills).

All items in this section were adapted from Ravitz et al. (2012). For each item, participants are asked to indicate a response to the question: “In your teaching, how often do you ask your students to do the following?” – which is followed by a series of statements related to each of the 21C skills (e.g. “Evaluate the credibility and relevance of online resources,” “Prepare and deliver an oral presentation to the teacher or others,” or “Choose for themselves what examples to study or resources to use.”). [The appendix contains the complete questionnaire.] For each item, participants are asked to choose one of the following responses: Never, 2/3 times per year, every month, every week or every day.

For the purpose of analysing results, responses were numerically transformed so that 1=never; 2=2/3 per year; 3=Every month; 4=Every week; and 5=Every day. For each subscale related to a key 21C skill, an average – based on the 3-4 items in that subscale – was found for each participant. Accordingly, an average score of 2.65 in the subscale of Self-direction

would indicate that a teacher uses practices and strategies that encourage the development of students’ self-direction skills occasionally – about 2/3 times per year.

**Table: Frequency of Practice (N=31)**

	All practices	CT	CO	CM	CR	S	T	L
IRB teachers	2.7	3.0	2.8	2.4	2.6	2.7	3.0	2.4

**Key**

- 1–1.9: Never/Almost Never
- 2.0–2.9: Occasional (2/3 times per year)
- 3–3.9: Often (Every month) 3 – 3.9
- 4.0–5.0: Almost Always (Every week – everyday)

To summarise the results, teachers on average are reporting that they are somewhat frequently using practices that encourage the development of their students skills in these areas; all skills fell between ‘occasional’ to ‘often’ usage. Critical thinking (CT) and Technology (T) practices had the highest overall mean, indicating that teachers are using them on at least a monthly basis, and often a weekly or daily basis. The CT items on the survey include, for example: [In your teaching, how often do you ask your students to do the following:]

- Try to solve complex problems or answer questions that have no single correct solution or answer?
- Develop a persuasive argument based on supporting evidence or reasoning?

The items on the survey related to T include, for example: [In your teaching, how often do you ask your students to do the following:]

- Select appropriate technology tools or resources for completing a task?
- Use technology to support teamwork or collaboration (e.g., shared workspaces, email exchanges, giving and receiving feedback, etc.)?

These scores were overall lower than the average frequency of usage of 21CL practices that we uncovered in a previous study (from the Teaching for a Sustainable Tomorrow project). Therefore, it was important for us, upon reviewing these results, to particularly encourage the teachers in IRB to embrace more innovative pedagogies and for them to use these both in classroom teaching and in assisting students to become leaders. Communication (CM) skills and Local Connections (L) had the lowest reported frequency of use, so part of the project for these teachers would focus on the development of these skills in particular, via the Leadership in Learning core practice.

We also asked teachers about *barriers or challenges* to implementing 21CL practices in their classroom. This section contains 11 items adapted from the PRIMAS report (Euler & Maaß, 2011). For each item, participants are asked to “Please indicate to what extent you agree or disagree with the following statements.” They are asked to choose one of the following responses: strongly disagree, disagree, undecided, agree, or strongly agree. Consistent with Euler & Maaß (2011), the 11 items relating to *Barriers* are grouped together in three thematic categories: Resources (RES); Classroom Management (CLA); and System restriction (SYS). Results are presented accordingly.

According to the Spanish teachers surveyed, the greatest barriers to 21CL skill usage came under the SYS category, such as time and curriculum. This is consistent with previous surveys we have carried out with other groups of European teachers. Teachers said, for example: “Lack of freedom in the curriculum” and “Necessity to prepare students for exams.” Some responses fall under the category of RES, and relate mostly to physical equipment, such as “lack of internet access/computers in schools. Across the three categories of barriers, teachers’ results came out with an average (out of 5) between 3 and 4, indicating that barriers were a significant issue. They expressed fears that they did not know enough about the 21<sup>st</sup> Century skills model to implement it confidently; and that issues such as large class sizes and motivation in students may present problems for them. This was an excellent starting point for this school in particular to begin to learn about and implement more strategies for developing crucial skills in their students, both inside and outside of the classroom.

## 6. Discussion and Conclusions

The aims of the creation and implementation of the survey included identifying the current state of play of the TA21 core practices within our three partner schools. Through this tool, we established a baseline of the (actual and perceived) level and quality of Pathways to College activities in the Irish school, the Mentoring activities in the Italian school, and the Leadership in Learning activities in the Spanish school. Having this information, in the first six months of the project allowed the project leads to direct the conversations among the partners so as to be most productive and beneficial for all of us. Specifically, it gave us focus on the following areas:

- Mercy Secondary School, Inchicore: MSS already had a solid baseline of activities in Pathways to College, and over the past few years their level of progression of their students to third level or further education has steadily risen. Their involvement in this project facilitated them to have detailed discussions with all project partners in terms of how to leverage their ongoing success, and identify areas of weakness that

they could focus on in future. They decided that STEM (Science, Technology, Engineering and Maths) was an area that they were not paying enough attention to, and that they wanted to increase the participation of the girls in their school in STEM-related subjects. This became the main focus of their Pathways to College programme throughout the project, and led to them partnering with an Irish university as part of a structured STEM outreach programme.

- Istituto Comprensivo Val Rendena, Pinzolo: As a new school to TA21, ICVR were in a good position to lead on the Mentoring core practice, given that they had several and varied mentoring activities across the school, mainly focusing on the transition of students from lower to upper secondary level. Their results in this survey demonstrated that they strongly believe in the power of good mentoring. Following subsequent conversations among the partners, they decided that their focus should be on teacher mentoring with second year students, who have two years to decide which type of school they want to attend after graduating the lower secondary. This type of mentoring would allow the teachers to form small groups and consistently meet with these mentees in order to develop future plans.
- Institut Ribera Baixa, Barcelona: IRB are a large school, and while they have many strengths and accolades, they serve a mixed population of students, some of whom are at risk of not finishing school or getting involved in troublesome activities outside of school. For this reason, Leadership in Learning is an extremely valuable set of practices for this target audience of teachers and students. The project allowed the teachers involved to join forces, to learn more about the importance of skills development, not just for curricular learning but for enhanced student confidence. Their leadership project was chosen by their students, who were a group determined to bring important issues to the forefront of their community. Teachers supported them to achieve their goals and to appreciate their own efforts and influence.

All of the above core practice initiatives are explained in more detail in the case studies contained within the Access21 Coursebook (Practitioner's Guide) i.e. Output 6.

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Appendix: Questionnaire (next page)

## Default Question Block

You are invited to participate in this survey in order to provide background information for an Erasmus+ project. The project is called Access21: Empowering Students, and is a collaboration between the following partners: Trinity Access21, Trinity College Dublin, Ireland; Institut Ribera Baixa, El Prat de Llobregat, Spain; I.C. Val Rendena, Pinzolo, Italy; and Mercy Secondary School, Dublin, Ireland.

The Access21 project has been developed from the shared goal of empowering students of all backgrounds to achieve their full potential, both academically and personally. Through this survey, we wish to measure experience, attitudes and beliefs of participating teachers, centred on the project's four core practices: 21st Century Teaching and Learning; Pathways to College; Mentorship; and Leadership through Service.

### Research Participation:

In order to establish background information about teachers' current experiences with these practices, we are asking you to fill in this questionnaire. All of the data provided will be anonymised and stored in accordance with the Data Protection Act at Trinity College Dublin. There may be lectures, PhD theses, conference presentations and peer-reviewed journal articles written as a result of this project; however, the teachers and schools will not be identified.

### Voluntary Nature:

Participation in this project is voluntary. You may change your mind and stop at any time. You may withdraw from the study at any time, without penalty.

### Benefits:

We hope that this project will result in the provision of adequate structure, support and scaffolding for teachers to facilitate the development of skills in young people, within the school environment, which will assist them in pursuing options (educational and employment) beyond post-secondary education. Our hope is that this study will provide a strong evidence base for the coming years, relating to the kinds of supports at school level that would best enable the leadership, teachers, and students to develop and sustain a culture of educational aspiration at local, national, and

transnational levels. We believe that partnering with you all in this way will provide an opportunity for you to articulate what would help to support the development of such practices in your school.

#### Confidentiality:

We plan to publish the results of this study. Our report will not include any information that would identify you or your school.

### Section 1: Background Information

#### Q1.1 Your Name

#### Q1.2 Email Address

#### Q1.3 Sex

- Male
- Female

#### Q1.4 Age

- Under 25 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old

#### Q1.5 School Name

- Mercy Secondary School, Goldenbridge, Dublin 8, Ireland
- Institut Ribera Baixa, El Prat de Llobregat, Spain

I.C. Val Rendena, Pinzolo, Italy

#### Q1.6 Country of Employment

Ireland

Spain

Italy

#### Q1.7 Including this year, how many years have you been teaching at secondary school level (Ages 11 - 19)?

This is my first year

1-3 years

4-10 years

11-20 years

21-30 years

31-40 years

More than 40 years

#### Q1.8 Including this year, how long have you been teaching at *this* school?

This is my first year

1-3 years

4-10 years

11-20 years

21-30 years

31-40 years

More than 40 years

#### Q1.9 What year groups do you teach? (Select all that are relevant)

Year 6 (~ages 10 - 12)

Year 7 (~ages 11 - 13)

Year 8 (~ages 12 - 14)

- Year 9 (~ages 13 - 15)
- Year 10 (~ages 14 - 16)
- Year 11 (~ages 15 - 17)
- Year 12 (~ages 16 - 18)

Q1.10 What subject(s) do you teach? (Please tick all that apply)

- Mathematics
- English
- Other language (please write which ones)
- Religion
- Sciences
- History
- Geography
- Home Economics
- Music
- Art
- Business/Accounting
- Construction
- Engineering
- Health Education
- Civic/Political Education
- Other (please write subject name)

## Section 2: 21st Century Teaching and Learning

There is no single, universally recognised definition of 21st Century skills or of the types of teaching and learning required to achieve them. However, the development of skills relating to communication and collaboration, problem-solving and creativity, as well as technological fluency, is seen as being fundamentally important. Many of these skills can be defined as higher-order thinking and learning skills, or “life-skills”, and they are seen as being transversal (not subject-specific) and multi-dimensional, impacting on attitudes and knowledge.

In this study, we consider 21st Century learning (21CL) practices as encouraging the development of the following skills:

Critical thinking

Collaboration  
 Communication  
 Creativity  
 Self-direction  
 Global skills  
 Local connections  
 Using technology

You can click on this link to see definitions of these skills:

[https://docs.google.com/a/tcd.ie/document/d/1S1ho-fhb3SN5TQVh\\_j7sX15U\\_opRV8meDFAGNuQHeTw/edit?usp=sharing](https://docs.google.com/a/tcd.ie/document/d/1S1ho-fhb3SN5TQVh_j7sX15U_opRV8meDFAGNuQHeTw/edit?usp=sharing).

Q2.1 In your teaching, how often do you ask your students to do the following?

	Never	2-3 times per year	Every month	Every week	Every day
Try to solve complex problems or answer questions that have no single correct solution or answer?	<input type="radio"/>				
Analyse competing arguments, perspectives or solutions to a problem?	<input type="radio"/>				
Develop a persuasive argument based on supporting evidence or reasoning?	<input type="radio"/>				
Draw their own conclusions based on analysis of numbers, facts or relevant information?	<input type="radio"/>				
Create joint products using contributions from each student?	<input type="radio"/>				
Work with other students to set goals and create a plan for their team?	<input type="radio"/>				
Work in pairs or small groups to complete a task together?	<input type="radio"/>				

	Never	2-3 times per year	Every month	Every week	Every day
Present their group work to the class, teacher or others?	<input type="radio"/>				
Prepare and deliver an oral presentation to the teacher or others?	<input type="radio"/>				
Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)?	<input type="radio"/>				
Invent a solution to a complex, open-ended question or problem?	<input type="radio"/>				
Test out different ideas or work to improve them?	<input type="radio"/>				
Generate their own ideas about how to confront a problem or question?	<input type="radio"/>				
Create an original product or performance to express their ideas?	<input type="radio"/>				

Q2.2 In your teaching, how often do you ask your students to do the following?

	Never	2-3 times per year	Every month	Every week	Every day
Choose for themselves what examples to study or resources to use?	<input type="radio"/>				
Monitor their own progress towards completion of a complex task and modify their work accordingly?	<input type="radio"/>				

	Never	2-3 times per year	Every month	Every week	Every day
Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)?	<input type="radio"/>				
Select appropriate technology tools or resources for completing a task?	<input type="radio"/>				
Use technology to support team work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)?	<input type="radio"/>				
Evaluate the credibility and relevance of online resources?	<input type="radio"/>				
Investigate topics or issues that are relevant to their family or community?	<input type="radio"/>				
Apply what they are learning to situations, issues or problems in their local community?	<input type="radio"/>				
Talk to one or more members of their local community about a class project or activity?	<input type="radio"/>				

The questions above (2.1 and 2.2) refer to activities that help to develop '21st Century Learning Skills' in students (21CL for short).

Q2.3 Please indicate to what extent you disagree or agree with the following statements

"I have difficulties implementing 21CL because...."

Strongly disagree      Disagree      Undecided      Agree      Strongly agree

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
The curriculum does not encourage 21CL	<input type="radio"/>				
I don't know how to assess 21CL	<input type="radio"/>				
I don't have access to any adequate professional development programs involving 21CL	<input type="radio"/>				
I worry about students' discipline being more difficult in 21CL lessons	<input type="radio"/>				
I don't feel confident with 21CL	<input type="radio"/>				
I worry about my students getting lost and frustrated in their learning	<input type="radio"/>				
My colleagues do not support 21CL	<input type="radio"/>				
There is not enough time in the curriculum	<input type="radio"/>				
I don't have sufficient resources such as computers, laboratory, etc....	<input type="radio"/>				
My students have to take assessments that don't reward 21CL	<input type="radio"/>				
The number of students in my classes is too big for 21CL to be effective	<input type="radio"/>				

Q2.4 Please comment on any other difficulties you have in the implementation of 21CL in your lessons:

**Section 3: Pathways to College**

This section relates to teachers' practices that encourage their students' awareness of their options when they leave school (including progression to post-secondary education). Examples of these practices are: visiting local university campuses, conducting research on available post-secondary courses, filling in mock post-secondary applications, conducting research on internships/apprenticeships.

Q3.1 Please list the university campuses/post-secondary institutes that are nearest to your school

Q.3.2 Does your school have any interactions with any of these post-secondary institutes?

- Yes
- No
- I don't know

Q3.3 If Yes, please describe the nature and frequency of such interactions, as follows:

	Every year	Once during their school years	Never
Students visit a post-secondary campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Post-secondary/university students or staff visit our school, to speak to students about post-secondary courses/careers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Every year	Once during their school years	Never
Other (please describe)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3.4 How often do you organise the following activities?

	Every year	Once during their school years	Never
Students research post-secondary education courses. This might include different entry routes and financial supports for post-secondary education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students fill in mock application forms for post-secondary courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe) <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3.5 If you DO organise activities described in Q3.3 and 3.4 above, please indicate how much you agree with the following statement:

	Strongly disagree	Disagree	Don't know	Agree	Strongly agree
These activities are very beneficial for our students	<input type="radio"/>				

Q3.5.1 Please explain your answer to the previous question - why did you answer the way you did?

Q3.6 If you DO NOT organise activities described in Q3.1 and 3.2 above, please indicate how much you agree with the following statement:

	Strongly disagree	Disagree	Don't know	Agree	Strongly agree
These activities would be very beneficial for our students	<input type="radio"/>				

Q3.6.1 Please explain your answer to the previous question - why did you answer the way you did?

#### Section 4: Mentoring

This section relates to any formal or informal mentoring activities that happen in your school, that aim to increase students' awareness of their post-secondary options (including further education and employment). A mentor is a person with more experience than the student, who acts as an advisor and guide.

Q4.1 Does your school have a programme of mentoring, where people in your school (older students and/or staff) OR people from outside your school (college students and/or outside experts) help your students become ready for college and a career?

- Yes
- No
- I don't know

Q4.1.1 If Yes, how often do you organise the following activities?

	A one-off session	A few times a year	Never
Older students from this school mentor younger students, talk to them about post-secondary plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff at the school mentor students in our school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A one-off session

A few times a year

Never

Past students from this school, who have studied at post-secondary level, come to our school to meet our current students/talk to them via Skype (or other online platform)

Experts from outside the school mentor students in our school

Other (please describe)

Q4.2 If you DO organise activities described in Q4.1.1 above, please indicate how much you agree with the following statement:

Strongly disagree

Disagree

I don't know

Agree

Strongly agree

These activities are very beneficial for our students

Q4.2.1 Please explain your answer to the previous question - why did you answer the way you did?

Q4.2.2 What age are the students when they receive mentoring? Please select all that apply

10-12 years old

13-15 years old

16-18+ years old

Q4.3 If you DO NOT organise activities described in Q4.1.1 above, please indicate how much you agree with the following statement:

	Strongly disagree	Disagree	I don't know	Agree	Strongly agree
These activities would be very beneficial for our students	<input type="radio"/>				

Q4.3.1 Please explain your answer to the previous question - why did you answer the way you did?

## Section 5: Leadership through Service

This section relates to the establishment of leadership projects in your school whereby students design, plan and deliver projects of their choice, in order to make a positive change in their school or local community. Leadership projects are led by the students, not by teachers, and take place outside normal classroom hours.

Q5.1 Within the school, do your students take part in any leadership projects (either in the school or the local community)?

- Yes
- No
- I don't know

Q5.1.1 If Yes, please describe briefly the type of projects that are going on:

Q5.2 If leadership projects DO take place in your school, please indicate how much you agree with the following statement:

	Strongly disagree	Disagree	I don't know	Agree	Strongly agree
These projects are very beneficial for our students	<input type="radio"/>				

Q5.2.1 Please explain your answer to the previous question - why did you answer the way you did?

Q5.3 If leadership projects DO NOT take place in your school, please indicate how much you agree with the following statement:

	Strongly disagree	Disagree	Don't know	Agree	Strongly agree
These types of projects would be very beneficial for our students	<input type="radio"/>				

Q5.3.1 Please explain your answer to the previous question - why did you answer the way you did?

