D2.3.1: Implementation Plan of Learning Platform using Office 365

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1   INTRODUCTION

The purpose of this document is to define the **Implementation Plan for developing the online Learning Platform using Office 365** that will be used for student-centred learning and assessment during the pilot implementation of the ATS2020 project. The User Requirements described in deliverable 2.1.1 will serve as the basis for the implementation plan of the platform.

1.1.1   Based on the User Requirements defined in Deliverable 2.1.1 and the assessment of available tools and platforms in Deliverables 2.2, we have decided to develop the ATS2020 learning platform based on two separate platforms, Office 365[1] and Mahara[2]. This would eventually lead to two platforms with similar characteristics. Users, at the country or school level, will be able to choose either one of the two platforms to use.

This document is organized as follows. In Section 2 "Project Management", we give an overview of the different phases and tasks of implementation, while in Section 3 "Office 365 Education Plan" we describe the available services of Office 365 for Education. In the last section, Section 4 "Implementation" we describe in detail the workflows and development aspects of the implementation.

2   PROJECT MANAGEMENT

2.1   PROJECT TEAM

Cyprus Pedagogical Institute (**CPI**) and Microsoft will be in charge of the implementation plan for Office 365. **Table 1** shows the Project Team members for the learning platforms based on Office 365, along with their role and contact information.

Role	Name	Email
Project Manager	Anastasia Economou	anasta@cyearn.pi.ac.cy
System Developer	Nicolas Kanaris, Haris Zacharatos	kanaris.n@cyearn.pi.ac.cy, zacharatos.h@cyearn.pi.ac.cy
Security Officer	Pambos Charalambous	nicolaou.p@cyearn.pi.ac.cy
System Administrator	Nicolas Kanaris	kanaris.n@cyearn.pi.ac.cy
Database Administrator	Microsoft	
Microsoft Education Tech. Advisor	Oliver Zofic	a-ozofic@microsoft.com

Table 1: Office 365 Project Team members from Cyprus Pedagogical Institute (CPI)

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[1] https://products.office.com/en-us/student/office-in-education

[2] https://mahara.org/

The Project Team consists of a Project Manager and a number of Project Team members, who are brought in to deliver their tasks according to the project implementation plan. The **Project Manager** is responsible for the oversight of the project, the day-to-day activities of the Project Team, and for ensuring that the overall goals and timeframes are met on schedule and within scope of the project proposal. The **Project Team Members** are responsible for executing tasks and producing deliverables as directed by the Project Manager.

2.2   IMPLEMENTATION PHASES

The development of the ATS2020 learning platform will pass through four main phases: set up of administration platform, development of teacher dashboard, development of students dashboard, and deployment of learning analytics (see **Figure 1**). Each step will be built upon ready made modules or/and applications of **Microsoft's Office 365** and customized according to the project needs.

Monitoring progress of the implementation, in systematic manner at regular intervals during implementation, will allow to track progress towards outcomes and make adjustments to implementation arrangements as necessary. Changes, enhancements and new functionality will be implemented along the duration of the project, based on feedback from the users and needs that will arise for the completion of the project.

The ATS2020 learning platform will be available for use by all partners participating in the project.

| Administration Platform | Teacher Dashboard | Student Dashboard | Learning Analytics |

Figure 1: Main phases for developing the ATS2020 learning platform

2.3   DOCUMENTATION

User help **documentation** was created for teachers and students with step by step instructions and visualizations. This documentation is available as "Guides for Tools" via the ATS2020 resources portal at the following link:

https://resources.ats2020.eu/resource-listing?q=&category=GUTS&country=&lng=&learning=o365&media=&perpage=10&sortby=title.

2.4   TRAINING

It is important to provide the teachers involved in the project, with a clear and common understanding of the use of the ATS2020 learning platform developed, under the scope of the project. Therefore, emphasis is given in a series of training activities which will be performed in the form of **face-to-face workshops** and **online webinars** through Skype or other online environments. In addition, **training material** and **resources** produced (see **subsection 2.3** Documentation) will be available online, in order to guide and support

teachers. This will be achieved through the Teachers' professional development work package (WP3).

The training program will start with the selection of teachers, from each participating country, that will act as trainers at national level. These trainers will undergo a train-the-trainers workshop at transnational level, followed up with online webinars. In turn these trainers will coach at national level the teachers of their country participating in the project. **Figure 2** gives an overview of the training plan.

```
┌──────────┐  ┌──────────────┐  ┌────────────┐  ┌────────────┐  ┌──────────┐
│ Identify │  │ Transnational│  │  Create &  │  │  Register  │  │ National │
│ trainers │  │   training   │  │ distribute │  │ teachers & │  │ training │
│          │  │              │  │   guides   │  │  students  │  │          │
└──────────┘  └──────────────┘  └────────────┘  └────────────┘  └──────────┘
```
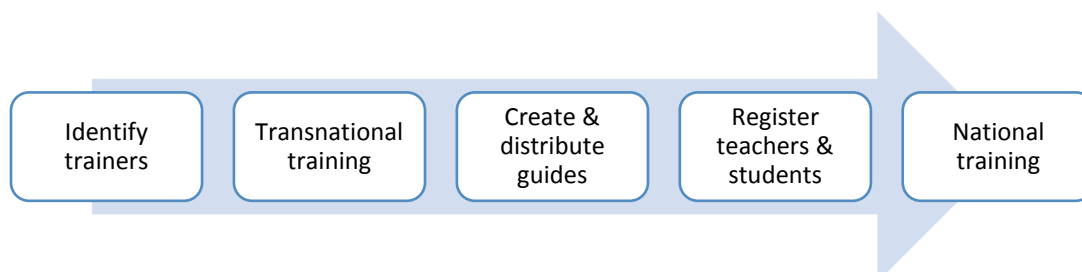
Figure 2: Training plan for ATS2020 learning platform

2.5 EVALUATION

The success of an initiative is determined by the extent to which intended and unintended project outcomes are achieved and how they have affected stakeholders. Planning for evaluation should identify and map baseline information as well as ensure that ongoing access to consistent data sources will be available through monitoring over the life of the initiative.

All relevant stakeholders need to be engaged for monitoring, review and evaluation activities to be successful, by clearly communicating the benefits of activities and providing feedback and comments. Evaluation of the program will be collected following training activities to ascertain teachers and student's reactions. Comments will be evaluated and corrections made as possible during future training sessions. Findings and recommendations from reviews regarding the learning platform should be used to improve implementation.

2.6 MAJOR TASKS

The development tasks can be divided into the following main categories:

- **Administration setup**: Login, user registration, user assignment, backups, monitoring, support
- **Teacher Dashboard**: Profile page, repository, journal, my learning, ePortfolio, learning space
- **Student Dashboard**: Profile page, repository, journal, my learning, ePortfolio, learning space
- **Learning Analytics**
- **Training**: Provide appropriate training for trainers and teachers, Creation of guides
- **Server administration**: system admin at project level and regional administrators at national level

- **System Validation**: test learning platform, user feedback

3   OFFICE 365 EDUCATION PLAN

3.1   ABOUT

Microsoft Ltd. a core enterprise partner of the project has assisted in the provision of **Office 365 Education** plan[3] for the needs of ATS2020 project. Office 365 Education is a **cloud-based service** which includes a collection of services that allows students and teachers to work together, in a secure, reliable and productive way. Office 365 is designed to work with the latest versions of all widely used browsers, i.e. Microsoft Edge, Internet Explorer, Safari, Chrome and Firefox.

3.2   SERVICES INCLUDED

Students and teachers, get the online versions of Office plus **1 TB online storage for free**. In particular Office 365 Education includes[4]:

- **Office Online:** Create and edit Word, OneNote, PowerPoint, and Excel documents from a browser. Note that Office Online, includes "**online versions**" of the associated applications with limited functionality when compared to the corresponding desktop versions.

- **OneDrive for Business:** 1 TB of personal cloud storage that can be accessed from anywhere. Easily share documents with others inside and outside your organization and control who can see and edit each file.

- **OneNote Class Notebook:** Notebooks with a personal workspace for every student, a content library for handouts, and a collaboration space for lessons and creative activities (available only for teachers).

- **OneNote Staff Notebook:** A powerful Notebook with a personal workspace for every staff member or teacher, a content library for shared information, and a collaboration space for everyone to work together (available only for teachers).

- **Sway:** Easily create engaging, interactive web-based reports, presentations, newsletters, trainings and more—right from your phone, tablet, or browser. Sways are easy to share and look great on any screen.

- **Email and Calendars:** Business-class email through a rich and familiar Outlook experience which you can access from a desktop or from a web browser (50 GB mailbox per user, attachments up to 150 MB).

- **Sites** (SharePoint Online)**:** Work together on projects with team sites that help keep related documents, notes, tasks, and conversations organized together.

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[3] https://products.office.com/en-us/student/office-in-education

[4] https://products.office.com/en-us/academic/office-365-education-plan

- **Yammer:** Secure, private social networking for your school. Helps students and teachers connect with each other, share information, and organize around projects so they can work and learn better together.

- **Skype:** Connect with other Skype for Business users via instant message, voice calls, and video calls, and let people know your availability with your online status. Share presence, IM, and audio calling with Skype users.

3.3   LICENSES

For the needs of the project the following **licenses** (associated with user profiles) of Office 365 Education Plan have been acquired:

- Office 365 Education for **faculty**: **1,000** licenses (for partners and teachers)

- Office 365 Education for **student**: **10,000** licenses (for students)

3.4   DURATION OF SERVICE

It is important to note that we will **NOT** delete any ATS2020's Office 365 account at the end of the project. All users will be able to access and use the service, even after the end of the project. However, it is important to note that once the project is finished, we will be able to provide limited support to the countries and teachers.

Please have in mind that all academic institutions are eligible for Office 365 Education plan. Therefore, if a school or any other academic institution at national level would like to continue working with Office 365, they can apply for Office 365 Education[5] plan. In such case, the Office 365 Project team of ATS2020 will provide support for migrating data and users.

4   IMPLEMENTATION

In the "User and Technical Requirements Report for ATS2020's Learning Platform" (**Deliverable 2.1.1**) different use case models are described:

1. User Registration

2. User Login and landing page

3. Teacher Dashboard

4. Student Dashboard

In this section, the implementation process for these use cases is described in more details.

4.1   DOMAIN NAME REGISTRATION AND DNS HOSTING

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[5] https://go.microsoft.com/fwlink/p/?LinkID=620447&culture=en-US&country=US

The domain name registered for the implementation of the ATS2020 programme is the "ats2020.eu". The DNS servers of the Cyprus Pedagogical Institute will provide DNS hosting for all the provisioned services under this domain.

4.2 USER REGISTRATION

All persons participating in the ATS2020 project need a **user account** before they can sign in and access ATS2020's Office 365 learning portal and the related Office 365 services. The System and Regional Administrators **handle user registration**. An administrator can add users to Office 365 individually[6] or add several users[7] at the same time.

For both cases, the administrator needs first to sign in to Office 365 with his ATS2020 account, go to the **Admin Center**, choose **Users** and then **Active Users** (see **Figure 3**).

In order to add a user individually the administrator needs to:

- Choose **Add a user** in the Active Users page.

- Enter a **display name** and a **user name** (the domain is fixed to ats2020.eu) in the New user account page.

- Set initial **password** or leave Office 365 to generate automatically a new temporary password for the user.

- Assign a **role** to the user, i.e. user (no administrator access), global administrator, or customized administrator.

- Assign a **product license** (**user profile)**: Office 365 Education for faculty (**Teacher**) or Office 365 for students (**Student**).

- Choose **Save**

After completing the steps above, a confirmation will be shown on screen that the user account and password was created. At this point the admin is given the option to designate (up to 5) email accounts which will receive an email notification from Microsoft Online Services Team. The email will contain the person's Office 365 **user ID** and **password** so they can sign in to Office 365. It is recommended that teachers provide their email address to the system administrators, to receive via the email notification service their own credentials as well as the credentials of their students. In addition, the regional administrators should be notified.

To add several users at the same time the administrator needs to:

- Choose **Add user in bulk** in the Active Users page.

- Select a **CSV file** containing user information (see **Figure 4**).

  It is important to note here that the CSV file needs to have a specific format. A sample CSV file[8] for adding users to Office 365 is available for download through Microsoft. The spreadsheet needs to include the **exact** same column headings as the sample one (i.e. User Name, First Name, etc.). However, Office 365 requires that the spreadsheet

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[6] https://support.office.com/en-us/article/Add-users-individually-to-Office-365-Admin-Help-1970f7d6-03b5-442f-b385-5880b9c256ec

[7] https://support.office.com/en-us/article/Add-several-users-at-the-same-time-to-Office-365-Admin-Help-1f5767ed-e717-4f24-969c-6ea9d412ca88

[8] https://www.microsoft.com/en-us/download/details.aspx?id=45485

includes values only for the **display name** and the **user name**. All other fields are optional and can be left blank.

- A verification wizard will tell the admin whether the content in the spreadsheet is formatted correctly.

- Set **sign-in status** so that the people listed in the spreadsheet will be able to use Office 365. Also **choose the country** in which these people will use Office 365. Note that in the case of the countries participating in the ATS2020 project, this will not affect the availability of services in the different locations.

- Assign **product licenses** (**user profiles)**: Office 365 Education for faculty (**Teachers**) or Office 365 for students (**Students**).

- Send **results**, type the email addresses of the people whom you want to get an email that lists *all* of the Office 365 user names and temporary passwords for the people in the spreadsheet. It is recommended that teacher's and regional administrator's emails are designated here.

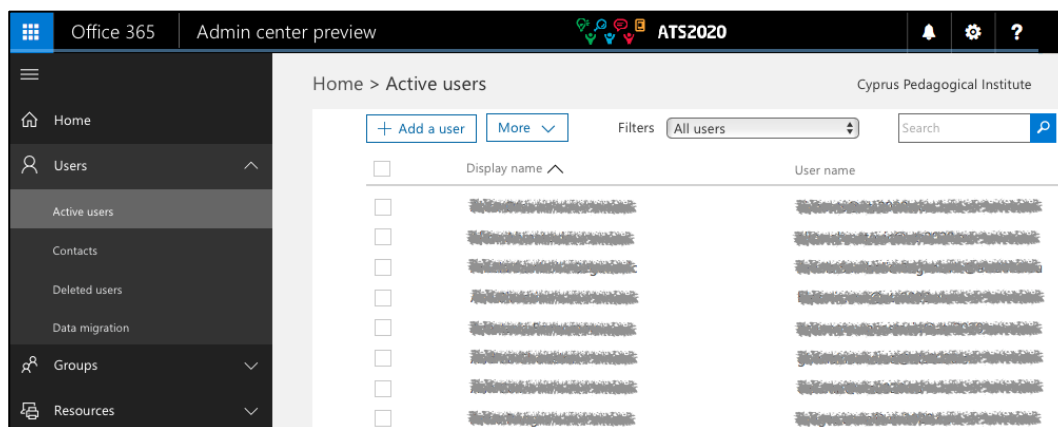- Notify persons about their Office 365 account information.

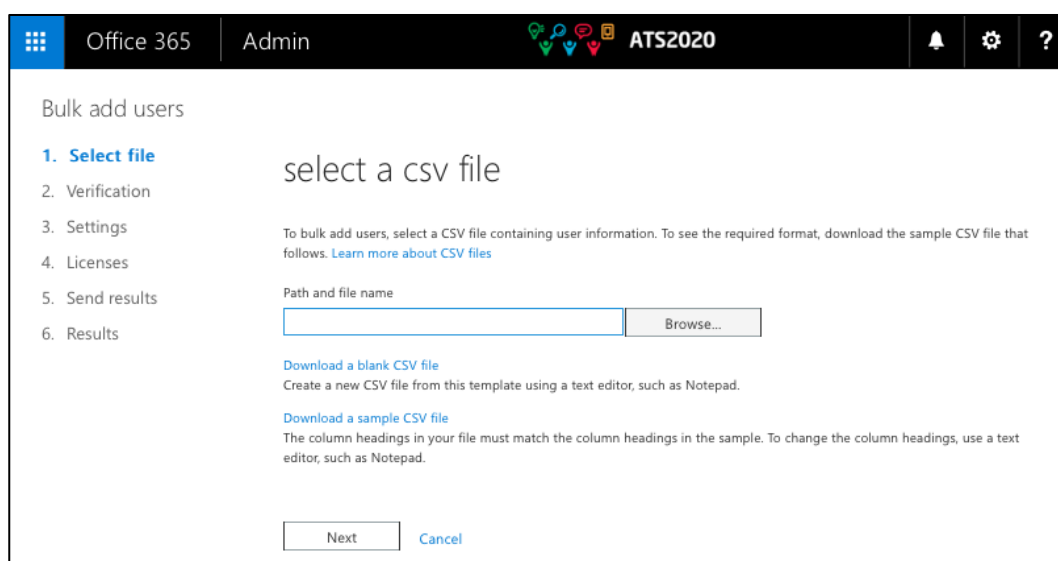*Figure 3*: Using Office 365 admin center to add users

Figure 4: Add multiple users to Office 365 using a CSV file

4.3   SITE COLLECTION

To assist Partners, Teachers and Students in using Office 365 services for the purposes of the ATS2020 project, a site collection has been created using Microsoft's SharePoint Online (see **Figure 5**). At the top-level of the site collection is the "**ATS2020's Office 365 portal**". Below it, there are four (4) different subsites, namely the "**Partners Site**", the "**Reporting Site**", the "**Teachers Dashboard**" and the "**Students Dashboard**".
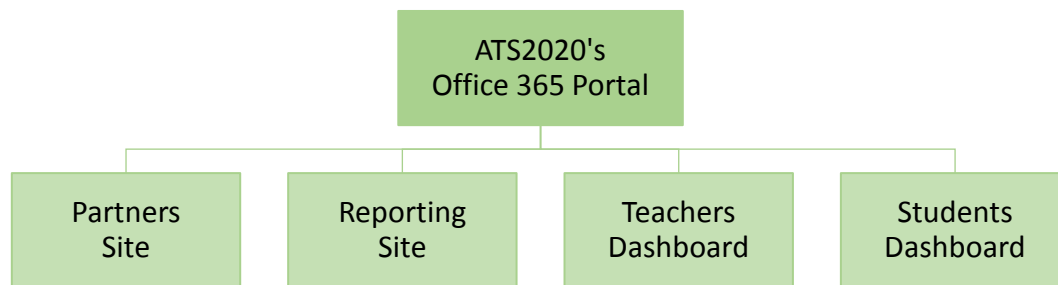
Figure 5: Overview of site collection created with SharePoint Online

Each individual subsite has custom permissions as needed. **Table 2** shows an overview of the permissions used for each site, whereas the description of the different permissions used is listed below:

- **Restricted Read**: Can view pages and documents, but cannot view historical versions or user permissions

- **Contribute**: Can view, add, update, and delete list items and documents

- **Read**: Can view pages and list items and download documents

	ATS2020 O365 PORTAL	PARTNERS SITE	REPORTING SITE	TEACHERS DASHBOARD	STUDENTS DASHBOARD
PARTNERS	Restricted read	Contribute / Read	Read [9]	Restricted read	Restricted read
TRAINERS	Restricted read	Contribute / Read	-	Restricted read	Restricted read
TEACHERS	Restricted read	-	-	Restricted read	-
STUDENTS	Restricted read	-			Restricted read

Table 2: Overview of site collections permissions per site, per group

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[9] Only partners that belong to the Financial Administration group have access to this site.

4.4 USER LOGIN AND LANDING PAGE

To login to ATS2020's Office 365 learning platform, one needs to open a browser and go to either office365.ats2020.eu or o365.ats2020.eu. Any of the two web addresses, will direct the user to the Office 365 **Login portal** (see Fehler! Verweisquelle konnte nicht gefunden werden.). Once in the login portal, a user can sign-in by entering his/her credentials (i.e. username and password of user's account) in the appropriate fields, and then clicking on the "sign in" button. We have customized the login portal through Azure Active Directory, in order to display the project logo, a large illustration consistent with the projects brochure and links to the project website (http://ats2020.eu) and on twitter (#ats2020.eu). As also described below, if the user chooses to enter through the web address portal.office.com instead, the sign-in page will refresh automatically and show the ATS2020's branding, once the user will enter his/hers user ID.

If the user has entered the correct credentials, s/he will be redirected to ATS2020's O365 **Portal** of the learning platform. The portal's landing page can be seen in **Figure 7**. The page has been created using the SharePoint Sites app and customized with SharePoint Designer. The page contains:

- Links to the different **dashboards** (sub sites). Besides the student and teacher dashboard, which are accessible only by teachers and students respectively, one can find a link to a partner's and reporting dashboard. The latter are only accessible by the partners of the project and have been created for better collaboration and communication among partners. The partner's and reporting dashboard will not be described in this document.

- Short **description** about the project and the learning platform.

- Links to the **Project's website** and the participating **partners** (external website).

- The **European Union** emblem and an acknowledgement to the support received under the Erasmus+ programme of the European Union.

- Links to **terms & conditions** and **risk & legal aspects** with respect to ATS2020.

- Links to **privacy statements** and **terms & conditions** with respect to Office 365.
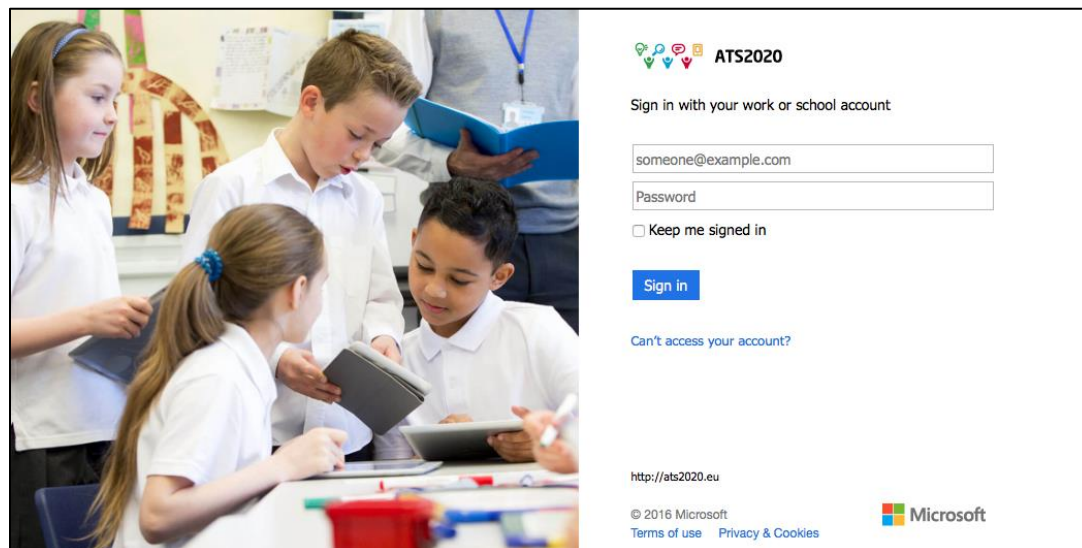
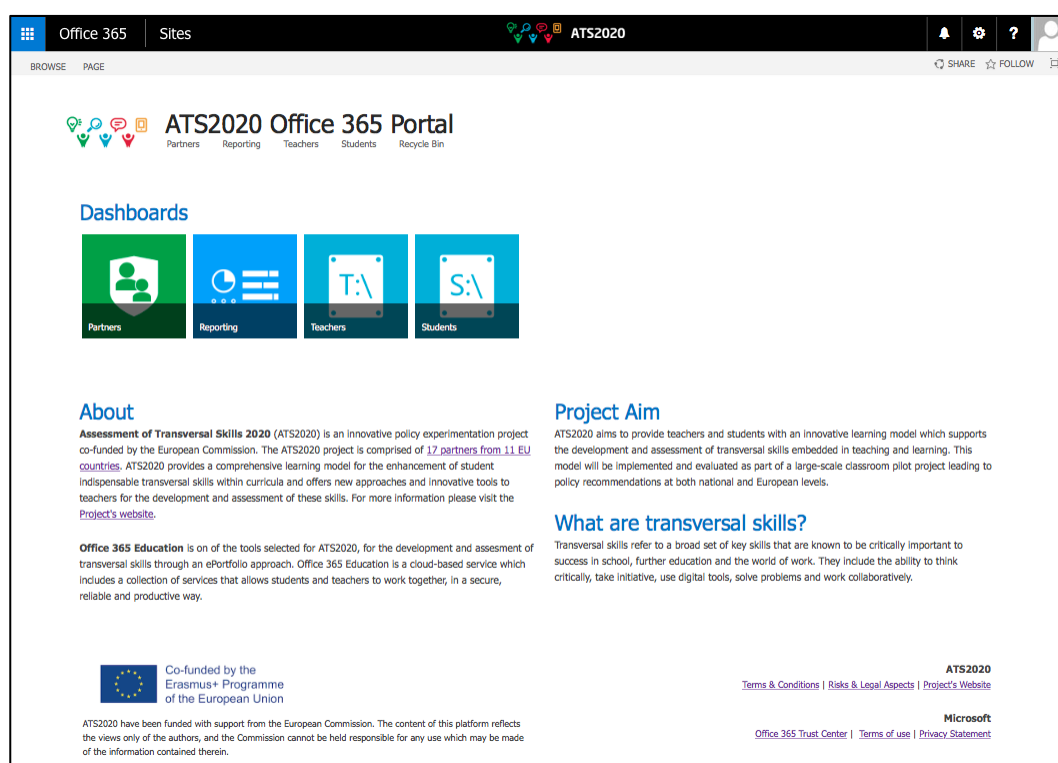**Figure 6**: *Login portal for ATS2020's Office 365*

Figure 7: *Landing page for Office 365 Learning platform*

Figure 8: Landing page for Office 365

Another way of accessing the ATS2020's Office 365 Portal is directly through the Office 365 login page, https://portal.office.com or https://login.microsoftonline.com. This will also direct the user to the Office 365 Login portal (see Fehler! Verweisquelle konnte nicht gefunden werden.), however once connected the user will be redirected to the Office 365 landing page (see **Figure 8**). To access the ATS2020's Portal from there, simply click on the **ATS2020 logo** on the Office 365 header. The header is always visible from all sites and offers an easy way for navigating to the ATS2020 Portal, from anywhere within the Office 365 platform.

4.5   TEACHER DASHBOARD

The Teacher dashboard (see **Figure 9**) is only accessible from users assigned as Teachers. Through the teacher dashboard the teacher is able to: edit and display his profile, access file repository, create teacher journal, my learning and ePortfolio, create and manage a new class learning space, manage assessments, and communicate with others.

Figure 9: *Teacher dashboard for Office 365 learning platform*

4.5.1   User profile

A teacher can view, edit and share his profile using Office **Delve**. Delve is a cloud-based service offered through the Office 365 suite, designed to help you find, connect and collaborate with the right people. The user experience centers on a personalized profile page, which includes displays for recently accessed documents, and other people's profile pages to see what they're up to. The profile page in Delve makes it easy for you to update your profile information, and for others to find and connect with you.

Access user profile

There are different ways for a user to access his/her profile page:

- Select **My Profile** from the Quick Links (see **Figure 9**).

- Select **picture** in the Office 365 header, and then select **About me** (see **Figure 10**).

- Click on the **app launcher** in the Office 365 header, select **Delve**, and then select **Me** from the left-hand menu (see **Figure 11**).

Edit user profile

Once in the profile page, to change your information, choose **Edit profile**, and then update your profile information as desired through the five (5) available pages: Basic information, Contact information, Details, Newsfeed settings, and Language and Region. To see all profile pages, choose the ellipsis "…".
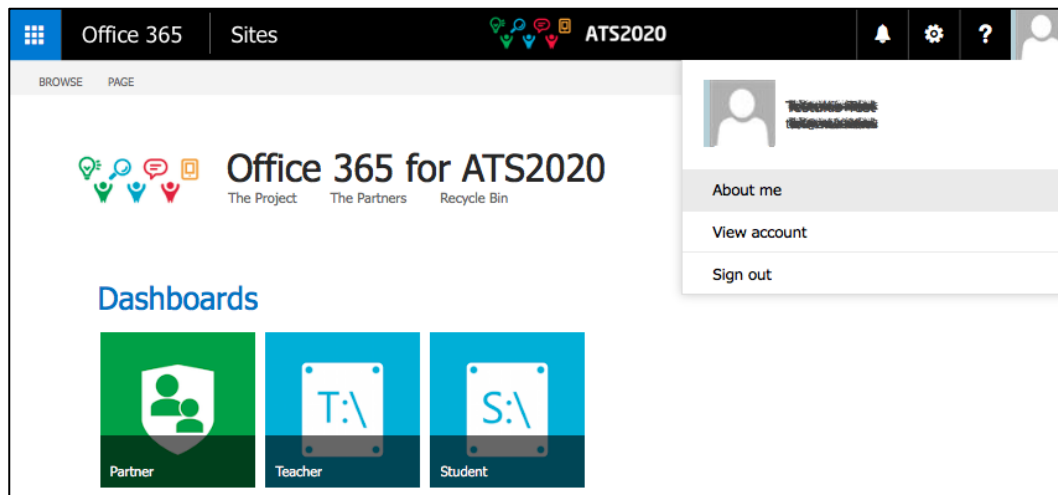
Figure 10: Go to profile page of Office 365
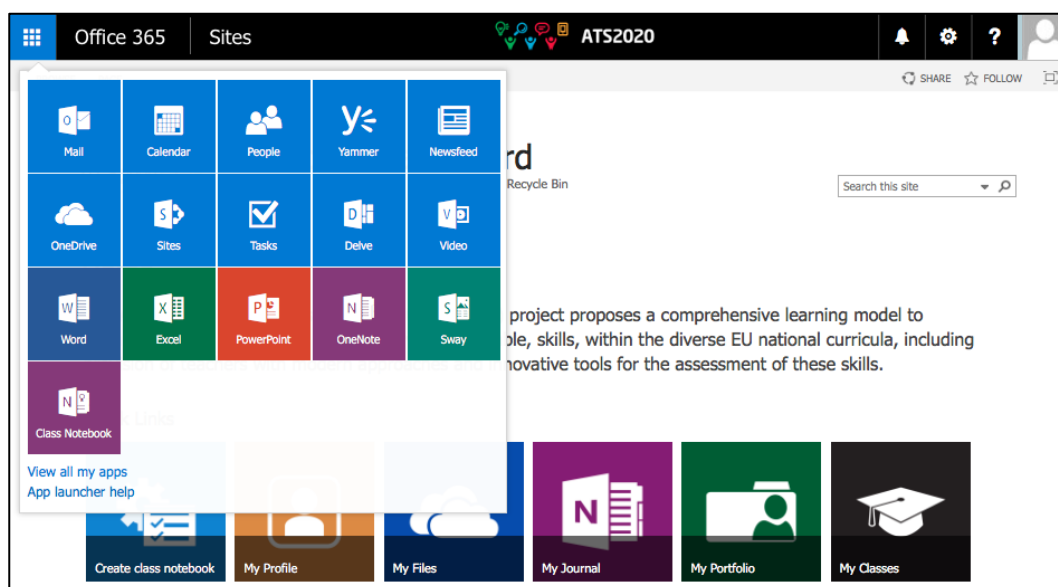
Figure 11: Using the App launcher to view all Office 365 apps

Please note that some information, such as name and work email, are set by the system administrator, and cannot be changed. If a user wants to update these details, s/he needs to contact the system or regional administrator.

A user can select to keep any of the information in his/her profile private, or shared with everyone, be selecting **Only Me** or **Everyone,** respectively, under **Who can see this**. Again, some of this information are fixed by the system administrator and set to be always shared with everyone, such as name.

4.5.2   File repository

A teacher can use **OneDrive for Business** as a personal file repository. With OneDrive for business one can **store**, **share**, and **sync files** from any device. You can even **create new Office documents** directly from OneDrive for Business and **work** on Office documents with others **at the same time**. Each user gets **1 TB of space in the cloud**.

All files that are stored by the user in OneDrive for Business are **private** unless the user decides to share them (view or edit access). For example, you can share one or multiple files with specified co-workers so you can collaborate on projects. If you're signed-in to Office 365, you can even share files with partners outside of your organization, which don't have an Office 365 account.

With OneDrive for Business a user can optionally **synchronize** all files in his OneDrive for Business library to his **local computer**, using the OneDrive sync app. This sync app is available with Office 2013 or Office 2016, or with the current Office 365 subscription. Please note that OneDrive for Business is different from OneDrive.

Access OneDrive for Business

There are different ways for a user to access OneDrive for Business:

- Select **My Files** from the Quick Links (see **Figure 9**).

- Click on the **app launcher** in the Office 365 header, and then **OneDrive** (see **Figure 11**).

4.5.3   Teacher Journal, My Learning and ePortfolio

Microsoft's **OneNote** can be utilized for the purposes of creating a teacher Journal, a Learning space or an ePortfolio. OneNote is a **digital notebook**, great for **capturing**, **storing**, and **sharing** all kinds of notes and information.

OneNote has a clearly defined organizational structure, revolving around **notebooks**, **sections**, and **pages**. You can have multiple notebooks. Across the top of each notebook are tabs, each one representing what it calls a section. In turn, sections consist of pages. You can also nest a page under another page, which keeps related items organized or breaks up a long list. You can add as many sections and as many pages as you want.

OneNote allows users to:

- Add almost any file, record audio and video, and quickly add screen shots.

- Tag notes for easy searching and sorting. While the app provides many evergreen tags such as "To-do," "Important," and "Remember for later," the real power is the ability to create your own tags specific to common tasks.

- Search through all notebooks, or just the one you are working on, or even the current section and page, to find the notes you need.

- You can see previous versions of your notebook and restore to an earlier version. If students are working collaboratively on a OneNote project, the teacher can use the Find by Author option to see who did what in the notebook.

Using OneNote teachers can organize resources into notebooks, sections and pages. Through the available toolset and capacity of OneNote teachers can gather, select and store any artifacts. Even more importantly, teachers can share their work (relevant parts or even an entire workbook) in order to receive and give feedback as necessary. Because these notebooks are all stored online in OneDrive the content is always up to date and accessible anywhere, whether at home or in the class. This means that peers can work collaboratively on something, even at real time.

All these features available in OneNote allow teachers to easily create **Journals**, record their **Learning** and develop and maintain an **ePortfolio**.

In particular using OneNote notebook for "My Learning", a teacher can use any structure of sections with the following pages in each of the sections created:

- Prior Knowledge: What I know…

- Setting Goals: What are my goals for this learning process…

- Strategies: Set and describe the strategies I will follow to achieve my goals…

- Evidence: Place any evidence that support my learning…

- Self-evaluation: Finally do some self-evaluation of the process…

Access OneNote and OneNote Online

OneNote is available as a desktop application and as a web application, referred to as **OneNote** and **OneNote Online**, respectively. The notebook you open in OneNote Online is the same as the notebook you open in the OneNote desktop application. However, some features work differently in the two environments and are not available in OneNote Online. For more advanced editing features, one must use the **OneNote** desktop application.

OneNote is available for free from [onenote.com/download](http://www.onenote.com/download)[10] on every major desktop and mobile platform. However, the most full-featured version of OneNote is found on Windows.

OneNote Online is available to users with an Office 365 plan, which is the case for users of the ATS2020 Office 365 Learning Platform. Teachers can **access** OneNote Online through different ways:

- Select **My Journal** from the Quick Links (see **Figure 9**).

- Click on the **app launcher** in the Office 365 header, and then **OneNote** (see **Figure 11**).

Create new notebook

It is important to note here that OneNote Online doesn't let you create a new notebook. To **create** a new notebook online, go to OneDrive on the Office 365 platform (see how to access OneDrive for Business in Section 4.5.2), click **New** > **OneNote notebook**, and give the notebook a name. Alternatively, you can create a new notebook using the desktop version of OneNote.

4.5.4   Digital learning space for class

A teacher can set up digital learning spaces for different classes using the **OneNote Class Notebook** application. OneNote Class Notebook is a tool to help teachers create **notebooks with pre-assigned classroom permissions**. OneNote Class Notebook provide teachers the ability to:

- organize lessons plans and course content

- create and deliver rich interactive lessons

- invite other teachers and students

- share educational content and assign activities

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[10] http://www.onenote.com/download

- collect homework, quizzes, exams and handouts

- collaborate and provide feedback on student work.

Each Class Notebook is organized into three areas:

- **Collaboration Space**: A notebook for everyone in your class to share, organize, and collaborate. Everyone can **read and write** to the Collaboration Space.

- **Content Library**: A **read-only** notebook where teachers can share handouts with students. Students can only read – i.e. pull from – the Content Library. They cannot edit. Teachers can read and write to the Content Library.

- **Student Notebooks**: A **private notebook** shared between the teacher and each individual student. Teachers can read and write to all student notebooks. Students cannot see other private section groups outside their own.

The combination of the individual space, content library and collaboration space areas engages students in the process of both independent and collaborative learning, through a modern digital process

Use case scenarios for class notebooks

There are different scenarios for using OneNote Class Notebook in the classroom. The most common way of using it would be to create a separate notebook for each class. For example, if you teach multiple Spanish 2 classes, create a notebook for each class (see **Figure 12**: **Subject A – Class A, Subject A – Class B**). Alternatively, you can create one notebook for the whole class, covering all subjects. For example, a teacher in primary school that teaches Greek, Math and History in the same class, could create one notebook for that class, covering all subjects (see **Figure 12**: **Class A – Many subjects**).
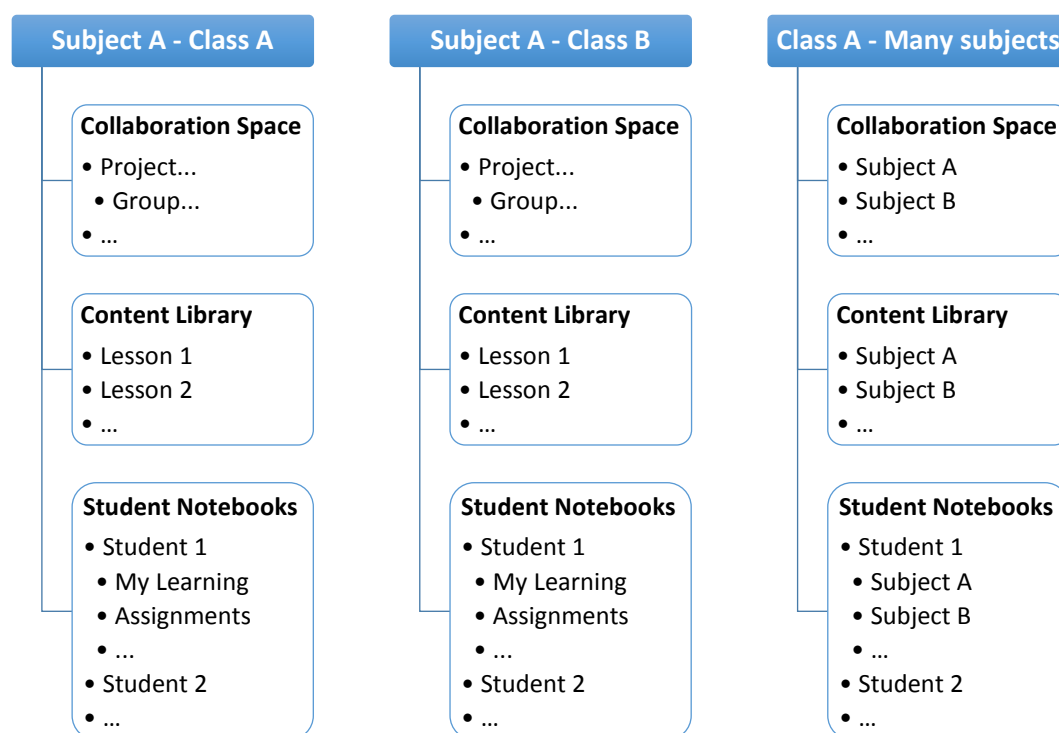
Figure 12: *Example of structure of OneNote Class Notebooks for 3 scenarios*

It is recommended (by the Microsoft team as well) to create a separate notebook for each class. However, is up to the teacher to decide, which scenario fits better to his/her needs.

Manage class notebooks

A teacher can manage class notebooks through the OneNote Class Notebook app. To launch the app simply:

- select **Manage Class Notebooks** from the Teacher dashboard (see **Figure 9**), or

- select the **App Launcher** (see **Figure 11**), and then select **OneNote Class Notebook**.

The Class Notebook app allows teachers to:

- create a class notebook,

- add or remove students,

- add or remove teachers and

- get notebook links.

Create a class notebook

To create a class notebook:

- select **Manage Class Notebooks** from the Teacher dashboard (see **Figure 9**), select **Create a class notebook** and then follow the wizard, or

- select the **App Launcher** (see **Figure 11**), then select **OneNote Class Notebook**, select **Create a class notebook** and then follow the wizard.

For additional details, check out the OneNote Class Notebook [Interactive Guide][11]. Please note that when entering students' names in the wizard, start with last names and the wizard will automatically show students in ATS2020 with that surname.

Teachers notebooks created are stored in OneDrive for Business on Office 365. They are created under the **Documents** folders in OneDrive for Business and are part of the user's allocated document storage there. To delete a class notebook simply delete the file from OneDrive.

Notebooks naming convention

Each notebook created must have a **unique name**, and it cannot contain these characters # / * ? " | < > : . % ' \. Furthermore, taking into consideration the possible number of classes to be created (up to 1000 classes) from the different countries participating in the project (11 countries), one can imagine the difficulties and conflicts that will arise when naming a class. Therefore, we **strongly recommend** that the following **naming convention** is used by all teachers when naming a Class notebook:

<center><**Country**> - <**SchoolID**> - <**Subject**> - <**Class**></center>

<center><**Country**> - <**SchoolID**> - <**Class**> - <**Subjects**></center>

Here, "*Country*" refers to the abbreviated name of a country following the two-letter ISO code of the European Union, "*SchoolID*" is a two-digit unique number associated to the school participating in the project assigned by the corresponding country preceded by the

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[11] http://www.onenoteforteachers.com/en-US/Guides/Collaborating in the classroom with the OneNote Class Notebook

lower letter 's', and "*Subject*" is the name of the subject a teacher teaches to a certain "*Class*". For example, if a teacher in Ireland teaches Math in Class B1 in a school with an ID of 7, the name of the notebook should be:

IE-s07-Math-B1

In another example, if a teacher in Cyprus teaches in a primary school with an ID of 4, both Science and History in the same class E2, the name of the notebook should be:

CY-s04-E2-Science-History

Access a class notebook

A teacher can find a class notebook created in:

- OneNote Online: click on the **app launcher** in the Office 365 header, select **OneNote** and then select **Class Notebooks.**

- OneNote Class Notebook: click on the **app launcher** in the Office 365 header, select **Class Notebook** and go to **Get Notebook Links.**

- OneDrive for Business: click on the **app launcher** in the Office 365 header, select **OneDrive** and go to the Class Notebook folder in the left navigation.

4.5.5   Formative and summative assessment

OneNote enables a teacher to easily distribute work, monitor students' progress, and provide students with feedback on their progress using both formative and summative assessment. It also facilitates and supports self- and peer- assessment.

A class notebook makes it easier to distribute and collect homework, quizzes, exams and handouts. Teachers can use the **content library** to add information and assignments for the entire class. Students can then go to the content library to get their assignments at anytime from anywhere.

Personal tasks and assignments can be completed in the **private area** of each student. The teacher can review and provide individualized support and feedback on these assignments by typing or writing directly in each student's private notebook.

Group tasks and collaborative learning can take place in the **collaboration space**. Here, instructors and students can work together. Since this area is accessible to all students within the class at any time, students can pose questions to their peers and a teacher can monitor who is contributing answers and responses to group activities. The collaboration space encourages students to work together and allows the teacher to provide real-time feedback and coaching during the writing process rather than after. Collaboration can even continue outside of class by all students, even those who may be out of the classroom a certain day. The teacher can quickly see who is progressing and who may need a little more help.

Track authors in space and time

When several people work in a shared notebook it can be hard to know who's made each change. To help clear this up and see who did what on a page, OneNote keeps track of all changes and can show each author's initials next to their changes. To do so:

- in OneNote online click **View** and then select **Show Authors**

- in OneNote desktop click **History** and then select **Hide Authors**.

In addition, OneNote helps you keep track in time of changes people have made in a shared page. To do so:

- in OneNote online click **View** and then select **Page Versions**

- in OneNote desktop click **History** and then select **Page Versions**.

With this tool a teacher can see a list of pages that changed over a set period of time and revert to that page at any point.

You can even find a particular student and his contributions, by simply typing his name into the search bar. However, this is ONLY available in the desktop version of OneNote.

Track tags

Tags can also be used by students to ask help from their teacher. Using a predefined tag, such as the question mark, students can write down a question and tag it. The teacher can then search for tags asking for help, and give targeted feedback to the student. Note that the option to search tags through the search bar, is only available in the desktop version.

Forms of feedback

With OneNote it is possible to **routinely** give your students **feedback in several different forms**. If you have a tablet with a digital Pen, you can use digital ink to write naturally on student's work just as if you would with paper-based assignments. You can also add audio notes to students' work to provide a more personal touch. Of course, you can also provide links to videos, screencasts, and other multimedia resources that will provide the student more direction when needed. Similarly, this can be done between peers.

4.5.6   Communicate with others

Yammer can be used to communicate with other teachers and students.

Access Yammer

To access Yammer:

- Click on the **app launcher** in the Office 365 header, and then **Yammer** (see **Figure 11**).

4.6   STUDENT DASHBOARD

The Student dashboard (see **Figure 13**) is only accessible from users assigned as Students. Through the student dashboard, a student is able to: edit and display his profile, access his file repository, create journal, my learning and ePortfolio, access a class learning space, and communicate with others.

For a detailed description on each of this activities, please visit the corresponding subsection from the Teacher Dashboard section.
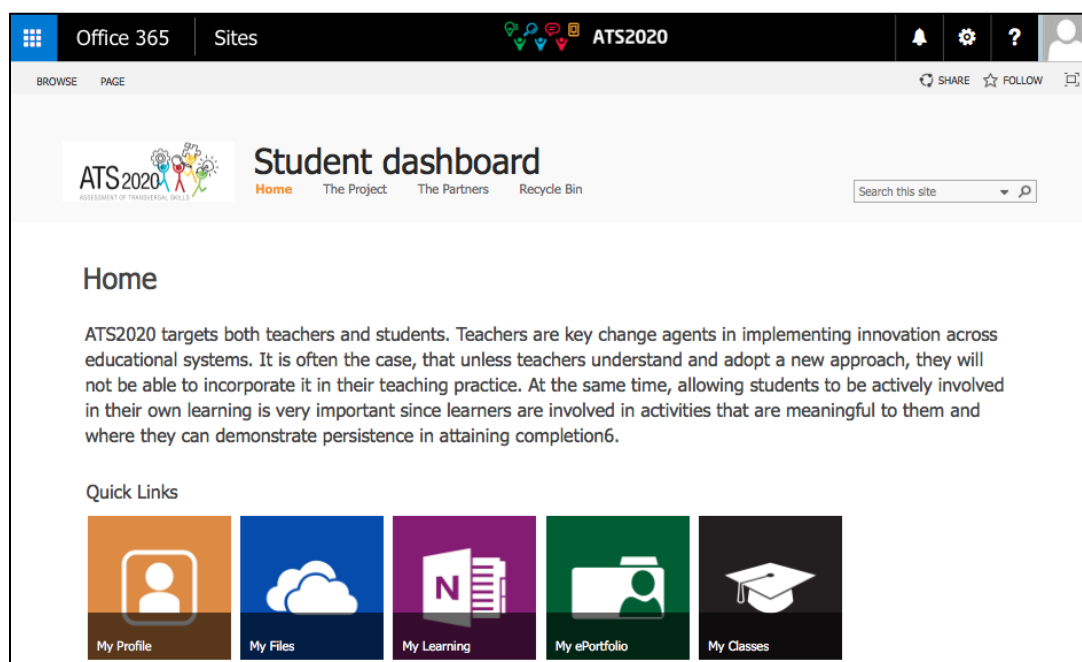
Figure 13: Student dashboard for Office 365 learning platform

4.7 LEARNING ANALYTICS

The ATS2020 project team maintained efforts to establish learning analytics with its platforms until the middle of the project. It however proved to be not only technically challenging to implement analytics tools in the chosen platforms.

During a workshop on learning analytics, held at the ATS2020 project meeting in spring 2017 in Zagreb, Riina Vuorikari (of JRC-IPTS)[12], presented the report on **Research Evidence on the Use of Learning Analytics**[13]**.**

She reported that to date learning analytics is supplier-driven. As ATS2020 follows a learner-centered approach, this way of learning analytics does not fit to the approach of the project.

Learning analytics, however, have great potential for individualized learning. In the end, it is important to enable students to understand their own learning also in a quantitative way (i.e. through the learning analytics). Thus, learning analytics can be seen as a quantitative assessment of learning. Students can use it to build awareness about their learning pathways and to reflect on them. Such a use of learning analytics can support the development of autonomous learning skills as well as digital competence.

The cooperation with Microsoft in the project ATS2020 did also raise awareness of Microsoft regarding learning analytics. Those who implement a Microsoft platform for learning should visit the Education Blog of Microsoft at https://educationblog.microsoft.com/ to see the latest developments regarding learning analytics (and other features of One Note Class Notebook and other O365 tools).

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[12] https://ec.europa.eu/jrc/en/person/riina-vuorikari

[13] Link to publication: https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/research-evidence-use-learning-analytics-implications-education-policy