







# **DIGI ESSA 4 SCHOOLS**

# DIGITAL EFFECTIVE SCHOOL SELF-ASSESSMENT FOR SUSTAINABLE SCHOOL IMPROVEMENT PROJECT

# PREPARING EFFECTIVE DIGITAL SELF-ASSESSMENT REPORT FOR CONTINUOUS SCHOOL DEVELOPMENT

This report has been prepared 'with the coordination of the IE-ULisboa team and with the cooperation of all partners' as part of the Digital Effective School Self-Assessment for Sustainable School Development project (DIGI ESSA 4 SCHOOLS). This is an Erasmus+ Key Action 2 – Cooperation partnerships in school education (12/31/2022 – 12/30/2024) [Project Number: 2022-1-TR01-KA220-SCH-000087735]. The Project is carried out with eight research teams from Italy, Netherlands, Romania, Spain, Turkey, and Portugal and developed under the coordination of the Ministry of National Education Presidency of Inspection Board.























#### Introduction

The report was prepared with the cooperation of all partners, under the coordination of the IE-ULisboa team, within the scope of Work package n°2 - Preparing Effective Digital School Self-Assessment Report for Continuous School Development. The results from the work carried out from the beginning of the project until July 2023.

The report mirrors the work intensively carried out by the consortium through Learning-Teaching-Training Activities were held in Lisbon, Portugal and Florence, Italy. It was also based on a systematic literature review (March 2023) carried out by each of the intervening countries that signals the state of the art in self-assessment/evaluation of schools. Information collected through questionnaires to different stakeholders analyzed in the framework of needs analysis reports (April 2023) in the different countries was also mobilized in this report.

The report design comprised seven parts:

- The initial section results from the joint reflection of teams from Portugal, Italy, and the Netherlands and aims to clarify the concept of self-evaluation.
- The second section of the report is grounded in the systematic literature review and a needs analysis.
- The third section focuses on the significance of technology in self-assessment procedures and is a joint product of Portuguese and Turkish academic teams.
- The fourth section draws upon the expertise of Portuguese academics with the cooperation of the Italians to outline the fundamental principles essential to developing an efficient digital self-evaluation framework.
- The fifth section of the report provides a summary of the areas (and sub-areas) that the Consortium's digital self-evaluation tool may cover.
- Section six clarifies the significance of school development plans and monitoring in the context of self-evaluation, building on the expertise of the Netherlands team.
- The final section of the report is dedicated to outlining the processes involved in constructing an efficient digital self-evaluation model.

Finally, it should be highlighted that in this report, we have decided to adopt self-assessment and self-evaluation interchangeably for practical reasons, even though there may be varying interpretations and contextual nuances associated with each term as used by different authors and within different contexts.























1. What

# Do We Mean By Self-Evaluation?

School self-evaluation (SSE) represents a key mechanism to support school improvement (Nelson, Ehren & Godfrey, 2015). In most European countries over recent years, schools have greater responsibility for student outcomes and to tailor responses appropriate for the school's own context. It is the responsibility of the schools themselves that determine, guarantee, and safeguard their quality and improve the teaching-learning process and the performance of the school (MacBeath, 1999; Nevo, 1995). Devos and Verhoeven (2003) define it as "a process mainly initiated by the school to collect systematic information about the school functioning, to analyze and judge this information regarding the quality of the school's education and to make decisions that provide recommendations" (p. 404).

SSE can be considered the first step in implementing a quality improvement strategy in schools. It is:

- carried out within the school, involving teams and diverse actors from the school who may (or may not) resort to external support in technical matters;
- contextualized, considering the variables of the context where it operates, characteristics of the organization, teaching and non-teaching staff and target audience; and,
- developed according to the educational project of each school.

In essence, self-evaluation aims to generate recommendations to drive decision making for change. As Chapman and Sammons (2013, p. 6) argue: "Teachers and school leaders are the key agents for change. It is here that we see the importance of inquiry and school self-review as a driver for school improvement." This process is founded on the belief that the appropriate parties to make these decisions are internal stakeholders like school leaders, teachers, parents, and pupils.

Moreover, under the responsibility of the schools, self-evaluation makes it possible to complete the external role of evaluation (in most European countries carried out by the inspection services) with the government in charge of maintaining strategic control over the objectives of the education system, based on standards, goals, and criteria with regard to school results (Hofman, Dijkstra & Hofman, 2009). Likewise, education inspectorates have taken steps to facilitate school self-evaluation by creating legal, procedural, and supportive























frameworks for schools to follow. These measures are meant to ensure that schools are able to effectively and efficiently carry out the process of SSE.

To sum up, School Self Evaluation is an approach to diagnosis of school needs, insight and understanding followed by action for improvement and review. Improvements resulting from SSE can be found in diverse areas:

- Reflection on school quality and intentions to improve: the process of SSE allows teachers to develop a perspective beyond their own classroom, particularly when they are involved in decision-making.
- Effect on school improvement, according to the priorities in each school, such as, increased professional learning, revised content or organization of the curriculum, and targeted support for groups of students.
- Effect on teacher's instructional practices and pedagogic content knowledge.
- Effect on student achievement and improved planning.
- Effect on non-academic outcomes, such as improvement in areas such as safe learning environments that benefit students' social-emotional learning and well-being (Vazquez & Gairin, 2014).

# 2. Systematic Literature Review and a Needs Analysis

#### 2.1. Literature Review

Each country prepared a report about their own "Schools' Self-Assessment/Evaluation" practices reflected in academic journals, project reports, national reports, MA, or PhD theses, etc. Table 1 shows the corpus composition.

Table 1. Corpus Composition























Country	No. of documents	Time period	Type of document (e.g., articles, reports, theses
Italy	25	2013-2022	Edited Book Chapters, academic papers, National Regulation, Research Reports, Working Paper, Book, National Guidelines, Doctoral Thesis.
Netherlands	18	1979 -2022	9 academic papers; 5 books; 4 reports ; 4 legal texts
Portugal	191	1986 – feb 2023	30 doctoral thesis; 71 master works; 30 scientific papers; 20 books and chapters  40 documents (IGE/IGEC) of the administrative/technical context (documents on self-assessment/evaluation produced by the Education Inspection.)
Romania	29	2011-2023	5 Academic articles; 15 National Reports; 2 Project reports; 3 MA Thesis; 4 Legislation
Spain	13	2018 - 2023	Articles; theses; report
Turkey	22	2013 - 2023	Articles; theses; book chapter; national guideline; report

In Italy, the school self-evaluation is mandatory. A national format is available, open, however,

to additions by the schools in order to grasp the specificity of each reality without excessive reductions or simplifications. Self-evaluation and external evaluation share the same frame of reference, which represents the different dimensions of school quality under evaluation and specifies the aspects to be observed and assessed both for schools in the self-evaluation process and for evaluators in the external evaluation phase. The self-evaluation team consists of school manager and teachers of the school. The school manager and the NIV (Internal Evaluation Team) use the data collected from external sources (Ministry of Education,























ISTAT, INVALSI) and those present in their "INVALSI School Questionnaire" (a questionnaire administered to all schools to be filled in by the school manager). Data are analyzed by INVALSI (National Institute for the Evaluation of the Education and Training System). The data are exclusively quantitative (although the INVALSI school questionnaire includes the item 'Other... Specify' for some items). There are 9 areas: Context; Leadership and management; Academic results; Key competences; Educational processes; School processes; School environment; Inclusion; Relationships with territories & families. The compilation of the self-evaluation report takes place online on an interactive platform with controlled access.

In Netherlands, the school self-evaluation is mandatory. The procedure is based on the well-known Deming Circle: Plan-Do-Check-Act (PDCA). It is compulsory for schools to implement such a procedure and therefor will be one of the aspects of the school's organization the inspectorate will check in case it visits the school. School leaders in cooperation with their school teams each four years develop a school plan as required by law. A school plan is based on a SWOT (Strength Weaknesses Opportunities and Threats) analysis (carried out by the school) and describes what improvements the school aims to implement in the next four years. The school board itself informs every year the inspectorate. Every four years, the inspectorate examines whether boards have insight into the quality of education in its schools, financial management and how the board manages this. The data was collected thorough tests, exams, questionnaires, portfolios or systematic classroom observations by the school leader and colleagues, opinions of parents and students, and most Dutch school make use of digital data collecting systems.

In Portugal, the school self-evaluation is mandatory. Each school can choose the composition of its self-evaluation team. However, almost all involve teachers, non-teaching staff. Sometimes parents and students are part of the team. The data is analyzed by the school actors themselves; or, schools resort to companies that collect and process data. Some schools do a combination of both. There are 5 areas: Academic results; Social outcomes; Classroom processes; School processes; The school environment. Both quantitate and qualitative data was collected for school self-evaluation. For example data related to academic are exclusively quantitative, data related to social outcomes are qualitative. In addition for the classroom processes, school collects both quantitative and qualitative data. For external evaluation, the





















**SSE** 

report is sent to inspection, constituting the basis for the Inspection's intervention in schools, where it conducts interviews with the various actors (and currently observes classes). This report is also discussed between the external evaluators and the SSE team in a panel interview with the external evaluators.

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In Romania, the school self-evaluation is mandatory. The data is collected and analyzed by Commission for Quality Assessment and Assurance members. Data is collected from managers, heads of methodological committees, teachers, pupils, parents, and local community representatives by following methods application of questionnaires, observation of extracurricular activities, analysis of school documents, and analysis of reports of departments/ committees/departments in the school. There are mainly two indicators: structure context indicators and performance indicators. Both quantitate and qualitative data is collected for school self-evaluation. The self-evaluation team consists of 8 members and a coordinator who is the Head of the school or a coordinator designated by the Head of the school; (a) 1 - 3 representatives of the teaching staff, elected by secret ballot by the teachers' council; (b) one representative of the representative trade union, designated by the trade union; (c) one representative of the parents, in the case of pre-school, primary, secondary or high school education; (d) one representative of the students, in the case of vocational, secondary and post-secondary education; (e) one representative of the local council.

In Spain, the school self-evaluation is not mandatory. The Spanish education system is characterized by its remarkable decentralization, with the majority of educational responsibilities resting with the Autonomous Governments. For this reason, the review and focus especially on the Valencian Community. The data is collected by the self-evaluation team from students, parents, pas members, teachers, management stakeholders such as enterprises, environment, and administration inspectorate. Some criteria/indicators are student perception measures, family perception measures, perception measures of administration and services staff (motivation – satisfaction), perception measures of the faculty of the center, measurements of perception of the center's, environment, perception measures of the educational inspectorate, perception measures of the local administration. Both quantitate (such as attendance rate, academic achievement, teacher qualifications etc.) and qualitative data (such as interviews with stakeholders, observations of classrooms or school activities, or





















analyzing documents like lessons plan, curriculum etc.) was collected for school selfevaluation.

In Turkey, 3 different self-evaluation practices were explained.

- 1) The General Directorate of Basic Education of the Ministry of National Education has published the "Primary Education Standards (PES)" with the circular dated 05.11.2009. PES was mandatory at all primary education institutions. The Institutional Standards Module has been added to the e-school system to determine the level of institutional standards. Data was entered into the system by the school principal or assistant school principal. The perceptual benefit scale was filled in by students (except for children in pre-school education institutions and 1st grade students), parents, teachers, and school administrators. Institutional Standards consist of 9 standards and 38 sub-standards in 3 standard areas; Educational Management, Learning and Teaching Processes, Support Services. Both quantitate (such as presenceabsence) and qualitative data (the perceptual benefit scales) was collected for school selfevaluation.
- 2) The General Directorate of Vocational and Technical Education of the Ministry of National Education published the Self-Assessment Practice Guide to put self-assessment into practice in Vocational and Technical Education Schools in 2015. It was mandatory at Vocational and Technical High Schools. However, it was converted to a national project, thus it is in renewal process. While school managers are responsible for managing the process; teachers play a significant role in filling the required information in the portal. 23 indicators are grouped under 6 standard areas: Educational Institution Management; Planning; Human Resources; Management; Education; Partnership and Resources; Results and Evaluation. Quantitative data includes a significant range of information. Both quantitate (such as number of classes, laboratories, books in the library; student-teacher ratios) and qualitative data (such as direct observation, structured interviews, document review) was collected for school self-evaluation. 3) Provincial Directorate of Ankara has created its own system for objective analysis of the situation of schools/institutions (ADES) and it is mandatory at all public educational institutions operating under the Ankara Provincial Directorate of National Education. School self-evaluation portal was created on ANKBIS system and school managers enter school. Stakeholders do not involve the school self-evaluation process. School administrators are responsible for establishing school evaluation commission. ADES consists of 4 main standards and 45 sub-standards. The main standards are: Quality in Education and Training;























Projects and Competitions; Physical Infrastructure; Management and Organization. There is not a qualitative data in this system. School are only required to enter quantitative data into the portal and calculate their self-evaluation scores.

# 2.2. Needs Analysis

The data gathered from each group surveyed - including students, parents, teachers, school administrators, and inspectors (see Table 2) - is analyzed and summarized in two areas.

Table 2. Number of Respondents per Country

Country	Code	Students	Parents	Teachers	School Administrators	Inspectors
Italy	IT	42	35	100	10	10
Netherlands	NL	27	12	16	4	0
Portugal	PT	245	365	90	11	10
Romania	RO	1049	1049	215	57	7
Spain	SP	Awaiting data	18	20	4	2
Turkey	TR	70	89	139	66	46

# **Involvement in school self-evaluation**

The data reveals that approximately 50% of school heads in Italy, the Netherlands, Portugal, Spain, and Romania have participated in the school's self-evaluation process. However, in Turkey, the majority of school administrators who responded indicated that they had not been involved in the process.

The results suggest that in Italy and Romania, the majority of teachers surveyed reported participating in their school's self-evaluation. In Portugal, about half of the respondents stated that they were involved. On the other hand, in the Netherlands, Spain, and Turkey, most of the teachers indicated that they were not involved in the self-evaluation process.

It has been noted that in Italy, Romania, and Turkey, the opinions of students are often not solicited. However, in Portugal and the Netherlands, it's common practice to consult with students. Unfortunately, no data was available concerning the current situation in Spain.

Based on the answers gathered, it appears that in the majority of countries, a large percentage of parents surveyed indicated that they were not engaged in the self-assessment. The exception to this trend is the Netherlands, where all parents surveyed reported being involved in the process.























In terms

of inspectors' involvement in school self-evaluation, all respondents from Spain and Romania reported being involved in these processes, whereas in Italy and Portugal only approximately half of the surveyed inspectors had participated. Conversely, most of the inspectors in Turkey responded that they were not involved in school self-evaluation. Unfortunately, data regarding the Netherlands was not available to include.

# **Expectations from an effective school self-assessment (ESSA)**

The survey sought to gather the opinions of respondents regarding their expectations for an effective school self-assessment. Specifically, the participants were asked to express their level of agreement with the items listed in a table presented to them.

#### Survey Items

The school SSA team must include a representative among parents

For SSA, data entry via computer is no problem.

Students should be able to see SSA results. /
It should be ensured that parents can see the SSA results.

Student's participation/ Participation of parents in the SSA process must be on a voluntary basis.

SSA should provide information about the school's achievement level.

SSA should provide information about the child's level of achievement.

SSA should demonstrate the social development of school.

SSA should show my child's / inform me about my social development.

Parents should be required to participate in the SSA process.

The vast majority of students from various countries concurred or strongly concurred with all the items presented except for those surveyed in Turkey who revealed that around 50% of them still find "data entry via computer" to be a challenge. Similarly, in the Netherlands, almost half of the respondents do not believe that students should be made to participate in the SSA process.

Most parents in Italy agree or strongly agree with all items about SSA, with the exception of items about "SSA should provide information about the school's achievement level" and





















"about

my child level of achievement". In the case of the Netherlands, the divergence lies in the way in which parents participate: most consider that it should not be voluntary, and the vast majority think that it should be "required to participate in the SSA process".

In Portugal, for about 40% of parents, it is a problem for SSA, data entry via computer, similar to what happens with the parents surveyed in Romania. In addition, most parents from Portugal and Romania agree with all items. In Spain, the item with the least agreement is related to "SSA should show my child's social development". In Turkey the survey revealed that a significant majority of the participating parents expressed their support for involving various stakeholders in the SSA process

Across all nations surveyed, there appears to be widespread agreement that the audience for school self-evaluation should involve the broadest possible array of stakeholders. This concept found concurrence among inspectors, school administrators, and teachers who participated in the survey.

Most respondents from all countries (inspectors, school administrators, and teachers) consider that self-evaluation criteria should be a combination of criteria that are used in external evaluation and what each school needs. In general, all the areas proposed in the questionnaire are considered relevant by the respondents.

As for the constitution of the self-evaluation team, also in a transversal way, the respondents in the different countries recognize the importance of having teams with representatives of diverse stakeholders the different actors and sectors of the school. There is some variation about the possibility of including managers in teams. The idea also seems to emerge from the data that teams should be formed based on qualifications/interests and previous experiences.

# 3. Carrying out Self-Assessment based on Digital Technologies

Digital transformation is a new way of performing tasks by leveraging digital technologies, such as artificial intelligence, deep learning, data analysis, the Internet of Things, mobile applications, and augmented and virtual reality. Incorporating digital technologies into the self-evaluation process will contribute to digital transformation.























The

effective digital self-evaluation and school improvement model to be developed in DIGIESSA will be inclusive, designed to include procedures that will enable the participation of disadvantaged students in schools and contribute to their academic, social, and cultural development. Moreover, preference will be given to the digital dissemination of all products and results developed in the project, which will contribute to the principle of sustainability and environmental responsibility of the Erasmus+ Program.

Given this central purpose of the Project, we briefly present how digital technologies will support and add value to the self-evaluation of schools:

- Collecting and analyzing the data digitally;
- Analyzing the self-evaluation results digitally (with designed tables and graphs) and facilitating data literacy for the evaluators;
- Fail access to participants with digital tools and increase the participation rate;
- Filling the forms in a more user-friendly way in the digital environment (phone, computer);
- Saving labor and time for schools and participants;
- Contributing to the environment and nature by saving paper;
- Sharing the results of self-evaluation with external evaluators and other stakeholders in digital media;
- Monitoring the self-evaluation process and school development in digital environments:
- Supporting in comparing the different self-evaluation outputs; and,
- Allow comparability of school results with national results.

# 4. Principles for an Effective Digital Self-Evaluation Model

**Contextualized**: Self-evaluation and the digital tool that makes it operational must be flexible and adjust to different local and national contexts, meeting the needs of the context and the actors at each moment.

*Useful:* In the self-evaluation, data collected make it possible to understand the organization, support decision-making, and promote continuous improvement, guiding the professional development of teachers by enhancing the identification of training needs (individual and collective) and supporting the design of contextualized training plans.





















**Reflexive:** Data does not speak for itself. Their collection implies reflection to obtain a broader view of the phenomena and contrast perspectives of different groups of actors, aiming to signal potential explanatory causes for the identified problems, define priority areas, and outline intervention strategies with a view to improvement.

**Participatory and inclusive:** Self-evaluation should ensure the participation of all school-related processes and stakeholders (including disadvantaged students and underrepresented groups or minorities), defining how school-related stakeholders can participate in the evaluation process and benefit from digital technologies.

*Transparent:* Self-evaluation must be transparent, making the process and its purposes known, promoting wide dissemination of the results to all stakeholders, and involving them throughout the process (in the collection and discussion of data).

*Ethical:* Self-evaluation must be ethically irreproachable. Those who develop it use the results only for the stated purposes, guarantee respect for the rights of the participants, namely in terms of data privacy, and present the results without bias.

*Cyclical:* Self-evaluation should happen in cycles, allowing us to monitor educational projects and improvement plans and observe medium and long-term processes and effects. The assessment cycles also help the school to have time to implement the changes.

*Feasible:* Self-evaluation requires that the necessary conditions (time, resources, human, material, and financial resources) for its realization are ensured.

Sustainable: Self-evaluation is an ongoing process of self-regulation that involves systematic monitoring and should align with external evaluation standards. To ensure its continuity, the self-evaluation process must be appropriate for the available human and financial resources. Moreover, providing proper training along with a digital self-assessment tool can equip schools with the necessary resources to maintain the process effectively.

Assessable: It is important for the self-evaluation tool to incorporate meta-evaluation, which refers to the evaluation of the evaluation process itself. By including this, the tool can identify areas for improvement and make necessary adjustments to the self-assessment process.

### 5. Areas





















The

areas covered by the digital self-evaluation tool encompass several dimensions that school leaders must be aware of. Each one of the areas is subdivided into sub-areas corresponding to categories and includes a list of indicators to be selected by schools suited to the context and specific needs.

- Academic results: success rates per year, subject, etc.; the relationship between success rates and absenteeism rates, success rates and indiscipline, success rates and participation in projects, etc.
- Social outcomes: cooperation, civic attitudes, respect for others, etc.
- <u>Classroom processes</u>: quality of learning, clarity of assessment criteria, time dedicated to student learning, support for students with difficulties, etc.
- <u>School processes</u>: satisfaction with different sectors, consultation on difficulties, desired changes, quality relationships, and clear rules accepted by all, democratic processes, etc.
- <u>The school environment</u>: relationship with families and the community, feedback to parents, whether everyone is treated equally, etc.

### 6. School Development Plans and Monitoring

At the end of the day any school self-evaluation effort should produce goals and objectives for improvement. We define school improvement as 'a systematic, sustained effort aimed at change in learning conditions and other related internal conditions in one or more schools, with the ultimate aim of educational goals more effectively'. (W.G. van Velzen a.o., 1985). School improvement plans are in line with strategic planning, forcing the leaders and planning teams to prioritize their actions, define and articulate their goals, devise effective strategies, and gain buy-in from their team members and other individuals or groups invested in the outcome (Armstrong, 1982). It is about what the school aims to achieve, the means required to achieve it, and the methods to monitor progress directly are identified and planned out.

Therefore, improvement plans are instruments to be developed by school actors (school management, administration bodies, self-evaluation teams or teams created for this purpose, etc.) and require the school to be capable of reflection, analysis, and problem-solving and a strategic sense of future vision, of what needs to be improved.





















# **Planning for Improvement**

For most schools planning for improvement is not a routine – it is a challenge, even before the real work has begun. An improvement effort is a project, a set of activities limited in time and resources aimed at creating something new. Given the consequences of an unsuccessful effort to improve, especially for the students, it makes sense to set aside some time and energy to design a plan that could help to make the change feasible. The bottom line of a project plan is that we try to link an idea (the outcome of the analysis of the school self-evaluation) with people, resources, and time. The make such a plan the format we present below could be helpful. It is inspired by 'The Little Prince 2'. (Onna & De Koning, 2002). The format is driven by questions – the better we can answer these questions, the better we are prepared for what lays ahead.

Background and İnitiative	What will be different in the school when the project is completed? Why is it necessary to initiate the project now? What are the outcomes of the self-evaluation that informed the need for the project?			
Goal(s)	What is/are the goal(s) we want to realize?			
Objectives	What are the (often subsequent) objectives that we must consider on our way to the goal(s) of the project?			
Intermediate Results	What are the outcomes of activities we plan that will assist us in meeting the objectives? What are the indicators that these activities produce what we expect?			
Demarcation	What will the project not realize? How do we manage the expectations of stakeholders inside and outside the school?			
Terms of Reference	What are the demands from outside the school we cannot ignore?			
<ul><li>Conditions</li><li>Functional Demands</li><li>Operational</li></ul>	What are the demands internally? What will make the objectives effective and efficient for the ultimate users			
Demands	What makes the project attractive and easy to apply for the users?			
Risk Analysis	Based on the self-evaluation analysis and experiences in the past: what could go wrong in the foreseeable future?			
	If that occurs: what could we do to remedy in case these events occur?			
Planning of Activities and Intermediate Results	Given what we know about the availability of people and resources, when do we expect to accomplish result 1, result 2, result 3, etc.?			
Project Management	Who will manage the project? Who will monitor the results and objectives?			
<ul><li>Time</li><li>Monitoring</li></ul>	Who can decide about the use of resources?			
• Resources	Who will organize the activities that we have planned for?			
Organization     Communication	Who will communicate internally and to the outside world the progress made?			
Overall Plan	Given the three stages of an improvement plan:			
	When do we expect to finalize the initiation stage?			
	When do we expect to finalize the implementation stage?			























When do we expect to finalize the institutionalization stage?

Planning for change requires serious reflection. And serious reflection simply needs time. But planning for change requires serious reflection. And serious reflection simply needs time. That time also will be needed to write down the plan in a document that presents what the school wants to accomplish and do the next 3 to 4 years. In general, such a document consists of about 15 pages, depending on the complexity of the effort.

In the next paragraph we will illustrate the importance of some of the issues raised above.

# **Zooming in**

A solid description of the background and the initiative of the improvement effort is the result of the school's interpretation of the school self-evaluation results, often aligned with the outcome of an external evaluation or inspection. That description is the rationale for all what follows in the plan. It may be necessary sometimes to remind stakeholders why the school has decided to start the project and the school should push on when the inevitable hurdles underway appear.

Based on that interpretation the school will have to decide what goals will be pursued. For example: the school agrees that it is weak in its language education. That conclusion is too wide, to general. Therefore the school needs to define one or maximum two goals. In this case a goal could be: 'In three years the school will meet national standards of language education.' Given this goal the school needs to decide on the objectives it wants to realize. Objectives could be:

- We will select new textbooks that will help us to assist students to perform better in terms of the standards.
- We will purchase the selected textbooks.
- We will inform and train our staff to learn to master the methodology that is applied in the new textbooks.
- We will implement the use of the new textbooks in the school year after finalizing the initial training.

These objectives will help to make the improvement we strive for more tangible. The objectives above already shape the planning for the project. The objectives also enable us to define activities that are necessary to meet the objectives. Activities should produce a result. For instance:

• We will organize a committee of teachers that will conduct the selection process.

























- The committee will prepare terms of reference that will be used to explore textbooks that are on the market and share their findings with the staff.
- Incorporating comments of the staff, the committee will constitute the terms of reference to be used to do research in the market of available textbooks.
- The committee will report to the school's leadership the outcomes of its research and suggest textbooks that meet the terms of reference.
- The school's leadership decides to purchase new textbooks.

A similar set of activities and results can be designed for information and training purposes, as well for the implementation process.

The first step in planning begins by planning the activities in a logical order. The availability of people and resources will be of importance here. For example: do we hire an external expert for the training activities or are we asking our own expert teacher to do the training? The first solution could be faster but more expensive. The latter could be cheaper but the expert teacher will need time to prepare a training course, time that could have impact on the overall planning.

Like the school self-evaluation process that is guided by a Self-Evaluation Team (SET) a School Improvement Team (SIT) should be organized. Different from the SET it is imperative that the school leader is part of this team. The first task of the SIT is to design the plan and inform the staff while gradually finding answers to the questions in the format. Next the SIT will monitor carefully the progress made.

It will be the responsibility of the SIT to design an overall plan for the duration of the school improvement plan. In that plan the planning of activities is included but also some 'slack' time – time that is not defined in detail and will allow for remediating actions if the schools has to deal with the aforementioned hurdles.

### Whose plan?

In the end the school's governing body (school board, regional or national authority) have to formalize the plan. They will have to agree on the goals and more importantly on the availability of qualified staff and resources.

Notwithstanding their role we know that school improvement will be successful only if those who work in the school understand and support it. They should be involved in the design























process from the start, they should not be taken by surprise by presenting them a plan made by an outside agency or unit.

That does not mean that all stakeholders must decide what to do in detail. But especially the answers to questions related with background, initiative, goals and objectives should be share with all as early as possible. The more consensus the school improvement team can build regarding these issues the better the chances that will understand why they have to do the extra work that is part and parcel of any improvement effort.

# 7. Procedures of an Effective Digital Self-Evaluation Model

The digital self-assessment tool will consist of two parts stated in the Project proposal. The first section is the data collection, and the second part is the data analysis and reporting. The following procedures are proposed to follow during the software development process:

- **1. Designing the Database**: All partners will agree on which data will be gathered with the digital tool before designing and coding it. This information is crucial when designing the application. The data will be stored in the database, and its design is the initial step to start. The database will guide us through the following aspects:
  - a. User management
  - b. Content management
  - c. Information package

Once this section is completed, we will able to know the user roles and what they can do in the system.

- 2. Designing UI (User Interface): Once it is decided which data will be collected, the next step is to design the user interfaces. Interface design will take the following into account:
  - a. Effectiveness
  - b. Usability
  - c. Interaction
  - d. Screen design

Once this section is completed, we will able to know how the application will flow and we will be able to say what the application can accomplish and in which order.

**3. Prototyping**: Once the UI is agreed upon, the next step will be to work on the prototypes. There are various prototyping software (i.e., Figma). Using one of those tools, a prototype of the application will be designed and shared with the partners. No coding will exist at this























point..

Once this section is completed, we will able to know how the application will look like and we will be able to see the data entry pages.

**4.** Coding and Utilizing the Application: Once all partners agree upon the interface and how the application flows, coding will be incorporated to get the application up and running. No major changes will be available at this stage.

Once this section is completed, we will be able to have a functional digital self-assessment tool.

5. Designing the Analysis and Reporting Section: This section will be similar to the application development process. In addition, the team will need to know how the partners want the data to be shown and which 'recommendations" the app will give depending on the data obtained.

#### Conclusion

The report fully complies with the initial proposal to stipulate the bases for ensuring continuity in school development with the DIGIESSA 4 Schools project. Thus, it proves that it is possible to evaluate the education-teaching processes in the school according to the quality standards that all school-related stakeholders (including disadvantaged students) can participate in self-evaluation that it is compatible with external evaluation, and that evaluation can be carried out through digital tools. Thus, the report lays the groundwork to develop an effective digital self-assessment model, where the results will be used to create solutions for school improvement. In this way, the purpose of establishing the infrastructure for a model that will meet all needs by defining digital self-assessment and school improvement practices in partner countries and EU countries and revealing their strengths and weaknesses was largely fulfilled.

























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