Analysis of situation and needs at school level for the purpose of introducing blended learning

Within the framework of the BlendVET project, we designed a **procedure and tools for conducting an analysis of the situation and needs in the field of blended learning at the school level**. We have focused on vocational and technical schools, but we believe that, with some adaptations, the content will also be useful for other forms of organised education.

The BlendVET project (2021–2024)[1] is implemented by partners from Norway, Iceland and Slovenia, with the aim of creating at partner schools the conditions for the use of digital technologies in teaching and learning in vocational education and training. The project developed and tested the introduction of school strategies for the effective implementation of blended learning in 7 schools, supported teachers through training in didactically appropriate planning and implementation of blended learning, and developed teachers' digital competences to create and use e-learning solutions. The coordinator of the project is the Institute of the Republic of Slovenia for Vocational Education and Training.

Blended learning

In the BlendVET project, blended learning has been defined as a **didactic concept and practice that combines face-to-face and on-site teaching/learning with teaching/learning using digital tools, both online and in the classroom**.

In blended learning, the use of digital tools for teaching and learning is pre-planned to ensure the best possible combination of different approaches to achieve specific learning objectives. The digital tools used must allow inclusion of all students, ease of use and interpersonal interaction.

Blended learning has **transformative potential related to pedagogical innovation**, including the development of students' reflective practice and the promotion of (international) cooperation between students. It also encourages the development of students' digital competences and differentiated teaching in a group of students according to their needs and flexible forms of learning.

We recommend that you read more about blended learning in the document Defining elements of blended learning and teachers´ pedagogical and digital competences, prepared in 2022 by PhD Marko Radovan, Ema Meden and PhD Danijela Makovec Radovan, from the project's partner organisation, the Faculty of Arts at the University of Ljubljana.

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[1] The BlendVET project is funded by the EEA Financial Mechanism and the corresponding Slovenian participation under the Education, Scholarships, Apprenticeship and Youth Entrepreneurship.

Strategic introduction of blended learning

For the purpose of managing the introduction of major changes in school practice, it is useful to develop a strategic plan. In the BlendVET project, we prepared **guidelines for the preparation of the development strategy**, in which we presented phases of strategic development: (1) planning, (2) implementation, monitoring and auditing, and (3) evaluation and reporting.

The situation and needs analysis are one of the key elements of the first, the strategic development planning phase. It makes sense to carry out the analysis when we are dealing with the introduction of innovations at the school level, as well as later when we want to check how development is progressing and whether and what new directions are to be supported in the future.

Before you decide to carry out an analysis for which you would use the procedure and tools presented here, we definitely recommend that you read the following guidelines in full: [Defining elements of the strategy for the introduction of blended learning in VET schools](#) (Zavašnik, 2022).

The situation and needs analysis

The analysis in the context of the strategic development of the school is a process by which we **define what we need in order to achieve the set of the development goals**. We implement it in order to define more precisely and appropriately the steps of development and concrete activities, as well as to identify specific issues that may need more attention, etc.

In this way, **we obtain data and information on the actual situation** of the developmental field (blended learning in our case), in a given period of time and evaluate it in the context of the set purpose of development activities.

Therefore, we should only implement an analysis when the **purpose of the development process** (strategic intent) and the **envisaged objectives** that we want to achieve in the coming years have been identified. On this basis, we define the data and information we need for further detailed planning of the development process.

The development work is, of course, undertaken by the school development team with a certain amount of insight into the situation at the school and with individual target groups whose field of work at the school concerns the development field. The purpose of the analysis is that the initial assumptions are actually verified and supported by data and information obtained directly from process stakeholders. It is therefore recommended that the management and the development team **finalise the strategic objectives of introducing blended learning on the basis of the results of the needs analysis**.

The analysis process itself leads the school management and/or development team to an in-depth reflection on what blended learning actually means and what should be kept in mind when introducing it. The development team using data and information obtained opens up very needed **broader debate, both within the whole school team of teachers and among students, where appropriate, also parents**.

Paradoxically perhaps, the results of the analysis are particularly useful when they disprove our initial assumption, alerting us to aspects of the development field that we may not have

thought of, and thus enabling us to plan development activities more in line with the reality of the situation and therefore increasing the likelihood of their success.

The analysis includes:
- identification of **the data and information** necessary for the examination of the developmental field;
- identification of the **sources** from which data and information will be obtained, including the identification of **target groups** (e.g., management, development team, teachers' assembly, different teams of experts, administration, counsellors, students, mentors, trainers, parents);
- selection **of methods** for data and information collection, such as:
    o analysis of written sources,
    o inspection and inventory of equipment,
    o interviews,
    o SWOT analysis,
    o discussion,
    o focus group,
    o online questionnaire;
- preparation of **tools** for data and information collection;
- planning and **implementation** of data and information collection;
- **analysing and evaluating** the collected data and information;
- **identifying the findings** of the analysis;
- **presentation and discussion** about the results of the analysis with the participating stakeholders.

On the basis of the analysis findings and stakeholder's inputs, we can proceed with the first phase, the **strategic development planning** phase, more precisely with the formulation of concrete strategic and operational objectives, and with the planning of activities with which we will pursue the objectives.

It is good to keep in mind that the methods used and the findings of the analysis that we carried out at the beginning of the process are also useful when we later on check whether the planned activities actually address the identified needs. The methods of the analysis can thus (with a few adjustments) be used in the subsequent **evaluation of the achievements of development activities**.

At a practical level, the school-level analysis is therefore about evaluating specific hypotheses through data and information extraction, or obtaining missing data and information to make so-called informed decisions.

The analysis is carried out by the **school's management or development team**. This task exceeds the capabilities of just one individual, regardless of his or her role at the school.

The school can decide to carry out the analysis with the help of external associates, but most often the schools carry out the analysis themselves through **so-called self-evaluation activities**. In both cases, the cooperation of the development team is crucial. In the case of hiring an external evaluator, the development team actively participates in the preparation of the analysis and at the same time represents one of the target groups. It is crucial that

developmental team ultimately uses the results of the analysis as a starting point for further planning.

In case of the implementation of the self-evaluation approach to carry out the analysis, which is common approach at schools, the development team also devises all the necessary activities. In the BlendVET project, partner schools successfully carried out their analysis using **three instruments**. We present these instruments below and invite you to use them in your development activities.

Tools for collecting data and information

In order to help your development team to introduce blended learning, we present three tools for collecting data and information based on the experience and results of the BlendVET project:

- Guidelines for the discussion by school management and development team
- Questionnaire for teachers
- Questionnaire for students

The instruments are available in Slovenian and English language. The questionnaires for teachers and students are also available in Norwegian language. If other translations and adaptations are made, we will publish them on the project website: BlendVET.si

As mentioned above, the methods of data and information collection are varied, and the two methods presented – the management/development team discussion and the online questionnaires for teachers and students – are the most extensive tasks for a developing school. Therefore, we have decided to present them in more detail and thus offer them to schools for their use. At the same time, they also provide a comprehensive overview of the initial state of the school in terms of the introduction of blended learning. You can also use the questions and statements presented in the three tools to carry out other methods of collecting data and information.

Guidelines for the discussion by school leadership and development team

In this tool, we have summarised the key questions, combined into 14 sets, that we think are useful for the management and/or development team of the school to answer at the very beginning of the development activity. The questions guide the management and/or development team through a **reflection on blended learning and aspects of the implementation of the new approach, as well as on what is important for the implementation process itself**.

Schools can also adapt the questions or only answer questions that they find useful for their situation. Of course, you can also ask yourself additional questions that you think would help to implement the strategic plan.

We recommend that management and/or development team members individually reflect on the answers to the questions, and then conduct a discussion within the group. The tool will be used to its full potential if you also write down the answers to the questions or sets of questions so that they are available for use in subsequent phases of the implementation.

It is common for a school to have a small management team, sometimes even just one person (the head teacher/ principal). At the same time, it is recommended that the strategic development be led by a so-called development team composed of employees who have different roles at the school. In such a case, management often focuses first on question 9 of the guidelines.

Guidelines for the discussion by school leadership and development team are available on the website: https://blendvet.si/en/activities/strategic-framework-for-schools/

Questionnaire for teachers

The presented questionnaire for teachers contains 20 questions.

The first 2 questions are about teachers' involvement in the strategic development of the school. 8 questions relate to understanding blended learning and the teacher's experience of using digital tools for teaching purposes, and a further 4 questions relate to ICT equipment. 5 questions refer to the pedagogical and didactic competences of teachers, which are important in the implementation of blended learning. The questionnaire ends with an open question, which invites the respondent to add information on a topic that may not have been covered by the questionnaire.

Of course, you can tailor the questions before use to your specific situation and needs. Since the questionnaire is already extensive, a significant increase in the number of questions is not recommended.

The questionnaire does not contain so-called demographic questions (gender, age, years of teaching, subjects, etc.). If you feel that they are necessary, we recommend that you add them at the beginning or the end of the questionnaire. Demographic questions are primarily used for the purpose of describing the research sample, which in this case may not be necessary. Demographic questions in the context of a self-evaluation are useful if you want to know whether different groups of employees have different opinions. However, as demographic questions can have a significant impact on the anonymity of the questionnaire, that is of course recommended, we recommend that you carefully consider whether demographic questions are really necessary in the process of self-evaluation within your school.

The questionnaire's introduction also needs revision and adaptation. We suggest that you highlight the purpose, anonymity and the length of the questionnaire. It also makes sense to provide information on when and how you will present the results of the survey to the participants and invite them to a discussion.

Adjustments to substantive questions are likely to be necessary as well. For example, it makes sense to ask questions about cooperation in strategic development if you intend to discuss cooperation in general when initiating this development process.

Some questions about understanding blended learning make sense, if this is the first time the teachers' assembly has addressed the topic. However, it also makes sense to use some of the questions again at later stages, for example in the evaluation of achievements. The same applies to the 4 questions relating to ICT equipment.

The last 5 substantive questions are designed to ask teachers to evaluate the extent to which each statement is true for them. There are 33 statements relating to pedagogical and didactical competences for delivering blended learning. The statements were made on the basis of the

Inacol Competence Framework[2]. The framework was chosen as a starting point because it focuses on blended learning and the competences of teachers to deliver it, while the so-called European framework (DigiComEdu) covers a broader framework of digital competence for teachers. The Inacol framework is also presented in the BlendVET project document presented above on the topic of blended learning elements (Radovan et al., 2022).

Questionnaire for teachers is available on website: https://blendvet.si/en/activities/strategic-framework-for-schools/

Questionnaire for students

The questionnaire for students contains 20 questions. It is designed to obtain data and information relevant to the development of blended learning at the school, which can only be provided by students. The first 4 questions relate to the basic conditions for students to participate in blended learning (conditions for the school work, technical equipment). The 7 questions that follow discuss the frequency of use of digital tools for school work, the availability of digital technology in schools, online classrooms, etc. In the next three questions, students evaluate the extent to which and in what ways activities related to students' digital skills take place in the classroom. This is followed by a question on the involvement of students in decisions on the use of digital learning tools and two open questions on their experiences. The last two questions relate to the evaluation of the achievement of students' digital competences. And also, this questionnaire ends with an open question, which invites the students to add information on a topic that may not have been covered by the questionnaire.

This questionnaire and the opening address should also be adjusted according to your situation. In doing so, it is important to consider the length of the questionnaire and what will be the focus of your research. With the presented questionnaire, we tried to cover the topics that are crucial for the introduction of blended learning. When it comes to the length and content of the questionnaire for students, it is also important to consider what kind of discussion you plan to have with students when presenting the results.

The questionnaire does not contain demographic questions and, as with the teachers' questionnaire, anonymity is an important concern. It is therefore important to consider whether adding questions about age, gender, programme etc. will add value for your purpose of analysing the situation when introducing or further developing blended learning.

Questionnaire for students is available on website: https://blendvet.si/en/activities/strategic-framework-for-schools/

Conducting an online survey

The questionnaires for teachers and students were prepared in such a way that they can be easily used for online surveys via the Slovenian open-source tool called 1ka.

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[2] Source: Powell, A., Rabbitt, B. and Kennedy, K. (2014). iNACOL – Blended Learning Teacher Competency Framework.
International Association for K–12 Online Learning (iNACOL). Retrieved from:
https://www.inacol.org/resource/inacol-blended-learning-teacher-competency-framework/

1ka offers basic use for free and enables the use of the online survey tool in other languages as well. For the purpose of technical analysis (report, graphs etc.) of the results you need to upgrade to payed version at a really low price.

We have prepared instructions for the use of this online tool **Basic instructions on how to use the 1KA survey tool**, which can be found at the following link: https://blendvet.si/en/activities/strategic-framework-for-schools/

You can import a text file with a questionnaire directly into the online tool. If you want to customise the questionnaire, you can do so in the text file or later in the online tool itself. Questionnaires used in BlendVET project (slightly adopted) are also available in the 1ka file format here: https://blendvet.si/en/activities/strategic-framework-for-schools/

Before using the questionnaire, we suggest that you do one test run. You can do so first within the development team, and then with the respondents. It makes sense to have at least three people who will later complete the questionnaire test the questionnaire and give you feedback for improving the questionnaire.

The 1KA online tool has a test function. Answers to questions in the test phase can be deleted, and the test respondents can also write a comment for you next to each question. While using this feature certainly makes sense, another perfectly useful way of testing is in person, when you talk to the test respondent about their experience trying out the questionnaire.

Design the survey so that respondents have enough time to complete the questionnaire, but also plan to send the request for filling out the questionnaire several times in order to achieve the desired number of responses. In the case of the teachers' questionnaire, it is reasonable to insist that all teachers (with the exception of long-term absentees) answer the questionnaire. When surveying students, it will be sufficient if 75% of students respond to the questionnaire, as long as all students have been invited to take part in the survey and you have obtained responses from at least half of the students from each programme or subgroup. In this way, there will be no major differences between the survey sample and the population as a whole.

Data analysis and findings

It will take some time to analyse the data and information collected through online questionnaires. The 1ka web tool allows you to carry out the technical aspect of the analysis. With it, you can prepare tables and graphs. You can also export the entire database. It makes sense to use a report preparation tool that allows you to export entire data in the form of tables and graphs. Those options are available with 1ka subscription.

1ka makes technical part of the analysis quite easy, but we have to do the substantive analysis ourselves. This means that the members of the development team thoroughly review the obtained results in order to formulate conclusions based on which you will plan further development steps.

We hope that you will find the BlendVET project tools helpful in your process of introducing blended learning.

If you have any questions, you can contact as at CPI: Tadej Bernik (tadej.bernik@cpi.si) and Simona Knavs (simona.knavs@cpi.si) or the project manager Darko Mali (darko.mali@cpi.si). For help with using the 1ka tool, please contact their help desk.