Identifying and contributing to a strategy that will help achieving and maintaining the goals of the new digital library of the SEAS-project.

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Preface

From the start it was clear for me that I would love to work about the intersection between sustainability and education. It must be said that I was very grateful for the opportunity that Katrien Van Poeck gave me with this verry interesting topic of the international project of SEAS. I look back with satisfaction on the autonomy and at the same time the support I felt while making this work. It was an incredibly pleasant collaboration with Katrien, thank you very much for the experience. The enthusiasm and dedication shown by many colleagues and respondents of the interviews was a pleasure to work with. What touched me the most is the hope I felt when I saw that so many people are concerned about taking care of each other and our earth.

Hopefully, this work will be useful for the further steps of the SEAS project. Good luck with the project and enjoy the read.

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SAMENVATTING

In onze huidige maatschappij zijn de volgende twee evoluties duidelijk aanwezig: de klimaatverandering en de technologische ontwikkelingen. Deze thesis onderzoekt het snijpunt tussen beide. Kan een onlinebibliotheek voor het delen van lesmaterialen (technologische ontwikkeling) bijdragen aan het behalen van het doel van het tijdelijke Europees onderzoeksproject 'SEAS': de samenwerking tussen scholen en lokale gemeenschappen te vereenvoudigen om actuele duurzaamheidsvraagstukken te proberen oplossen (klimaatverandering)? Enkele projectmedewerkers van SEAS zien een nieuwe, gemeenschappelijke internationale databank als een mogelijk hulpmiddel om verscheidene problemen op te lossen. Ten eerste, om het leerkrachten gemakkelijker maken om lesmaterialen te delen, ten tweede door middel van co-creatie kwalitatieve lesmaterialen ontwikkelen, ten derde om de enorme diversiteit aan bestaande materialen systematisch te verbeteren, zodat het wiel niet steeds opnieuw uitgevonden moet worden en om uiteindelijk samen, als groep Vlaamse leerkrachten, betere methodes te hebben en meer tijd om de aandacht te richten op de oplossingen voor de huidige duurzaamheidsvraagstukken.

Deze thesis zoekt als antwoord op de onderzoeksvraag een strategie voor de nieuwe online SEAS-bibliotheek, en baseert zich daarbij op 'het strategisch marketingplan' (SMP) dat uitgediept wordt in de literatuurstudie. De SMP-methode is een stappenplan, waarbij in deze thesis de helft van de voorgestelde stappen wordt uitgevoerd. Met behulp van onder andere acht diepte-interviews en een online enquête wordt een aanzet tot een strategie voorgesteld. Dit onderzoek creëert een toegangspoort voor de organisatie om tot een uiteindelijk uitvoerbaar, doordacht activiteitenplan te komen wanneer ze de laatste stappen van het SMP finaliseren. De hier verzamelde feiten en inzichten kan het SEAS-team helpen om hun vooropgestelde doelen op een doordachte manier te bereiken en zo meer kans hebben hun nieuwe digitale internationale databank met succes te creëren.

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ABSTRACT

SEAS is a temporary European research project with the aim of facilitating collaboration between schools and local communities facing sustainability challenges. Currently, some project members are thinking about developing an online library as a tool to facilitate the exchange of teaching materials on sustainability and to refine its quality through co-creation. As an answer on the research question, a strategy for the new SEAS online library is proposed throughout the literature study: the strategic marketing plan (SMP). If this deliberate plan were to be fully followed by the organisation, it will get them from their initial problems to the implementation of a solution. In this thesis, half of the steps proposed in this strategy will be caried out using different methods as explained in the research design to contribute to the proposed strategy that will help achieving and maintaining the goals of the new digital library of the SEAS project. This research creates a gateway for the organisation to further apply the last steps of the SMP and make decisive choices, based on the gathered facts and insights.

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1   INTRODUCTION

"Technological, socio-economical, and environmental changes are rapidly transforming and posing new challenges to our societies. [...] Through SEAS, we will develop tools and methods that facilitate collaboration between schools and local communities facing sustainability challenges." (website SEAS, n.d.). SEAS is a three-year project, funded by the European Union (Horizon 2020 programme), that stands for "Science Education for Action and Engagement towards Sustainability". It exists out of a consortium of twelve different European partners: two companies, five universities, a government and three NGOs (SEAS, n.d.).

This thesis focuses on one of the current actions of SEAS: *"The partners of the SEAS project are looking for a strategy to develop an IT-infrastructure for an efficient, accumulative progress in developing sustainability teaching worldwide".* (K. Van Poeck, the local network leader of the SEAS open schooling network and promotor of this thesis, 05/02/2021). The aim of the 'IT-infrastructure' is to build six national peer-to-peer online 'libraries' (databases) of lesson plans and teaching materials - one for each participating country - and to upscale these later to an international library. This to create a co-creating community of teachers and researchers to facilitate sharing of qualitative lesson materials about sustainability with a refinement practices and tools included. "*Let's not re-invent the wheel but make it better."* (L. Östman, the Swedish responsible for the libraries in SEAS, 28/04/2021).

This thesis wants to find an answer on the main research question *'How to identify and contribute to a strategy that will help achieving and maintaining the goals of the new digital library of the SEAS-project?'* and thereby focuses on the Belgian database as one of the six sub databases. The aim of the following list of research questions is to get a better understanding in the different aspect of the main research question:

1) *What are the goals of the SEAS library exactly?*
2) *What are the opportunities and threats waiting outside the organisation to achieve their goals?*
3) *What are the strengths and weaknesses of the organisation itself to achieve their goals?*
4) *What are possible strategies when confronting the SEAS organisation with the external environment that could help constructing a future operational plan?*

The literature review of this study will help understanding why a marketing strategy, and which one, will be used to ultimately arrive at an applicable plan for the new or embedded national library of the SEAS-project. *"It is a deliverable at the end of the project that there should be a business plan to valorise the outcomes of the project. Now, only the business partner 'EduQuality' has a business plan in the make." (K. Van Poeck, Annex 2).* As a research design, different methods will be chosen with the help of the literature review to finalise the four first steps of the Strategical Marketing Planning (SMP) method: eight in-depth interviews and a questionnaire of 79 respondents. As a result, the fourth step of the SMP-strategy, a SWOT-analysis will reveal different strategical issues. With these 'strategic issues', the organisation could now start the real development of the plan. This thesis provides a gateway for the organisation to able to choose to further apply the last steps of the SMP-method and make decisive choices, based on the facts and insights gathered during this marketing research.

This work is structured into six sections, starting after this introduction with the literature study which provides a better understanding of the SMP method. It will briefly explain why this method could help achieving and maintaining the goals of the new digital library of the SEAS-project. In the following chapter, the research design, will be explained how this SMP method is applied on the case study of the SEAS-project and how the

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interviews and questionnaire can help to achieve the envisioned result: the impetus for a strategy to create and sustain a tool for sharing lesson plans about sustainable topics. The fourth chapter presents the results and is subdivided into four parts, following the structure of the research questions mentioned above which in turn follow the structure of the SMP-method. In the fifth section the strategical issues as a result of this thesis are discussed together with some ideas for the continuation of this project. A conclusion can be read in the sixth and final chapter.

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2 LITERATURE STUDY

2.1   Introduction

In the literature study, a method called the 'strategic marketing plan' (SMP) will be examined to answer the question: *how to apply the SMP method on the case study of the new online SEAS library?* The aim of this chapter is to help making choices between the different methods the steps can be gone through. The strategical marketing plan (SMP) is proposed here as a theoretical framework because it is now a wide used method for organizations or companies to apply their ideas (Kotler & Armstrong, 2004; Kaur, 2009; Alsem, 2019). For partners of non-profit organizations, it occurs that they are not understanding themselves as marketers, although marketing is a crucial role of for example librarians as well (Aslam, 2018*). "Marketing also fulfills the organization's mission and, like public relations inspires public awareness and educates"* (Hufford, 2013, p.6).

The aim of the SMP method is to come up with a plan that includes all the action steps for the upcoming year of an organisation (Alsem, 2019). This is exactly what the SEAS project can use the following year: a step-by-step plan for arriving at the strategy required to implement the database for sharing learning materials within the created 'open schooling' network and beyond (SEAS, 2020). It can help to align the goals the SEAS organisation is trying to achieve with the help of the online library tool, with the needs of the users and thus increase efficiency. *"Marketing is a planned strategic approach of bringing together consumers and products. A marketing-oriented organization takes its marching orders from its customers […] Marketing is a strategic behaviour."* (Keiser, 1995, p. 50)

If the organization chooses to accomplish the last steps of the SMP after this thesis will be published (see '2.2.2. Research scope'), it can lead, in addition to the strategic plan, to a communicative advantage: everyone inside and outside the organization can read which direction the organizers want to take with this project and how they want to achieve the chosen goals (Alsem, 2019). Alsem (2019) is explaining the different steps of the SMP method. He mentions that some components of this process are applicable for non-profit organizations. He is also mentioning that it would be an illusion that each company should follow each step in the same way or depth. Therefore, some steps will be more elaborated than others (see section 'research design'). To find out which steps to elaborate and in which way, this literature study is needed as an exploration of the chosen SMP framework.

2.2   The different steps of the SMP-framework

The Strategical Marketing plan (SMP) is a method that exists of seven steps. Variants of the same SMP methods exist, where the roadmap consists of six steps (Schoenmaker, 2017), seven steps (Knoot, 2012) or more steps (Alsem, 2019). For all of them the goal of using this method is the same: arriving at strategies that will enable the organization to survive in the long term. The strategies are constructed based on both an internal analysis looking at the organisation, and an external analysis looking at the environment. The main difference between the methods used by the different authors is the classification of the steps (Bronsema, 2006).

All the authors examined have the following structure in common: the first step is to make a sketch of the current situation and the next two steps are the internal and external analysis. Different authors are filling in this first step differently (Alsem, 2005; Leeflang, 2003; Schoenmaker: 2017; Knoot; 2012). Chapter 2.3, the 'situation analysis' will provide an overview of the different models used and questions asked by the authors to

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get a better understanding about the goals of the project and other important background information before starting the analysis. The order of which analysis first, the external or the internal, differs between the authors listed above. The internal analysis helps to find strengths and weaknesses of the organisation or company. The external analysis is meant to find the threats and opportunities of the market, or in other words the environment to which the company or organisation belongs (figure 1).

Figure 1: the different steps of the strategical marketing planning (sources: Alsem, 2005; Knoot, 2012; Schoenmaker, 2017)

A crucial part of the SMP method is the following step: the confrontation of the organisation and the market/environment done by a SWOT-analysis. This confrontation of the opportunities and weaknesses of the market with the strengths and threats of the organization is giving input for the different possible strategies: the 'strategical issues' from which the 'final problem' could be deducted (Alsem, 2005; Leeflang, 2003; Schoenmaker: 2017; Knoot; 2012). The following steps of the SMP method are to find a strategy to solve the final problem and to make the chosen strategy applicable by developing a marketing plan (Schoenmaker, 2017).

The scope of this thesis is chosen to be the first four steps of the SMP model. Knoot (2012) divides the SMP into two different parts: the first three steps together are what he determines as the 'marketing research' and the last four steps as the 'marketing development' (see figure 1). There are two resons why the fourth step was chosen as the last step included in this thesis. Firstly, because this 'confrontation' between the market and the organisation by means of a SWOT analysis, summarises the decisions from the marketing research which is a desirable result for this type of research. Secondly, because the output of this confrontation matrix provides the possible strategies that need to be discussed with all the partners of the SEAS consortium and this is only possible after this work is finished in the summer 2021.

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2.3 Situation analysis

2.3.1 Sequence of the different sections

When getting to know the different methods of applying the steps of the SMP framework in the previous chapter, also different sequences of applying them were discovered when comparing the different authors. In the following chapters, the aim is to choose an appropriate sequence of steps and methods. The different authors delineate and name this first step of the SMP-method differently. What they all have in common is that it is an analysis of the situation, a sketch of the current state of the project.

By Leeflang (2003) this first step is called the *situation analysis* with the aim of briefly outlining the four main features of the current situation: mission, vision, value strategy and sales markets. In the clear video from Schoenmaker (2017), the first step is also called the 'situation analyses'. Different components are identified: some background information like history, structure and culture and success factors, mission and vision, the goals, the current strategies, and the business definition. Knoot (2012) is talking about 'identifyng the goals' where he wants to find an answer on *"what do you want to achieve with the SEAS-library?"*. He makes the separation between a 'quick scan' and a 'problem scan'. Alsem (2005, 2019) distinguishes between three components in this first step: mission, value strategy and market definition.

After studying the various methods used by the different authors to go through this first step of the SMP, some similarities and differences and advantages and disadvantages were found. The choice is made to work with Knoot's (2012) two subdivisions: the quick scan and the problem scan. The content deviates slightly from its preconceived possibilities because a combination has been made of the most suitable models of all the different authors. The quick scan will contain different sections: background information about the organisation, followed by their mission and vision as proposed by Schoenmaker (2017), Leeflang (2003) and Alsem (2005), and ending with the Abell's model. Abell's business definition as proposed by Schoenmakers (2017) can be seen as a form of *market definition* Alsem (2005) is mentioning, or the *delineation of the sales market* of Leeflang (2003). As a last and separate part of the situation analysis, the problem scan will dive deeper into the goals of the project.

2.3.2 The quick scan and problem scan explained

The difference between the 'vision of the organisation' studied in the *quick scan* and the defined problems in the so-called *problem scan* is that the quick scan has the aim to identify the different problems or goals, and the problem scan will dive deeper into them, to understand the symptoms. The organisation's vision is defined as a philosophy or set of principles used in an organisation. The quick scan will provide a list of principles or problems the organisation wants to solve: the 'preliminary marketing problems'.

This list will be summarised as an input for the problem scan to get a clear vision on the applied main question that needs to be answered in this step of the SMP: *"what do you want to achieve with the SEAS-library?"*. The problem scan will also dive a little deeper in their symptoms of this list of preliminary problems. With the *symptoms* is meant an in-depth analysis that zooms in on the different problems to get a better understanding of them (Knoot ,2012). These explored preliminary problems are giving direction to the following internal and external analyses of step 2 and 3. It is only after the confrontation of step 4, the *final problem* could be well-formulated.

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2.3.3 The market definition with Abell's model

The market boundaries need to be identified to understand the market share and the amount of competition (Alsem, 2019). This alienation between the vision of the organisation and the environment, the market, can be seen as a predictor of the development of the strategy and can be found in examining the mission of the organisation. There are different ways in delineating the market. Both Alsem (2005) and Frambach & Nijssen (1995) use Lehmann and Winer's (1991) level of competition for market definition which is using four different levels of competition. In this study, Abell's method (Knoot, 2012; Schoenmaker, 2017; Alsem, 1993) is chosen, which is most suitable for a non-profit organization.

The Abell's matrix will help identifying in which business the SEAS organisation is really in. An important difference exists between the business *domain* and business *scope*. The difference is that the business domain is the market as a whole and the business scope is the part of the market that the company serves. The scope is visualized with a cube in the centre of the three axes (Figure 2).
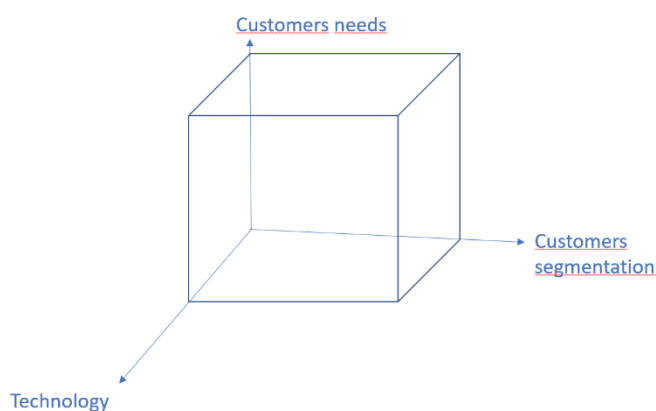
Figure 2: Abell's matrix model simplified (source: Knoot, 2012)

The three axes are the customer groups axis, the customer needs and the technology used. It is important when applying the model when identifying the components of the axis that it happens in the right order. Firstly, the segmentation of the customers: who are they? It is important to use only one type of segmentation and not mixing them. To create a correct segment, the new formed groups need to be big enough, homogenous, measurable, and predictable. For example from heavy users to soft users. The second question is 'what are they looking for?' to identify their needs. For the last axis, the question is 'how do your organization fulfil these needs?' to identify the technologies used (Schoenmaker, 2017).

Now, another question arises, when to apply the model of Abell and Hammond (Abell & Hammond, 1979) in the order of the SMP steps. According to Knoot (2012), a choice must be made in which step of the SMP Abell's model should be addressed. Is it in step one as a source of information, or as an analysis in step three? The second option is the most common according to Knoot. Due to Schoenmaker (2017), this matrix is best addressed in step one of the SMP, the situation analysis, because it determines the users and competitors. This information is needed for the further analysis of the users and the competitors in the next step: the external analysis. Alsem (1993) declares the same: that the market analysis also defines the scope of the internal and external analysis and identifies competitors. With these arguments, it is decided to apply Abell's matrix at this moment in the SMP process.

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2.4   External analysis

The aim of this step is to find the opportunities and threats created outside the SEAS organisation. The external environment, or the market, is subdivided by two different types of environments: the meso and the macro environment (Knoot, 2012). The meso-environment is the branch or sector. This sector can be analysed with a 'branch analyses' (Alsem, 2019). The macro-environment is the overall market that is everything else except the own sector. This can be analysed while using a DESTEP-analysis (Alsem, 2019).

The DESTEP analysis of the macro-environment helps determining the factors which are happening at the societal scale. These different factors: demographic, economic, social, technological, ecological, juridical, and political are neither influenceable nor controllable (Schoenmaker, 2017). In the 'branch analysis' of the meso-environment is meant to do structural research about the branch of the organisation. The reason is because changes in the branch, defined as the group of organisations which are contributing to similar products or services (Van Dam & Marcus, 2012), can have a big impact on the organisation. The branch of the SEAS-organisation will be already delineated superficially with the help of the Abell's matrix.

The branch analysis of the meso-environment exists of different components. The different components variate for each author. Knoot's (2012) view of this step in the model is used as a basis in this thesis because he himself indicates that other models, such as the ABCD model proposed by Schoenmaker (2017), take too short a view by disregarding stakeholders. The Dutch ABCD model considers the customers, the industry, the competitors, and the distribution. It differs from the components proposed by Knoot (2012) in only one aspect namely the branch-component 'industry' is replaced by the stakeholders. Indeed, all these four components: the customers, the competitors, the distribution and the stakeholders together have already been superficially examined through the Abell's matrix and will be explored more deeply during the external analysis.

2.5   Internal analysis

The aim of the internal analysis is to determine the organisation's strengths and weaknesses. The question that needs to be answered is what inside the organisation excels and where it can improve (Knoot, 2012). There are a lot of possible methods to get a better insight in the organisations functioning. The aim of this chapter is to get a better understating in the different possibilities and their functioning. Schoenmaker (2017) emphasises that the internal analysis must come in sequence after the external analysis because the strengths and weaknesses to be determined are viewed in relation to the external market. An organisation is strong in something because it is compared to another organisation in a certain context. This why the internal analysis follows at the external analysis.

Knoot (2012) identifies three different audits which are part of the internal analysis: the organisation, the marketing, and the financial audit. Additionally, he lists a whole range of possible models that can help with this: organisation analysis, portfolio analysis, BCG matrix, MaBa analysis, skills analysis, McKinsey 7S model, value chain, customer pyramid, etc. Before deciding which method to apply in this study, the models of the other authors are examined. Schoenmaker (2017) proposes to use these models: the value chain analysis of Porter, McKinsey 7S model, and a financial audit. Alsem (2019) is calling the intern analysis what in this research was the so-called situation analysis (see 2.3.). They are determining more in depth the strategy of the organisation (mission, value strategy, goals, …).

After analysing the options and understanding the different models, a decision is made in how to organise the internal analysis and which components to research with which models. The four important components, which

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were mentioned by all authors are the products (the material active), the values (immaterial active), the marketing and the financial component. While examining the models, the value chain of Porter seemed appropriate to analyse the products component and the marketing component. The values can be analysed with the 7S tool created by the firm McKinsey by Tom Peters and Robert Waterman in 1980.

The value chain of Porter analysis the supporting activities of the organisation on the one hand, and the primary activities on the other hand. Three of the four supporting activities are overlapping with the components of the 7S model, that's why they will be analysed with this last model (see figure 3). The other six components will now be briefly explained. With the *procurement,* Porter meant all the aspects of the organisation with an invoice or a bill. To determine the *inbound logistics*, the question asked should be: "who in the organisation will provide the supplies for the services and products?". With the *operations*, the services and products are meant. The *outbound logistics* tell something about how these products and services are leaving the organisation and the last component, *the marketing and sales*, is interrogated by the questions: "What or who is creating the ask for the services?" and "Who is responsible for really reaching the customers?".
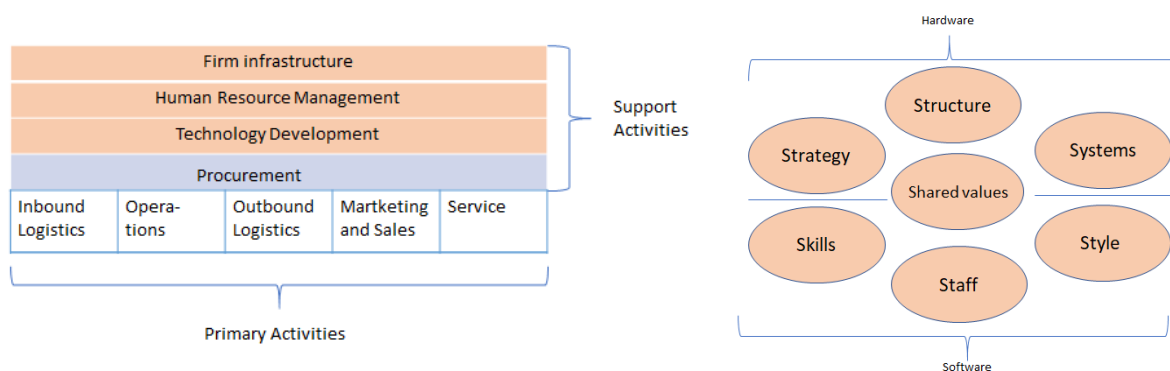
Figure 3: Two theoretical models for analysing the organisation: the value chain of Porter (left) and the 7S model of McKinsey (right) (source: Knoot, 2012).

The 7S model of Mc Kinsey exist out of 7 components analysing the strategic values of the organisation. As the most important component, the shared values are presented in the middle of this model (figure 3). The six other components, all of them starting with the letter 's', are divided into the 'Hardware' components which are not changed easily but are easy to identify and can be influenced directly by the management of the organisation, and the 'Software' components which are changing easily but are more difficult to describe and more influenced by the culture and so less tangible.

2.6   The confrontation

The objective of this fourth and final step in the study is to find an answer to the question: how does the organisation fit in with its market? In this step, the findings from the external and internal analysis are confronted with each other with the aim of providing input for determining a strategy. This confrontation is very important for the future steps that will lead to a final strategic plan. Misinterpretations can lead to different results from which false conclusions can be drawn (Knoot, 2012). The result of the confrontation exposes problem areas. These are mismatches between the market and the organisation and are called *strategic issues* (Knoot, 2012). The answer to these strategic issues called the final problem is the next step of the SMP method, which is beyond the scope of this study, namely the marketing strategy (Schoenmaker, 2017).

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The method used in all examined publications is a SWOT analysis (Alsem, 2005; Leeflang, 2003; Schoenmaker: 2017; Knoot; 2012). This analysis is bringing together the <u>s</u>trengths and <u>w</u>eaknesses of the internal analysis and the <u>o</u>pportunities and <u>t</u>hreats from the external analysis. The SWOT analysis is in fact an overview of the results from the market and organisation analysis. At a later stage the SWOT can easily be looked back on to shape the strategy (Knoot, 2012). The next step is the confrontion analysis, that can be based on the construction of the confrontation matrix. The confrontation matrix can be regarded as the heart of the strategic marketing plan. It is in fact the turning point in marketing research. Where previously the focus was mainly on analysis and describing facts, now it is shifting to information interpretation to make decisions (Knoot, 2012).

The previous steps of the SMP-method are providing a big list of opportunities and threats and strengths and weaknesses. These lists should be simplified into five workable points presented in a SWOT matrix. In the confrontation matrix (figure 4), the twenty points or issues are combined in the problem areas (green boxes in figure 4) to identify the different strategical issues (different points inside the problem areas). In the confrontation matrix four areas can be distinguished on which the strategy can be based: strategy under the sign of growing (strength and opportunity), strategy under the sign of strengthening (weakness and opportunity), strategy under the sign of defending (strength and threat) and the strategy under the sign of withdrawing (weakness and threat). It can be said that the positive issues are characteristics of the organisation with which opportunities can be exploited or threats can be warded off. Negative issues deserve attention because these organisational characteristics can ensure that opportunities are not exploited or, in the worst case, threats cannot be averted (Knoot, 2012).

Figure 4: Theoretical concept of the confrontation matrix (source: Knoot, 2012).

The strategical issues can be revealed in various ways: by working with double pluses and minuses and zero areas or by working with scores (Schoenmaker, 2017). Frambach & Nijssen (2001) the central problem must be distinguished after drawing up the confrontation matrix. Finally, with the information conducted from the matrix to the core of the marketing problem can be identified: the central problem definition (Frambach & Nijssen, 2001). The aim will be to move away from the preliminary problem definition and arrive at the central problem definition, based on the conducted strategical issues. The strategic issues can be formulated in a SMART way. This means the goals will be Specific, Measurable, Acceptable, Realistic and Time-limited. (Knoot, 2012).

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3 RESEARCH DESIGN

3.1 The pathway to the final title

During the process of identifying the most adequate research design to answer the predetermined research question, the research question developed as a part of this process. The construction of the first research question was the following one:

Identifying the keyfactors, aligned between producers and users, that will help achieving the goals of the SEAS-project.

After the first steps of this research, namely when interviewing the partners of the SEAS-project, it became clear that the goals were set, and the vision founded (see results of the interview for more nuance on this topic). It also became clear that the research topic of this thesis would be more specified and would be focused on the already launched idea of a new digital library.

The question that arose was if it were really 'key factors' they wanted to be identified? What would be the form of these key factors? Does the organization need possibilities, methods, expectations, needs, strategies, scenarios? After the interview with the MOS-partners (see annex 4) and a conversation with my promotor, it became clearer that the launching of a library as a product would need a more 'marketing' or 'organisational management' method and approach if the goals were to make it known and sustain the use. The main research question was modified again to:

Identifying possible scenarios, aligned between the actors, that will help achieving the goals of the new digital library of the SEAS-project.

Now, a study about scenario-building urged itself. After studying different options of strategy development, the decision was made to work with strategy building from known business models. There are different reasons why this new digital library, that can be seen as a small business, would benefit from a marketing plan (see literature study). After some research, the decision was made to work with the 'strategic marketing planning (SMP)' (Knoot, J., 2012). One of the reasons to work with this method, was because it looked feasible and manageable to work with as an exact scientist researcher on the new business domain. A very well-structured website, which provides enough background information but still clearly simplifies the more complex model behind it, was also a convincing factor to work with the SMP-method (Knoot, 2012).

After further scientific research on this method (see literature study) it became clear that this framework is providing a stepwise strategy to implement ideas in a realistic and successful way. This is what the idea of the library needs: a strategy in how to materialize and maintain the success of the set goals. A third version of the research aim was made:

Identifying a strategy aligned between the actors, that will help achieving AND maintaining the goals of the new digital library of the SEAS-project.

After analyzing the different steps of the SMP-method, it became clear that this thesis could be a part of the strategy. It is also in this thesis that for the first time the idea of following a strategy for applying the new online database was mentioned. This thesis could help implementing the first steps of the SMP-model. All these

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steps are based on research and analysis (Knoot, 2012) and therefore fitting well into this study. As a result of the marketing research, a SWOT-analysis can be made. This confrontation between the vision of the organization (partners of the SEAS project) and the market (teacher - users of the library) provides the input to determine marketing strategy. These SWOT-analysis will be the input for the next steps which will lead to an operational action plan that creates the possibility to make the SEAS library operational. So it happened that one last word was added to the title:

Identifying and contributing to a strategy that will help achieving and maintaining the goals of the new digital library of the SEAS-project.

Now the title of the thesis is delineated, the final research design can be developed. The chosen design will follow the steps of the SMP-method. In which way the first three steps of the 'marketing research' and the fourth step of confrontation will be analysed, will be presented in the following section, step by step. For each of the three steps: (1) situation analysis, (2) the external analysis, (3) the internal analysis and (4) the confrontation matrix, the reason why is justified.

3.2   Situation analysis

3.2.1   Quick Scan

The implementation of the quick scan can take different forms: conversations with partners, clients, prospects, and other stakeholders, orienting on market evolutions an examining existing document from the organisation (Knoot, 2012). Out of these options, research of documents (annex 1: documentation aims library from Östman, annex 2, 3 & 4: interview with the partners of the SEAS project), website (SEAS, nd.), brochures and first talks and e-mails with the partners are chosen as sources to get to the desired results. At the end of this thesis a list of annexes can be found.

How the identification of the aims of the new online SEAS platform would be carried out, was already determined before the chosen research design was known. At the start of the thesis' process the decision was made of doing an interview with the partners of the SEAS-project to clarify the goals (annex 3). Later, more desired and missing background information was gathered during another interview with the Belgian partner (annex 2). A third interview was conducted with other partners of the project: the MOS organisation (annex 4). This organisation of the Flemish government that help schools in different ways to be more sustainable. To get a better understanding which role this partner could play in the future activities of the SEAS project, this interview was organised.

3.2.2   Problem Scan

In the previous chapter of the quick scan, the vision and mission which are a chain of values and problems got clear. The problem scan will provide a limited list of preliminary problems the SEAS organisation wants to tackle with the new online library. The limited problems in the list, the preliminary problems will get a code (annex 5). The same sources as mentioned in the previous part (annex 1- 4) will be analysed again. The coding will help to collect more information about each problem, to get a better understanding of the symptoms of the problems (see literature study for more info about 'symptoms').

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3.3   External analysis

The external analysis exists out of two parts, the macro-environment or DESTEP-analysis on the one hand, and the meso-environment or branch analysis on the other hand. The analysis of the macro-environment with the help of the DESTEP- analysis will deliberately not be thoroughly investigated. This because this is the level of which the organisation has the less influence on (Knoot, 2012) and this analysis of the overall demographic, economic, social, technological, ecological, political, and juridical factors will lead this research too far. This step can be done more in detail in future research.

The branch analysis will lead to a list of opportunities and threats laying outside the organisation in the meso-environment. The meso-environment is subdivided in four different components: the customers, distribution, competitors and stakeholders (see literature study). To determine the opportunities and threats, structured by the components, eight in-depth interviews will be conducted. During the analyses of the interviews, the answers were structured and coded by means of the different components (Annex 5 provides the coding and some more information about the content of the components). The conducted and coded interviews can be requested from the author of this thesis. Each interview is accompanied by a consent form and a recording.

The reason why qualitative data in the form of in-depths interviews are chosen, is because a lot of information can be interrogated with stakeholders with specific knowledge about the topic (Frambach & Nijssen, 2017). The respondents were chosen with the aim of having different opinions and points of view. There is an emphasis on geography teachers because they are closely linked to the theme of sustainability and because some of the respondents are acquaintances whose added value to this project was known and an interview with them more obvious.

The four different components are a method to structure the interviews and therefore also will lead to the resulting list of opportunities and threats. When applying the components, some side-remarks need to be made. Firstly, the separation between stakeholders and competitors is a bit artificial because the competitors could become stakeholders in the future, partly depending on the results of this thesis. Secondly, a decision will be made whether a certain aspect is a threat or an opportunity. It will be an interesting exercise to think about the threats as opportunities. This means it will not always be easy to decide when a problem will be chosen to be seen as an opportunity, or a threat.

The respondents exist out of two geography teachers training instructors from the University of Ghent and the University of Leuven. One teacher was chosen because he is creating for years his own physical geography animations which are known in all Flanders and used by a lot of teachers. The fourth teacher is experienced with connecting different teachers because he is working for the geography teachers' union. The last three respondents are teachers' geography, one with 25 years of experience and two younger geography teachers, one of whom has been teaching for a year, and one the other has completed her teacher training this year.

Another important decision is made to examine more thoroughly the list of opportunities and threats found by the analysis of the in-depth interviews by substantiating a selection of these results qualitatively by means of a questionnaire. The focus of the questionnaire will be decided depending on the results of the in-depth interviews. The decision of which questions to interrogate will be based on shared interest and insights of the researchers involved in this thesis. The Dutch questionnaire was created with the software 'Google Forms' (see Annex 8). It was conducted between Thursday the 10th of June and Sunday the 27th of June 2021. This online survey was spread by e-mail to contacts and through relevant Facebook pages and LinkedIn groups.

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3.4   Internal analysis

The aim of this third step of the marketing plan is to determine the organisation's strengths and weaknesses. There are a lot of possible methods to get a better insight in the organisation's functioning as mentioned in the literature review chapter 2.5. To get a better understanding about the four different components of the internal analysis: values, products, marketing, and finances, it is decided to work with another interview with the Belgian partner of the SEAS-project (Annex 10).

The interview questions will follow the structure of two different models: the value chain of Porter and the 7S-model of McKinsey (see literature for more information). The seven different components of the organisation as defined by the 7S-model will be determined during the interview with the help of additional questions as proposed by Schoenmaker (2017). The financial audit will be very brief because this would lead this research too far. The three questions were asked during the interview as suggested at the website of Knoot (2012) (Annex 10).

3.5   The confrontation

Why a SWOT- analysis is chosen in this step is obvious. The whole SMP-method is structured in such a way that after the analysis of the external market and the internal operation of the opportunities and threats and the resulting strengths and weaknesses, it can be set against each other (Knoot, 2012). This is the function of a SWOT analysis and of the confrontation matrix (see literature review). The results of both applications in the form of a table and a list of key issues can be consulted in the next chapter.

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4 RESULTS

4.1 Situation analysis

4.1.1 Quick Scan

4.1.1.1 *Background information of the organisation*

The SEAS website (n.d.) clarifies that SEAS stands for "Science Education for Action and Engagement towards Sustainability" and that the project consortium exists of twelve different European partners: two companies called cChange and EduQuality, five universities, the Flemish government and three NGOs (SEAS, n.d.). The SEAS-project is a Swafs-project with funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824522. The subsidies for the SEAS-project will be ended in August 2022 (Annex 1). The current projects exist out of three different actions with the aim of facilitating collaboration between schools and local communities facing sustainability challenges by what they call 'open schooling' (SEAS, n.d.):

- Developing different tools, methods, and models to implement open schooling. In other words, tools and methods that create collaboration where teachers and students can work together with out-of-school partners on solving sustainability and social justice challenges in their local communities
- Organising workshops for different actors as teachers, students, and local stakeholders.
- Links both local and global research to this project.

Within the framework of these different actions, the Swedish responsible partner for the libraries in SEAS, and Belgian partner who is the local network leader of the SEAS open schooling network and EduQuality, came up with the idea in autumn 2020 of creating an online database where they could, on the one hand easily disseminate their freshly developed tools and methods to different schools and communities and on the other hand use this meeting place to facilitate peer-to-peer sharing of other lesson materials about sustainability. As mentioned in the introduction, the partners are still looking for the more streamlined design of this online database, or how they called it from the beginning: 'online library'. This is the research question for this thesis: *Identifying and contributing to a strategy that will help achieving and maintaining the goals of the new digital library of the SEAS-project.*

The twelve different partners of the SEAS-project can work freely at their own projects. *"One database will be developed on an international level, but they also want to develop libraries on the six levels of the different six countries. Processes are running now. As the context is so different in the individual countries, these libraries will also take different forms."* (Annex 2). In this thesis will be focussed on the Flemish context. The promotor is the Belgian partner of the SEAS-project, and more specifically the possibilities in Flanders for such an online library are researched because 'Education' is a community competence in Belgium. *"In Flanders, for example, we have a well-functioning database, KlasCement. Another characteristic of Flanders' context is that schools have little money to buy anything. Something specific to Sweden is that schools there are managed at municipal level, and these do have budgets to support their schools."* (Annex 2). The aim of the project should be to build an online peer-to peer database for Belgium with a link to an international database for sharing qualitative lesson materials about sustainability with a refinement practices and tools included.

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4.1.1.2 Mission and vision

Leeflang (2003) defines the organisation's mission as the reason for its existence. This reason for existence can be both for current activities, and for future ones. The mission of the SEAS project is defined on their website (n.d.): *"We develop tools and methods that facilitate collaboration between schools and local communities facing sustainability challenges"*. And is also mentioned by a Swedish partner as *"Developing tools for an efficient, accumulative progress in developing top-quality sustainability teaching worldwide"* (Annex 1). The driver of the partners to work on these projects is also mentioned in different words on the SEAS website (n.d.): *"Technological, socio-economical, and environmental changes are rapidly transforming and posing new challenges to our societies. What scientific knowledge, literacies, and skills do students and citizens need to address these challenges?"*.

The organisation's vision is defined as a philosophy or set of principles used in an organisation. It can be seen as the reason why decisions are made in the organisation (Leeflang, 2003). These reasons are multiple, and the aim of the partners is to solve different problems they think that are important. The following list of problems mentioned is specific for the Belgian section of the new SEAS library, but these are aims that could be find back at the international level of the SEAS-project as well.

Table 1: list of preliminary problems of the Flemish online library project by the SEAS organisation

Solving sustainability problems. *"It is amazingly important that teachers in a school, work together. It's almost like an incubator. If you put something in a common group, it is adding something valuable to the group. Imagine you scale this up to the internationals level, then you have this amazing engine for progress. This means that teacher education could use the best materials in that country to learn from and develop so the Education quality about sustainability topics will be much higher."* (Annex 3).
Education should be a public good. *"Part of the vision is that education is not a commercial good, but a public good. Looking for a way to make content a common thing. That the credits, the intellectual property, remain with the people who developed it. That a habit arises of referring to each other and giving each other credit for it. It absolutely cannot be the intention that one large publishing company will later make a profit based on the work done by teachers".* (Annex 2).
Stop re-inventing the wheel. When sharing knowledge, teachers could have more time. *"If all teachers are alone sitting in there chambre making up new lessons, it's not a good idea when this lesson is already made 20 years ago. Why not developing it and tune it for your own class?"* (Annex 3). *"The collective has much more skills, experiences, and knowledge and if you put this together it becomes interesting"* (Annex 3).
Teachers feeling alone. *"I know that in the Swedish system the idea of 'collegial learning' is becoming more popular, and the teachers are collaborating more with each other inside the school"* (Annex 3).
Teachers not building at their own capacity. *"What often is happening is that teachers are forced to use handbooks or other prefab materials out of a lack of time, starting as a teacher, ... But as a teacher you can almost be replaced by a robot who can do the same. The idea of cocreating and being prosumers together is an important difference with using textbooks of materials from NGO's. This is because of the importance of tailoring it and adapting it to the context, needs of your students AND building on your own capacity and creativity."* (Annex 3).
Monopoly of a few authors. Different teachers should be more empowered. *"Why should one person that is making this book have the only and best ideas?"* (Annex 3).

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A lack of quality insurance and refinement of teaching materials.
"The database being developed within SEAS is primarily intended to allow teachers (and NGOs, organisations…) to share lesson plans/lesson materials and to link them to forms of quality assurance (e.g. review by a didactic researcher, peer-to-peer feedback from other teachers, upload of lessons designed through lesson design workshops, …)"(personal email communication from Katrien Van Poeck– author's translation).
A lack of a method for quality refinement.
Leif Östman notes that an example of such a quality refinement system already exists, it only needs to be applied in the educational context: "*Science has such a system in play, making sure that the development of new knowledge, materials, etc. always builds on, and thus further develops, improves, refines, confirms of refutes knowledge, materials, etc. that have been developed before. This mechanism of "standing on the shoulders of Giants" is made possible in scientific work through peer review, conferences, etc. and has proven its merits there. Similar mechanisms are lacking in the context of teaching/education despite having a great potential in this field as well .*" (Annex 1). *"In the long run you could also use the artificial intelligence to give feedback back to the teachers."* (Annex 3).
A lack of helping each other.
Working alone is less efficient and satisfying. The solution: Co-creation with mutual respect. This can be done with the help of peer-to-peer (online) systems.
The sharing community needs to be big enough.
"We need to have a common place: this will be the COMMON database of the SEAS-project, non-commercial to make up the collective intelligence." (Annex 4). *"This will be done by the app in Microsoft Teams and hopefully also in Google Education."* (Annex 1).
The "silos problem".
Leif Östman, the Swedish partner of the SEAS-project describes the problem as follows: *"policy-makers, researchers and teachers very seldom work together in order to co-create high-quality sustainability teaching"* (Annex 1).
Continuation of SEAS.
The problem of all the work done during the SEAS-project to disappear after the end of the consortium. "*We do not want everything we have developed to stop after this project. The cooperation with the Flemish Government and the NGO 'MOS' and several other NGOs is aimed at ensuring that the products developed with the SEAS project can be continued. The Flemish database is a tool for this. We hope that the LORET method developed in Flanders can also be scaled up to other countries."* (Annex 2). *"We want to solve this by making the database a common, no-one owns it. Or everyone owns it."* (Annex 3).

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4.1.1.3   Market definition

Out of the Abell's model or matrix, the market of the SEAS online peer-to peer database for Belgium is delineated and exists out of three sections: the customer groups, the customer needs and the technology. For the results see figure 5.
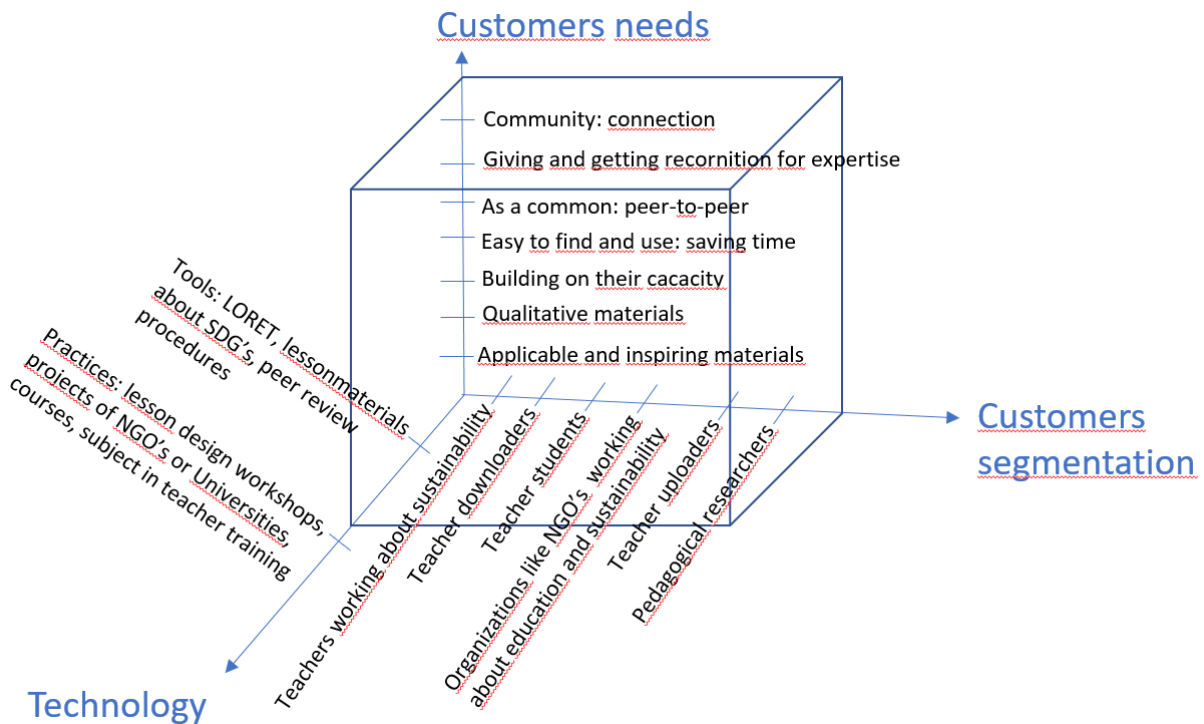
Figure 5: The SEAS library market definition with the help of the Abell's matrix (source: Knoot, 2012).

4.1.2   Problem Scan

The preliminary problems detected during the interviews (annex 1, 2 & 3) can be translated into four external goals. Per preliminary problem, some of their symptoms are visualised in table 2. These symptoms are a first idea of what could be a reason behind the problem and if the problem is urgent or rather potential. Some of them will be further analysed during the next 'external analysis'. The source from which the information is conducted is always mentioned.

Table 2: four external goals of the Flemish online library project of the SEAS organisation.

Preliminary problem	Extra information	Source	Symptoms
(1) Solving **Sustainability** challenges	- Technological, socio-economical, and environmental changes are rapidly transforming and posing new challenges to our societies. What scientific knowledge, literacies, and skills do students and citizens need to address these challenges? Through SEAS, we will develop tools and methods that facilitate collaboration between schools and local communities facing sustainability challenges through what we call "open schooling".	Website SEAS	Urgent, reasons: climate change, technolo-gical inventions

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(2) Advantages of **sharing**: not re-inventing the wheel, timesaving, helping each other	-The idea is teachers being prosumers on the online database where they would work peer-to-peer and build on each other's work. -We know that in Belgium the teachers are hungry for in-service training but that they have no time for planning lessons - That is the whole idea of being a teacher: to help others to become better	Annex 3 Annex 3 Annex 3	Potential, reasons: busy schedules, individual careers, …
(3) Creating and spreading systematic tools for **quality assurance and refinement** of teaching plans and teaching materials	- We know that this one system that we developed is more efficient: science. Scientists are good in sharing knowledge and publishing, for examples in journals, … Everybody has access to each- others work. This is an example of upscaling and speeding up knowledge production.	Annex 3	Urgent. Reasons: national educational system, societal mindset
(4) Advantages of **co-creating** introducing a culture of the commons and solving the "silos problem" which means policymakers, researchers and teachers very seldom work together.	- What we need is find a way to support teachers to share with each other, build on each other, learn from each other, because the collective is much much stronger than, of course, the individual teacher. The collective has much more skills, experiences, and knowledge and if you put this together it becomes interesting. - We need to have a common place: this will be the COMMON database of the SEAS-project, non-commercial to make up the collective intelligence. In Sweden we have many commercial platforms and teachers get a bit sick of it. This is just the Swedish context.	Annex 3 Annex 4	Potential. Reasons: specification of sectors, individualism, lack of sharing system with quality check.

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4.2   External analysis

The aim of this chapter is to find the opportunities and the threats laying outside the organisation in the market environment, and to get a better understanding of them.

4.2.1   In-depth interviews

The resulting determined opportunities and threats are visualised in table 3.

Table 3: Opportunities and threats for the Flemish online library project of the SEAS organisation.

A.   Customers

- <u>Segmentation</u> of the customers: the different types of customers

Opportunities	source	Threats	source
See figure 2 Abell's matrix.	Annex 10	Not reaching the teacher-customers with not an intrinsic motivation for sustainability	Annex 4

- <u>Customer needs</u>

Opportunities	source	Threats	source
See figure 2 Abell's matrix	Annex 10		
Professionalisation 2 teachers want more in-service trainings or other sorts of professionalisation.	Annex 9	*"I only want to use my own materials adapted to a unique situation",*	Annex 9
Efficacity 20 out of 79 respondents indicated that they want to align their materials with the new attainment targets.	Annex 9	25 out of 79 respondents indicated that they want to us shared teaching materials if they are useful for their courses.	Annex 9
Sharing *"Teachers need a certain motivation to share lesson designs. My colleague's motivation was perhaps the idea of being a pioneer, a revolutionary with his website in the year 2000."*	In-dept interview 1	**Sharing** Teachers don't want to share because of the imbalance between taking and giving, no system for autor rights & acknowledgement, scared of critisism, … *"when I share materials, I don't get anything in return and that's not fair"*	Annex 9
"Creating a general culture of sharing does work. Like sharing a sample story on a facebook page of someone who has had a nice exchange. Besides that, via Teach for Belgium, I have a large network of teachers with whom I share material".	Annex 9	*"I prefer not to put homemade lessons online when I know it will still change or when I am still thinking about things, because this seems uncomfortable for the other teachers."*	In-dept interview 1
		"Teachers want positive reactions and if they don't have that, they feel a bit insecure."	In-dept interview 1

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		"I think my work is not good enough", "I'm afraid for the criticism"	Annex 9
Inspiration 43 out of 79 respondents indicated that they want to share teaching materials to inspire and be inspired *"I am always looking for inspiration for activating forms of teaching".*	Annex 9 In dept interview 3	*"There is so much material available about sustainability, from sites, SDGs, … that in the long run one has the idea of 'ooh, maybe I'm still missing something' and teachers may become insecure because they are not sure if they are doing a good enough job."*	In dept interview 4
Not re-inventing the wheel 26 out of 79 respondents indicate that they are sharing materials to save time 16 out of 79 respondents indicate that they are sharing materials for efficacity reasons as the win-win situation or to not re-invent the wheel	Annex 9	*"A barrier for me to use other people's material is that they can't work very well with Word. Everything jumps around in the course if I want to adjust one thing."*	In dept interview 3
Community building 40 out of 79 respondents indicate that they feel enthusiast to share materials when they are helping others with it. *"Wat hen stimuleert om deel te nemen aan een project is ten eerste dat ze direct een bruikbaar materiaal moeten hebben in hun onderwijspraktijken en anderzijds dat ze iets interactiefs kunnen doen, dat ze nieuwe mensen kunnen ontmoeten"*	Annex 9 In dept interview 4	**Community building** Teachers not feeling engaged or part of the community. Teachers are not convinced that this system is helping them *"others didn't ask me to share things".*	Annex 9 Annex 9
Acknowledgement 30 out of 79 respondents indicate that they want acknowledgement for their self-created materials.	Annex 9	*"I don't want others to use my materials without getting author rights",*	Annex 9
Quality refinement. Teachers have a need for quality refinement system, positive feedback and a guarantee of high-quality materials 4 respondents mentioned that they would like a system for author rights. *"The way of giving feedback like on KlasCement or LinkedIn is okay with me. I often make use of it. It is important that this benefits the quality."* *"I believe that teachers are not going to post just anything. That they will only use qualitative sources."*	Annex 9 Annex 9 In-dept interview 1 In-dept interview 4	*"I'm afraid that I'm not respecting the author rights",*	Annex 9

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"Importantly, I think, is a reward for a commitment such as improving the quality of existing material, such as an exchange with colleagues abroad."			
Co-creation 40 out of 79 respondents indicate that they are sharing materials out of collegiality	Annex 9	**Co-creating** "I don't get anything in return"	Annex 9

B. Distribution

- <u>Channels</u>: the manner of distributing knowledge

Opportunities	source	Threats	source
Working together with existing online platforms as Microsoft Teams and maybe Scientix, KlasCement, Google for Education, …	Annex 4	Handbooks or other prefab lesson preparations made by a small amount of authors	Annex 2
Popular existing communication platforms as facebook, instagram, Twitter, …	In dept interview 4	Analogue materials and private communication (individual e-mails, …).	Annex 9
Creating own new online library. *"I want a free and independent platform"*	In dept interview 1	*"I don't know where to share the materials",*	Annex 9
Throughout workshops: training for trainers, …	In dept interview 5		

- <u>Methods:</u> the method of distributing to customers when the channel is decided

Opportunities	source	Threats	source
For an online library channel: using good keywords as themes, SDG's, lesson plan goals, …	Annex 2	The language. If it is published in the mother tongue (Dutch) it will be hard to upscale in to the international level.	Annex 4
		"The problem with these portals is: how far do we go with the classification? If you go too far then you have to tick too much, if you don't go far enough then your results are too general."	In-dept interview 4

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C. Competitors

- <u>Segmentation</u>: the different potential competitors

Opportunities	source	Threats	source
KlasCement: https://www.klascement.net/	Annex 2	Teachers pay teachers: https://www.teacherspayteachers.com/	Annex 9
Scientix: http://scientix.eu/	Annex 10		Annex 9

- <u>Powers</u>

Opportunities	source	Threats	source
"KlasCement is very reliable, you can make a lot of thematic pages, favourites, give comments, you can score the materials and you can search on different themes." by a MOS- member	Annex 4	**Teachers pay teachers** is an online marketplace where teachers buy and sell original educational materials.	Annex 9
KlasCement has a big amount of customers: 247.735 (17.08.2021)	Annex 4 + website	**lesson.se** is a Swedish platform with a lot of interest. *"But there are somethings totally wrong from a research perspective. For us it is important to have quality above quantity."* by a SEAS member **KlasCements** quantity of lesson materials (+70.000) which are not always seen as qualitative.	Annex 4
KlasCement is a non-commercial organisation that is working on sharing and building on eachother. *"They want to stimulate to make more peer-reviews."*	Annex 4	Teachers are not always finding good lesson materials for exact sciences, adultsschool education or other subjects on **KlasCement**	In dept interviews Annex 9
		KlasCement does not test whether teaching materials meet the educational objectives.	
Scientix is a European online platform that collects and promotes best practices in science teaching and learning in Europe, and organises trainings and workshops for STEM teachers.	Annex 10	**Scientix** is not working about the topic of sustainability specifically.	Website

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D. Stakeholders

- <u>Segmentation</u>: the different types of stakeholders

Opportunities	source	Threats	source
Microsoft Teams	Annex 2	With **Smartschool** we are not reaching all levels of schools and teachers	Annex 4
Flemmish governement's system could provide money and public support *"Validated material should be able to enter a Flemish database that is only accessible to teachers (recognised STAMnr), so not just online for everyone. Away with being tied to publishers. Through such a database you can "compose" your own school year".*	Annex 10 Annex 9	**Flemmish governement**'s system maybe too cumbersome	Annex 10
Pedagogical supervisors of the gouvernement: continuation and money	In dept interview 8		
University: apply for a next scholarship: they have already all this knowledge	Annex 10	**University**: when applying for a next scholarship their is no garantee for continuation	Annex 10
Erasmus + : exchange activities. **VLEVA**: Vlaanderen meer zichtbaar maken in Europa en het belang van Europa voor Vlaanderen in de verf zetten. **Green Erasmus:** The Green Erasmus project will strive to improve the environmental sustainability of the Erasmus+ Programme. "They are working more with organisations than Erasmus".	In dept interview 7 Annex 4	Autors of handbook: - https://www.polpo.be/leerkracht - https://e-ducate.me/site/index -https://www.scoodle.be/login	Annex 9
UNESCO.	Annex 4		
Teach for Belgium: network of engaged teachers to help students differnt socio-economical backgrounds	In dept interview 5		
MOS: https://www.mosvlaanderen.be/. The Flemisch gouvernement helps schools to be more sustainable.	Annex 4		
To work together with **Sustainability Office of the UGent**: one officer continiously paid			
Het Archief: https://onderwijs.hetarchief.be/ In the online image bank The Archive of Education, you will quickly and easily find what you are looking for: clips, videos and audio fragments from national and regional broadcasters and cultural and heritage organisations. And, not unimportantly, tailored to the final attainment levels and curriculum objectives.	Annex 9		
Lesson-Up: https://www.lessonup.com/site/nl/wat-is-lessonup. With LessonUp, you can create or arrange digital and interactive lessons, which you can teach directly on the central screen in the classroom.	Annex 9		

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	source		source
BookWidgets: https://www.bookwidgets.com/. Enables you to easily create custom material that will work for *your* class.			
Cartogis UGent: http://cartogis.ugent.be/geoinfo	In-dept interview 3		

- <u>Interests</u>

Opportunities	source	Threats	source
A MOS partner said: "*we have an important role in facilitating the SEAS-project. We already have a part of the site of KlasCement. We have a good relationship with them, we could arrange a meeting. Maybe it's our task to create a space on KlasCement especially for a pilote-project? We could also stimulate teachers to do the refinement.*" "*10 leerkrachten is zeker genoeg voor een geslaagd pilootproject, niet meer*".	Annex 4 In dept interview4	MOS-partner: "*We don't have time in our planning and goals to do the 'quality check' and refinement project.*"	Annex 4
Flemish government: the values of the SEAS-project are in line with the values of the society: sharing, cocreating, sustainability	Annex 10		
EduQuality: is already a partner with information, shared vision, …	Annex 10	**EduQuality**: needs to earn money as a company to exist	Annex 10

4.2.2 Questionnaires

The questionnaire was filled-in by 79 respondents (annex 9). The main insights will be briefly presented in the next paragraphs, structured by the different components of the branch analyses, adding information to possible opportunities and threats for the SEAS online library project. Together with the Swedish and Belgian SEAS-partner who are intensely involved in this thesis, is decided to emphasise the 'customers needs' in this questionnaire. An important side remark is represented in the following quote of Henri Ford, mentioned when he wanted to market his cars: "*If I'd asked people what they wanted, they would have asked for a better horse*" (Knoot, 2012). The fact that the ideas of the customer-teachers are interrogated about something that is not yet there, has repercussions on the questioning. It means that not only the way the teachers are functioning now must be seen as a desirable future or the most likely scenario that will happen in the future.

4.2.2.1 Customers

A. Segmentation

The analysis of the possible customers of the new Belgian library with the help of the Abell's matrix (figure 2) revealed that the possible stakeholders could be teachers working about sustainability, teacher uploaders and downloaders, student teachers, ngo's working about education and sustainability and pedagogical researchers. In the questionnaire was chosen to interrogate teachers. The teachers that filled in the survey were mainly

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mathematic teachers (48,7%), geography teachers (19,2%) and Dutch teachers (17,9%). The reason why could be the type of Facebook groups where the survey was posted, the underlying population of teachers in the Dutch society, etc. It is beyond the focus of this study to be able to make a judgement on this.

In welke graad geef je les?
78 antwoorden
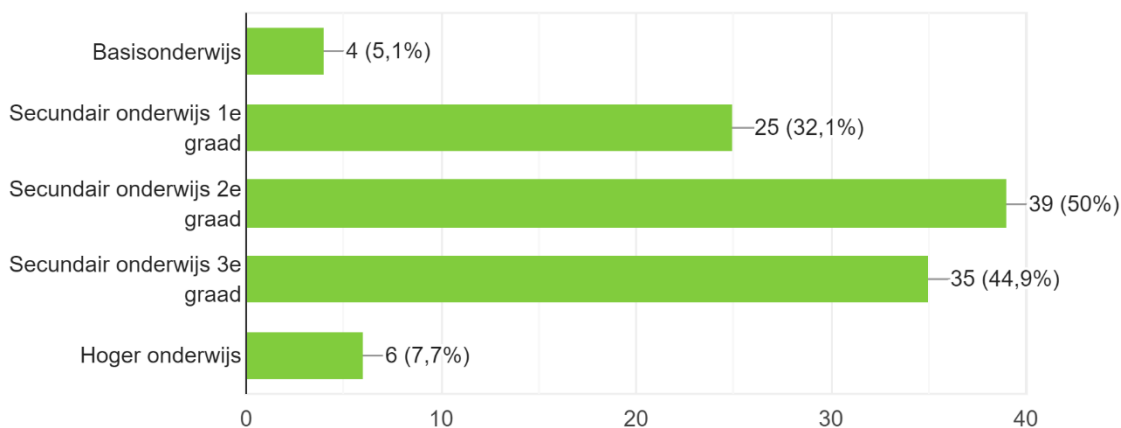
Figure 6: distribution of the grade in which the respondents teach.

Most of the teachers (87,2%) are working in secondary schools. See figure 6 for the exact distribution. 66,7% of the respondents has more than 10 years' experience as a teacher. Only 18% has less than 5 years' experience (figure 7).

Jaren ervaring als leerkracht
79 antwoorden
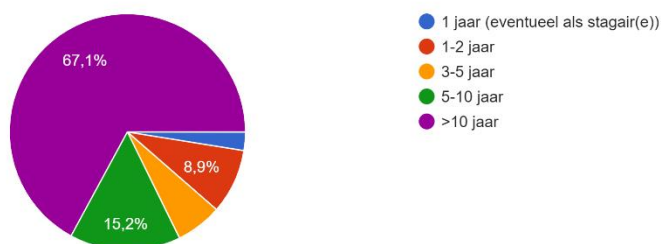
Figure 7: the respondents' years of experience as educators

When looking for a relation between the years of experience of the teachers and their profile on KlasCement of being 'uploaders', 'downloaders' or 'both uploading and downloading', no significant correlation was found when doing a bivariate 2-tailed test with the Pearsons coefficient in the SPSS-software (figure 9). The correlations between the years of experience and the following variables were not significant neither: weather they are sharing their materials and how much percent of their materials are self-created.

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A significant correlation exists between the two independent variables 'years of experience and the 'teachers profession'. The reasons why are beyond the scope of this study (figure 8).
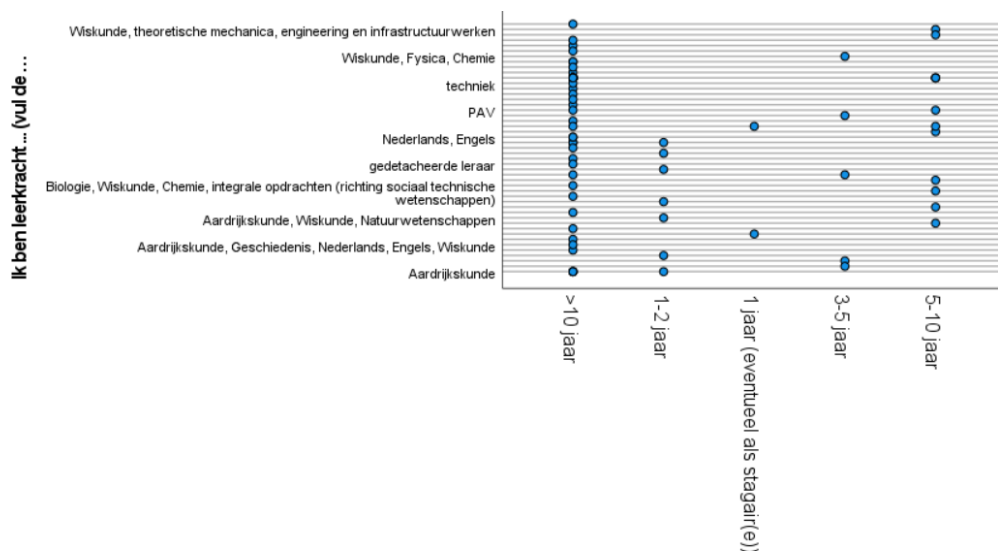
Figure 8: scatterplot of correlation between the teachers profession and their years of experience

Another (strong, with the result of the two tailed test <.001) significant correlation, exists between the two independent variables 'sharing materials' and 'wanting to collaborate with other teachers if you got time'. This means that when teachers want to share their materials, there is a bigger possibility they also want to collaborate with colleges and vice versa. No correlation exists between the professions of the teachers and their willingness to share, cooperate or uploading/downloading profile (figure 9).

Correlations

|		jarenervaring	Hoeveel procent van jouw lesmateriaal heb je zelf samengesteld?	Als je de tijd kreeg, voor hoeveel procent van de lesvoorbereidingen zou je willen samenwerken met andere leerkrachten?	delenmateriaal	uploaddownload	vakleerkracht
jarenervaring	Pearson Correlation	1	,095	-,025	,047	-,146	-,223[*]
	Sig. (2-tailed)		,409	,828	,681	,205	,049
	N	78	78	78	78	77	78
Hoeveel procent van jouw lesmateriaal heb je zelf samengesteld?	Pearson Correlation	,095	1	,045	-,009	,034	,116
	Sig. (2-tailed)	,409		,697	,935	,771	,312
	N	78	78	78	78	77	78
Als je de tijd kreeg, voor hoeveel procent van de lesvoorbereidingen zou je willen samenwerken met andere leerkrachten?	Pearson Correlation	-,025	,045	1	,378[**]	,086	,036
	Sig. (2-tailed)	,828	,697		<,001	,457	,755
	N	78	78	78	78	77	78
delenmateriaal	Pearson Correlation	,047	-,009	,378[**]	1	-,038	,117
	Sig. (2-tailed)	,681	,935	<,001		,741	,307
	N	78	78	78	78	77	78
uploaddownload	Pearson Correlation	-,146	,034	,086	-,038	1	,178
	Sig. (2-tailed)	,205	,771	,457	,741		,122
	N	77	77	77	77	77	77
vakleerkracht	Pearson Correlation	-,223[*]	,116	,036	,117	,178	1
	Sig. (2-tailed)	,049	,312	,755	,307	,122	
	N	78	78	78	78	77	78

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 9: correlationmatrix between different dependend and independend variables

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B. Needs

This paragraph will analyse the questions in the survey that will give an idea about the needs of the teachers while preparation of their courses, followed by the reasons why teachers are sharing or not sharing their lesson materials.

A ratio of 42,7% of the respondents is not finding reliable sources while preparing their lessons. 52% indicate that making choices between all possibilities of materials while preparing their lessons is difficult for them. 45,3% find it hard to tune their materials with the current curriculum objectives. Other needs they mentioned themselves: finding methodologies, didactical materials, exercises in line with the actual environment of the students, time, ... The answer on the question: "if you get the time, how many percent of your preparation of courses would you love to cooperate with other teachers?" varies between the respondents (see figure 10). Most of the teachers are okay with the way they are collaborating now (79,2% scores 2,3 or 4 on the Likert Scale of 5).

78 antwoorden
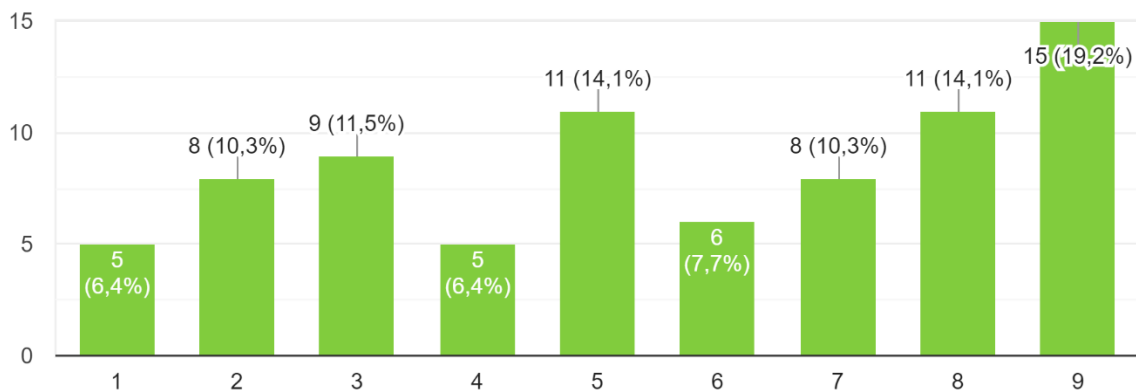
Figure 10: distribution of the answers given at the question: "if you got time, for which percentage would you like to work together with other teachers?"

92;3% of the respondents is sharing their lesson materials already from which 95,8% with colleagues at their own school and 27,8% on public platforms (figure 11).

Deel je jouw lesmateriaal?
79 antwoorden
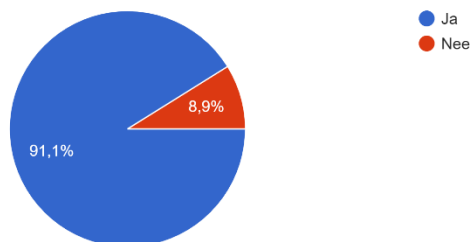
Figure 11: Respondent -teachers sharing their materials (blue) and not sharing their materials (red)

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The reasons why teachers are sharing their lesson materials are summarised in the previous chapter 2.4.1. in table 3 by 'customers needs', were in the column 'source' could be find 'annex 9'. This because the reasons why teachers are sharing or not sharing their materials can be seen as an opportunity or a threat (see theoretical model of SMP in literature study) for the continuation of the SEAS library project. A summary can be found in table 4.

Table 4: reasons why respondents of the questionnaire would share their lesson materials

Why are you sharing your lesson preparations?	Count
Quality refinement and positive feedback	25
Guarantee of high quality materials	24
To inspire and to be inspired	43
Enthousiasm of teachers for sharing and helping others	40
Collegeality (cocreating)	40
Not re-inventing the wheel: win-win stuation	16
Time saving	26
A system for author right	4
To get acknowledgement for their materials	30
Usefull materials for their courses	25
In-service training, professionalize	2
aligning their material with the new attainement targets	20

The biggest motivation for the respondents to share their lesson materials (figure 12) would be to help others, followed by getting acknowledgements, cocreating with a colleague and getting feedback from other teachers. The biggest drivers for the teacher respondents to use the materials of others is when the materials would be useful for their courses and if they could learn something new. The second most mentioned motivations are timesaving, and the lesson materials being guaranteed high quality. Also working closely together with a colleague is a positive side-effect on their motivation. The motivation for in depth evaluation of the lesson materials was generally lower than for sharing and using materials and the biggest driver of the respondents would be to help each other (collegiality). The other two most mentioned reasons were again to work together with a colleague and 'to get feedback on my personal materials'.

Wat motivates you to share your lesson materials?

1	[If I could work closely with a professional colleague]
2	[If I would get recognition for this]
3	[If I could help others with this]
4	[If I could get feedback on this from other teachers]
5	[If I would receive feedback on this from researchers]
6	[If I receive a prize for winning a competition]
7	[If I can get a quality label for this]
8	[If my teaching material will be distributed internationally]

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9	[If I can participate in an exclusive (international) lecture/master class/workshop]
10	[If professional designers would visualise my lesson preparation nicely]
11	[If I would get a bit of money for this]
12	[If, in exchange, I could go on an exchange to a school in another country]
13	[If, in return, I could go on an exchange to another Belgian school].
14	[If this would be part of a compulsory retraining]
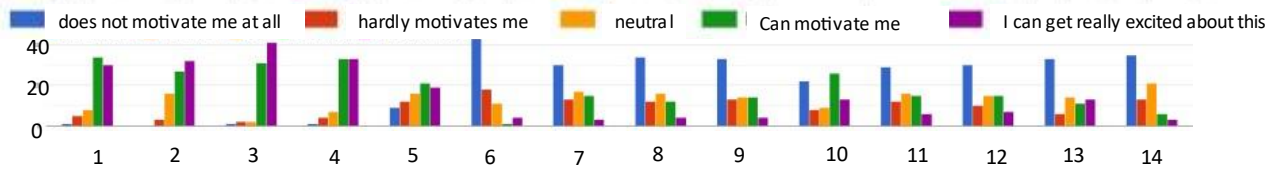
Wat motivates you to use lesson materials from others?

1	[If I could work closely with a professional colleague]
2	[If this teaching material is very useful for my lessons]
3	[If I can save time]
4	[If I learn something new]
5	[If I can be sure that the material is of high quality]
6	[If I know that the quality of the learning material has been checked by experts]
7	[If I know that the learning material is also appreciated by other teachers]
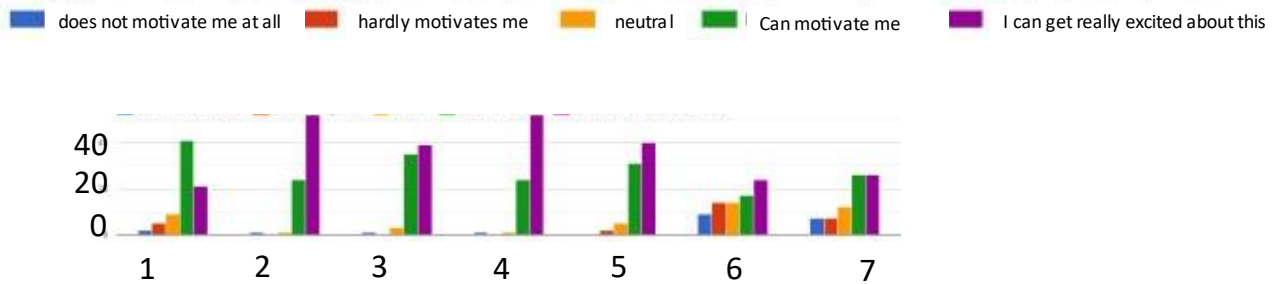
Wat motivates you thoroughly evaluate teaching materials of someone else? (comment more than one sentence)

1	[If I could work closely with a professional colleague]
2	[If I would receive feedback on my teaching materials in return]
3	[If I can help others with this]
4	[If I get a prize for winning a competition]
5	[If I can receive a quality label for this]
6	If I would then get access to an exclusive (international) master class] [If I would then get access to an exclusive (international) master class]
7	If I would get access to an exclusive lecture] [If I would get access to an exclusive lecture]
8	[If I would get access to an exclusive workshop to collaborate with other teachers and/or researchers]
9	[If I get credits for this on some public profile (Linked In, KlasCement, or any other or new system)]
10	[If I in return could go on an exchange to the school of this Belgian teacher]

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11	[If, in exchange, I could go on exchange to this teacher's school from another country]
12	[If, in exchange, I could go on an exchange to a school in another country]
13	[If, in exchange, I and my pupils could go on an exchange to this teacher's school in another country]
14	[If I would get a bit of money for this]
15	[If this would be part of an in-service training/focus group]
16	[If this would be part of an obligatory in-service training and I would receive a certificate]
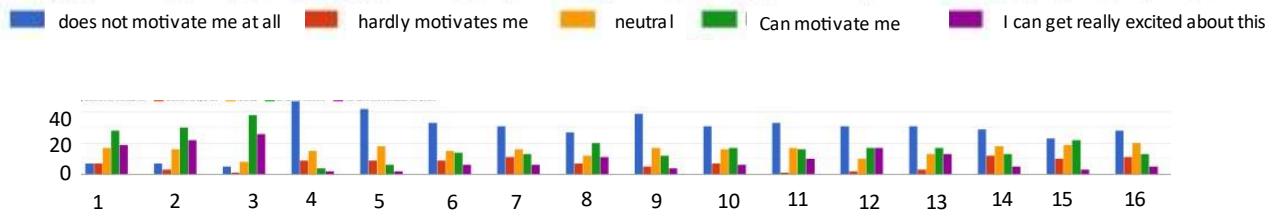
Figure 12: what motivates the teacher respondents to share their materials, to use materials from other teachers and to make well-reasoned feedback of the materials of others.

4.2.2.2 Distribution

A. Channels

The information about how the teachers are developing and sharing their lesson materials can give an insight in what a desirable functioning of the distribution method of the future SEAS library might be. Figure 13 shows that 91,7% from the sharing respondents are sharing their materials privately via a digital medium for example e-mail. 33,3% is sharing it digital in public and 34,7% is still sharing it analogue with others.
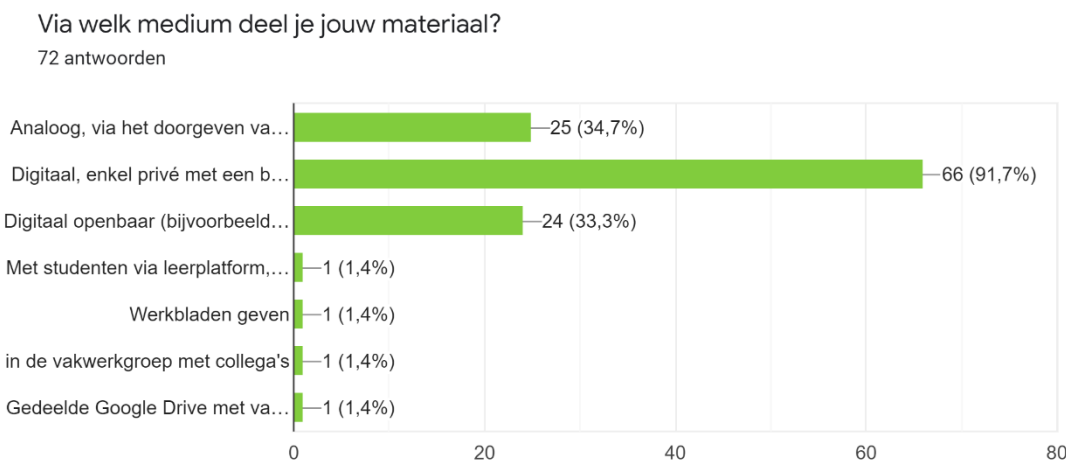
Figure 13: which channels the respondents are using when sharing their materials.

B. Methods

When a channel of distribution of materials is chosen, for example by collecting information on the internet and spreading materials via e-mail, the way how this is done need to be clarified. 61,5% of the teachers indicate that

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they self-assemble 70% or more of their teaching materials (figure 14). Like mentioned before, no correlation is found between the experience of the teachers and the fact if they use prefab lessons or not (figure 9).
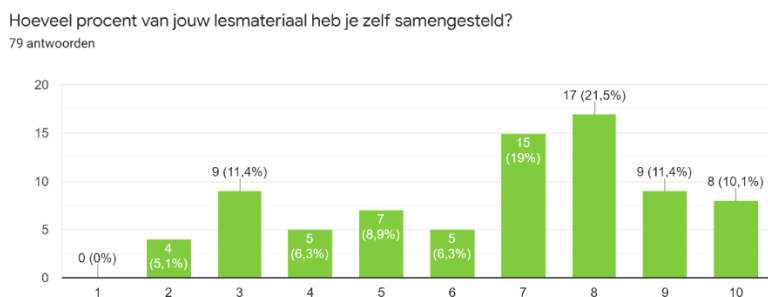
Figure 14: the percentage of which teachers made their own materials

Nobody uses 100% prefab teaching materials. 84,6% of the respondents is using an existing manual to base on for their lesson preparations. A lot of them are also using websites, videos, articles, and animations. Only 9% is using ready-made lesson preparations (figure 15).
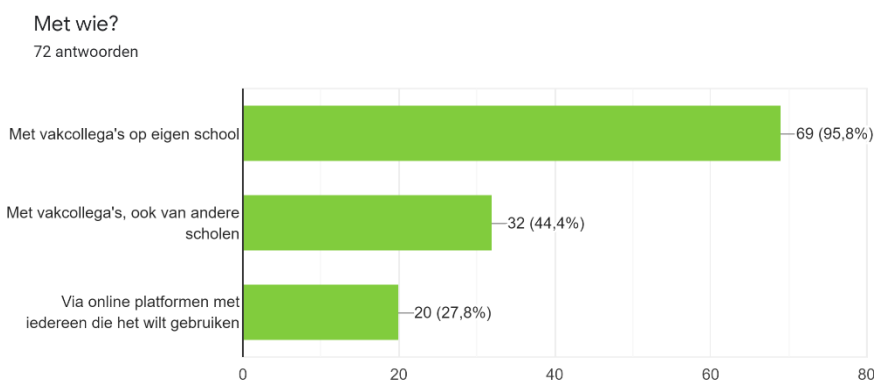
Figure 15: with whom the respondents are sharing their lesson materials: (1) own colleagues, (2) colleagues from other school and (3) via online platforms

4.2.2.3   Competitors

The last paragraph is looking at the relation the respondents have with KlasCement, a well-functioning Belgian database. See figure 16 which is mapping the use of KlasCement. More teachers are downloading materials than they are uploading. Only 3,8% identifies themselves as a pronounced uploader.

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Legend:
- Nee
- Ja, voornamelijk als een uploader
- Ja, voornamelijk als een downloader
- Ja, zowel als een uploader als een downloader
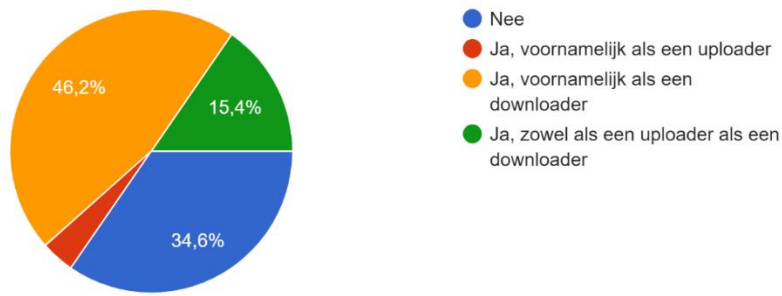
Figure 16: Distribution of the answer at the question: "Are you using KlasCement"

Most of the users of KlasCement do agree that they are grateful for the existence of this website. 29 respondents out of 58 agree that they are losing time while looking for materials on this website. See figure 17 for the distribution of the opinion about the quality of the lesson materials. The respondents think the materials are more reliable than they are qualitative.

Als een gebruiker van KlasCement, in hoeverre ga je akkoord met de volgende stellingen
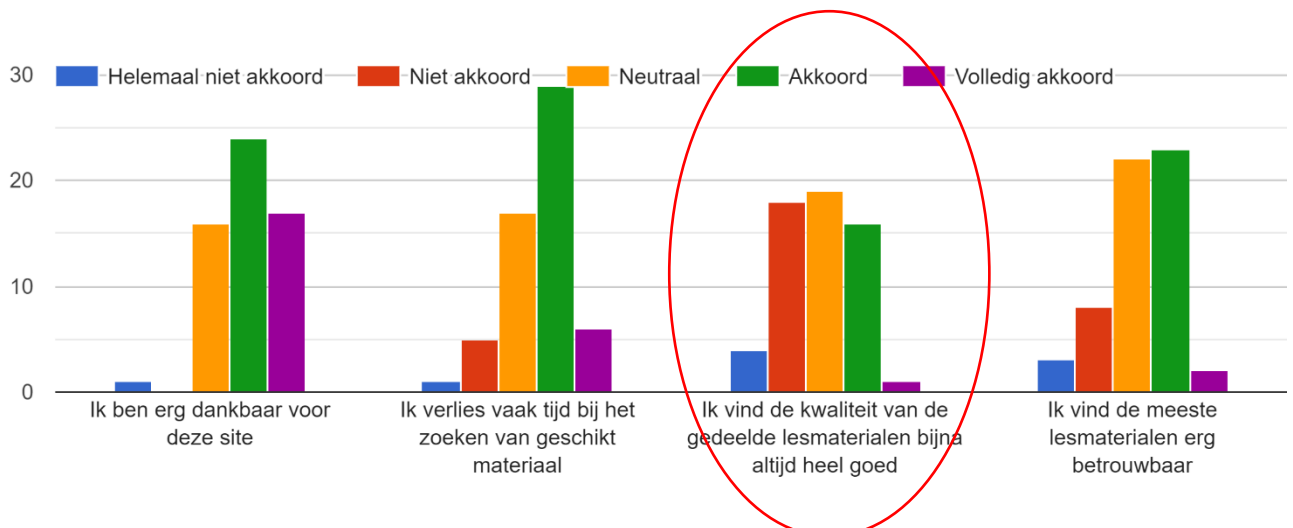
Figure 17: distribution of the opinion about the quality of the lesson materials on KlasCement

4.2.2.4 Stakeholders

The answers on the question: *"Do you make use of any other digital resources (websites, sharing platforms) that have really helped you create your lesson plans?"* was processed in the previous chapter (table 3).

4.3 Internal analysis

During the in-depth interview with the Belgian partner of the SEAS-project (Annex 10), the strengths and weaknesses are determined and listed in the following table 5.

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Table 5: Strengths and weaknesses of the Flemish online library project of the SEAS organisation

Strengths	source	Weaknesses	source
The international consortium of SEAS contains a lot of diversity with partners in all different countries and contexts	Annex 2	One partner has a business plan (Eduquality), but the other are partly informed and have other situations, interests, …	Annex 2
The diversity of expertise inside the consortium	Annex 2	Technical costs: to add more functions, security, adding customers, technical support, data storage	Annex 2
The different skills of the partners: in developing digital tools, didactic competences, and a lot of knowledge about designing sustainability education, experience in working with teachers, extensive networks they can fall back on.	Annex 10	Community costs: developing and giving lessons design workshops	Annex 13
An opportunity of the new Flemish database of SEAS would be to link it with an international database.	Annex 2	The confrontation between the vision like 'commons' and the different internal structures (like the 2 companies who need to earn money)	Annex 2
A cooperation exists with researchers and university sources as for example the Edu databank	Annex 3	Uncertainty about who will follow up the project financially and who will do the marketing after the project is ended in June 2022. Who will take care of communication, market analysis, publicity, following up strategy, who will answer sustainability questions, didactic pedagogical questions and technical questions?	Annex 2, 13
Knowledge about peer-to-peer and willingness to apply this concept	Annex 3	The strategy of the project is not yet clear for all the partners of the project	Annex 13
our vision is very much in line with the values of the potential users.	Annex 2	How to practically link the national and international level (language, specific educational contexts)	Annex 4
The idea of creating a quality refinement system	Annex 3	Not clear if it should be a 'business-to-business' or 'business-to-consumer' story. Business-to-consumer' you can think of Spotify with a premium version and a paid version with more access. For example, a school could buy access for teachers. Business-to-business' is the story we are in now in Flanders. The businesses are the governments and non-profit organisations. In this second story, EduQuality does have a problem: how are they going to keep their business going? Where will they get their profit from in such a model?	Annex 2
The results of this master thesis (questionnaire and interviews)	Annex 10	No official system taking care of systematically collected market information	Annex 13

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The developed tools: The LORET-method (locally relevant teaching), lesson materials about SDG's, peer review procedures	Annex 12	It is not easy to have everyone on board in a complex structure like the Consortium. The strategy and mission only get shape one and a half year after the start of the project	Annex 13
Practices: lesson design workshops, projects of NGO's or Universities, courses, subject in teacher training	Annex 12	The way of working with a consortium like SEAS is working with now is new. We are still encountering many obstacles: how we are going to cooperate, who pays what, contracts have to be made about intellectual property	Annex 13
The idea of working with prosumers in a peer-to-peer story where the consumers are the producers as well.	Annex 13	Not a common vision of the concept of 'education'.	Annex 13
The infrastructure of the library: search engine, data storage, functions, …	Annex 13	Cumbersome operation of European regulations on a consortium	Annex 13
Once the database is up and running, it will partly sustain itself through the peer-to-peer community.	Annex 13	*"We don't have information yet about the vision of KlasCement"*	Annex 2
Strong shared values as: striving for sustainability, community building, not re-inventing the wheel	Annex 13		
"*This will be the first database that will connect educational researchers to it that I know about. The whole idea between teachers and educational researchers is something that we offer.*" SEAS partner	Annex 3,		

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4.4   Confrontation

The five most prominent opportunities, threats, strengths and weaknesses were chosen by knowledge gathered during the thesis (figure 18). The confrontation matrix (table 6) exposes problem areas which were given a score based on the knowledge gathered during this thesis. See the discussion section, fifth chapter for remarks at this strategy. The scores were attributed from 0 (no issue) to 5 (most important issue), based on the knowledge acquired in this thesis. The different issues are formulated in the following paragraphs.

	Strengths		Weaknesses
1	Expertise diverse SEAS consortium (link with universities, educational researchers, …)	1	Temporary existence consortium
2	Tools: LORET, research	2	Technical costs
3	Practices: lesson design workshops, training for trainers	3	Community costs
4	Knowledge and strong vision about peer-to-peer, sustainability, quality refinement, …	4	Obstacle's consortium: communication, vision, administration, …
5	Infrastructure of database with a link to international database	5	Missing of a common and delineated strategy: business-to-consumer, …
	Opportunities		Threats
1	Teachers' reasons/motivations for 'sharing': prosumers, trainings, …	1	Teachers' reasons/reluctance not to share their materials
2	Teachers need for qualitative materials and acknowledgement	2	Teachers' reasons why they don't want to use lessons which are not theirs
3	Big amount of possible existing stakeholders (KlasCement, Microsoft Teams, Scientix, Erasmus, MOS, …)	3	Teachers' reasons why they are not motivated by the quality refinement method
4	Momentum values society: sustainability, cocreation, …	4	Customers not using the platform because of too many offerings, language, not easy to find materials, …
5	Teachers need for useful (conform with new attainment targets) materials	5	The risk of customers not discovering the platform

Figure 18: SWOT-analysis

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Table 6: Confrontation matrix

		Strengths					Weaknesses				
		1	2	3	4	5	1	2	3	4	5
Opport.	1	1	1	3	5	3	0	1	3	1	3
	2	5	1	3	5	3	5	3	1	3	5
	3	5	5	5	3	5	5	5	5	5	5
	4	5	5	5	5	5	5	3	3	3	3
	5	3	3	5	1	3	0	3	3	3	3
Threats	1	0	0	5	3	0	0	0	0	0	5
	2	0	0	5	3	0	0	5	1	5	5
	3	5	0	5	5	0	1	5	5	5	5
	4	3	0	0	5	5	0	5	5	5	5
	5	3	3	5	0	3	5	1	5	5	5

4.4.1 Growing issues: using strengths to respond to the opportunities

A selection of possibilities for strategical issues are following in the following bullet points:

- Using the various skills of the consortium partners, as social networks, knowledge of different national contexts, ... to achieve cooperation with the range of possible partners from which KlasCement, Scientix, MOS and the pedagogical supervisors the most prominent ones.
- Making use of the fact of being a knowledge institution and remove uncertainties of the users by highlighting, for example, the 'knowledge' of theoretical concepts such as peer-to-peer, sustainability education, etc.
- Using the knowledge of the SEAS consortium to create a peer-to-peer quality assessment method like in science standing on the shoulders of giants to not re-invent the wheel.
- Using the LORET tool and lesson design workshop as a tool to reunite a pilot-group which could think about a quality refinement method. A link with Erasmus as a partner could be used to motivate participants of the pilot project to engage them in the long term if needed.
- Using the expertise of the consortium to benefit of the momentum, the societal values (sustainability, technology, cross-curricular cooperation, ...), for example by doing research about possible future developments and the alignment between the needs of the customers and the scientific developments like artificial intelligence and schools working more digital after COVID 19.

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4.4.2   Strengthening issues: strengthening weakness to capitalise on opportunities

- Looking for a way to continue the work done by the temporal SEAS consortium to be able to create a sustainable quality refinement system and tackle sustainability problems. A strategy could be to establish ties or links with existing, stable stakeholders like MOS or other partners.
- Finding stakeholders willing and able to finance the future community and technical costs, like for example pedagogical supervisors of the government to sustain the train the trainers- workshops or technical engineering students with a heart for sustainability to sustain the platform or language students to translate the platform.

4.4.3   Defending issues: using strengths to fend off threats

- During a lesson design workshop where people could meet each other in real life, the fear of being judged could be turned over and them feeling part of a real community. It could convince them to use the materials of others by getting to know them and the new digital platform could be presented in a familiar and reliable context.
- A database with a good infrastructure and not too much or too less materials and searching terms could help teacher getting away from their 'prefab' courses and help them to assemble their own preparations in a creative way.
- Creating a community based peer-to-peer database for free can help making the database known quickly once it starts getting known by some people.

4.4.4   Withdrawing issues: bending weaknesses to ward of threat

- A strategy needs to be made to only use the most used and most qualitative lesson materials to eliminate wasted costs as used data storage by saving prefab materials which are not shared, and teachers are not looking for.
- It is very important to "to keep the child from being stillborn". The contemporary project is not ready now to keep the database alive or to get them alive with a promotion stunt.
- Creating a strong and common vision and strategy inside the SEAS consortium to convince teachers to share, use and finetune lesson materials of themselves and others and attract them to use the new online library.

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5   DISCUSSION

Now that the different strategic issues are formulated as a result of this thesis, the steps of the SMP are not yet ended. These strategic issues can lead to an operational marketing plan to help launching and maintaining the concept of the new online database for the Belgian wing of the project. Of course, the results can also be used for the idea of the international library because this context is always considered during this study. Also, the other five national databases could be inspired to do a similar exercise.

The scoring of the importance of the various strategic issues using the confrontation matrix was done based on the knowledge gathered in this thesis. I think it would be interesting if the partners, with all their knowledge, would do this exercise of administering the scores again.

After having defined the different strategical issues, only three more steps of the SMP method need to be developed in order to arrive at a viable plan. The first step is to formulate the central problem in a SMART way. This means the goals will be Specific, Measurable, Acceptable, Realistic and Time-limited. (Knoot, 2012). I would suggest the SEAS partners to have a look at the different strategic issues and as a first step, trying to reformulate these issues in a SMART way during a meeting with the other partners to come to a final problem definition. Secondly, identifying a market strategy to tackle the strategic issues or the central problem. Knoot (2012), Alsem (2005) and Shoenmaker (2017) are proposing interesting models to draft such a strategy. The last step of the SMP method is to find a good mix of market instruments and a tactic to get to a year plan.

This thesis brought some interesting insights but still very general. It could be worthwhile to interrogate the possible customers again when the business model is clearer. When knowing which scenario is realistic, for example which materials shared at the database will be for free or for which price, to do the quality refinement peer-to-peer and with which system, … this scenario could be again interrogated before lancing it.

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6 CONCLUSION

During this research, an answer on the main research question '*Identifying and contributing to a strategy that will help achieving and maintaining the goals of the new digital library of the SEAS-project*' is found. This strategy can help to align the goals of one of the current projects of the SEAS organisation, with the needs of the users and thus increase efficiency. The strategy that is identified and studied during the literature research is the Strategical Marketing Planning (SMP) method.

The first step of the followed SMP--strategy existed out of re-exploring the goals of the Flemish wing of the digital library. Their goals, and immediately the shared vision of the international SEAS consortium, are based on the following concepts: sharing (not re-inventing the wheel), quality refinement of existing lesson materials, cocreating embedded in an idea of the 'commons' and sustainability with as a subdivision to find a way to make this project sustainable.

To achieve these determined goals, the following three steps of the SMP method applied in this research led to a range of possible strategies that could be deployed: the strategical issues. The first of these three steps were helping to find the strategical issues by finding out the opportunities and threats laying outside the organisations in the meso environment. These factors were examined throughout eight in-depth interviews and an online questionnaire with seventy-nine respondents. In the third step, the five most prominent opportunities and threats were confronted with the five most prominent strengths and weaknesses determined in the second step in the internal analysis, investigated by means of an interview with Katrien Van Poeck of the SEAS-porject. This confrontation was done with the help of a confrontation matrix and a SWOT analysis. As a result, a summary follows of the strategical issues of the main insights of the confrontation analysis:

The most prominent opportunity detected for the SEAS organisation to make their library project a success is the existence of a big number of possible stakeholders, of which 'KlasCement', 'Scientix' and 'MOS' are the most important ones. Creating partnerships with different stakeholders could be beneficial for multiple reasons: upscaling the tools and practices developed by SEAS, bringing together a pilot-project group to think about quality refinement methods and continuing the expertise of the current SEAS consortium. An accurate work point of the organisation is to think about how to finance and minimise the technical costs.

With the aim of cocreation and peer-to-peer work in mind, a strategical issue is determined based on the most prominent strength of the SEAS project now: the lesson design workshops. They are answering the needs of the teachers to share with others, go home with useful materials and they could defend the threat of working with prefab lessons. In addition, it could be an interesting opportunity to acknowledge teachers inside this new-born community for their work and to present them the digital platform and the LORET tool to minimalize the threat of customers not discovering the digital database and not being convinced of the advantages.

If this deliberate plan were to be fully followed by the organisation, it will get them from their problems to the implementation of a solution. This research creates a gateway for the organisation to further apply the last steps of the SMP-strategy and make decisive choices, based on the gathered facts and insights.

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ANNEXES

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Annex 1: Aims for the SEAS library drafted by the Swedish partner Östman

[The development of an IT-infrastructure for an efficient, accumulative progress in developing sustainability teaching worldwide](#)

To Alexander Leicht, 10 March 2021

In the SEAS-project we are developing tools to tackle four severe problems in the educational system worldwide:

1. The everlasting problem of teachers re-inventing the wheel. So much time, energy, quality and resources are spent on developing teaching plans and teaching materials that have already been developed before, somewhere in the world.
2. The lack of systematic tools for quality assurance of teaching plans and teaching materials. This means that even if there would exist efficient tools for sharing teaching plans and teaching materials there is no guarantee that the materials shared have a high quality.
3. The lack of systematic tools for quality refinement of teaching plans and teaching materials. Science has such a system in play, making sure that the development of new knowledge, materials, etc. always builds on, and thus further develops, improves, refines, confirms of refutes knowledge, materials, etc. that have been developed before. This mechanism of "standing on the shoulders of Giants" is made possible in scientific work through peer review, conferences, etc. and has proven its merits there. Similar mechanisms are lacking in the context of teaching/education despite having a great potential in this field as well.
4. The "silos problem": policy-makers, researchers and teachers very seldom work together in order to co-create high-quality sustainability teaching.

If one could solve these four problems, one has the main mechanisms in place for an efficient, accumulative progress in developing top-quality sustainability teaching worldwide. In the SEAS-project (a Swafs-project with funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824522) we are working with developing an IT-infrastructure consisting of five integrated elements:

1. a library
2. quality assurance tools
3. quality refinement tools
4. co-construction tools
5. community-building tools

In the library teachers can upload and down-load materials, indicating its connections to the national curricula. The quality assurance tools include expertise and voices of teachers, researchers and students. The tools for refinement of the quality facilitate the use of others' uploaded materials for developing new materials, taking care of important legal issues such as intellectual property rights and always with a focus of giving the credits to the teachers who produced the original materials. The co-construction tools facilitate cooperation between teachers as well as between researchers and teachers in view of developing new materials to be uploaded in the library. Lastly the community building tools are built into an app in Microsoft

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Teams that is now under development. Hopefully we will, in the project, develop one in Google Education as well. The app makes it also easy for the teachers to use the library and the tools "seamless" when they are working in Microsoft Teams or in Google Education.

We are during Spring 2021 developing this IT-infrastructure for six countries in Europe (Sweden, Belgium, Italy, Norway, Austria and Estonia). They will be launched in late Spring. After this launch we are also opening up for other countries and stakeholders to be connected to this endeavour to build a global network of national libraries with connected tools.

Also worth mentioning is that we are at the time exploring the possibility to involve machine learning and AI in order to make the IT-infrastructure more functional, user-friendly, etc. in the future but also for creating new data that can be used for accelerating relevant research, for policy-making, for more efficient knowledge transfer between teacher, researchers, policymakers, etc.

In order to maximise the effect and usefulness of this IT-infrastructure in relation to your work, it would be very valuable if we could:

- A.   have, in spring, one or two meetings (2 hour long) with one of your colleagues when developing the app and databases.
- B.   together look for possibilities to connect the national libraries and tools to your platforms.
- C.   later this year have a meeting for exploring further synergy possibilities in the future.

Best regards,
Leif & Linus

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Annex 2: Additional interview background information situation analysis

24/06/2021 with partner Katrien Van Poeck

The aim of this interview is to get a better understanding of the internal functioning of the SEAS organisation.

<u>Reason thesis</u>

- **Does a recent marketing plan exist already for the creation of the online database?**

Different partners of the consortium have different shares in the project. EduQuality as one business partners has a business plan. It is a deliverable at the end of the project that there should be a business plan. How are we going to valorise the outcomes? This is not ready yet, but they are working on it.

All the activities that are going on now such as interviews, … are important in the run-up to it. How can this be and how can it be economically viable for the commercial partners in the project to continue doing so? There have been many discussions of 'how are we going to engage with the 'competitors' like KlasCement now? This afternoon, for example, there is a consultation with possible new partners in Luxembourg. EduQuality is weighing up what it would cost and what it would yield to sell the products made as packages. Another option that is on the table is the 'commons' story.

An important distinction that emerged for me in one of these meetings is the question: do we make it a 'business-to-business' or 'business-to-consumer' story? Business-to-consumer' you can think of Spotify with a premium version and a paid version with more access. For example, a school could buy access for teachers. Business-to-business' is the story we are in now in Flanders. The businesses are the governments and non-profit organisations. In this second story, EduQuality does have a problem: how are they going to keep their business going? Where will they get their profit from in such a model?

They need a business plan to survive but do not want to exploit it commercially at the expense of the teachers. We want to be well prepared during the discussion with KlasCement. We cannot ask them to buy a database because they already have one. We want to find out exactly what they need and want.

The discussions that are going on now are thinking of the following scenarios: offering different packages as the first scenario or offering the basis for free and then sticking prices on the extensions, … where you pay extra for each option. EduQuality needs this money for: storage of data, security, etc. Some things are linked to a price per user and others are not. They themselves are still very much looking for a sustainable plan that is feasible for themselves, affordable for the users and that will help as many teachers as possible at the end of the ride.

- **What are exactly the partners of the SEAS-project and the structure?**
-

Seas is a research and development project funded by the European Commission in Horizon 2020 program. The project proposal has been submitted by a consortium. The consortium consists of two companies: cChange and EduQuality, five universities, the Flemish government and three NGOs.
A consortium agreement has been made about the intellectual property of the things being developed and so on. It is the consortium that shapes the project.

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The databases, for example, will be developed on an international level, but they also want to develop a library on the six levels of the different six countries. Processes are running now. As the context is so different in the individual countries, these libraries will also take different forms. In Flanders, for example, we have a well-functioning database, KlasCement. Another characteristic of Flanders' context is that schools have little money to buy anything. Something specific to Sweden is that schools there are managed at municipal level, and these do have budgets to support their schools.

- **Does a fixed yearly budget is determined?**

Yes. The budget is fixed since the start of the project. It has been decided not to extend the project as we will not get any additional funds anyway. This is the driver to create such a database. We do not want everything we have developed to stop after this project. The cooperation with the Flemish Government and the NGO 'MOS' and several other NGOs is aimed at ensuring that the products developed with the SEAS project can be continued. The Flemish database is a tool for this. We hope that the LORET method developed in Flanders can also be scaled up to other countries.

- **Is an analysis of strengths, weaknesses, opportunities and threats been made already?**

No. Certainly not explicit.

- **Have you already been looking at the library as a product and you the company who need to do some marketing?**

When you apply for a project, you have to write a dossier in which everything is described and recorded. But when you start working on it in practice, the plans are different at the end than what was thought at the beginning. Actually, it was only about 2 months ago that this was discussed for the first time at the consortium level. Now there are thorough discussions going on in Sweden, Norway and Flanders. In Sweden, they are looking at establishing a 'common' with their national library. Here in Belgium, we are working through the discussions with MOS and your thesis to see what is possible and how we are going to talk to MOS. What has also been done, and this is perhaps important to note, is that the SEAS project officer insisted on contacting Scientix. The person in charge of this project calls it a graveyard of everything developed in European projects. The partners also work for European Schoolnet and this could be an important stakeholder in our story. Especially when it comes to connections between different countries.

Vision and mission

- **What would you formulate as the mission of the Belgian SEAS library?**

From my perspective, I will do it using keywords: capacity building of teachers, empowering teachers so they can use their own creativity and expertise, developing and sharing teaching materials, quality assurance, not reinventing the wheel. Part of the vision is that education is not a commercial good, but a public good. Looking for a way to make content a common thing. That the credits, the intellectual property, remain with the people who developed it. That a habit arises of referring to each other and giving each other credit for it. It absolutely cannot be the intention that one large publishing house will later make a profit on the basis of the work done by teachers.

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I think the strength of this vision is that it is very much in line with the other partners and with an ethos and deontology that certainly exists among organisations working on sustainability education, but also among teachers. So our vision is very much in line with the values of the potential users.

The weakness, then, is perhaps that to realise this vision, it is not easy financially. After the end of this project (or other projects from Universities) there will be no funds left for its continuation. If there were cooperation with the government, it would perhaps become a very cumbersome mechanism. If it were done from a business perspective, it might clash with commercial logics and the creation of social value.

For accelerating relevant research, for policy-making, for more efficient knowledge transfer between teacher, researchers, policymakers, etc.

Abell Model
- **I applied the Abell model to delineate the market. Do you have remarks, additions?**

- **Customer groups (market, who)**

From heavy users to soft users
- **What do you identify as heavy users of the online database?**

Uploading teachers, downloading teachers, Organizations like NGO's working about education and sustainability, researchers, teacher students
- **Customer needs (product, what)**
- **What are the needs of the heavy users? (Primary until secondary)**

Inspiration, qualitative lesson materials, contact with colleges, sharing expertise
- **Technologies (how)**
- **In which ways the SEAS library can meet the needs of the customers? (products/services)**

The combination of digital infrastructure for scaling up methods and materials and, on the other hand, practices such as lesson design workshops, webinars, NGO or university projects, courses, subjects in teacher training, … I think these two should really go hand in hand.

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Annex 3: Interview with two partners of the SEAS-project

Transcript interview

Wednesday 21 april 2021
Interviewer: Klarremieken Van Vooren
Interviewed: Katrien Van Poeck (Belgian partner) and Leif Östman (Swedish partner)

Structure:
1) Questions and answers
2) Main insights interview
3) Future ideas

Link full interview:

https://ugentbe-
my.sharepoint.com/personal/katrien_vanpoeck_ugent_be/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fkatrien%5Fvanpoeck%5Fugent%5Fbe%2FDocuments%2FOpna
men%2Finterview%20EduQuality%20for%20masterthesis%2D20210421%5F163245%2DMeeting%20Recording%2Emp4&parent=%2Fpersonal%2Fkatrien%5Fvanpoeck%5
Fugent%5Fbe%2FDocuments%2FOpnamen&ct=1619865921592&or=OWA-NT&cid=910e3d60-6099-c442-3ac3-
48e8d19b2083&originalPath=aHR0cHM6Ly91Z2VudGJlLW15LnNoYXJlcG9pbnQuY29tLzp2Oi9nL3BlcnNvbmFsL2thdHJpZW5fdmFucG9lY2tfdWdlbnRfYmUvRWNsZDNlMn
QxYmhJbGk1T3NpTFJkVmtCZmVsZUZIQXVSUHQ2ZHlQNzRzQlBWZz9ydGltZT1LOElLT28OTTJVZw

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A. The Goals of the SEAS-project

- *Did I understand the goal correctly? Focusing the goals of the SEAS-project with the end result in mind: upscaling the project with its products on the long term.*

Leif: it is very true.

Kl: you want to upscale?

L: We want to continue after the project is ended. We are building up 6 national databases that will be filled with lesson plans and teaching materials. The idea is very much that they will continue in each country after the project is finished. It can be that other countries want this as well. But the most important is that the databases will be continued: that teachers can still upload materials and the materials will be accessible for all teachers in the countries.

In that way it is an upscaling too: for now the databases will be only accessible for the project for a while but afterwards we want to make it accessible to all teachers. So it is a continuation and upscaling.

Ka: It is also not just continuation but also make it possible for additional people to upload. So if there would be new projects in the future about 'sustainability education', they can also use the same infrastructure and database and the same way of working.

Thought: new title for the thesis: Focusing the goals of the SEAS-project with the endresult in mind: upscaling and a continuation of the project with its products on the long term.

- *Where are you now in the timeline of the project?*

L: Most of it is delayed by the COVID. Most countries don't have anything to upload yet. The database will be connected to an app in Microsoft Teams before summer. Then we also want to try it out together with teachers before we open it up. We also need to try it out ourselves as well. In autumn we can translate it.

Kl: Do you want to do the trying out with the teachers in spring or in autumn?

L: I think in spring. Most of the countries will be tried out before summer.

Ka: It is not only a matter of translation, but also, the school system is different in different countries. The Swedish system differs in many ways from the Belgian. The database will consider that this can differ between the countries. In the international database a challenge is that the right things can be found by the users. For example that the teachers can find easily for which students the lesson plans are meant.

Kl: Is the database only for secondary school students?

Ka: from pre-school to last year of secondary education.

- *What are 4 the problems you want to tackle with this project?*

1. *The everlasting problem of teachers re-inventing the wheel. So much time, energy, quality and resources are spent on developing teaching plans and teaching materials that have already been developed before, somewhere in the world.*

- Is this really a problem? Do teachers think this is a problem? Did you already do some research to this?

L: I know that in the Swedish system the idea of 'collegial learning' is becoming more popular, and the teachers are collaborating more with each other inside the school. And we know since long that teachers are feeling alone in Sweden and that they have very little time to prepare the lessons. This is a big problem, I think. If all teachers are alone sitting in there chambre making up new lessons it's not a good idea when this lesson is already made 20 years ago. Why not developing it and tune it for your own class. Teachers only have access to the books. This is also a problem because why should one person that is making this book have the only and best ideas? This is not true of course.

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==What we need is find a way to support teachers to share with each other, build on each other, learn from each other, because the collective is much much stronger than, of course, the individual teacher. The collective has much more skills, experiences, and knowledge and if you put this together it becomes interesting.==
Then people can start from what other have already finished, modify this and upload it again on the database. Then you get these **refinement** instead of sitting alone.

- *Where did you find this information?*

L: I'm in this business for a long time and heard this talking with many teachers. I'm also involved in other projects in other countries. Anytime you come with a project, people are very happy. For example, I did interviews with teachers in Sweden and Mongolia and their reaction is often: "I'm so happy to talk about this with someone finally". But I agree that it would be good to have some references. I will look up on that. But generally, I think that everyone agrees. When you go around and do a lot of projects you always start again from zero. Especially when you are doing it in different countries for example Mongolia and Ecuador. It is not very **efficient**.

We know that this one system that we developed is more efficient: science. Scientists are good in sharing knowledge and publishing, for examples in journals, … **Everybody has access to each- others work**. This is an example of upscaling and speeding up knowledge production. If you don't have this, it is never going to function. Therefore we invented the database, to have something almost as a journal where teacher upload teaching plans.

Thought: Is efficiency the thing we want? Are people happy in this system? Are the best-paid researches not the most read? What about patents and business models?
Another thought: this efficiency is interesting in the climate crisis when we are running out of time.

- What are the advantages for you about the system of peer-review?

L: Three really important points: the first one is to share, the second is to help each other to ensure the quality of what you are sharing and the third one is really important and that are the refinement process. Even the best processes can become better.

It is important that we have a process of refinement going on. If you are a teacher, you can download a lesson plan, refine it, and upload it again. In this way the refinement process becomes visible.
Kl: how do you want to make it visible?
L: That they add their names, that they made at least some changes. There must be a plagiat control in the long round (maybe not immediately).

- Do the teachers really want this platform? Because I heard from a previous workshop from Hanne-Lore that teacher always want to do their thing with a lesson plan. To make it their course.

L: I agree totally. When you are using a material as a teacher you have to tailor it to your students. If you make a big change that this is a 'new lesson' this would be very good for you as a teacher because it comes closer to you.

Ka: This is an important aspect of the refinement: not only make it better but also expound it to other contexts, cultures, …

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L: Teachers here are not only producers or consumers but 'prosumer'. This is very important! Everybody who is thinking: "we need to deliver something for the teachers" as if the teachers are not doing a job. We build on the idea for the database the teachers are 'prosumers' and also we are cooperating between teachers and researchers. The researchers are also co-creators.

Ka: What often is happening is that teachers are forced to use handbooks out of a lack of time, starting as a teacher, … But what happens is that you are practically forced to use a textbook but as a teacher you can almost be replaced by a robot who can do the same. The idea of cocreating and being prosumers together is an important difference with using textbooks of materials from NGO's. This is because of the importance of tailoring it and adapting it to the context, needs of your students, …

- Do you already understand the needs of teachers? Katrien?

Ka: A doctoral student is now working on a SEAS-project in different schools. She is recording LORET-workshops in classes and doing research on it to see how this way of working is disturbing the teachers usual teaching habits. What we see in the preliminary results is that teaching with LORET is requiring a different kind of preparation than what they are used to. We are documenting the challenges for teachers when they cannot rely on their usual habits. We are now planning to make some fictive LORET designs to inspire teachers with these examples. We are not having systematic research on their needs, but this is why we are happy you are doing this master thesis. We have some experiences with teachers struggles. Another important thing to investigate in is to understand the profile of users: producers, consumers. To have an insight in the segments of teachers, on their needs,…

L: In Sweden we have a database for many years and many teachers like it because when you are doing a capacity training of in-service you are learning something but when you come home you need to start implying these new learned theories on your own. Most of the teachers lack time for this. Another problem of capacity in-service training is that not all the colleges have the same background information. We know that the teachers are hungry for in-service training but that they have no time for planning lessons. This might be different for different countries.

Ka: in Belgium its limited to 3 days a year and 100€.

L: We are looking for something that can both safe the time of the teachers and at the same time building on a higher quality. The solution is the database.

L: Already a lot of databases exists. But these are not open for all teachers in Sweden. They are locked in a school. This means when you are looking in the databases, it takes a lot of time. It is important for teachers that they quickly can find something. Teachers are willing to download a lot but they are not so interested in the quality assurance. A reason can be because teachers are very shy and they don't want to have a bad score from someone else. The younger generation is less afraid of sharing things. How can we make teachers less afraid of being judged? A big challenge is to make teachers believe that this is helping them.

Ka: they also not used of other people looking into what they are doing. I have experience with teachers being relocked of sharing their experiences, to make themselves vulnerable. This might have to do with a culture of the system of school (red pens for correcting). We always emphasize a lot that we are not there to judge but with a lot of respect of what the teacher makes.

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L: In most countries the way of the societies of treating the teachers is quite bad. They are blamed in policy making and they think they are judged. We have a trick that will solve this: we know that in the existing databases the teachers are very happy to upload something very small. So the first step in the application will be that they can upload anything: from ideas to small exercises, to songs, … so they will feel safe. And then we will ask them if they want to be part of this movement of quality refinement. I think by creating this trust and feeling comfortable before you can do the next step.

Thought: FUTURE RESEARCH: how to make the community grow and feeling part of it.

On the current databases in Sweden you can see that it is working good. Teachers are happy to help others with a need or question. That is the whole idea of being a teacher: to help others to become better. We need to build on this.

- If this database wants to be a success it needs to be known. Do you want to build on other databases?

L: There is no need in making things competitive. We can make links to other databases: if you have materials about sustainability, you can upload it here and get a credit for it. We will look if it is possible to connect in a way with the Belgian database 'KlasCement'.

Kl: the advantage of the new database will be that it will be international and only about education connected to the SDG's?

L: This will be the first database that will connect educational researchers to it that I know about. The whole idea between teachers and educational researchers is something that we offer.

Ka: We are talking about pedagogical researchers that are looking at the didactical aspect.
L: It also could be another researcher, like a COVID expert, wants to be part of this database he will be totally welcome. He could add some interesting information. This would be wonderful but maybe not realistic.

2. The lack of systematic tools for quality assurance of teaching plans and teaching materials. This means that even if there would exist efficient tools for sharing teaching plans and teaching materials there is no guarantee that the materials shared have a high quality.

- Do you think teachers have a need of finding trustable sources for creating their materials?

L: We have been discussing this a lot. It depends on what you can promise. I think that most teachers are self-correcting each other. In the long round it will be self-regulatory. I think it is unrealistic to let it do it by researchers because it's not giving them a better career.

Kl: The teachers from the focus group of the research of Hanne-Lore they mentioned that they would love to check the sources, but they lack the time.

L: In one way we want to solve this by making the database a common, no-one owns it. Or everyone owns it. A common means that many NGO's want to upload their materials. In that way, with a focus on sustainability, I think in the long term we will have a lot of NGO's and authorities that will give that sort of support. The library in the long term will become, I think, a library for lesson plans and teaching materials and then it might be

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also that people will upload so called 'facts', short sheets about climate change, for health issues, … I think that is something that many NGO's will add to this database.

Ka: It might be interesting to explore how NGO's like MOS with coaches with some of them 20 years of experience, like the organization for geography teachers, and others could be part of a consortium taking care of the database and lesson design workshops in Belgium. And to check how this quality check of the content of the library can get a place in it.

L: I have another idea that came up now. How interesting it could be if student teachers could check both the content and the didactics. That they could analyze the materials. There could be very interesting to have

B.   RESULTS OF THE PROJECT
An IT-infrastructure for an efficient, accumulative progress in developing sustainability teaching worldwide.
- What do you mean by 'progress' in the developing sustainable teaching? More of what? Better of what?

L: If you think about the database and the quality refinement as a process. The database will be a tool to make this process possible. In the long run you could also use the artificial intelligence to give feedback back to the teachers. And quality assurance. It is amazingly important that teachers in a school, work together. It's almost like an incubator. If you put something in a common group, it is adding something valuable to the group. Imagine you scale this up to the internationals level, then you have this amazing engine for progress. This means that teacher education could use the best materials in that country to learn from and develop so the Education quality will be much higher.

K: We will probably also need projects connected to this. For example, the lesson design workshops you are doing Leif. At the end of the workshop series, they go home with already made lesson plans AND hands on how to do that. The database is an important tool for upscaling.

L: you need incubators to develop things to have good things to upload. You need both the quality and the upscaling through the infrastructure. There need to be people to do things.

Kl: I think it will be very interesting if the people could also meet each other once in real.

L: You are right there. You cannot create a community without.

- Do you have some more questions about the IT-infrastructure problems?

L: I've been working close to the programmers who have been doing it. The database will be very basic on the beginning, and we can add things to it tailor made to the policy of the countries. There will be a 100 of things that will need to be developed when the teachers start using it. So far it goes very well.

- Is the website already public?

Ka: No. It could be interesting if you could take the skeleton with you of the database when you go talking with the teachers.
L: I will give you something that you can use.
Kl: I am very enthusiastic to work with you.

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- Do you already have contacts with KlasCement?

Ka: I had one time already a meeting with them a long time ago and I made an account. I think we need to go to talk with them. We decided to first have a talk with MOS (part of the government) because they are a partner in the SEAS project already.

Kl: I think it is very interesting to work together with them.
Ka: Do they also have possibilities in Smart school to share things?
Kl: At our school we only use it as a communication platform. So far we are not sharing lesson plans on Smartschool.
L: Microsoft Team also have possibilities to share lesson plans.
Kl: I never heard about this.
L: For us it is very important that the locale database has some space for the teachers to develop their own website, … and that its connected with the international database.

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Annex 4: Interview with the MOS-partner 'What after SEAS?'

<p align="center">Transcript interview 28/04/2021</p>

In English

Structure of the interview:
1) Introducing each other
2) Presentation of the SEAS- project
3) Discussion of the project

1. Introduction of the participants

Participants:

Katrien Van Poeck - Klimaateducatieproject ingeleverd op 28 april 2021

Leif – SDG's and SEAS-project

Vanwildemeersch Elke <elke.vanwildemeersch@vlaanderen.be>; Education of Sustainable Development. Coordination. Helicopter view + topic of teacher education

De Smet Jan <jan.desmet@vlaanderen.be> Colleage of Elke, Veronique and Ingrid. Education of Sustainable Devellopment

Eva Roelandt <Eva.Roelandt@UGent.be>; colleage of Katrien. Communication with teachers, with schools and doing a Phd.

'De Grave Veronique' <veronique.degrave@vlaanderen.be>; MOS coördinator of the secondary school. Following schools

Vander Linden Ingrid <ingrid.vanderlinden@vlaanderen.be>; MOS coördinator

Klarremieken Van Vooren: Masterthesis in the topic: *Identifying the keyfactors, aligned between producers and users, that will help achieving the goals of the SEAS-project*

Apologized:

Loones Jurgen <jurgen.loones@vlaanderen.be>;

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2. Presentation of the SEAS-Project

SEAS-project state of affaires
- First two years: pilot schools with LORET. Other two years the aim was to scale-up through MOS and MOS-coaches. In between working with environmental center.
- Working with 3 schools:
1. De Sterrebloem in Deinze. Make more LAF (Local Available Food). Eva is now doing some activities with the students.
2. Atheneum Merelbeke. LORET on food + 30 days sea-challenge. But in the middle the Loch Down happened. Eva good follow 2 lessons. The school's energy is now going to other novelties.
3. Sint Barera in Gent where Veronique worked. Energy and electricity and water management. Eva is still working with teachers and students.

- LORET is tested. What are the teachers struggling with? It is hard for teachers to plan lessons with the LORET method. We found out that the teachers had problems to decide which topic to take (making choices). Ideas: involve partners in the project to develop fictive LORET-plans for some concrete practical inspirations. A library for teaching plans. Start up a project with the *PVC* in Limburg.
- Training for trainer for the LOS-coaches.

Recorded from now
Leif presents the state of affairs of the idea of the new digital library:
- We want to record the impact of the project after 5 years. One part to make it possible to continue to upload the online databank. We decided to create our own database because:
  - Analyses show that there are 2 kinds of databases: where teachers can upload and the other are where teachers are the consumers. If it comes to lessons plans, the teachers are the producers. We want the teachers to be the prosumers. We want the possibilities for teachers to go in co-construction and help each other to make the quality as good as possible. Also be able to give concrete feedback. You want the teacher to meet each other and do peer-reviews.
- Ideas:
  - when the library is grown you can use as a teacher the library also to adapt the lessons and you can upload it again (making sure there are some very important changes AND add correct references. Over time it will be better and better.
  - Thesis students can give feedback to the lesson plans and give feedback.
  - Also: LORET and Lesson Design Workshops can be uploaded to the library.
  - We need to make it at an international AND national level. It needs to be contextualized to each country. We can also connect it to other databases already existing.
- Problems:
  - who will take care of this library after the SEAS-project? We need to make an investigation. In Sweden I'm going around to search for people working with SDG's. I found some people who are interested to this.
  - to find a way to act together with all the actors. We need to have a common place: this will be the COMMON database of the SEAS-project, non-commercial to make up the collective intelligence. It seems to me that we might succeed in Sweden.
- In Sweden we have many commercial platforms and teachers get a bit sick of it. This is just the Swedish context.

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3. Discussion: what do you think about the project?

Leif: What is your recommendation? Should we work together with KlasCement? I'm looking forward to getting some advice on this.

Veronique:

We have to use KlasCement for this. Very reliable. You can make a lot of thematic pages, favorites, give comments, you can score, different theme's. For me it is obvious that we don't want to create something new. We can use Microsoft Teams for free.

Elke: I agree with Veronique. You are not reaching all levels with Smartschool. We should talk to them also for these options.

Leif: lesson.se, a lot of teachers are uploading, but it is the only thing. It is becoming a big database but there are somethings totally wrong from a research perspective. For us it is important to have quality above quantity. Important we have a place with good quality.

Jan: is this intension only to create a database in Flanders? Will all lesson plans be published in English?

Leif: we will try to create a national platform for all the 6 countries. We want to get away from the idea to reinventing the wheel.

Katrien: KlasCement has advantages: well-known, non-commercial. Negative: by the time you find something useful in between the 6000+ you could have made your own course. Teachers are always adapting it. Unique: that the whole system is building on sharing and building on eachother.
Is it possible to have something within KlasCement but with some kind of refinement?

Veronique: the first commend it is very easy to find things. It is true that it is not used a lot to score or commend. They want to stimulate to make more peer-reviews.

Leif: workload? Very important to see that this is a time process. Some of the lesson plans that are not downloaded for the next 5 years. Think about it as a timeline.

Klarremieken: I was searching on the theme of migration and I could find a lot. Reading for 1 hour. I missed the link with the leerplandoelstelling. (learningplangoals). Introduce it in the courses for studentteachers! How to use/do feedback.

Veronique: it is possible to search on the learningplangoals on KlasCement.
Extra info: I couldn't find.

Elke: strategies for teachertrainings. To help teachertrainers to work with students with new materials. Most of the teachertrainers do work with teachertrainers in that way (at least ESD). It can be interesting to envolve the student teachers in the quality work with a kind of rubric.

Leif: Two important things: 1) connect it to the national syllabuses; 2) connect it to the SDG's in a easy way to use them. The more experienced teachers could react: how can the students upload things when they are not yet teachers?

Elke: How can the Tag's work at the international level?

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Leif: We can use the SDG's for the international level. We want to make it possible in the long term to do the translation, but this is a matter of resources. Maybe USESCO can help us in the future.

Jan: if we use KlasCement to learn the community about LORET, how do we keep it a living community. To keep the fire hot? It is a pitty when it is a born-dead child. Quality care by experts, who will do this? Who will promote it? Who will make it a living community?

Leif: It is an egg story, we should keep it warm. To break the loneliness of the teachers. To create the possibility to work together. The only way to keep it warm is to make and keep it a common. At least in the Swedish context. If the owners can really use it in their own activities. That they have their own interest. The reasons can be different for teachers, ngo's, ... We need to find more partners to work together and to find others to promote it.

Own thought: through. A border for me to create an account on a website, ...

Jan: I think as important to make the platform is to promote it.

Leif: for me the experts are many. I think the teachers are experts. The researchers are other experts. To bring them together over time is very important.

Veronique: maybe it is good to start with a pilot-project just to try to see if it works and scale it up later.

Elke: To combine this with some teacher training institutions. To work together with teachers who work already with this. We can give some names of people who are asking help on this topic. How they can be involved in this topic.

Katrien: Veronique said that workload of the review-work is big. We need to create a consortium to make this possible I think. We actually have some pilot projects going on already. We are bringing some didactical knowledge and the MOS coaches are giving information that is overviewing. We need to think who we need in this consortium. MOS-coaching can bring some didactical knowledge. Who is important here also? NGO's: Djapo, Kruit (effort in capacity building, pedagogical and didactical knowledge), ... We should map the possible stakeholders. I don't have a clear view now, and I think this is an actual challenge. Klarremieken can do interviews with: 'Vereniging aardrijkskunde'. Do you as MOS see a roll for yourself in that sort of consortium?

Veronique: we have an important role in facilitating. We already have a part of the site of KlasCement. Maybe it's our task to create a space especially for this project? We don't have time in our planning and goals to do the 'quality check' and refinement project. We could stimulate teachers to do the refinement.

Katrien: Are you planning to continue with the LORET workshops after SEAS?

Veronique: Maybe. I think we don't have enough input of what is a LORET plan and we are waiting for the results of this research. We cannot decide on what exists now.

Elke: We can discuss with our educational centers to work with LORET and to upload it to the website. I see a role for our own educational centers to upload or disseminate. I do see a possible role for our own educational center, but this will change our planning.

Veronique: Bringing together the partners, NGO's, ... is something we could do. We could do the pilot-project in KlasCement.

Elke: I wonder if you had contact as well with VLEVA for green Erasmus. This is directed towards Educational institutions. Know how they will use Erasmus resources to implement the Green Deal in Education. They are looking for collaborations for environmental topics. It may be interesting to got in to contact with them as well.

Leif: It might be interesting to talk to KlasCement. How do we see if we can implement things in KlasCement? How can we create a synergy-effect that we are offering something for them as well? Not technically, but strategically.

Veronique: we have already a good relationship with people working with KlasCement. It can be interesting to have a conversation with them. To see if they can help us with stimulating the reviewing. We have a good relationship with them, we could arrange a meeting.

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Katrien: We could come up with a proposal with how to continue with the library and how to continue with LORET after the thesis of Klarremieken. We could do another training for trainers with LORET. Do MOS want to have a monopoly on the LORET workshops?

Veronique: We are not going to claim your product. It can be interesting if a lot of partners work with it. The MOS coaches can have a 'the train the trainers'-workshop, it can be containing LORET.

Elke: What is the role of the educational centre in this? What is the difference between the role of the MOS coaches en PNC.

Veronique: next year a new edition of Teach-Up in 20 may 2020. Do you want to give another workshop? ESD professionals and teachers.

Katrien: Erasmus-context. Interesting for teacher education. To create a lifely community it is important to do things.

Veronique: I'm interested in lesson design-workshops.

Leif: Let's not re-invent the wheel, but make it better.

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Annex 5: Coding interviews

1. Identifying preliminary problems – Problem scan

(1) Solving Sustainability challenges
(2) Advantages of sharing: not re-inventing the wheel, timesaving, helping each other
(3) Creating and spreading systematic tools for quality assurance and refinement of teaching plans and teaching materials
(4) Advantages of co-creating introducing a culture of the commons and solving the "silos problem" which means policymakers, researchers and teachers very seldom work together.

Preliminary problems	Code Problem Scan (PS)
(1) Sutainability	PS sustain
(2) Sharing	PS sharing
(3) Quality refinement	PS quality
(4) Co-creation	PS cocreate

2. Identifying external factors – Branch analysis

Customers (1) Segmentation *Includes the different types of customers such as uploaders, downloaders, NGOs. The group must be identifiable, measurable and of sufficient size, reachable and homogeneous in terms of response to the SEAS library project's market activity.* (2) Needs *All the different types of needs of the customers.*
Distribution (1) The channels *The manner of distributing knowledge between teachers about solutions for the sustainability issues. For example: a database with online lesson plans, practices as workshops or lessons, manual handbooks, …* (2) The methods *The method of distribution to customers when the channel is decided, such as on an online database finding the easiest way to search teaching materials on a given topic by keywords.*

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Competitors

(1) Segmentation
The various potential competitors.

(2) Powers
Specific powers of the competitors.

Stakeholders

(1) Segmentation
Includes the different current and possible stakeholders.

(2) Interests
Interests of a specific stakeholder.

External factors Branch analysis (B)	Code Opportunities (O) / Threats (T)
Customers	BCu 1, 2, O/T
Distribution	BD 1, 2, O/T
Competitors	BCo 1, 2, O/T
Stakeholders	BS 1, 2, O/T

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Annex 6: Questions in-depth interviews

Introduction

<u>Presentation of myself and the context of the study</u>
I'm student teacher and did a master geography before. I was always interested in how to diminish the impacts of climate change and towards a more sustainable lifestyle. That is how I found my current promoter professor of my master thesis Katrien Van Poeck who is working for the University of Ghent's Centre for Sustainable Development and is participating in an international SEAS-project for which I'm doing this research.

The SEAS-project is a collaboration between six different European Universities funded by the EU. It stands for Science Education for Action and Engagement towards Sustainability (SEAS). The aim is to develop tools and methods that facilitate collaboration between schools and local communities facing sustainability challenges (see 'open schooling' if interested. In Ghent they are using the LORET (Locally Relevant Teaching).

At the moment the SEAS-project leaders are planning to develop a digital platform as a tool to facilitate collaboration between schools and local communities.

<u>Aim of the interview</u>

With this interview I want to find an answer on the question:
*What are **the conditions** for you as a teacher **to use** a new community-based international **digital platform** where teachers all over the world can produce and consume qualitative **lesson plans** linked to **sustainability**?*
Why you?
Because you are a teacher interested in sustainability and sharing lesson plans with experiences, skills, and knowledge from the work field. In this way we can be more sure of creating a platform that will be used and will facilitate these 3 values:
- **Collaboration** so teachers can build on each other good practices and have more time for other things than re-inventing the wheel.
- **Qualitative refinement and assurance** of the lesson plans thanks to feedback of others.
- **Co-creation** between teachers, researchers, and politicians from all over the world at an international level.

We are very interested in your opinion on this topic. Wrong answers doesn't exist.
Can I record these meeting so that I can make a transcription later? I will send it to you before publishing to see if you agree. Do you want to stay anonymous?
You can interrupt anytime if you want to refine something or if you want me to clarify something.

1.   Questions

Duurzaamheid - PS sustain
1) Op welke manier ben je met duurzaamheid bezig?
2) Ken je de SDG's, en zo ja, werk je er actief mee?

Delen - PS sharing

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1) Zou je graag Jouw materialen delen of deel je al materialen?
2) Waarom wel? Waarom niet?
3) Zo ja: op welke manier deel je deze?
4) Wat zijn de drempels voor jou om lesvoorbereiding te delen met andere leerkrachten?
5) Wat zou jou motiveren om meer lesmateriaal te delen?

Kwaliteiten – PS quality

6) Wat vind jij de sterke punten van jouw lesvoorbereidingen?
7) Wat zijn je werkpunten/knelpunten bij het maken van de lesvoorbereidingen?

Gebruiken - PS sharing

8) Gebruik je zelf soms lesmateriaal van andere leerkrachten?
9) Hoe doe je dat? Via welke kanalen? Ben je daar tevreden over?

PS quality

10) Hanteer je bepaalde criteria/verwachtingen i.v.m. kwaliteit? Welke?

PS cocreate

11) Wat zou jou motiveren om meer lesmateriaal van anderen te gebruiken?
12) Als je geïnspireerd werd door een thema of een leerkracht, wil je dan graag contact kunnen opnemen met haar/hem? Zou je deze persoon willen ontmoeten? Zou je aan een georganiseerde activiteit meedoen?

Online leerplatformen - PS sharing

13) Maak je gebruik van KlasCement of andere online platformen?
14) Op welke manier gebruik je het vooral? Downloaden, uploaden, nieuwe lessen, …?
15) Zou je het gemakkelijk vinden mocht je op een online platform lesvoorbereidingen kunnen vinden gekoppeld aan de SDG's?
16) Welke andere zoekvoorwaarden vind je interessant voor het zoeken naar de geschikte lesvoorbereidingen?
17) Stel je voor: er bestaat een ideaal nationaal online platform voor het delen van materialen/kennis/…. Aan welke voorwaarden moet deze voor jou voldoen? (Praktisch/emotioneel/…)

PS cocreate

18) Zou je deelnemen aan workshops/ontmoetingsmomenten/webinars mochten deze georganiseerd worden?
19) Nam je al eerder deel aan workshops/bijscholingen/webinars/… die jou hebben geïnspireerd? Zo ja: welke en waarom hebben ze jou iets bijgebracht?

Algemeen noden leerkracht

20) Heb je nog ergens nood aan als leerkracht? Waar zou je blij van worden?
21) Wat is je grootste gemis als leerkracht? Wat houdt je tegen je beter te voelen als leerkracht?

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Annex 7: Informed consent

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DATUM   **PAGINA**   **BIJLAGE**

10 mei 2021   Formulier voor geïnformeerde toestemming

Informatiebrief masterproef *"Identifying possible scenarios, aligned between the actors, that will help achieving the goals of the new digital library of the SEAS-project"*

Beste,

Met dit interview neemt u deel aan een Europees onderzoeksproject over hoe leerkrachten via hun onderwijsactiviteiten kunnen bijdragen aan een meer duurzame wereld en welke wetenschappelijke kennis, geletterdheid en vaardigheden daarvoor nodig zijn. In deze brief willen we u informatie geven over het project en toestemming vragen om gegevens te verzamelen over uw ervaring en visie hierover.

Het SEAS- project wordt gefinancierd door de Europese Commissie en loopt van 2019 tot 2022. We onderzoeken praktijkvoorbeelden van zgn. 'open schooling': onderwijsactiviteiten die direct verbonden zijn met het werken aan duurzaamheidsuitdagingen in de lokale omgeving.

Het is binnen het SEAS- onderzoeksproject dat deze masterproef zich focust op de specifieke vraag hoe een online bibliotheek een geschikte tool kan zijn om samenwerking tussen scholen en lokale gemeenschappen die duurzaamheidsuitdagingen tegenkomen te faciliteren.

Deelname aan dit onderzoek vereist toestemming van de geïnterviewden. We benadrukken dat deelname aan het onderzoeksgedeelte van dit project volledig vrijwillig is. **U kan toestemming geven voor deelname door het invullen en ondertekenen van bijgevoegd toestemmingsformulier.** U kan de deelname aan het onderzoek op elk moment stopzetten zonder daarvoor een reden op te geven. De gegevens die tot op dat moment worden verzameld, zullen gebruikt worden voor onderzoek. De persoonsgegevens zullen veilig bewaard worden in

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overeenstemming met de Europese Algemene Verordening inzake Gegevensbescherming en zijn enkel toegankelijk voor het onderzoeksteam. De onderzoekers behandelen deze informatie vertrouwelijk. Zij waken ervoor dat de geïnterviewden niet kunnen worden geïdentificeerd in publicaties over het onderzoek.

De Universiteit Gent is de verwerkingsverantwoordelijke van de gegevens die verwerkt worden in het kader van het onderzoek. Dat wil zeggen dat de onderzoekers van Universiteit Gent beslissen over het hoe en waarom van de verwerkingen in het kader van het onderzoek. Uiteraard zijn zij daarbij gebonden door de geïnformeerde toestemming die u geeft bij het begin van de deelname aan het onderzoek. Binnen Universiteit Gent zijn alle medewerkers voor de omgang met persoonsgegevens gebonden aan de 'Generieke gedragscode voor de verwerking van persoonsgegevens en persoonlijke informatie'.

Wij vermelden ook graag dat uw persoonsgegevens mogelijks kunnen worden ingekeken door:
- onderzoekmonitoren en -auditeurs, mogelijk in dienst van de opdrachtgever, diens bevoegde vertegenwoordigers, die controleren of het onderzoek correct wordt uitgevoerd en of de over u verzamelde informatie nauwkeurig is;
- nationale en internationale bevoegde overheidsinstanties die betrokken zijn bij het veilig houden van onderzoek voor deelnemers.

Vervolgens geven wij u graag nog mee dat, conform de relevante wetgeving, Universiteit Gent de gegevens die als deel van het onderzoek verzameld werden gedurende minstens 5 jaar zal bewaren. Gedurende deze volledige termijn mag u steeds:
- Bijkomende informatie vragen over de verwerking van uw gegevens.
- Toegang vragen tot de gegevens die over u bewaard worden.
- Correcties vragen als de gegevens fout of onvolledig zijn. Tijdens de beoordeling van dit verzoek hebt u het recht de verwerking van gegevens over u te beperken.
- Vragen om gegevens over u in een gangbare vorm over te dragen aan uzelf of iemand anders.
- Vragen om gegevens over u te (laten) wissen voor zover dit niet de verwezenlijking en de geldigheid van de wetenschappelijke onderzoeksdoeleinden onmogelijk dreigt te maken of ernstig in het gedrang dreigt te brengen.

Heeft u naar aanleiding van deze brief, of op een enig ander moment, nog vragen over hoe wij uw persoonlijke informatie gebruiken, dan kan u hiervoor steeds terecht bij klarremieken.vanvooren@ugent.be. Ook de functionaris voor gegevensbescherming van Universiteit Gent staat ter uwer beschikking. Vragen aan de functionaris voor gegevensbescherming kunnen verstuurd worden naar privacy@ugent.be.

Tot slot heeft u ook het recht om een klacht in te dienen over hoe uw informatie wordt behandeld, bij de Belgische toezichthoudende instantie die verantwoordelijk is voor het handhaven van de wetgeving inzake gegevensbescherming: *Gegevensbeschermingsautoriteit (GBA), Drukpersstraat 35, 1000 Brussel, Tel. +32 2 274 48 00, e-mail: contact@apd-gba.be, Website: www.gegevensbeschermingsautoriteit.be*

Met vriendelijke groeten

Klarremieken Van Vooren

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Geïnformeerde toestemming

Ik, ondergetekende, ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯, geef hierbij aan deel te
nemen aan het onderzoek "Open schooling voor duurzame steden en gemeenschappen" van de
Universiteit Gent. Ik verklaar dat ik

(1) de uitleg over de aard van de vragen en de taken die tijdens dit onderzoek zullen worden
aangeboden, heb gekregen en dat mij de mogelijkheid werd geboden om bijkomende
informatie te verkrijgen;
(2) volledig uit vrije wil deelneem aan het wetenschappelijk onderzoek;
(3) de toestemming geef aan de onderzoekers om de resultaten op vertrouwelijke wijze te bewaren
en te verwerken en anoniem te rapporteren;
(4) op de hoogte ben van de mogelijkheid om de deelname aan het onderzoek op ieder moment
stop te zetten en dit zonder opgave van reden;
(5) weet dat niet deelnemen aan het onderzoek, of het stopzetten op geen enkele manier
negatieve gevolgen heeft.
(6) weet dat ik op aanvraag een samenvatting van de onderzoeksbevindingen kan krijgen nadat de
studie is afgerond en de resultaten bekend zijn;
(7) geef toestemming dat de data gebruikt kan worden voor verder analyse door andere
onderzoekers na volledige anonimisering;
(8) weet dat UGent de verantwoordelijke eenheid is m.b.t. persoonsgegevens verzameld tijdens
het onderzoek. Ik weet dat de data protection officer me meer informatie kan verschaffen over
de bescherming van de persoonlijke informatie van mijn kind. Contact: Hanne Elsen
(privacy@ugent.be).

Gelezen en goedgekeurd op ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯ (datum),

Handtekening van de geïnterviewde ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

Naam van de verantwoordelijke onderzoeker: Katrien Van Poeck

**Toestemming voor het verzamelen van audiovisueel materiaal voor de doeleinden die worden
uitgelegd in de informatiebrief.**

Duid alstublieft de keuzes aan die van toepassing zijn:
Audiovisueel materiaal kan worden gebruikt voor illustratieve doeleinden in de opleiding van
onderzoekers en/of leerkrachten (niet publiek toegankelijk maar enkel voor de betrokken lesgevers en
studenten)

☐ Ja, ik stem ermee in.

☐ Nee, ik geef geen toestemming.

Audiovisueel materiaal kan worden gebruikt voor onderzoekscommunicatie via open access-media
(publiek toegankelijk)

☐ Ja, ik stem ermee in.

☐ Nee, ik geef geen toestemming.

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Annex 8: The link to the questionnaire

From in-depth interviews to questionnaires + LINK

See below for the link to the questionnaire

I want the questionnaires to add some useful information to the aim of the project: sharing, cocreating, quality refinement and timesaving.
I am not yet focusing on the digital library because this is a tool to reach this goal.
The core business are **the people** (teachers & students, researchers, and politicians), and the **cocreation between them**, all with a passion for **climate crisis problem solving**, **quality refinement** and being productive.
I want to find out how the library can serve this goal as good as possible and anytime be open for other possibilities if they would be more effective.
<mark>I want to research (and maybe stimulate/put attention to the project in the same time) the motivation of teachers to participate at sharing and making more qualitative lesson materials about sustainability.</mark>

Main quick insights of the in-depth interviews
- Sharing is not a problem for the people I interviewed. <mark>The restriction to share</mark> is 'time' and motivation to do it not for money or not getting something in return.
- Motivation of using lesson plans is that it brings something useful to the teachers: exchange, useful materials, …

Possible questions for the questionnaires
- Why do you think sharing lesson materials is / is not important for you?
- Are you sharing lesson materials?
  - o If yes: With whom and in which way?
  - o If not: What is your reason?
- Which types of materials do you use to prepare your lessons?
  - o A manual
  - o Websites from official bodies
  - o Animations
  - o Prefab lesson plans
  - o Articles
  - o Other:
- What would motivate you more to use AND evaluate lesson materials from others?

  (Likert-type scale from 1-9).
  - o If this material would be very useful for me
  - o If a lesson plan of mine would be evaluated in return
  - o If I could work close together with the other teacher
  - o If it would save me time because I am sure I will use this lesson
  - o If I could go on an exchange in return to this school
  - o If I and my students could go on an exchange in return to this school
  - o Win a competition

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- o Other:
- What would motivate you to share lesson materials that will be evaluated by other teachers? (Likert-type scale from 1-9).
  - o If I would become famous with it
  - o If the other teacher would be very thankful
  - o If this would be a way to get to know other teachers who are working at the same topic and the same style of me
  - o Other:
- Which theme linked to sustainability is interesting you in this way you would love to exchange thoughts/ideas/insights with other people about this topic?
- Do you still have bottlenecks or working points when preparing your lessons?
- What is your relationship with online libraries where lessons plans are shared?
- Do you have contact with teachers from other schools?
  - o Would you love to have more contact?
  - o Why/why not?
- Have you participated at an inspiring activity outside school about sustainability?
  - o What was your motivation to participate?

TITLE OF SURVEY?

Dear teacher,

Do you believe (sharing lesson materials) cocreating with others about sustainability could save some of your time and can give you new insights? Share your valuable opinion with us in this 10-minute survey.

Here you can find the full questionnaire made with google forms (in Dutch):
https://docs.google.com/forms/d/1ibbz-590I2ij2ia3mM9iDtIqR4HPQZDdDmPYrrLyn28/edit

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Annex 9: Responses questionnaire

E-mail: Klarremieken.vv(at)gmail.com if the responses are needed.

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Annex 10: Interview 'Internal analysis' of the SEAS organisation

Transcript Interview

24/06/2021 with partner Katrien Van Poeck

Videos of the interview

- from minute 33 untill the end:
  https://ugentbemy.sharepoint.com/:v:/g/personal/katrien_vanpoeck_ugent_be/Ed-snbWyq0RNujIWqlGAg5IBALfYHSubdnuu65mU9L7FGQhttps://ugentbe-
- my.sharepoint.com/:v:/g/personal/katrien_vanpoeck_ugent_be/ETH5udjKHJ5MmRd6mZSayS4BPoA0UNn1Nwm0dp1d5KoYZQ

The aim of this interview is to get a better understanding of the internal functioning of the SEAS organization. Throughout this interview questions are posed based on some theoretical marketing frameworks. At the end I want to be able to determine important strengths and weaknesses.

Wrong answers do not exist. You can always interrupt if you want something to be more clear, differently phrased, ...

1. Products (services) & Marketing

I will follow the framework **'value chain of Porter'** to find out about the products and market of the new Dutch SEAS-library.

Components in red: see 7S model
Firm infrastructure
- Goals of the organization

Knowledge and skills distribution as a tool to handle societal change
Human resource management
Technological development

Procurement (everything with an invoice/bill)
- *What does cost money for the SEAS organization?*

First, it is not determined yet who will pay the costs after the project.
The development of the infrastructure for the SEAS library. This is partly covered by SEAS, but if we want to add more functions later on, this will cost extra money that we do not have in the project. Security costs, data storage, adding users, technical support. This is what it was for the technical part. the salary costs for the developers
For the community part there are also costs: the salary costs of the developers will be the main cost. For example developing the lesson design workshops, but this can sometimes be covered by research projects.

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Giving the workshops also costs money. Can we involve organisations like MOS to develop this? Or can we involve training for trainers to offer these workshops?

Inbound logistics

- *Who will provide the supplies for the services and products?*

The consumers are the prosumers. This is the peer-to-peer story. But supported by the SEAS consortium at the start and later we don't know yet.

Operations

- *What are the services and products? (see annex 12: Abell 'technology')*

Outbound logistics

- How do the services and products leave the organisation?

Thanks to the library! And lesson design workshops.

Marketing and sales

- *What or who is creating the ask for the services?*

Intermediary partners of the new consortium like MOS and other organizations. The database will only sustain itself if it is nourished by good material. Then there are individual teachers who keep the database alive through their materials. Once the database is up and running, it will partly sustain itself through the peer-to-peer community.

- *Who is responsible for really reaching the customers?*

New Consortium (not SEAS) that will take care of the common of the new Belgian database.

2. Marketing (extra questions)

Source: Knoot, 2012

- *To what extent does the organization systematically collect market information?*

Through this master's thesis, for example. I think this is something we have not given enough thought. I think the statistics built into the database are too.

- *To which degree is market information distributed among various departments and levels within the organization?*

This will be visible in the statistics of the database itself. It is not yet clear who can or will take on this role.

- *To which degree is marketing policy developed on strategic, tactical, and operational level and to which degree is this policy respected?*

Board inside the consortium?

Service

- *Who will answer the questions of users? Who will give them advise?*

There can be three types of questions: sustainability questions, didactic pedagogical questions and technical questions.

3. Strategic values

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I will follow the framework '7S model of Mc Kinsey'
The aim is to identify strengths and weaknesses of the organization.
Hardware (not changing easily)
- *Is everyone in your organization aware of the current strategy (mission)?*

No. It is a battle that has been going on for a year and a half and I think this is very important, but the others want to work the other way round and explore and implement first before deciding on the strategy. Now on 12 May, one and a half years after the start of the project, it is only being discussed at the consortium level. I also have the feeling within Eduquality that the strategy is only taking shape as we go along. It hasn't been addressed regularly from the start. It only came up in May 2020. Now more so. Rather, the strategy is taking shape in EduQuality as we go along. It is not easy to have everyone on board in a complex structure.
- *Do the customers (teachers) are informed about this strategy?*

Neither do the users yet. The concretisation of the form must be there first, otherwise it will be confusing for the users. The partners with whom we work, such as the schools and MOS, are aware of the course of the project insofar as we are. I still have questions about the implementation of the project, we are still in the abstract phase.
- *How do you consider the structure? Rather hierarchical or agile?*

There is something between the two. The Consortium Agreement is sometimes cumbersome because the different organisations have their own regulations, but also because of the Grant Agreement and the financial agreement with the European Commission. There are rules to follow because everything is in contracts. You can remove barriers through negotiation, but this does not happen overnight.
What is absolutely not hierarchical is the idea of the commons that is very much in it. That logic of what we want, our common vision, namely a common, sometimes clashes with the structure of the organisation.
- *Are you talking about the structure with the partners? In which way?*

I talk a lot about this with EduQuality. Within the SEAS project, it was only explained once. I often talk about it with some partners and never with others. What gives energy is talking at the level of ideals and ideas. But if you talk about the applications in practice and you come up against the thresholds, that can also have a paralysing effect.
- *Do you think your systems (the way of functioning of the organisational structure) are unique?*

It is unique, but it is also the reason why we still encounter many obstacles, because it still must be worked out how we are going to cooperate, who pays what, contracts have to be made about intellectual property, and the users are not used to this way of working either. This sharing culture. There will have to be a serious disruption of habits.
Software (changing easily)
- *Do you think SEAS had a lot of strong shared values?*

Especially when it comes to striving for sustainability. There are many differences in how we view education: as an instrument for behavioural change on the one hand, or as an intrinsic value with its three pillars: qualification, subjectification and socialisation. The 'commons' is also a common value and for no one the making of big profits, just like the stopping of re-inventing the wheel and community-building. The longer a stakeholder is involved in the project, the more they begin to appreciate its values.
- *Does the vision motivate the partners?*

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Afhankelijk van de betrokkenheid van de partners.

- *Which skills do your partners have?*

Some have skills in developing digital tools, didactic competences, and a lot of knowledge about designing sustainability education, experience in working with teachers, extensive networks they can fall back on. One person is on the IPCC.

- *Who is part of the staff?*
- *Are they motivated?*

Some more than others.

- *How do you consider the behaviour of the top management?*

De Noorse partner Eric Knain is de coordinator. Ze zijn eerder afwachtend en ruimte latend. Nu lijken ze meer te geloven in het project.

- *how flexible are the managers?*

Binnen de boundaries van de Europese Regelgeving erg flexibel. Cumbersome operation of European regulations on a consortium.

4. Financial audit

Source: https://www.strategischmarketingplan.com/interne-analyse/financiele-audit-en-kerngetallen/.
How is the organization doing financially?

1) *can the organization pay its short-term debts? (Liquidity)*

We zijn gesubsidieerd door een Europees projecten fonds waarbij 80% van bedrag op voorhand wordt uitgedeeld. De rest krijg je als alles opgeleverd is. Voor een klein bedrijfje zoals Eduquality en cChange is dat eigenlijk wel een probleem. Als zij dit laatste geld niet krijgen geraken zij in de schulden.

2) *Can the organization continue to exist? (solvency)*

Het is deel van de opdracht om hier een plan voor te maken.

3) *Profitability: Provides insight into the return on equity and the cost of borrowed capital*

Het verschil tussen een op winst gericht bedrijf of een op maatschappelijke waarde gericht bedrijf. We kunnen natuurlijk niet heel ons leven op niets drijven.

- Om een beter zicht te krijgen op de sterktes en zwaktes van het SEAS-project, volgen hier nog enkele vragen bij het model van Abell:
  - Welke nieuwe afnemersgroepen met dezelfde behoefte kunnen we nog meer bedienen?
  - Welke behoeften bij de bestaande afnemersgroepen bedienen we nu nog niet?
  - Welke technologieën zijn beschikbaar om bij de huidige afnemersgroepen en de bestaande behoeften in te zetten?

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